



# Pulse Secure Virtual Traffic Manager: Configuration System Guide

Supporting Pulse Secure Virtual Traffic Manager 18.2

|                  |                       |
|------------------|-----------------------|
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*Pulse Secure Virtual Traffic Manager: Configuration System Guide*

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# Preface

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- [Document conventions](#) ..... 1
- [Requesting Technical Support](#) ..... 2

## Document conventions

The document conventions describe text formatting conventions, command syntax conventions, and important notice formats used in Pulse Secure Secure technical documentation.

## Text formatting conventions

Text formatting conventions such as boldface, italic, or Courier font may be used in the flow of the text to highlight specific words or phrases.

| Format             | Description   |
|--------------------|---|
| <b>bold text</b>   | Identifies command names                              |
|                    | Identifies keywords and operands                      |
|                    | Identifies the names of user-manipulated GUI elements |
|                    | Identifies text to enter at the GUI                   |
| <i>italic text</i> | Identifies emphasis                                   |
|                    | Identifies variables                                  |
|                    | Identifies document titles                            |
| Courier Font       | Identifies command output                             |
|                    | Identifies command syntax examples                    |

## Command syntax conventions

Bold and italic text identify command syntax components. Delimiters and operators define groupings of parameters and their logical relationships.

| Convention         | Description  |
|--------------------|--|
| <b>bold text</b>   | Identifies command names, keywords, and command options.   |
| <i>italic text</i> | Identifies a variable.   |
| [ ]                | Syntax components displayed within square brackets are optional.<br>Default responses to system prompts are enclosed in square brackets. |

| Convention                         | Description   |
|------------------------------------|---|
| { <b>x</b>   <b>y</b>   <b>z</b> } | A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.   |
| <b>x</b>   <b>y</b>                | A vertical bar separates mutually exclusive elements.   |
| < >                                | Non-printing characters, for example, passwords, are enclosed in angle brackets.  |
| ...                                | Repeat the previous element, for example, member[member...].  |
| \                                  | Indicates a “soft” line break in command examples. If a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash. |

## Notes and Warnings

Note, Attention, and Caution statements might be used in this document.

**Note:** A Note provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

### ATTENTION

An Attention statement indicates a stronger note, for example, to alert you when traffic might be interrupted or the device might reboot.

### CAUTION

A Caution statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.

## Requesting Technical Support

Technical product support is available through the Pulse Secure Global Support Center (PSGSC). If you have a support contract, file a ticket with PSGSC.

- Product warranties—For product warranty information, visit <http://www.pulsesecure.net>.

## Self-Help Online Tools and Resources

For quick and easy problem resolution, Pulse Secure, LLC has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: <https://www.pulsesecure.net/support>
- Search for known bugs: <https://www.pulsesecure.net/support>
- Find product documentation: <https://www.pulsesecure.net/techpubs>
- Find solutions and answer questions using our Knowledge Center: <https://www.pulsesecure.net/support>

- Download the latest versions of software and review release notes: <https://www.pulsesecure.net/support>
- Search technical bulletins for relevant hardware and software notifications: <https://www.pulsesecure.net/support>
- Open a case online in the CSC Case Management tool: <https://www.pulsesecure.net/support>
- To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://www.pulsesecure.net/support>

## Opening a Case with PSGSC

You can open a case with PSGSC on the Web or by telephone.

- • Use the Case Management tool in the PSGSC at <https://www.pulsesecure.net/support>.
- • Call 1-844 751 7629 (Toll Free, US).

For international or direct-dial options in countries without toll-free numbers, see <https://www.pulsesecure.net/support>.





# Introduction

---

This chapter provides an introduction to the Pulse Secure Virtual Traffic Manager (Traffic Manager) configuration system. This chapter contains the following sections:

- [About this Guide](#) ..... 5
- [The Traffic Manager Configuration File System](#) ..... 5
- [The Effect of Location Support when using Multi-Site Cluster Management](#)..... 7

## About this Guide

The *Pulse Secure Virtual Traffic Manager: Configuration System Guide* describes the structure of the Traffic Manager configuration system and is intended as a complete reference to all available configuration items.

Pulse Secure intends this guide to be used by system administrators wanting to manually manipulate the configuration system of the Traffic Manager, and in particular, users of the `zconf` command line utility.

**Note:** The Traffic Manager is available in a variety of software and appliance configurations. All configurations share the same core Traffic Manager software and configuration system, but different variants can provide different levels of functionality depending on the enabling license key.

See [“Configuration Sections” on page 9](#) for a complete list of all configuration sections present in the core software, irrespective of license key. Each section includes a brief summary of its purpose and a table of any available configuration keys. Each key is displayed with its description and a list of its attributes. Such attributes include the key type and default value.

Consider the following restrictions on each key:

- If no default value is given then a value **MUST** be specified for the key;
- Some values are picked/tuned at install so may not be the specified default;
- (file)names must not contain certain illegal characters: `._#-`!\^*` (or any control characters);
- Newlines cannot be used in key values;
- Some keys have certain dependencies. A “requires” attribute is displayed where this is the case.

This manual describes the configuration for version 18.2.

## The Traffic Manager Configuration File System

The Traffic Manager stores its configuration in a series of text files under a tree structure of directories, one per object type. As you make configuration changes through the UI or one of the product APIs, the Traffic Manager’s “Admin Server” management component maintains and updates the files and directories accordingly.

**ATTENTION**

Unless instructed to do so by your support provider, Pulse Secure strongly recommends that you do not modify these files directly. They are maintained automatically by the Admin Server and as such your changes can be lost or cause unpredictable behavior in your Traffic Manager deployment. Always use the UI, programming APIs, or zconf utility to make changes.

The core Traffic Manager software reads the config when triggered by an observed update, or on a pre-defined chronological basis, and applies the appropriate logic. Additionally, the Traffic Manager ensures synchronization between itself and all other Traffic Manager instances in a cluster, and replicates out any changes that occur. The following diagram demonstrates the directory structure under the root config directory:

```
ZEUSHOME/zxtm/conf/
|
+-actionprogs/
|
+-actions/
|
+-activitymonitor/
|
+-auth/
|
+-bandwidth/
|
...
...
|
+-vservers/
|
+-zxtms/
```

Each of the sections listed in [Chapter , "Configuration Sections"](#) typically have a file or directory entry under /conf in this way.

When you add a new object of a particular type, the Traffic Manager creates a new config text file with the same name and stores it under the corresponding sub-directory. For example, if you create a new virtual server called "myvirtualserver", the Traffic Manager creates a new text file:

```
ZEUSHOME/zxtm/conf/vservers/myvirtualserver
```

Each config file consists of lines of key-value pairs, separated by new-line characters, in the following format:

```
<key> <value>[ <next value>...]
```

The key refers to some setting or feature, and the value is the item, or list of items, applied to that key. The key and value are separated by whitespace, and where the value is actually a list, each item is again separated by whitespace.

The key might be *simple* or *compound*. Compound keys are used to group related settings together, and consist of a common component and subsequent sub-components, separated by a '!' character.

You can add comments into config files, pre-pended by the hash (#) character.

The following is an example virtual server config file (name on disk: ZEUSHOME/zxtm/conf/vservers/Intranet) that demonstrates all of the above features:

```
# This is an example config file for a
# virtual server named 'Intranet'
Address *
Enabled Yes
Pool Intranet-pool
Port 80
Protection servprot1
request_tracing!enabled Yes
request_tracing!trace_io Yes
responserules headeradjust test_rule
rules
slm slm-class1
timeout 40
webcache!enabled Yes
```

## The Effect of Location Support when using Multi-Site Cluster Management

You can configure the Traffic Manager to provide support for management of multiple distributed physical, virtual or cloud-based Traffic Manager clusters. This is implemented in the configuration system by appending location names to the relevant keys in affected configuration files. The Traffic Manager uses the at (@) symbol followed by the location name, so key "foo" would become "foo@location".

For example, a simple config key might be:

```
Enabled Yes
```

By adding location support, this key would become:

```
Enabled@cambridge Yes
Enabled@sanfrancisco No
```

This convention ensures that config keys set as specific to a particular location are ignored by other locations.

For further information regarding location support, see the Multi-site Cluster Management chapter of the *Pulse Secure Virtual Traffic Manager: User's Guide*.



# Configuration Sections

This chapter provides a complete reference of the Traffic Manager configuration system. Each section refers to a specific configuration type, and lists all applicable configuration keys contained therein.

## conf/actionprogs

The conf/actionprogs directory contains programs and scripts that can be used by actions of the program type. Action programs can be managed under the Catalogs > Extra Files > Action Programs section of the Admin Server UI or by using functions under the Alerting.Action section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/actions

The conf/actions directory contains configuration files for event handlers. The name of a file is the name of the action it defines. Actions can be configured under the System > Alerting section of the Admin Server UI or by using functions under the Alerting.Action section of the the SOAP API and CLI.

| Key         | Description  |
|-------------|--|
| note        | <p>A description of the action.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/handleraction.cpp:55</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| overridelog | <p>Whether or not to override logging to the main event log if this action is triggered. Note that this will only stop logging to the main event log, other actions will still be triggered.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/handleraction.cpp:64</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |

| Key   | Description  |
|---|--|
| type  | <p>The action type.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/handleraction.cpp:46</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values: <ul style="list-style-type: none"> <li>email: E-Mail</li> <li>log: Log to File</li> <li>syslog: Log to Syslog</li> <li>program: Program</li> <li>trap: SNMP Notify or Trap</li> <li>soap: SOAP Callback</li> </ul> </li> </ul> |
| Additional keys used when type is "email"   |  |
| from  | <p>The e-mail address from which messages will appear to originate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/email_handler.cpp:33</li> <li>Requires: type is set to "email"</li> <li>Value type: string</li> <li>Default value: "vTM@%hostname%"</li> </ul>   |
| server                                      | <p>The SMTP server to which messages should be sent. This must be a valid IPv4 address or resolvable hostname (with optional port).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/email_handler.cpp:63</li> <li>Requires: type is set to "email"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| to  | <p>A list of e-mail addresses to which messages will be sent.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/email_handler.cpp:45</li> <li>Requires: type is set to "email"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| Additional keys used when type is "log"     |  |
| file  | <p>The full path of the file to log to. The text %zeushome% will be replaced with the location where the software is installed.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/log_handler.cpp:40</li> <li>Requires: type is set to "log"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| Additional keys used when type is "program" |  |

| Key   | Description  |
|---|--|
| arg!*   | <p>An argument to pass to the program. For example, to specify that the argument --foo=bar should be passed to the program executed by this action you would set a key arg!foo to the value bar.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/script_handler.cpp:56</li> <li>• Requires: type is set to "program"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| describe!*  | <p>A description for an argument provided to the program, this is used only for display purposes in the Admin Server UI. To give a description to the --foo example for arg!* above you would set the description text as the value for the key description!foo.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/script_handler.cpp:73</li> <li>• Requires: type is set to "program"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| program   | <p>The program to run.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/script_handler.cpp:39</li> <li>• Requires: type is set to "program"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| Additional keys used when type is "program", "email", or "soap" |  |
| timeout   | <p>How long the action can run for before it is stopped automatically (set to 0 to disable timeouts).</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/script_handler.cpp:91</li> <li>• Requires: type is set to "program", "email", or "soap"</li> <li>• Value type: seconds</li> <li>• Default value: "60"</li> </ul>   |
| Additional keys used when type is "program", or "email"         |  |
| verbose   | <p>Enable or disable verbose logging for this action.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/script_handler.cpp:81</li> <li>• Requires: type is set to "program", or "email"</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>  |
| Additional keys used when type is "soap"                        |  |
| additional  | <p>Additional information to send with the SOAP call.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/soap_handler.cpp:44</li> <li>• Requires: type is set to "soap"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |

| Key  | Description   |
|--|---|
| password                                   | <p>The password for HTTP basic authentication.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/soap_handler.cpp:67</li> <li>Requires: type is set to "soap"</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| proxy                                      | <p>The address of the server implementing the SOAP interface (For example, https://example.com).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/soap_handler.cpp:32</li> <li>Requires: type is set to "soap"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| username                                   | <p>Username for HTTP basic authentication. Leave blank if you do not wish to use authentication.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/soap_handler.cpp:55</li> <li>Requires: type is set to "soap"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| Additional keys used when type is "syslog" |   |
| syslog_msg_len_limit                       | <p>Maximum length in bytes of a message sent to the remote syslog. Messages longer than this will be truncated before they are sent.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/syslog_handler.cpp:42</li> <li>Requires: type is set to "syslog"</li> <li>Value type: unsigned integer</li> <li>Default value: "1024"</li> </ul> |
| sysloghost                                 | <p>The host and optional port to send syslog messages to (if empty, messages will be sent to localhost).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/syslog_handler.cpp:30</li> <li>Requires: type is set to "syslog"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                                 |
| Additional keys used when type is "trap"   |   |
| community                                  | <p>The community string to use when sending a Trap over SNMPv1 or a Notify over SNMPv2c.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:43</li> <li>Requires: type is set to "trap"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |



| Key                | Description  |
|--------------------|--|
| snmplauth_password | <p>The authentication password for sending a Notify over SNMPv3. Blank to send unauthenticated traps.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:92</li> <li>• Requires: type is set to "trap"</li> <li>• Value type: password</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| snmplhash_alg      | <p>The hash algorithm for SNMPv3 authentication.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:113</li> <li>• Requires: type is set to "trap"</li> <li>• Value type: enumeration</li> <li>• Default value: "md5"</li> <li>• Permitted values:<br/>md5: MD5<br/>sha1: SHA-1</li> </ul>   |
| snmplpriv_password | <p>The encryption password to encrypt a Notify message for SNMPv3. Requires that authentication also be configured. Blank to send unencrypted traps.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:104</li> <li>• Requires: type is set to "trap"</li> <li>• Value type: password</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| snmplusername      | <p>The SNMP username to use to send the Notify over SNMPv3.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:81</li> <li>• Requires: type is set to "trap"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |

| Key         | Description   |
|-------------|---|
| snmpversion | <p>The SNMP version to use to send the Trap/Notify.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:71</li> <li>Requires: type is set to "trap"</li> <li>Value type: enumeration</li> <li>Default value: "snmpv1"</li> <li>Permitted values:<br/>snmpv1: SNMPv1<br/>snmpv2c: SNMPv2c<br/>snmpv3: SNMPv3</li> </ul> |
| traphost    | <p>The hostname or IPv4 address and optional port number that should receive traps.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/eventd/trap_handler.cpp:61</li> <li>Requires: type is set to "trap"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

## conf/appliance/nat.cfg

The NAT configuration file stores rules controlling NAT on an appliance.

| Key                            | Description  |
|--------------------------------|--|
| many_to_one_overload!*!pool    | <p>Pool of a "many to one overload" type NAT rule.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:96</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>       |
| many_to_one_overload!*!tip     | <p>TIP Group of a "many to one overload" type NAT rule.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:105</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| many_to_one_port_locked!*!pool | <p>Pool of a "many to one port locked" type NAT rule.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:62</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>    |

| Key                                | Description  |
|------------------------------------|--|
| many_to_one_port_locked!*!port     | Port number of a "many to one port locked" type NAT rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:78</li> <li>• Value type: unsigned integer</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| many_to_one_port_locked!*!protocol | Protocol of a "many to one port locked" type NAT rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:70</li> <li>• Value type: enumeration</li> <li>• Default value: &lt;none&gt;</li> <li>• Permitted values:               <ul style="list-style-type: none"> <li>tcp: TCP</li> <li>udp: UDP</li> <li>udplite: UDPLITE</li> <li>sctp: SCTP</li> <li>icmp: ICMP</li> </ul> </li> </ul> |
| many_to_one_port_locked!*!tip      | TIP Group of a "many to one port locked" type NAT rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:87</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| one_to_one!*!enable_inbound        | Enabling the inbound part of a "one to one" type NAT rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:53</li> <li>• Value type: Yes / No</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| one_to_one!*!ip                    | IP Address of a "one to one" type NAT rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:45</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| one_to_one!*!tip                   | TIP group of a "one to one" type NAT rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:36</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| port_mapping!*!dport_first         | First port of the dest. port range of a "port mapping" rule. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:122</li> <li>• Value type: unsigned integer</li> <li>• Default value: &lt;none&gt;</li> </ul>  |

| Key                           | Description   |
|-------------------------------|---|
| port_mapping!*!dport_last     | <p>Last port of the dest. port range of a "port mapping" rule.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:130</li> <li>Value type: unsigned integer</li> <li>Default value: &lt;none&gt;</li> </ul> |
| port_mapping!*!virtual_server | <p>Target Virtual Server of a "port mapping" rule.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/nat_conf.cpp:114</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                       |

## conf/optimizer/profiles

The conf/optimize directory contains configuration files for Web Accelerator profiles. Web Accelerator profiles can be configured under the Catalogs > Web Accelerator > Web Accelerator Profiles section of the Admin Server UI or by using functions under the Catalog.Optimizer.OptimizerProfiles section of the SOAP API and CLI.

| Key                                | Description  |
|------------------------------------|--|
| background_after                   | <p>If Web Accelerator can finish optimizing the resource within this time limit then serve the optimized content to the client, otherwise complete the optimization in the background and return the original content to the client. If set to 0, Web Accelerator will always wait for the optimization to complete before sending a response to the client.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/wax.cpp:67</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| background_on_additional_resources | <p>If a web page contains resources that have not yet been optimized, fetch and optimize those resources in the background and send a partially optimized web page to clients until all resources on that page are ready.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/wax.cpp:80</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| built_in                           | <p>If set to Yes this indicates that this configuration is built-in (provided as part of the software) and cannot be deleted or edited.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/wax.cpp:107</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| config                             | <p>The configuration string for the Web Accelerator profile.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/wax.cpp:93</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key           | Description  |
|---------------|--|
| mode          | <p>Set the Web Accelerator mode to turn acceleration on or off.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/wax.cpp:41</li> <li>Value type: enumeration</li> <li>Default value: "active"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>idle: Off - Acceleration is disabled, but requests for Web Accelerator resources are served</li> <li>stealth: Stealth - Acceleration is controlled by a cookie</li> <li>active: On - Web Accelerator acceleration is enabled</li> </ul> </li> </ul> |
| show_info_bar | <p>Show the Web Accelerator information bar on optimized web pages. This requires HTML optimization to be enabled in the acceleration settings.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/wax.cpp:51</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

## conf/optimizer/scopes

Priority should be higher than that of virtual servers

| Key                | Description  |
|--------------------|--|
| canonical_hostname | <p>If the hostnames for this scope are aliases of each other, the canonical hostname will be used for requests to the server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/scope.cpp:34</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| hostnames          | <p>The hostnames to limit acceleration to.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/scope.cpp:44</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| root               | <p>The root path of the application defined by this application scope.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/scope.cpp:23</li> <li>Value type: string</li> <li>Default value: "/"</li> </ul>   |

## conf/auth

The conf/auth directory contains configuration files for remote authentication services used to control access to the software. The name of a file is the name of the authenticator it defines. Authenticators can be configured under the System > Users section of the Admin Server UI.

| Key                                      | Description   |
|--|---|
| auth!description                         | <p>A description of the authenticator.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen.pm:85</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| auth!enabled                             | <p>Whether or not this authenticator is enabled.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen.pm:101</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| auth!type                                | <p>The type of the authenticator.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen.pm:94</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values:<br/>LDAP: LDAP<br/>RADIUS: RADIUS<br/>TACACSPlus: TACACS+</li> </ul>  |
| Additional keys used when type is "LDAP" |   |
| ldap!basedn                              | <p>The base DN (Distinguished Name) under which directory searches will be applied. The entries for your users should all appear under this DN. An example of a typical base DN is: OU=users, DC=mycompany, DC=local</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:360</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ldap!binddn                              | <p>Template to construct the bind DN (Distinguished Name) from the username. The string %u will be replaced by the username. Examples: %u@mycompany.local for Active Directory or cn=%u, dc=mycompany, dc=local for both LDAP and Active Directory.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:431</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>              |
| ldap!dnmethod                            | <p>The bind DN (Distinguished Name) for a user can either be searched for in the directory using the ldap!basedn and ldap!filter values, or it can be constructed from the username.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:391</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values:<br/>construct: Construct<br/>search: Search</li> </ul> |

| Key                | Description  |
|--------------------|--|
| ldap!fallbackgroup | <p>If ldap!groupattr is not defined, or returns no results for the user logging in, the group named here will be used. If not specified, users will be denied access to the traffic manager if no groups matching a Permission Group can be found for them in the directory.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/LDAP.pm:492</li> <li>• Requires: auth!type is set to "LDAP"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| ldap!filter        | <p>A filter that can be used to extract a unique user record located under the base DN (Distinguished Name). The string %u will be replaced by the username. This filter is used to find a user's bind DN when ldap!dnmethod is set to "Search", and to extract group information if ldap!groupfilter is not specified. Examples: sAMAccountName=%u for Active Directory, or uid=%u for some Unix LDAP schemas.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/LDAP.pm:377</li> <li>• Requires: auth!type is set to "LDAP"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>                     |
| ldap!groupattr     | <p>The LDAP attribute that gives a user's group. If there are multiple entries for the attribute all will be extracted and they'll be lexicographically sorted, then the first one to match a Permission Group name will be used.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/LDAP.pm:461</li> <li>• Requires: auth!type is set to "LDAP"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| ldap!groupfield    | <p>The sub-field of the group attribute that gives a user's group. For example, if ldap!groupattr ismemberOf and this retrieves values of the form CN=mygroup, OU=groups, OU=users, DC=mycompany, DC=local you would set groupfield to CN. If there are multiple matching fields only the first matching field will be used.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/LDAP.pm:477</li> <li>• Requires: auth!type is set to "LDAP"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| ldap!groupfilter   | <p>If the user record returned by ldap!filter does not contain the required group information you may specify an alternative group search filter here. This will usually be required if you have Unix/POSIX-style user records. If multiple records are returned the list of group names will be extracted from all of them. The string %u will be replaced by the username. Example: (&amp;(memberUid=%u)(objectClass=posixGroup))</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/LDAP.pm:448</li> <li>• Requires: auth!type is set to "LDAP"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |

| Key  | Description  |
|--|--|
| ldap!port                                  | <p>The port to connect to the LDAP server on.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:336</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: unsigned integer</li> <li>Default value: "389"</li> </ul>  |
| ldap!searchdn                              | <p>The bind DN (Distinguished Name) to use when searching the directory for a user's bind DN. You can leave this blank if it is possible to perform the bind DN search using an anonymous bind.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:404</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ldap!searchpass                            | <p>If binding to the LDAP server using ldap!searchdn requires a password, enter it here.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:417</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ldap!server                                | <p>The IP or hostname of the LDAP server.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:324</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ldap!timeout                               | <p>Connection timeout in seconds.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/LDAP.pm:347</li> <li>Requires: auth!type is set to "LDAP"</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>   |
| Additional keys used when type is "RADIUS" |  |
| radius!fallbackgroup                       | <p>If no group is found using the vendor and group identifiers, or the group found is not valid, the group specified here will be used.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:326</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| radius!groupattr                           | <p>The RADIUS identifier for the attribute that specifies an account's group. May be left blank if radius!fallbackgroup is specified.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:314</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: unsigned integer</li> <li>Default value: "1"</li> </ul>  |



| Key  | Description  |
|--|--|
| radius!groupvendor                             | <p>The RADIUS identifier for the vendor of the RADIUS attribute that specifies an account's group. Leave blank if using a standard attribute (i.e. for Filter-Id set radius!groupattr to 11).</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:302</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: unsigned integer</li> <li>Default value: "7146"</li> </ul> |
| radius!nas-identifier                          | <p>This value is sent to the RADIUS server.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:347</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| radius!nas-ip-address                          | <p>This value is sent to the RADIUS server, if left blank the address of the interfaced used to connect to the server will be used.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:337</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| radius!port                                    | <p>The port to connect to the RADIUS server on.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:267</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: unsigned integer</li> <li>Default value: "1812"</li> </ul>   |
| radius!secret                                  | <p>Secret key shared with the RADIUS server.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:288</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| radius!server                                  | <p>The IP or hostname of the RADIUS server.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:256</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| radius!timeout                                 | <p>Connection timeout in seconds.</p> <ul style="list-style-type: none"> <li>From: Zeus/Authen/RADIUS.pm:277</li> <li>Requires: auth!type is set to "RADIUS"</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>   |
| Additional keys used when type is "TACACSPlus" |  |

| Key                      | Description  |
|--------------------------|--|
| tacacsplus!authtype      | <p>Authentication type to use.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/TACACSPlus.pm:205</li> <li>• Requires: auth!type is set to "TACACSPlus"</li> <li>• Value type: enumeration</li> <li>• Default value: "PAP"</li> <li>• Permitted values:<br/>PAP: PAP</li> <li>• ASCII: ASCII</li> </ul>  |
| tacacsplus!fallbackgroup | <p>If tacacsplus!groupsvc is not defined above, or no group value is provided for the user by the TACACS+ server, the group specified here will be used. If this is not specified, users with no TACACS+ defined group will be denied access.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/TACACSPlus.pm:240</li> <li>• Requires: auth!type is set to "TACACSPlus"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| tacacsplus!groupfield    | <p>The TACACS+ "service" field that provides each user's group.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/TACACSPlus.pm:226</li> <li>• Requires: auth!type is set to "TACACSPlus"</li> <li>• Value type: string</li> <li>• Default value: "permission-group"</li> </ul>   |
| tacacsplus!groupsvc      | <p>The TACACS+ "service" that provides each user's group field.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/TACACSPlus.pm:215</li> <li>• Requires: auth!type is set to "TACACSPlus"</li> <li>• Value type: string</li> <li>• Default value: "zeus"</li> </ul>   |
| tacacsplus!port          | <p>The port to connect to the TACACS+ server on.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/TACACSPlus.pm:174</li> <li>• Requires: auth!type is set to "TACACSPlus"</li> <li>• Value type: unsigned integer</li> <li>• Default value: "49"</li> </ul>  |
| tacacsplus!secret        | <p>Secret key shared with the TACACS+ server.</p> <ul style="list-style-type: none"> <li>• From: Zeus/Authen/TACACSPlus.pm:195</li> <li>• Requires: auth!type is set to "TACACSPlus"</li> <li>• Value type: password</li> <li>• Default value: &lt;none&gt;</li> </ul>   |

| Key                | Description  |
|--------------------|--|
| tacacsplus!server  | The IP or hostname of the TACACS+ server. <ul style="list-style-type: none"> <li>From: Zeus/Authen/TACACSPlus.pm:163</li> <li>Requires: auth!type is set to "TACACSPlus"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| tacacsplus!timeout | Connection timeout in seconds. <ul style="list-style-type: none"> <li>From: Zeus/Authen/TACACSPlus.pm:184</li> <li>Requires: auth!type is set to "TACACSPlus"</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>          |

## conf/authenticators

The conf/authenticators directory contains configuration files for external authenticators. The name of a file is the name of the authenticator it defines. Authenticators can be configured under the Catalogs > Authenticators section of the Admin Server UI or by using functions under the Catalog.Authenticators section of the SOAP API and CLI.

| Key                | Description  |
|--------------------|--|
| host               | The hostname or IP address of the remote authenticator. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:50</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ldap!attr          | A list of attributes to return from the search. If blank, no attributes will be returned. If set to '*' then all user attributes will be returned. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:114</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ldap!bind!dn       | The distinguished name (DN) of the 'bind' user. The traffic manager will connect to the LDAP server as this user when searching for user records. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:72</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ldap!bind!password | The password for the bind user. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:81</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                | Description   |
|--------------------|---|
| ldap!filter        | <p>The filter used to locate the LDAP record for the user being authenticated. Any occurrences of '%u' in the filter will be replaced by the name of the user being authenticated.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:95</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ldap!filter!basedn | <p>The base distinguished name (DN) under which user records are located on the server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:104</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ldap!ssl           | <p>Whether or not to enable SSL encryption to the LDAP server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:121</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ldap!ssl!cert      | <p>The SSL certificate that the traffic manager should use to validate the remote server. If no certificate is specified then no signature validation will be performed.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:144</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>          |
| ldap!ssl!type      | <p>The type of LDAP SSL encryption to use.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:132</li> <li>Value type: enumeration</li> <li>Default value: "ldaps"</li> <li>Permitted values:<br/>ldaps: LDAPS<br/>starttls: Start TLS</li> </ul>  |
| note               | <p>A description of the authenticator.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:42</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| port               | <p>The port on which the remote authenticator should be contacted.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/authenticator.cpp:58</li> <li>Value type: unsigned integer</li> <li>Default value: "389"</li> </ul>  |

## conf/bandwidth

The conf/bandwidth directory contains configuration files for bandwidth classes. The name of a file is the name of the bandwidth class it defines. Bandwidth classes can be configured under the Catalogs > Bandwidth section of the Admin Server UI or by using functions under the Catalog.Bandwidth section of the SOAP API and CLI.

| Key     | Description   |
|---------|---|
| maximum | <p>The maximum bandwidth to allocate to connections that are associated with this bandwidth class (in kbits/second).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/bandwidth.cpp:149</li> <li>Value type: unsigned integer</li> <li>Default value: "10000"</li> </ul>   |
| note    | <p>A description of this bandwidth class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/bandwidth.cpp:141</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| sharing | <p>The scope of the bandwidth class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/bandwidth.cpp:161</li> <li>Value type: enumeration</li> <li>Default value: "cluster"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>connection: Each connection can use the maximum rate</li> <li>machine: Bandwidth is shared per traffic manager</li> <li>cluster: Bandwidth is shared across all traffic managers</li> </ul> </li> </ul> |

## conf/bgpneighbors

The conf/bgpneighbors directory contains configuration files for BGP neighbors. The name of a file is the name of the neighbor configuration that it defines. BGP neighbors can be managed under the System > Fault Tolerance > BGP Neighbors section of the Admin UI, or by using functions under the BGPNeighbors section of the SOAP API and CLI.

| Key                     | Description  |
|-------------------------|--|
| address                 | <p>The IP address of the BGP neighbor</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:425</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| advertisement_interval  | <p>The minimum interval between the sending of BGP routing updates to neighbors. Note that as a result of jitter, as defined for BGP, the interval during which no advertisements are sent will be between 75% and 100% of this value.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:479</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul> |
| as_number               | <p>The AS number for the BGP neighbor</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:439</li> <li>Value type: unsigned integer</li> <li>Default value: "65534"</li> </ul>   |
| authentication_password | <p>The password to be used for authentication of sessions with neighbors</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:492</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| holdtime                | <p>The period after which the BGP session with the neighbor is deemed to have become idle - and requires re-establishment - if the neighbor falls silent.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:465</li> <li>Value type: seconds</li> <li>Default value: "90"</li> </ul>   |
| keepalive               | <p>The interval at which messages are sent to the BGP neighbor to keep the mutual BGP session established.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:452</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| machines                | <p>The traffic managers that are to use this neighbor</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:513</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |

## conf/cloudcredentials

Configuration for cloud credentials used in cloud API calls.

| Key                    | Description   |
|------------------------|---|
| api_server             | <p>The vCenter server hostname or IP address.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:123</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| authurl                | <p>The host to contact with the credentials in order to retrieve a new authentication token.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:115</li> <li>Value type: string</li> <li>Default value: "https://auth.api.rackspacecloud.com"</li> </ul>                         |
| change_process_timeout | <p>The amount of time a change process can take at most. The traffic manager creates and destroys nodes via API calls. This setting specifies how long to wait for such calls to complete.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:48</li> <li>Value type: unsigned integer</li> <li>Default value: "200"</li> </ul> |
| cred1                  | <p>The first part of the credentials for the cloud user. Typically this is some variation on the username concept.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:73</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| cred2                  | <p>The second part of the credentials for the cloud user. Typically this is some variation on the password concept.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:85</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| cred3                  | <p>The third part of the credentials for the cloud user. Typically this is some variation on the authentication token concept.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:97</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                  | Description  |
|----------------------|--|
| script               | The script to call for communication with the cloud API. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:60</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| status_reports_delta | Whether the cloud API supports a 'delta' mode for status calls.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:104</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| update_interval      | The traffic manager will periodically check the status of the cloud through an API call. This setting specifies the interval between such updates. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/cloudcred_conf.cpp:38</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul> |

## conf/commkey

The conf/commkey file is for internal use only. You should never manually alter this file.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/custom

Custom configuration sets store arbitrary named values. These values can be read by SOAP or REST clients.

| Key          | Description  |
|--------------|--|
| stringlist!* | Named list of user-specified strings. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/custom_conf.cpp:37</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |



## conf/dnsserver/zonefiles

The conf/dnsserver/zonefiles/ directory contains files that define DNS zones.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/dnsserver/zones

The conf/dnsserver/zones/ file contains zone metadata

| Key      | Description   |
|----------|---|
| origin   | <p>The domain origin of this Zone.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/dns_config.cpp:81</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>          |
| zonefile | <p>The Zone File encapsulated by this Zone.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/dns_config.cpp:93</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |

## conf/events

The conf/events directory contains configuration files that tie actions to a set of events. In the web UI this functionality is controlled using the System > Alerting and System > Alerting > Event Types pages. The configuration files in conf/events represent the functionality configured on both these pages. The name of the configuration files are the "Event Type" names as shown in the UI. In the SOAP API and CLI this is managed in the Alerting.EventType section. The events subscribed to by a particular event type configuration are identified by an object type and a set of event tags using keys of the form "type!<object-type>!event\_tags <tag-list>". For example: "type!vservers!event\_tags vsstart vsstop". The events subscribed to can be further filtered to specific configuration objects using keys of the form "type!<object-type>!object\_names <object-names>". The table below lists the object types and all the event tags that are available for them.

| Key         | Description   |
|-------------|---|
| actions     | <p>The actions triggered by events matching this event type. (See the type!*!event_tags and type!*!object_names keys.) The value is a list of files to execute when a matching event occurs, these files must be located within the conf/actions directory. Refer to the documentation for the conf/actions configuration section for more information regarding how these files are executed.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/eventhandler.cpp:143</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| built_in    | <p>If set to Yes this indicates that this configuration is built-in (provided as part of the software) and cannot be deleted or edited.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/eventhandler.cpp:167</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>  |
| log2mainlog | <p>Whether or not the triggering of this event type will be logged to the main event log.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/eventhandler.cpp:176</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| note        | <p>A description of this event type.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/eventhandler.cpp:154</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |

| Key                 | Description   |
|---------------------|---|
| type!*!event_tags   | <p>This key is used to specify the object types and event tags that will trigger the configured actions. The object type is specified in place of the * (asterisk) in the key name. The key can be used multiple times in a configuration file to subscribe to events from multiple object types. The value can be * (asterisk) to subscribe to all events raised by the specified object type, or can be a list of specific event tags (refer to the table in the conf/events section documentation for a list of all object types and event tags).</p> <p>The following example sends an email alert when any virtual server starts or stops:</p> <pre>actions E-Mail type!vservers!event_tags vsstart vsstop type!vservers!object_names *</pre> <p>If this is in a file named conf/events/VSSstartStop then on the System &gt; Alerting UI page a mapping will be shown associating the event type "VSSstartStop" with the action "E-Mail". See type!*!object_names for additional information.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/eventhandler.cpp:92</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>                                      |
| type!*!object_names | <p>This key can be used to restrict the events that will trigger the configured actions to ones raised by objects with specific names (filenames). The * (asterisk) in the key must be replaced by an object type matching one that has also been used in a type!&lt;object-type&gt;!event_tags key. The value is a list containing the names of objects of the type specified in the key. (If this key is not specified then the default value of * (asterisk) is assumed, which means to subscribe to events from all objects of the given type).</p> <p>The following example sends email alert whenever the virtual server named "Very Important" starts or stops:</p> <pre>actions E-Mail type!vservers!event_tags vsstart vsstop type!vservers!object_names "Very Important"</pre> <p>If this is in a file named conf/events/VSSstartStop then on the System &gt; Alerting UI page a mapping will be shown associating the event type "VSSstartStop" with the action "E-Mail". See type!*!event_tags for additional information.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/eventd/eventhandler.cpp:124</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul> |

## Event tags by object type

| Event Tag                                      | Description  |
|--|--|
| Event tags for object type: "cloudcredentials" |  |
| apistatusprocesshanging                        | A cloud API process querying changes to cloud instances is hanging   |
| autoscaleresponseparseerror                    | An API call made by the autoscaler process has returned a response that could not be parsed  |
| autoscalestatusupdateerror                     | An API call made by the autoscaler process has reported an error   |
| autoscalingprocesstimedout                     | A cloud API process has timed out  |
| usedcredsdeleted                               | A Cloud Credentials object has been deleted but it was still in use<br>(The configuration file containing cloud credentials was removed, but the credentials were still being used by one or more autoscaled pools.) |
| Event tags for object type: "config"           |  |
| confadd  | Configuration file added   |
| confdel  | Configuration file deleted   |
| confmod  | Configuration file modified  |
| confok   | Configuration file now OK  |
| Event tags for object type: "faulttolerance"   |  |
| activatealldead                                | Activating this machine automatically because it is the only working machine in its Traffic IP Groups  |
| activatedautomatically                         | Machine has recovered and been activated automatically because it would cause no service disruption  |
| allmachinesok                                  | All machines are working<br>(All machines are working)   |
| autofailbackafterdelay                         | Automatic failback after delay   |
| autofailbacktimercancelled                     | Auto-failback delay timer cancelled  |
| autofailbacktimerstarted                       | Auto-failback wait period started  |
| autofailbacktimerstopped                       | Auto-failback delay timer stopped due to system failure  |
| bgpneighborsdegraded                           | Some of the BGP neighbors do not have established sessions   |
| bgpneighborsfailed                             | None of the BGP neighbors have an established session<br>(None of the BGP neighbors have an established session)   |
| bgpneighborsok                                 | There are established sessions with all BGP neighbors<br>(There are established sessions with all BGP neighbors)   |
| bgpnoneighbors                                 | There are no valid BGP neighbors defined<br>(There are no valid BGP neighbors defined)   |
| clockjump                                      | The system clock jumped forwards or backwards by more than one second  |

| Event Tag                   | Description   |
|-----------------------------|---|
| clocknotmonotonic           | The monotonic system clock went backwards   |
| dropec2ipwarn               | Removing EC2 IP Address from all machines; it is no longer a part of any Traffic IP Groups  |
| dropipinfo                  | Dropping Traffic IP Address due to a configuration change or traffic manager recovery   |
| dropipwarn                  | Dropping Traffic IP Address due to an error<br>(The Traffic IP address was dropped due to a network failure)  |
| ec2flipperraiselocalworking | Moving EC2 IP Address; local machine is working   |
| ec2flipperraiseothersdead   | Moving EC2 IP Address; other machines have failed   |
| ec2iperr                    | Problem occurred when managing an EC2 IP address  |
| ec2nopublicip               | Cannot raise Elastic IP on this machine until EC2 provides it with a public IP address<br><br>(An Elastic IP cannot currently be moved to this machine. This is usually because it has recently had its Elastic IP moved to another box, and EC2 has not yet returned its default public IP address.)   |
| ec2nosecondaryprivateip     | Cannot raise Elastic IP on this machine as no suitable secondary IP is available on the allowed network card(s)<br><br>(An Elastic IP cannot currently be moved to this machine. This is usually because it doesn't have a secondary private address with either no EIP association assigned to network interface(s) or is used by a virtual server.) |
| flipperbackendsworking      | Back-end nodes are now working<br>(Back-end nodes are now working)  |
| flipperdadrraise            | Re-raising Traffic IP Address; Operating system did not fully raise the address<br><br>(This address is being re-raised to circumvent the operating system's Duplicate Address Detection feature)   |
| flipperfrontendsworking     | Frontend machines are now working<br><br>(The machines that your traffic manager is using to check network connectivity on the frontend (usually the default gateway) are now working)  |
| flipperipexists             | Failed to raise Traffic IP Address; the address exists elsewhere on your network and cannot be raised   |
| flipperraiselocalworking    | Raising Traffic IP Address; local machine is working  |
| flipperraiseosdrop          | Raising Traffic IP Address; Operating System had dropped this IP address<br><br>(Traffic IP Addresses are automatically managed by the traffic manager, and their configuration should only be altered from the vTM Admin Server.)  |

| Event Tag                    | Description   |
|------------------------------|---|
| flipperraiseothersdead       | Raising Traffic IP Address; other machines have failed<br>(The Traffic IP Address will be raised as a result of the the death of another machine, or a config change.)                        |
| flipperraiseremotedropped    | This Traffic Manager has re-raised traffic IP addresses as the remote machine which was hosting them has dropped them   |
| flipperrecovered             | Machine is ready to raise Traffic IP addresses  |
| machinefail                  | Remote machine has failed   |
| machineok                    | Remote machine is now working<br>(Remote machine is now working)  |
| machinerecovered             | Remote machine has recovered and can raise Traffic IP addresses   |
| machinetimeout               | Remote machine has timed out and been marked as failed  |
| multihostload                | The amount of load handled by the local machine destined for this Traffic IP has changed  |
| ospfneighborsdegraded        | Some of the monitored OSPF neighbors are not peered<br>(Some of the neighboring OSPF routers being monitored by flipper!ospfv2_neighbor_addrs are not peered)                                 |
| ospfneighborsfailed          | None of the monitored OSPF neighbors are peered<br>(None of the neighboring OSPF routers being monitored by flipper!ospfv2_neighbor_addrs are peered)   |
| ospfneighborsok              | All monitored OSPF neighbors are peered<br>(The neighboring OSPF routers being monitored by flipper!ospfv2_neighbor_addrs are all peered)   |
| pingbackendfail              | Failed to ping back-end nodes   |
| pingfrontendfail             | Failed to ping any of the machines used to check the front-end connectivity   |
| pinggwfail                   | Failed to ping default gateway  |
| pingsendfail                 | Failed to send ping packets   |
| routingswfailed              | Routing software had a major failure and will be restarted<br>(The routing software stack used for Route Health Injection has had a major failure and will be restarted.)                     |
| routingswfailurelimitreached | Routing software has failed and reached its failure limit<br>(The maximum number of failures in a set period has been reached by the routing software stack used for Route Health Injection.) |
| routingswoperational         | Routing software is now operational<br>(The routing software stack used for Route Health Injection has started.)  |
| routingswstartfailed         | Routing software failed to start<br>(The routing software stack used for Route Health Injection failed to start within the allowed time.)   |

| Event Tag                             | Description   |
|---------------------------------------|---|
| statebaddata                          | Received an invalid response from another cluster member<br>(An incorrectly formatted session persistence state message was received (for example version incompatibility between traffic managers).) |
| stateconnfail                         | Failed to connect to another cluster member for state sharing<br>(The traffic manager failed to establish the connection used for session persistence state sharing.)                                 |
| stateok                               | Successfully connected to another cluster member for state sharing  |
| statereadfail                         | Reading state data from another cluster member failed<br>(The traffic manager failed to read session persistence information from another traffic manager.)   |
| statetimeout                          | Timeout while sending state data to another cluster member<br>(Another traffic manager in the cluster failed to respond to a session persistence state message within (2 * 'state_sync_time').)       |
| stateunexpected                       | Received unexpected state data from another cluster member<br>(A session persistence state message was received when the traffic manager was not expecting it.)                                       |
| statewritefail                        | Writing state data to another cluster member failed<br>(The traffic manager failed to write session persistence state to another cluster member.)   |
| zclustermoderr                        | An error occurred when using the zcluster Multi-Hosted IP kernel module   |
| Event tags for object type: "general" |   |
| appfirewallcontrolerror               | Application firewall control command failed   |
| appfirewallcontrolrestarted           | Application firewall restarted<br>(Application firewall restarted)  |
| appfirewallcontrolstarted             | Application firewall started<br>(Application firewall started)  |
| appfirewallcontrolstopped             | Application firewall stopped<br>(Application firewall stopped)  |
| appfirewallcontrovertimeout           | Application firewall control command timed out  |
| appliance                             | Appliance notification  |
| audit                                 | An audit log event has occurred   |
| autherror                             | An error occurred during user authentication  |
| autoscaleresolvefailure               | A hostname used for DNS-derived Autoscaling doesn't resolve   |
| autoscalinglicenseerror               | Autoscaling not permitted by licence key  |
| childcommsfail                        | There was an error communicating with a child process<br>(A helper process did not properly acknowledge a control request.)   |

| Event Tag                  | Description   |
|----------------------------|---|
| confrepfailed              | Replication of configuration has failed   |
| confreptimeout             | Replication of configuration has timed out<br>(Replication of configuration has timed out)  |
| discopluginfailed          | Traffic manager failed to get the required output from the Service Discovery plugin<br>(Traffic manager failed to get the required output from the plugin)  |
| discoplugininvalid         | Service Discovery plugin returned invalid output  |
| discopluginstartfail       | Traffic manager failed to start the Service Discovery Plugin<br>(Failed to run a plugin)  |
| discopluginstartsuccess    | Traffic manager has now successfully run the Service Discovery plugin<br>(Traffic manager has now successfully run the plugin)  |
| dnszonecreaterecord        | The built-in DNS server has failed to create a DNS record   |
| dnszoneparse               | The built-in DNS server has failed to parse a DNS zone file   |
| dnszonevalidate            | The built-in DNS server has failed to validate a DNS zone file  |
| ec2dataretrievalfailed     | Traffic manager failed to get the required data from Amazon servers<br>(Traffic manager failed to get the required data from Amazon servers)  |
| ec2dataretrievalsuccessful | Traffic manager has now successfully retrieved the required data from Amazon servers<br>(Traffic manager has now successfully retrieved the required data from Amazon servers)  |
| ec2initialized             | The EC2 instance is now initialized<br>(The EC2 instance is now initialized)  |
| fewfreefds                 | Running out of free file descriptors<br>(There are few free file descriptors remaining; this machine will soon become unable to establish new connections. See the manual for information on tuning to correct this.) |
| fipsfailinit               | FIPS 140-2 cryptographic module initialization failed<br>(A failure occurred when loading or during power-up testing of the FIPS 140-2 cryptographic module.)   |
| fipsfailops                | FIPS 140-2 cryptographic module operations failed<br>(Unable to fully enable or retain the context for valid use of the FIPS 140-2 cryptographic module in the Traffic Manager.)                                      |
| gcedataretrievalfailed     | Traffic manager failed to get the required data from GCE instance   |
| gcedataretrievalsuccessful | Traffic manager has now successfully retrieved the required data from GCE instance<br>(Traffic manager has now successfully retrieved the required data from GCE instance)  |
| geodataloadfail            | Failed to load geolocation data   |



| Event Tag               | Description  |
|-------------------------|--|
| licensetoomanylocations | A location has been disabled because you have exceeded the licence limit   |
| logdiskfull             | Log disk partition full<br>(Log disk partition full)   |
| logdiskoverload         | Log disk partition usage has exceeded threshold<br>(Log disk partition usage has exceeded threshold)   |
| logdiskrecovered        | Log disk partition usage has recovered<br>(Log disk partition usage has recovered)   |
| nameserveravailable     | DNS-derived Autoscaling will resume updating, as the DNS server is now responding<br>(DNS-derived Autoscaling will resume updating, as the DNS server is now responding)   |
| nameserverunavailable   | DNS-derived Autoscaling will not update, as the DNS server is unavailable<br>(DNS-derived Autoscaling will not update, as the DNS server is unavailable)   |
| numlocations-exceeded   | Total number of locations exceeded the maximum limit   |
| numnodes-exceeded       | Total number of nodes exceeded the maximum number of nodes that can be monitored   |
| numpools-exceeded       | Total number of pools exceeded the maximum limit   |
| numtipg-exceeded        | Total number of traffic IP group exceeded the maximum limit  |
| ocspstaplingfail        | OCSP request (for OCSP stapling) failed<br>(An OCSP request for a certificate, to be used for OCSP stapling has failed. The error log line contains the name of the certificate and the URL to which the request was made.)  |
| ocspstaplingnomem       | Insufficient memory for OCSP stapling<br>(The memory allocated for OCSP stapling was not large enough to store the responses for all configured certificates.)   |
| ocspstaplingrevoked     | An OCSP request (for OCSP stapling) reported that a certificate was revoked<br>(An OCSP request for a certificate, to be used for OCSP stapling, was successful but reported that the certificate was revoked. The error log line contains the name of the certificate and the URL to which the request was made.) |
| ocspstaplingunknown     | An OCSP request (for OCSP stapling) reported that a certificate was unknown<br>(An OCSP request for a certificate, to be used for OCSP stapling, was successful but reported that the certificate was unknown. The error log line contains the name of the certificate and the URL to which the request was made.) |

| Event Tag                          | Description   |
|------------------------------------|---|
| ocspstaplingunrevoked              | An old but good OCSP response was returned for a revoked certificate (An OCSP request for a certificate previously indicated that a certificate had been revoked, but a recent response indicates that it is OK. This may indicate an OCSP replay attack. The error log line contains the name of the certificate and the URL to which the request was made.) |
| restartrequired                    | Software must be restarted to apply configuration changes   |
| running                            | Software is running   |
| sslcrltoobig                       | CRL does not fit in the configured amount of shared memory, increase ssl!crl_mem!size and restart software  |
| sslticketencryptionkeyunavailable  | No SSL ticket encryption key available (No SSL ticket encryption key is available. The traffic manager will not be able to create new SSL session tickets until a new key has been provided. SSL connections to virtual servers will still be accepted while this error persists.)  |
| sysctlreboot                       | Virtual Traffic Manager Appliance reboot required (A reboot is required)  |
| timemovedback                      | Time has been moved back (This machine's clock has been set backwards by a significant amount; your traffic manager should be restarted to prevent problems with timeouts, fault tolerance and other areas.)  |
| unspecifiedreboot                  | Virtual Traffic Manager restart/reboot required (A restart/reboot is required, cause unspecified)   |
| upgradereboot                      | Virtual Traffic Manager Appliance reboot required (A reboot is required)  |
| upgraderestart                     | Virtual Traffic Manager software restart required (A restart is required)   |
| zxtmcpustarvation                  | The number of simultaneously active connections has reached a level that the software cannot process in due time because of CPU starvation; there is a high risk of connections timing out  |
| zxtmhighload                       | The number of simultaneously active connections has reached a level that the software cannot process in due time; there is a high risk of connections timing out  |
| zxtmswerror                        | Internal software error   |
| Event tags for object type: "java" |   |
| javadied                           | Java runner died  |
| javanotfound                       | Cannot start Java runner, program not found   |
| javastarted                        | Java runner started   |
| javastartfail                      | Java runner failed to start   |

| Event Tag                                 | Description  |
|---|--|
| javastop                                  | Java support has stopped<br>(Java is now either unlicensed or disabled in Global Settings.)  |
| javaterminatefail                         | Java runner failed to terminate<br>(The process handling Java extensions failed to terminate promptly. Contact your support provider.) |
| servleterror                              | Servlet encountered an error   |
| Event tags for object type: "licensekeys" |  |
| analyticsexportlicensedisabled            | Analytics Export support has been disabled   |
| analyticsexportlicenseenabled             | Analytics Export support has been enabled  |
| analyticslicensedisabled                  | Realtime Analytics support has been disabled   |
| analyticslicenseenabled                   | Realtime Analytics support has been enabled  |
| autoscalinglicensedisabled                | Autoscaling support has been disabled  |
| autoscalinglicenseenabled                 | Autoscaling support has been enabled   |
| bwlimited                                 | License key bandwidth limit has been hit   |
| cachesizereduced                          | Configured cache size exceeds license limit, only using amount allowed by license  |
| expired                                   | License key has expired<br>(License key has expired)   |
| expiresoon                                | License key expires within 7 days  |
| expiresoon15                              | License key expires within 15 days   |
| expiresoon30                              | License key expires within 30 days   |
| expiresoon60                              | License key expires within 60 days   |
| expiresoon90                              | License key expires within 90 days   |
| lessmemallowed                            | License allows less memory for caching   |
| license-authorized                        | License key authorized<br>(License key authorized)   |
| license-authorized-ts                     | License key authorized by authorization code<br>(License key authorized by authorization code)   |
| license-explicitlydisabled-ts             | License key explicitly disabled from authorization code  |
| license-graceperiodexpired                | Unable to authorize license key  |
| license-graceperiodexpired-ts             | Unable to authorize license key  |
| license-rejected-authorized               | License server rejected license key; key remains authorized  |
| license-rejected-authorized-ts            | License key rejected from authorization code; key remains authorized   |
| license-rejected-unauthorized             | License server rejected license key; key is not authorized<br>(License server rejected license key; key is not authorized)             |

| Event Tag                               | Description  |
|---|--|
| license-rejected-unauthorized-ts        | License key rejected from authorization code   |
| license-timedout-authorized             | Unable to contact license server; license key remains authorized   |
| license-timedout-authorized-ts          | Unable to run authorization code to completion; key remains valid  |
| license-timedout-unauthorized           | Unable to contact license server; license key is not authorized<br>(Unable to contact license server; license key is not authorized)             |
| license-timedout-unauthorized-ts        | Unable to run authorization code to completion   |
| license-unauthorized                    | License key is not authorized<br>(License key is not authorized)   |
| licenseclustertoobig                    | Cluster size exceeds license key limit   |
| licensecorrupt                          | License key is corrupt<br>(This key is invalid and cannot be used; you should upload a valid key.)   |
| licensestate-malformed                  | Error detected in LicenseStateFile format  |
| licensestate-write-failed               | Unable to preserve license state<br>(The license state file could not be updated.)   |
| morememallowed                          | License allows more memory for caching   |
| ssltpslimited                           | License key SSL transactions-per-second limit has been hit   |
| tpslimited                              | License key transactions-per-second limit has been hit   |
| unlicensed                              | Started without a license  |
| usingdevlicense                         | Using a development license<br>(Development licenses are severely limited and are not for production use.)                                       |
| usinglicense                            | Using license key<br>(This license key currently determines the available features, because it has more features than any other available keys.) |
| Event tags for object type: "locations" |  |
| locationavailable                       | Location is now available for GLB Service<br>(Location is now available for GLB Service)   |
| locationdisabled                        | Location has been disabled for GLB Service<br>(Location has been disabled for GLB Service)   |
| locationdraining                        | Location is being drained for GLB Service<br>(Location is being drained for GLB Service)   |
| locationenabled                         | Location has just been enabled for GLB Service<br>(Location has just been enabled for GLB Service)   |

| Event Tag                              | Description   |
|--|---|
| locationfail                           | Location has failed for GLB Service<br>(Location has failed for GLB Service)  |
| locationmonitorfail                    | A monitor has detected a failure in this location   |
| locationmonitorok                      | A monitor has indicated this location is now working  |
| locationnotdraining                    | Location is not being drained for GLB Service<br>(Location is not being drained for GLB Service)  |
| locationok                             | Location is now healthy for GLB Service<br>(Location is now healthy for GLB Service)  |
| locationsoapfail                       | An external SOAP agent has detected a failure in this location<br>(An external SOAP agent has detected a failure in this location)  |
| locationsoapok                         | An external SOAP agent indicates this location is now working<br>(An external SOAP agent indicates this location is now working)  |
| locationunavailable                    | Location has become unavailable for GLB Service<br>(Location has become unavailable for GLB Service)  |
| locempty                               | Location no longer contains any machines  |
| locmovemachine                         | Machine now in location   |
| Event tags for object type: "monitors" |   |
| monitorfail                            | Monitor has detected a failure  |
| monitorok                              | Monitor is working  |
| Event tags for object type: "pools"    |   |
| apichangeprocesshanging                | API change process still running after refractory period is over  |
| autonodecreationcomplete               | The creation of a new node requested by an autoscaled pool is now complete  |
| autonodecreationstarted                | Creation of new node instigated   |
| autonodedestroyed                      | A cloud API call to destroy a node has been started   |
| autonodedestructioncomplete            | The destruction of a node in an autoscaled pool is now complete   |
| autonodedisappeared                    | A node in an autoscaled pool has disappeared from the cloud   |
| autonodeexisted                        | IP address of newly created instance already existed in pool's node list<br>(The autoscaler has been informed about the completion of an instance creation in the cloud, but unexpectedly a node with the same ip address already existed in the pool's node list.) |
| autonodenopublicip                     | Node has no public IP address<br>(We want the public IP but it is unset)  |
| autonoderemoved                        | A node in a DNS-derived autoscaled pool has been removed  |

| Event Tag                         | Description   |
|-----------------------------------|---|
| autonodestatuschange              | The status of a node in an autoscaled pool has changed<br>(The status of a node in an autoscaled pool has changed. This can be, for instance, a node moving from the 'pending' state, when it is still being created/finalized in the cloud environment, to the 'active' state, when it can be fully used.) |
| autoscalednodecontested           | Two pools are trying to use the same instance   |
| autoscaledpoolrefractory          | An autoscaled pool is now refractory<br>(An autoscaled pool's size has recently changed, so no further changes are made until it has settled down)  |
| autoscaledpooltoobig              | Over maximum size - shrinking   |
| autoscaledpooltoosmall            | Minimum size undercut - growing   |
| autoscaleinvalidargforcreate node | The 'imageid' was empty when attempting to create a node in an autoscaled pool  |
| autoscaleinvalidargfordelete node | 'unique id' was empty when attempting to destroy a node in an autoscaled pool   |
| autoscalepoolconfupdate           | A pool config file has been updated by the autoscaler process   |
| autoscalewrongimageid             | A node created by the autoscaler has the wrong imageid  |
| autoscalewrongname                | A node created by the autoscaler has a non-matching name  |
| autoscalewrongsizeid              | A node created by the autoscaler has the wrong sizeid   |
| autoscalingchange process failure | An API process that should have created or destroyed a node has failed to produce the expected result   |
| autoscalingdisabled               | Autoscaling for a pool has been disabled due to errors communicating with the cloud API   |
| autoscalinghitfloor               | Minimum size reached, cannot shrink further   |
| autoscalinghitroof                | Maximum size reached by autoscaled pool, cannot grow further  |
| autoscalinghysteresiscantgrow     | An autoscaled pool is waiting to grow<br>(An autoscaled pool should grow according to its response statistics, but the hysteresis setting demands that the growth condition persist for a longer time before the pool actually creates a new node.)   |
| autoscalinghysteresiscantshrink   | An autoscaled pool is waiting to shrink<br>(An autoscaled pool should shrink according to its response statistics, but the hysteresis setting demands that the shrink condition persist for a longer time before the pool actually creates a new node.)   |
| autoscalingpoolstatechange        | An autoscaled pool's state has changed  |
| autoscalingresuscitatepool        | An autoscaled pool has failed completely  |
| badcontentlen                     | HTTP response contained an invalid Content-Length header<br>(The HTTP response contained an invalid 'Content-Length' header. The traffic manager will not be able to detect the end of the response and the response cannot make use of keep-alives.)   |

| Event Tag                                | Description   |
|--|---|
| cannotshrinkemptypool                    | Attempt to scale down a pool that only had pending nodes or none at all   |
| ehloinvalid                              | Node returned invalid EHLO response   |
| nodedrainingtodelete                     | Removed node is in use and will be drained<br>(Removed node is in use and will be drained)  |
| nodedrainingtodeletetimeout              | Draining to delete period for node has expired<br>(Draining to delete period has timed out for node.)   |
| nodefail                                 | Node has failed   |
| noderesolvefailure                       | Failed to resolve node address  |
| noderesolvemultiple                      | Node resolves to multiple IP addresses  |
| nodeworking                              | Node is working again   |
| nostarttls                               | Node doesn't provide STARTTLS support   |
| pooldied                                 | Pool has no back-end nodes responding   |
| poolnonodes                              | Pool configuration contains no valid backend nodes  |
| poolok                                   | Pool now has working nodes<br>(One or more nodes are now available for this pool.)  |
| starttlsinvalid                          | Node returned invalid STARTTLS response   |
| Event tags for object type: "protection" |   |
| triggersummary                           | Summary of recent service protection events<br>(Service protection has generated a summary of recent events. The frequency of these messages is configured by log_time on each service protection class.) |
| Event tags for object type: "rules"      |   |
| optimizedisabled                         | Rule attempted to use Web Accelerator but it is not enabled   |
| optimizeuseunknownprofile                | Rule selected an unknown Web Accelerator profile  |
| optimizeuseunknownscope                  | Rule selected an unknown Web Accelerator scope  |
| datalocalstorefull                       | data.local.set() has run out of space   |
| datastorefull                            | data.set() has run out of space<br>(data.set() operations will continue to fail until data.remove() or data.reset() is used)  |
| forwardproxybadhost                      | Rule selected an unresolvable host<br>(A rule selected a host which could not be resolved to an IP address)   |
| invalidemit                              | Rule used event.emit() with an invalid custom event<br>(The event ID was empty or contained invalid characters.)  |
| norate                                   | Rule selected an unknown rate shaping class   |
| poolactivenodesunknown                   | Rule references an unknown pool via pool.activenodes  |

| Event Tag                  | Description  |
|----------------------------|--|
| pooluseunknown             | Rule selected an unknown pool  |
| ruleabort                  | Rule aborted during execution  |
| rulebodycomperror          | Rule encountered invalid data while uncompressing response<br>(Rule could not decompress a compressed HTTP response body)  |
| rulebufferlarge            | Rule has buffered more data than expected<br><br>(A rule is using more data than expected according to the configuration setting <code>trafficscript!memory_warning</code> in the Global Settings page. This is a warning only; this connection will continue to be handled. If many connections exceed the limit at the same time, your traffic manager might slow down or run out of memory. Consider re-writing the rule to reduce its memory usage or changing the limit.) |
| rulelogmsginfo             | Rule logged an info message using <code>log.info</code>  |
| rulelogmsgserious          | Rule logged an error message using <code>log.error</code>  |
| rulelogmsgwarn             | Rule logged a warning message using <code>log.warn</code>  |
| ruleopersistence           | Rule selected an unknown session persistence class   |
| ruleoverrun                | Rule exceeded execution time warning threshold   |
| rulesinvalidrequestbody    | Client sent invalid HTTP request body<br>(Invalid request body data encountered by rule)   |
| rulestreamerrorgetresponse | Attempt to use <code>http.getResponse</code> or <code>http.getResponseBody</code> after <code>http.stream.startResponse</code><br><br>(Attempt to use <code>http.getResponse</code> or <code>http.getResponseBody</code> after <code>http.stream.startResponse</code> .)   |
| rulestreamerrorinternal    | Internal error while processing HTTP stream  |
| rulestreamerrornotenough   | Rule did not supply enough data in HTTP stream<br><br>(Rule had specified a content length but then supplied less data than advertised. Correct Content-Length header in rule/Java Extension or remove it altogether.)   |
| rulestreamerrornotfinished | Attempt to initialize HTTP stream before previous stream had finished<br><br>(Either a rule called <code>http.stream.startResponse()</code> twice or a rule failed to call <code>http.stream.finishResponse()</code> and its connection was kept-alive. Check the use of the <code>http.stream.* TrafficScript *</code> functions in your rules.)  |
| rulestreamerrornotstarted  | Attempt to stream data or finish a stream before streaming had been initialized<br><br>(A rule called <code>http.stream.writeResponse()</code> or <code>http.stream.finishResponse()</code> before calling <code>http.stream.startResponse()</code> . Check the use of the <code>http.stream.* TrafficScript *</code> functions in your rules.)  |



| Event Tag                              | Description   |
|--|---|
| rulestreamerrorprocessfailure          | Data supplied to HTTP stream could not be processed<br>(The data provided by a rule for streaming could not be processed successfully. Check the use of the http.stream.* TrafficScript functions in your rules.) |
| rulestreamerrortoomuch                 | Rule supplied too much data in HTTP stream<br>(Rule had specified a content length but then supplied more data than advertised. Correct Content-Length header in rule/Java Extension or remove it altogether.)    |
| rulexmlerr                             | Rule encountered an XML error   |
| serviceruleabort                       | GLB service rule aborted during execution   |
| servicerulelocdead                     | GLB service rule specified a location that has either failed or been marked as draining in the service configuration  |
| servicerulelocnotconfigured            | GLB service rule specified a location that is not configured for the service  |
| servicerulelocunknown                  | GLB service rule specified an unknown location  |
| Event tags for object type: "services" |   |
| glbactivedcmismatch                    | Active datacentre mismatches among cluster members  |
| glbdeadlocmissingips                   | A DNS Query returned IP addresses that are not configured for any location that is currently alive  |
| glbfailalter                           | Failed to alter DNS packet for global load balancing<br>(The DNS packet could not be altered. This usually occurs when the record is signed using DNSSEC, and there is no private key configured to re-sign it.)  |
| glblogwritefail                        | Failed to write log file for GLB service  |
| glbmanualfailback                      | Manual failback triggered<br>(Manual failback triggered)  |
| glbmissingips                          | A DNS Query returned IP addresses that are not configured in any location   |
| glbnewmaster                           | A location has been set as active for a GLB service   |
| glbnolocations                         | No valid location could be chosen for Global Load Balancing   |
| glbservicefailed                       | GLB Service has failed<br>(GLB Service has failed)  |
| glbserviceok                           | GLB Service has recovered<br>(GLB Service has recovered)  |
| glbtoomanylocations                    | There are too many Data Centers configured and the Global Load Balancing feature is not guaranteed to work reliably with more than 255 Data Centres   |
| Event tags for object type: "slm"      |   |

| Event Tag                              | Description   |
|--|---|
| slmclasslimitexceeded                  | SLM shared memory limit exceeded<br>(The number of SLM classes configured requires more shared memory than is currently reserved for them. SLM classes will continue to work, but with reduced accuracy. For full accuracy, please increase the configuration key <code>slm_class_limit</code> on the Global Settings page and restart your traffic manager.) |
| slmfallenbelowserious                  | SLM has fallen below serious threshold<br>(The percentage of requests meeting the monitor's criteria has fallen below the serious threshold.)   |
| slmfallenbelowwarn                     | SLM has fallen below warning threshold<br>(A lower percentage of requests meet this monitor's criteria than desired, and this was not the case at the previous check.)  |
| slmnodeinfo                            | Node information when SLM is non-conforming (no SNMP trap)<br>(A summary of the nodes that have contributed to the SLM failure when it falls below the serious threshold. This event will not trigger an SNMP trap.)  |
| slmrecoveredserious                    | SLM has risen above the serious threshold<br>(The percentage of requests that meet this monitor's criteria has risen above the serious threshold. The percentage was below the serious threshold at the previous check.)  |
| slmrecoveredwarn                       | SLM has recovered<br>(The percentage of requests that meet this monitor's criteria has risen above the warning threshold. The percentage was below the warning threshold at the previous check.)  |
| Event tags for object type: "sslhw"    |   |
| sslhwfail                              | SSL hardware support failed<br>(SSL hardware support has stopped with an error)   |
| sslhwrestart                           | SSL hardware support restarted  |
| sslhwstart                             | SSL hardware support started  |
| Event tags for object type: "vservers" |   |
| connerror                              | A protocol error has occurred   |
| connfail                               | A socket connection failure has occurred  |
| dnsaddzone                             | The built-in DNS server has successfully added a DNS zone   |
| dnserroraddzone                        | The built-in DNS server has failed to add a DNS zone  |
| dnserrordeletezone                     | The built-in DNS server has failed to delete a DNS zone   |
| dnssecexpired                          | DNSSEC zone contains expired signatures<br>(DNSSEC zone contains expired signatures)  |
| dnssecexpires                          | DNSSEC zone contains signatures that are about to expire<br>(DNSSEC zone contains signatures that are about to expire)  |

| Event Tag                          | Description  |
|------------------------------------|--|
| dnszonedeleter                     | DNS zone has been deleted  |
| idpcertexpired                     | IDP certificate expired<br>(IDP certificate expired)   |
| idpcertoexpire                     | IDP certificate will expire within seven days<br>(IDP certificate to expire)   |
| logfiledeleted                     | A virtual server request log file was deleted (appliances only)  |
| maxclientbufferdrop                | Dropped connection, request exceeded max_client_buffer limit<br>(The traffic manager is still reading the request, but the amount of data read in is larger than max_client_buffer - abandon the connection) |
| poolpersistencemismatch            | Pool uses a session persistence class that does not work with this virtual server's protocol   |
| privkeyok                          | Private key now OK (hardware available)<br>(The private key for this virtual server is now available, because some required hardware is available again.)  |
| respcompfail                       | Error compressing HTTP response  |
| responsetoolarge                   | Response headers from webserver too large<br>(The response headers from the webserver were bigger than max_server_buffer; the request will be rejected with an error.)                                       |
| rtspstreamnoports                  | No suitable ports available for streaming data connection<br>(Consider changing the tuneables 'streaming_porrange_low' and 'streaming_porrange_high'.)   |
| samlauthnrequestcompressionfailure | Failed to compress SAML authentication request   |
| samlauthnrequestfailure            | Failed to create SAML authentication request   |
| samlcookiedecryptfailure           | Failed to decrypt SAML session cookie<br>(Failed to decrypt SAML session cookie)   |
| samlcookieencryptfailure           | Failed to encrypt cookie content<br>(Failed to encrypt cookie content)   |
| samlnouserinresponse               | No user specified in SAML response<br>(No user specified in SAML response)   |
| samlrelaystatedecryptfailure       | Failed to decrypt SAML RelayState<br>(Failed to decrypt SAML RelayState)   |
| samlrelaystateencryptfailure       | Failed to encrypt SAML RelayState<br>(Failed to encrypt SAML RelayState)   |
| samlrelaystateinvalid              | Failed to extract information from SAML RelayState   |
| samlresponseparsefailure           | SAML response parse failure  |
| samlresponsevalidationfailure      | SAML response validation failed  |

| Event Tag                          | Description   |
|------------------------------------|---|
| samlsignaturefailure               | SAML response signature verification error  |
| sipstreamnoports                   | No suitable ports available for streaming data connection<br>(Consider changing the tuneables 'streaming_portrange_low' and 'streaming_portrange_high'.)                |
| ssldrop                            | Request(s) received while SSL configuration invalid, connection closed  |
| sslfail                            | One or more SSL connections from clients failed recently<br>(One or more SSL connections from clients failed recently)  |
| sslhandshakemsgsizelimit           | SSL handshake messages have exceeded the size permitted by configuration<br>(SSL handshake messages have exceeded the size permitted by configuration.)                 |
| sslrehandshakemininterval          | SSL re-handshake requests have exceeded the frequency permitted by configuration<br>(SSL re-handshake requests have exceeded the frequency permitted by configuration.) |
| vscacertexpired                    | Certificate Authority certificate expired<br>(Certificate Authority certificate expired)  |
| vscacerttoexpire                   | Certificate Authority certificate will expire within seven days<br>(Certificate Authority certificate to expire)  |
| vscloutofdate                      | CRL for a Certificate Authority is out of date  |
| vslogwritefail                     | Failed to write log file for virtual server   |
| vssslcertexpired                   | Public SSL certificate expired<br>(Public SSL certificate expired)  |
| vssslcerttoexpire                  | Public SSL certificate will expire within seven days<br>(Public SSL certificate to expire)  |
| vsstart                            | Virtual server started  |
| vsstop                             | Virtual server stopped  |
| Event tags for object type: "xtms" |   |
| versionmismatch                    | Configuration update refused: traffic manager version mismatch  |

## conf/extra

The conf/extra directory contains miscellaneous user-uploaded files. These files can be used in TrafficScript code using the resource.get function. The files can be managed under the Catalogs > Extra Files > Miscellaneous Files section of the Admin Server UI or by using functions under the Conf.Extra section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/flipper

The conf/flipper directory contains configuration files for traffic IP groups. The name of a file is the name of the traffic IP group it defines. Traffic IP groups can be managed under the Services > Traffic IP Groups section of the Admin Server UI or by using functions under the TrafficIPGroups section of the SOAP API and CLI. \gui\_only \regex .\* \errortext no error \soap\_ignore

| Key                | Description   |
|--------------------|---|
| enabled            | <p>If set to No, the traffic IP group will be disabled and none of the traffic IP addresses will be raised.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:272</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| hash_srcport       | <p>Whether or not the source port should be taken into account when deciding which traffic manager should handle a request.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:323</li> <li>Requires: mode is set to "multihosted"</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| ip_assignment_mode | <p>Configure how traffic IPs are assigned to traffic managers in Single-Hosted mode</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:334</li> <li>Value type: enumeration</li> <li>Default value: "balanced"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>alphabetic: Alphabetical order of traffic manager hostnames</li> <li>balanced: Approximately balanced between traffic managers</li> </ul> </li> </ul> |

| Key                 | Description   |
|---------------------|---|
| ipaddress!*!machine | <p>Assigns a traffic IP address to a specific traffic manager, while the traffic manager is operating correctly it will host the address. The IP address must be one from the ipaddresses list and takes the place of the * in the key name, the key value is the name of the traffic manager that should host the IP address. If this is not specified for an IP address the address is automatically assigned to a machine.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:249</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| ipaddresses         | <p>The IP addresses that belong to the Traffic IP group.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:196</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| keeptogether        | <p>If set to Yes then all the traffic IPs will be raised on a single traffic manager. By default they're distributed across all active traffic managers in the traffic IP group.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:262</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>  |
| location            | <p>The location in which the Traffic IP group is based.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:206</li> <li>• Value type: int</li> <li>• Default value: "0"</li> </ul>   |
| machines            | <p>The traffic managers that can host the traffic IP group's IP addresses.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:176</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>  |

| Key                           | Description  |
|-------------------------------|--|
| mode                          | <p>The method used to distribute traffic IPs across machines in the cluster. If "multihosted" is used then multicast must be set to an appropriate multicast IP address.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:293</li> <li>Value type: enumeration</li> <li>Default value: "singlehosted"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>singlehosted: Raise each address on a single machine (Single-Hosted mode)</li> <li>multihosted: Raise each address on every machine in the group (Multi-Hosted mode) - IPv4 only</li> <li>rhi: Use route health injection to route traffic to the active machine - IPv4 only</li> <li>ec2elastic: Use an EC2-Classic Elastic IP address.</li> <li>ec2vpcelastic: Use an EC2-VPC Elastic IP address.</li> <li>ec2vpcprivate: Use an EC2-VPC Private IP address.</li> </ul> </li> </ul> |
| multicast                     | <p>The multicast IP address used to duplicate traffic to all traffic managers in the group.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:310</li> <li>Requires: mode is set to "multihosted"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| note                          | <p>A note, used to describe this Traffic IP Group</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:155</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| rhi_bgp_metric_base           | <p>The base BGP routing metric for this Traffic IP group. This is the advertised routing cost for the active traffic manager in the cluster. It can be used to set up inter-cluster failover.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:384</li> <li>Requires: mode is set to "rhi"</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |
| rhi_bgp_passive_metric_offset | <p>The BGP routing metric offset for this Traffic IP group. This is the difference between the advertised routing cost for the active and passive traffic manager in the cluster.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:397</li> <li>Requires: mode is set to "rhi"</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |

| Key                              | Description  |
|----------------------------------|--|
| rhi_ospfv2_metric_base           | <p>The base OSPFv2 routing metric for this Traffic IP group. This is the advertised routing cost for the active traffic manager in the cluster. It can be used to set up inter-cluster failover.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:359</li> <li>• Requires: mode is set to "rhi"</li> <li>• Value type: unsigned integer</li> <li>• Default value: "10"</li> </ul> |
| rhi_ospfv2_passive_metric_offset | <p>The OSPFv2 routing metric offset for this Traffic IP group. This is the difference between the advertised routing cost for the active and passive traffic manager in the cluster.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:372</li> <li>• Requires: mode is set to "rhi"</li> <li>• Value type: unsigned integer</li> <li>• Default value: "10"</li> </ul>             |
| rhi_protocols                    | <p>A list of protocols to be used for RHI. Currently must be 'ospf' or 'bgp' or both. The default, if empty, is 'ospf', which means that it is not possible to specify no protocol.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:347</li> <li>• Requires: mode is set to "rhi"</li> <li>• Value type: string</li> <li>• Default value: "ospf"</li> </ul>                      |
| slaves                           | <p>A list of traffic managers that are in 'passive' mode. This means that in a fully working environment, they will not have any traffic IP addresses assigned to them.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:232</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>  |

## conf/groups

Files in the conf/groups directory define the permission groups configured for administrative access to the software. The name of a file is the name of the group it defines. Permission groups can be managed under the System > Users section of the Admin Server UI. Each group will contain a list of configuration keys with names that mostly correspond to pages in the Admin Server UI. These may have values of either none, ro (read only, this is the default), or full. Some permissions have sub-permissions, these are denoted by following the parent permission name with an exclamation mark (!) followed by the sub-permission name. The built-in admin group has a special permission key of all with the value full, this cannot be altered for the admin group but can be used in other group configuration files to change the default permission level for the group.



| Key                        | Description  |
|----------------------------|--|
| description                | A description for the group. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:177</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| password_expire_time       | Members of this group must renew their passwords after this number of days. To disable password expiry for the group set this to 0 (zero). Note that this setting applies only to local users. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:202</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| timeout                    | Inactive UI sessions will timeout after this number of seconds. To disable inactivity timeouts for the group set this to 0 (zero). <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:168</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>  |
| Permission keys by section |  |
| Section: "Activity"        |  |
| Connections                | "Connections"<br>Permitted values: none, ro, or full   |
| Connections!Details        | "Connections > Details"<br>Permitted values: none, ro, or full   |
| Web_Cache                  | "Content Cache"<br>Permitted values: none, ro, or full   |
| Web_Cache!Clear            | "Content Cache > Clear"<br>Permitted values: none, ro, or full   |
| Monitoring                 | "Current Activity"<br>Permitted values: none, ro, or full  |
| Monitoring!Edit            | "Current Activity > Edit"<br>Permitted values: none, ro, or full   |
| Request_Logs               | "Download Logs"<br>Permitted values: none, ro, or full   |
| Draining                   | "Draining Nodes"<br>Permitted values: none, ro, or full  |
| Statd                      | "Historical Activity"<br>Permitted values: none, ro, or full   |

| Key                            | Description   |
|--------------------------------|---|
| Map                            | "Map"<br>Permitted values: none, ro, or full  |
| Log_Viewer                     | "View Logs"<br>Permitted values: none, ro, or full  |
| Log_Viewer!View                | "View Logs > View"<br>Permitted values: none, ro, or full   |
| Section: "Advanced Management" |   |
| Appliance_Console              | "Appliance Console"<br>Permitted values: none or full<br>Requires feature: Appliance                  |
| Custom                         | "Custom Configuration Sets"<br>Permitted values: none, ro, or full                                    |
| SOAP_API                       | "SOAP Control API"<br>Permitted values: none or full<br>Requires feature: SOAP                        |
| Section: "Catalogs"            |   |
| Authenticators                 | "Authenticators"<br>Permitted values: none, ro, or full   |
| Authenticators!Edit            | "Authenticators > Edit"<br>Permitted values: none, ro, or full  |
| Bandwidth                      | "Bandwidth"<br>Permitted values: none, ro, or full<br>Requires feature: Bandwidth                     |
| Bandwidth!Edit                 | "Bandwidth > Edit"<br>Permitted values: none, ro, or full<br>Requires feature: Bandwidth              |
| Bandwidth!Edit!CopyClass       | "Bandwidth > Edit > Copy Class"<br>Permitted values: none, ro, or full<br>Requires feature: Bandwidth |
| Cloud_Credentials              | "Cloud Credentials"<br>Permitted values: none, ro, or full  |
| Cloud_Credentials!Edit         | "Cloud Credentials > Edit"<br>Permitted values: none, ro, or full                                     |
| DNS_Server                     | "DNS Server"<br>Permitted values: none, ro, or full   |

| Key                               | Description  |
|-----------------------------------|--|
| DNS_Server!Zonefiles              | "DNS Server > Zone Files"<br>Permitted values: none, ro, or full               |
| DNS_Server!Zones                  | "DNS Server > Zones"<br>Permitted values: none, ro, or full                    |
| DNS_Server!Zones!Edit             | "DNS Server > Zones > Edit"<br>Permitted values: none, ro, or full             |
| Extra_Files                       | "Extra Files"<br>Permitted values: none, ro, or full                           |
| Extra_Files!Action_Programs       | "Extra Files > Action Programs"<br>Permitted values: none, ro, or full         |
| Extra_Files!Miscellaneous_Files   | "Extra Files > Miscellaneous"<br>Permitted values: none, ro, or full           |
| Extra_Files!ExternProgMonitors    | "Extra Files > Monitor Programs"<br>Permitted values: none, ro, or full        |
| GLB_Services                      | "GLB Services"<br>Permitted values: none, ro, or full                          |
| GLB_Services!Edit                 | "GLB Services > Edit"<br>Permitted values: none, ro, or full                   |
| GLB_Services!Edit!DNS_Settings    | "GLB Services > Edit > DNS Settings"<br>Permitted values: none, ro, or full    |
| GLB_Services!Edit!DNSSEC          | "GLB Services > Edit > DNSSEC"<br>Permitted values: none, ro, or full          |
| GLB_Services!Edit!Load_Balancing  | "GLB Services > Edit > Load Balancing"<br>Permitted values: none, ro, or full  |
| GLB_Services!Edit!Locations       | "GLB Services > Edit > Locations"<br>Permitted values: none, ro, or full       |
| GLB_Services!Edit!Request_Logging | "GLB Services > Edit > Request Logging"<br>Permitted values: none, ro, or full |
| GLB_Services!Edit!Rules           | "GLB Services > Edit > Rules"<br>Permitted values: none, ro, or full           |
| Java                              | "Java"<br>Permitted values: none, ro, or full                                  |
| Java!Edit                         | "Java > Edit"<br>Permitted values: none, ro, or full                           |
| Kerberos                          | "Kerberos"<br>Permitted values: none, ro, or full                              |

| Key                               | Description  |
|-----------------------------------|--|
| Kerberos!krb5confs                | "Kerberos > Kerberos Configuration Files"<br>Permitted values: none, ro, or full |
| Kerberos!Kerberos_Keytabs         | "Kerberos > Kerberos Keytabs"<br>Permitted values: none, ro, or full             |
| Kerberos!Kerberos_Principals      | "Kerberos > Kerberos Principals"<br>Permitted values: none, ro, or full          |
| Kerberos!Kerberos_Principals!Edit | "Kerberos > Kerberos Principals > Edit"<br>Permitted values: none, ro, or full   |
| Locations                         | "Locations"<br>Permitted values: none, ro, or full                               |
| Locations!Edit                    | "Locations > Edit"<br>Permitted values: none, ro, or full                        |
| Monitors                          | "Monitors"<br>Permitted values: none, ro, or full                                |
| Monitors!Edit                     | "Monitors > Edit"<br>Permitted values: none, ro, or full                         |
| Monitors!Edit!CopyMonitor         | "Monitors > Edit > Copy Monitor"<br>Permitted values: none, ro, or full          |
| Catalog                           | "Overview"<br>Permitted values: none, ro, or full                                |
| Persistence                       | "Persistence"<br>Permitted values: none, ro, or full                             |
| Persistence!Edit                  | "Persistence > Edit"<br>Permitted values: none, ro, or full                      |
| Persistence!Edit!CopyClass        | "Persistence > Edit > Copy Class"<br>Permitted values: none, ro, or full         |
| Service_Protection                | "Protection"<br>Permitted values: none, ro, or full                              |
| Service_Protection!Edit           | "Protection > Edit"<br>Permitted values: none, ro, or full                       |
| Service_Protection!Edit!CopyClass | "Protection > Edit > Copy Class"<br>Permitted values: none, ro, or full          |
| Rate                              | "Rate"<br>Permitted values: none, ro, or full<br>Requires feature: Rules         |

| Key                                  | Description   |
|--------------------------------------|---|
| Rate!Edit                            | "Rate > Edit"<br>Permitted values: none, ro, or full<br>Requires feature: Rules                   |
| Rules                                | "Rules"<br>Permitted values: none, ro, or full<br>Requires feature: Rules                         |
| Rules!GEdit                          | "Rules > Build"<br>Permitted values: none, ro, or full<br>Requires feature: Rules                 |
| Rules!GEdit!AddAction                | "Rules > Build > Add Action"<br>Permitted values: none, ro, or full<br>Requires feature: Rules    |
| Rules!GEdit!AddCondition             | "Rules > Build > Add Condition"<br>Permitted values: none, ro, or full<br>Requires feature: Rules |
| Rules!GEdit!Convert                  | "Rules > Build > Convert"<br>Permitted values: none, ro, or full<br>Requires feature: Rules       |
| Rules!Edit                           | "Rules > Edit"<br>Permitted values: none, ro, or full<br>Requires feature: Rules                  |
| Rules!Edit!CheckSyntax               | "Rules > Edit > Check Syntax"<br>Permitted values: none, ro, or full<br>Requires feature: Rules   |
| Rules!Edit!SaveAs                    | "Rules > Edit > Save As"<br>Permitted values: none, ro, or full<br>Requires feature: Rules        |
| SAML                                 | "SAML"<br>Permitted values: none, ro, or full   |
| SAML!Trusted_Identity_Providers      | "SAML > Trusted Identity Providers"<br>Permitted values: none, ro, or full                        |
| SAML!Trusted_Identity_Providers!Edit | "SAML > Trusted Identity Providers > Edit"<br>Permitted values: none, ro, or full                 |
| Service_Discovery                    | "Service Discovery"<br>Permitted values: none, ro, or full  |

| Key                               | Description   |
|-----------------------------------|---|
| Service_Discovery!Builtin_Plugins | "Service Discovery > Built-in Plugins"<br>Permitted values: none, ro, or full             |
| Service_Discovery!User_Plugins    | "Service Discovery > User Plugins"<br>Permitted values: none, ro, or full                 |
| SLM                               | "SLM"<br>Permitted values: none, ro, or full<br>Requires feature: SLM                     |
| SLM!Edit                          | "SLM > Edit"<br>Permitted values: none, ro, or full<br>Requires feature: SLM              |
| SLM!Edit!CopyClass                | "SLM > Edit > Copy Class"<br>Permitted values: none, ro, or full<br>Requires feature: SLM |
| SSL                               | "SSL"<br>Permitted values: none, ro, or full  |
| SSL!CAs                           | "SSL > CAs and CRLs"<br>Permitted values: none, ro, or full                               |
| SSL!CAs!Edit                      | "SSL > CAs and CRLs > Edit"<br>Permitted values: none, ro, or full                        |
| SSL!CAs!Import                    | "SSL > CAs and CRLs > Import"<br>Permitted values: none, ro, or full                      |
| SSL!Client_Certs                  | "SSL > Client Certs"<br>Permitted values: none, ro, or full                               |
| SSL!Client_Certs!Edit             | "SSL > Client Certs > Edit"<br>Permitted values: none, ro, or full                        |
| SSL!Client_Certs!Edit!Chain       | "SSL > Client Certs > Edit > Chain"<br>Permitted values: none, ro, or full                |
| SSL!Client_Certs!Edit!CopyCert    | "SSL > Client Certs > Edit > Copy Certificate"<br>Permitted values: none, ro, or full     |
| SSL!Client_Certs!Edit!Sign        | "SSL > Client Certs > Edit > Sign"<br>Permitted values: none, ro, or full                 |
| SSL!Client_Certs!Import           | "SSL > Client Certs > Import"<br>Permitted values: none, ro, or full                      |
| SSL!Client_Certs!New              | "SSL > Client Certs > New"<br>Permitted values: none, ro, or full                         |

| Key                               | Description  |
|-----------------------------------|--|
| SSL!DNSSEC_Keys                   | "SSL > DNSSEC Keys"<br>Permitted values: none, ro, or full                                 |
| SSL!SSL_Certs                     | "SSL > Server Certs"<br>Permitted values: none, ro, or full                                |
| SSL!SSL_Certs!Edit                | "SSL > Server Certs > Edit"<br>Permitted values: none, ro, or full                         |
| SSL!SSL_Certs!Edit!Chain          | "SSL > Server Certs > Edit > Chain"<br>Permitted values: none, ro, or full                 |
| SSL!SSL_Certs!Edit!CopyCert       | "SSL > Server Certs > Edit > Copy Certificate"<br>Permitted values: none, ro, or full      |
| SSL!SSL_Certs!Edit!Sign           | "SSL > Server Certs > Edit > Sign"<br>Permitted values: none, ro, or full                  |
| SSL!SSL_Certs!Import              | "SSL > Server Certs > Import"<br>Permitted values: none, ro, or full                       |
| SSL!SSL_Certs!New                 | "SSL > Server Certs > New"<br>Permitted values: none, ro, or full                          |
| SSL!Ticket_Keys                   | "SSL > SSL ticket keys"<br>Permitted values: none, ro, or full                             |
| Aptimizer                         | "Web Accelerator"<br>Permitted values: none, ro, or full                                   |
| Aptimizer!URL_Sets                | "Web Accelerator > Application Scopes"<br>Permitted values: none, ro, or full              |
| Aptimizer!URL_Sets!Edit           | "Web Accelerator > Application Scopes > Edit"<br>Permitted values: none, ro, or full       |
| Aptimizer!Aptimizer_Profiles      | "Web Accelerator > Web Accelerator Profiles"<br>Permitted values: none, ro, or full        |
| Aptimizer!Aptimizer_Profiles!Edit | "Web Accelerator > Web Accelerator Profiles > Edit"<br>Permitted values: none, ro, or full |
| Section: "Configuring"            |  |
| Config_Summary                    | "Config Summary"<br>Permitted values: none, ro, or full                                    |
| Pools                             | "Pools"<br>Permitted values: none, ro, or full   |
| Pools!Edit                        | "Pools > Edit"<br>Permitted values: none, ro, or full                                      |

| Key                                     | Description  |
|---|--|
| Pools!Edit!Bandwidth                    | "Pools > Edit > Bandwidth"<br>Permitted values: none, ro, or full<br>Requires feature: Bandwidth |
| Pools!Edit!DNSAutoscaling               | "Pools > Edit > DNS-derived autoscaling"<br>Permitted values: none, ro, or full                  |
| Pools!Edit!IP_Transparency              | "Pools > Edit > IP Transparency"<br>Permitted values: none, ro, or full                          |
| Pools!Edit!Kerberos_Protocol_Transition | "Pools > Edit > Kerberos Protocol Transition"<br>Permitted values: none, ro, or full             |
| Pools!Edit!Load_Balancing               | "Pools > Edit > Load Balancing"<br>Permitted values: none, ro, or full                           |
| Pools!Edit!Monitors                     | "Pools > Edit > Monitors"<br>Permitted values: none, ro, or full                                 |
| Pools!Edit!Protocol_Settings            | "Pools > Edit > Protocol Settings"<br>Permitted values: none, ro, or full                        |
| Pools!Edit!Service_Discovery            | "Pools > Edit > Service Discovery"<br>Permitted values: none, ro, or full                        |
| Pools!Edit!Persistence                  | "Pools > Edit > Session Persistence"<br>Permitted values: none, ro, or full                      |
| Pools!Edit!SSL                          | "Pools > Edit > SSL"<br>Permitted values: none, ro, or full                                      |
| Pools!Edit!Autoscaling                  | "Pools > Edit > vTM Autoscaler"<br>Permitted values: none, ro, or full                           |
| Traffic_IP_Groups                       | "Traffic IP Groups"<br>Permitted values: none, ro, or full                                       |
| Traffic_IP_Groups!Edit                  | "Traffic IP Groups > Edit"<br>Permitted values: none, ro, or full                                |
| Traffic_IP_Groups!Networking            | "Traffic IP Groups > Networking"<br>Permitted values: none, ro, or full                          |
| Virtual_Servers                         | "Virtual Servers"<br>Permitted values: none, ro, or full   |
| Virtual_Servers!Edit                    | "Virtual Servers > Edit"<br>Permitted values: none, ro, or full                                  |
| Virtual_Servers!Edit!Authentic<br>ation | "Virtual Servers > Edit > Authentication"<br>Permitted values: none, ro, or full                 |



| Key   | Description   |
|---|---|
| Virtual_Servers!Edit!Classes                      | "Virtual Servers > Edit > Classes"<br>Permitted values: none, ro, or full   |
| Virtual_Servers!Edit!Request_Tracing              | "Virtual Servers > Edit > Connection Analytics"<br>Permitted values: none, ro, or full                                |
| Virtual_Servers!Edit!Content_Caching              | "Virtual Servers > Edit > Content Caching"<br>Permitted values: none, ro, or full                                     |
| Virtual_Servers!Edit!Content_Compression          | "Virtual Servers > Edit > Content Compression"<br>Permitted values: none, ro, or full                                 |
| Virtual_Servers!Edit!DNS_Server                   | "Virtual Servers > Edit > DNS Server"<br>Permitted values: none, ro, or full  |
| Virtual_Servers!Edit!Error_Logging                | "Virtual Servers > Edit > Error Logging"<br>Permitted values: none, ro, or full                                       |
| Virtual_Servers!Edit!Kerberos_Protocol_Transition | "Virtual Servers > Edit > Kerberos Protocol Transition"<br>Permitted values: none, ro, or full                        |
| Virtual_Servers!Edit!Protocol_Settings            | "Virtual Servers > Edit > Protocol Settings"<br>Permitted values: none, ro, or full                                   |
| Virtual_Servers!Edit!Request_Logging              | "Virtual Servers > Edit > Request Logging"<br>Permitted values: none, ro, or full                                     |
| Virtual_Servers!Edit!Rules                        | "Virtual Servers > Edit > Rules"<br>Permitted values: none, ro, or full<br>Requires feature: Rules                    |
| Virtual_Servers!Edit!Rules!EnableDisable          | "Virtual Servers > Edit > Rules > Enable / Disable"<br>Permitted values: none, ro, or full<br>Requires feature: Rules |
| Virtual_Servers!Edit!Rules!Move                   | "Virtual Servers > Edit > Rules > Move"<br>Permitted values: none, ro, or full<br>Requires feature: Rules             |
| Virtual_Servers!Edit!Rules!OnceEvery              | "Virtual Servers > Edit > Rules > Once / Every"<br>Permitted values: none, ro, or full<br>Requires feature: Rules     |
| Virtual_Servers!Edit!Rules!Remove                 | "Virtual Servers > Edit > Rules > Remove"<br>Permitted values: none, ro, or full<br>Requires feature: Rules           |
| Virtual_Servers!Edit!GLB_Services                 | "Virtual Servers > Edit > Service"<br>Permitted values: none, ro, or full   |

| Key                                     | Description   |
|---|---|
| Virtual_Servers!Edit!SSL_Decryption     | "Virtual Servers > Edit > SSL Decryption"<br>Permitted values: none, ro, or full  |
| Virtual_Servers!Edit!Optimizer_Settings | "Virtual Servers > Edit > Web Accelerator"<br>Permitted values: none, ro, or full |
| Section: "Diagnosing"                   |   |
| Audit_Log                               | "Audit Log"<br>Permitted values: none, ro, or full                                |
| Audit_Log!Audit_Archive                 | "Audit Log > Audit Archive"<br>Permitted values: none, ro, or full                |
| Diagnose                                | "Cluster Diagnosis"<br>Permitted values: none, ro, or full                        |
| Diagnose!Replicate                      | "Cluster Diagnosis > Replicate"<br>Permitted values: none, ro, or full            |
| Event_Log                               | "Event Log"<br>Permitted values: none, ro, or full                                |
| Event_Log!Clear                         | "Event Log > Clear"<br>Permitted values: none, ro, or full                        |
| Event_Log!Event_Archive                 | "Event Log > Event Archive"<br>Permitted values: none, ro, or full                |
| Hardware                                | "Hardware"<br>Permitted values: none, ro, or full<br>Requires feature: Appliance  |
| Routing                                 | "Routing"<br>Permitted values: none, ro, or full                                  |
| Support_Files                           | "Support Files"<br>Permitted values: none, ro, or full                            |
| Support                                 | "Technical Support"<br>Permitted values: none, ro, or full                        |
| Support!TSR                             | "Technical Support > TSR"<br>Permitted values: none, ro, or full                  |
| Section: "Main Pages"                   |   |
| Help                                    | "Help"<br>Permitted values: none, ro, or full                                     |
| MainIndex                               | "Main Index"<br>Permitted values: none, ro, or full                               |

| Key                             | Description  |
|---------------------------------|--|
| Reboot                          | "Reboot"<br>Permitted values: none, ro, or full                              |
| Restart                         | "Restart"<br>Permitted values: none, ro, or full                             |
| Shutdown                        | "Shutdown"<br>Permitted values: none, ro, or full                            |
| Section: "System"               |  |
| Alerting                        | "Alerting"<br>Permitted values: none, ro, or full                            |
| Alerting!Actions                | "Alerting > Actions"<br>Permitted values: none, ro, or full                  |
| Alerting!Actions!Edit           | "Alerting > Actions > Edit"<br>Permitted values: none, ro, or full           |
| Alerting!Event_Types            | "Alerting > Event Types"<br>Permitted values: none, ro, or full              |
| Alerting!Event_Types!Edit       | "Alerting > Event Types > Edit"<br>Permitted values: none, ro, or full       |
| Analytics_Export                | "Analytics Export"<br>Permitted values: none, ro, or full                    |
| Analytics_Export!Log_Files      | "Analytics Export > Log Files"<br>Permitted values: none, ro, or full        |
| Analytics_Export!Log_Files!Edit | "Analytics Export > Log Files > Edit"<br>Permitted values: none, ro, or full |
| Backup                          | "Backups"<br>Permitted values: none, ro, or full                             |
| Backup!Config_Difference        | "Backups > Compare"<br>Permitted values: none, ro, or full                   |
| Backup!Edit                     | "Backups > Edit"<br>Permitted values: none, ro, or full                      |
| Backup!Partial                  | "Backups > Partial"<br>Permitted values: none, ro, or full                   |
| Fault_Tolerance                 | "Fault Tolerance"<br>Permitted values: none, ro, or full                     |
| Fault_Tolerance!BGP_Neighbors   | "Fault Tolerance > BGP Neighbors"<br>Permitted values: none, ro, or full     |

| Key                                | Description  |
|------------------------------------|--|
| Fault_Tolerance!BGP_Neighbors!Edit | "Fault Tolerance > BGP Neighbors > Edit"<br>Permitted values: none, ro, or full          |
| Global_Settings                    | "Global Settings"<br>Permitted values: none, ro, or full                                 |
| Global_Settings!Restore_Defaults   | "Global Settings > Restore Defaults"<br>Permitted values: none, ro, or full              |
| License_Keys                       | "Licenses"<br>Permitted values: none, ro, or full  |
| License_Keys!InstallNew            | "Licenses > Install New"<br>Permitted values: none, ro, or full                          |
| License_Keys!Remove                | "Licenses > Remove"<br>Permitted values: none, ro, or full                               |
| License_Keys!Register              | "Licenses > Self-register"<br>Permitted values: none, ro, or full                        |
| Networking                         | "Networking"<br>Permitted values: none, ro, or full<br>Requires feature: Appliance       |
| Networking!NAT                     | "Networking > NAT"<br>Permitted values: none, ro, or full<br>Requires feature: Appliance |
| Security                           | "Security"<br>Permitted values: none, ro, or full  |
| SNMP                               | "SNMP"<br>Permitted values: none, ro, or full  |
| Sysctl                             | "Sysctl"<br>Permitted values: none, ro, or full<br>Requires feature: Appliance           |
| DateTime                           | "Time"<br>Permitted values: none, ro, or full<br>Requires feature: Appliance             |
| Traffic_Managers                   | "Traffic Managers"<br>Permitted values: none, ro, or full                                |
| Traffic_Managers!AddRemove         | "Traffic Managers > AddRemove"<br>Permitted values: none, ro, or full                    |
| Traffic_Managers!Rollback          | "Traffic Managers > Rollback"<br>Permitted values: none, ro, or full                     |

| Key  | Description  |
|--|--|
| Traffic_Managers!Upgrade                         | "Traffic Managers > Upgrade"<br>Permitted values: none, ro, or full                    |
| Access_Management                                | "Users"<br>Permitted values: none, ro, or full   |
| Access_Management!Authenticati<br>onMethods      | "Users > Authenticators"<br>Permitted values: none, ro, or full                        |
| Access_Management!Authenti<br>cationMethods!Edit | "Users > Authenticators > Edit"<br>Permitted values: none, ro, or full                 |
| Access_Management!Groups                         | "Users > Groups"<br>Permitted values: none, ro, or full                                |
| Access_Management!Groups!<br>Edit                | "Users > Groups > Edit"<br>Permitted values: none, ro, or full                         |
| Access_Management!LocalUs<br>ers                 | "Users > Local"<br>Permitted values: none, ro, or full                                 |
| Access_Management!LocalUs<br>ers!Edit            | "Users > Local > Edit"<br>Permitted values: none, ro, or full                          |
| Access_Management!LocalUs<br>ers!EditOtherUsers  | "Users > Local > Other Users"<br>Permitted values: none, ro, or full                   |
| Access_Management!LocalUs<br>ers!PasswordPolicy  | "Users > Local > Password Policy"<br>Permitted values: none, ro, or full               |
| Access_Management!Suspend<br>ed_Users            | "Users > Suspended Users"<br>Permitted values: none, ro, or full                       |
| AFM  | "Web Application Firewall"<br>Permitted values: none, ro, or full                      |
| AFM!Admin  | "Web Application Firewall > Administration"<br>Permitted values: none or full          |
| Section: "Wizards"                               |  |
| Wizard!Backup                                    | "Wizard > Backup my configuration"<br>Permitted values: none, ro, or full              |
| Wizard!AzureKeyVault                             | "Wizard > Connect to Microsoft Azure Key Vault"<br>Permitted values: none, ro, or full |
| Wizard!DisableNode                               | "Wizard > Disable a node"<br>Permitted values: none, ro, or full                       |
| Wizard!DrainNode                                 | "Wizard > Drain a node"<br>Permitted values: none, ro, or full                         |

| Key                       | Description  |
|---------------------------|--|
| Wizard!EnableRule         | "Wizard > Enable/Disable a rule"<br>Permitted values: none, ro, or full<br>Requires feature: Rules |
| Wizard!FreeDiskSpace      | "Wizard > Free up some disk space"<br>Permitted values: none, ro, or full                          |
| Wizard!ClusterJoin        | "Wizard > Join a cluster"<br>Permitted values: none, ro, or full                                   |
| Wizard!PulseConnectSecure | "Wizard > Load-balance Pulse Connect Secure"<br>Permitted values: none, ro, or full                |
| Wizard!NewService         | "Wizard > Manage a new service"<br>Permitted values: none, ro, or full                             |
| Wizard!OptimizeService    | "Wizard > Optimize a web application"<br>Permitted values: none, ro, or full                       |
| Wizard!ReactivateNode     | "Wizard > Reactivate a node"<br>Permitted values: none, ro, or full                                |
| Wizard!RemoveNode         | "Wizard > Remove a node"<br>Permitted values: none, ro, or full                                    |
| Wizard!Restore            | "Wizard > Restore from a backup"<br>Permitted values: none, ro, or full                            |
| Wizard!SSLDecryptService  | "Wizard > SSL Decrypt a service"<br>Permitted values: none, ro, or full                            |

## conf/jars

The conf/jars directory contains files for TrafficScript Java Extensions. This includes items such as jar and class files that provide servlets and their dependencies, as well as data files for general use by Java Extensions. The files in this directory can be managed using the Catalogs > Java section of the Admin Server UI and the Catalog.JavaExtension section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/kerberos/keytabs

The conf/kerberos/keytabs directory contains Kerberos keytab files that contain credentials for Kerberos principals the traffic manager will use to perform Kerberos operations. Kerberos keytabs can be managed under the Catalogs > Kerberos > Kerberos Keytabs section of the administrative interface or by using functions under the Catalog.Kerberos.Keytabs section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/kerberos/krb5confs

The conf/kerberos/krb5confs directory contains krb5.conf configuration files for Kerberos principals the traffic manager can use to perform Kerberos operations. These are provided to provide raw control of the kerberos library should it be necessary to enable operations the standard configuration cannot achieve. krb5.conf files can be managed under the Catalogs > Kerberos > Kerberos Configuration Files section of the administrative interface or by using functions under the Catalog.Kerberos.KRB5confs section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/kerberos/principals

The conf/kerberos/principals directory contains configuration files for Kerberos principals the traffic manager can use to perform Kerberos operations. The name of a file is the name of the Kerberos principal it defines. Kerberos principals can be configured under the Catalogs > Kerberos Principals section of the administrative interface or by using functions under the Catalog.Kerberos.Principals section of the SOAP API and CLI.

| Key      | Description  |
|----------|--|
| kdc      | <p>A list of &lt;hostname/ip&gt;:&lt;port&gt; pairs for Kerberos key distribution center (KDC) services to be explicitly used for the realm of the principal. If no KDCs are explicitly configured, DNS will be used to discover the KDC(s) to use.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kpt_principal.cpp:100</li> <li>Requires: krb5conf is set to ""</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |
| keytab   | <p>The name of the Kerberos keytab file containing suitable credentials to authenticate as the specified Kerberos principal.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kpt_principal.cpp:119</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| krb5conf | <p>The name of an optional Kerberos configuration file (krb5.conf).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kpt_principal.cpp:110</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| realm    | <p>The Kerberos realm where the principal belongs.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kpt_principal.cpp:81</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| service  | <p>The service name part of the Kerberos principal name the traffic manager should use to authenticate itself.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kpt_principal.cpp:71</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

## conf/licensekeys

The conf/licensekeys directory is where license key files for the software are stored. License keys can be managed under the System > Licenses section of the Admin Server UI or by using the System.LicenseKeys section of the SOAP API or CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |



## conf/locations

Configuration for locations. Must be higher priority than global.cfg.

| Key       | Description   |
|-----------|---|
| based_on  | Used by the UI to store where we got the lat/long coords from (a preset value, user entered etc.). <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/location.cpp:112</li> <li>Value type: string</li> <li>Default value: "none"</li> </ul>   |
| id        | The identifier of this location. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/location.cpp:72</li> <li>Value type: unsigned integer</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| latitude  | The latitude of this location. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/location.cpp:81</li> <li>Value type: double</li> <li>Default value: "0.0"</li> </ul>   |
| longitude | The longitude of this location. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/location.cpp:90</li> <li>Value type: double</li> <li>Default value: "0.0"</li> </ul>  |
| note      | A note, used to describe this location. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/location.cpp:123</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| type      | Does this location contain traffic managers and configuration or is it a recipient of GLB requests? <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/location.cpp:100</li> <li>Value type: enumeration</li> <li>Default value: "config"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>config: Configuration</li> <li>glb: GLB</li> </ul> </li> </ul> |

## conf/locations.cfg

The locations.cfg file contains custom geolocation data. This is a text file that must be managed manually, comments in the file describe the data format.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/log\_export

Definitions of log files which should be exported to the analytics engine

| Key            | Description   |
|----------------|---|
| appliance_only | <p>Whether entries from the specified log files should be exported only from appliances.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:33</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| built_in       | <p>Whether this configuration is built-in. Editing and deletion of built-in configurations is restricted.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:44</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| enabled        | <p>Export entries from the log files included in this category.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:26</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| files          | <p>The set of files to export as part of this category, specified as a list of glob patterns.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:70</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| history        | <p>How much historic log activity should be exported.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:53</li> <li>Value type: enumeration</li> <li>Default value: "none"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>none: Do not export any historic entries</li> <li>all: Export all historic entries</li> <li>recent: Export recent historic entries, according to the 'history_period' setting</li> </ul> </li> </ul> |

| Key            | Description   |
|----------------|---|
| history_period | <p>The number of days of historic log entries that should be exported.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:60</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>   |
| machines       | <p>The set of traffic managers on which this log should be exported. '*' will select all traffic managers in the cluster.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:79</li> <li>Value type: list</li> <li>Default value: "*"</li> </ul>  |
| metadata!*     | <p>Additional metadata to include with the log entries when exporting them to the configured endpoint. Metadata can be used by the system that is receiving the exported data to categorise and parse the log entries.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:101</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| note           | <p>A description of this category of log files.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:89</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| preprocess     | <p>The type of pre-processing that should be applied to log entries before they are exported.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/exporter/log_export_config.cpp:114</li> <li>Value type: enumeration</li> <li>Default value: "none"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>none: Forward log lines unaltered</li> <li>audit: Audit Log</li> <li>events: Event Log</li> <li>requests: Virtual Server Request Log</li> <li>syslog: System Log</li> <li>waf: Web Application Firewall Log</li> </ul> </li> </ul> |

## conf/monitors

The conf/monitors directory contains configuration files for backend node monitors. The name of a file is the name of the monitor it defines. Monitors can be configured under the Catalogs > Monitors section of the Admin Server UI or by using functions under the Catalog.Monitor section of the SOAP API and CLI.

| Key           | Description   |
|---------------|---|
| back_off      | Should the monitor slowly increase the delay after it has failed? <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:109</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| can_edit_ssl  | Whether or not SSL configuration is available via the Admin Server UI for this monitor. This is for use by monitors pre-packaged with the software.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:94</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| can_use_ssl   | Whether or not monitors of this type are capable of using SSL.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:78</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| delay         | The minimum time between calls to a monitor. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:62</li> <li>Value type: seconds</li> <li>Default value: "3"</li> </ul>  |
| editable_keys | Which of the monitor's configuration keys may be edited via the Admin Server UI.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/catalog_monitor_entry.cpp:97</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key              | Description  |
|------------------|--|
| factory          | <p>Whether or not this monitor is provided as part of the software release.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/catalog_monitor_entry.cpp:51</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| failures         | <p>The number of times in a row that a node must fail execution of the monitor before it is classed as unavailable.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:46</li> <li>Value type: unsigned integer</li> <li>Default value: "3"</li> </ul>   |
| health_only      | <p>Should this monitor only report health (ignore load)?</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:114</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| machine          | <p>The machine to monitor, where relevant this should be in the form &lt;hostname&gt;:&lt;port&gt;, for "ping" monitors the :&lt;port&gt; part must not be specified.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/poolwide_monitor_entry.cpp:43</li> <li>Requires: scope is set to "poolwide"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| max_response_len | <p>The maximum amount of data to read back from a server, use 0 for unlimited.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_simple.cpp:35</li> <li>Value type: bytes</li> <li>Default value: "2048"</li> </ul>   |
| note             | <p>A description of the monitor.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/catalog_monitor_entry.cpp:44</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key            | Description  |
|----------------|--|
| scope          | <p>A monitor can either monitor each node in the pool separately and disable an individual node if it fails, or it can monitor a specific machine and disable the entire pool if that machine fails. GLB location monitors must monitor a specific machine.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/catalog_monitor_entry.cpp:64</li> <li>Value type: enumeration</li> <li>Default value: "pernode"</li> <li>Permitted values:<br/>pernode: Node: Monitor each node in the pool separately<br/>poolwide: Pool/GLB: Monitor a specified machine</li> </ul> |
| timeout        | <p>The maximum runtime for an individual instance of the monitor.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:54</li> <li>Value type: seconds</li> <li>Default value: "3"</li> </ul>  |
| type           | <p>The internal monitor implementation of this monitor.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/catalog_monitor_entry.cpp:79</li> <li>Value type: enumeration</li> <li>Default value: "ping"</li> <li>Permitted values:<br/>ping: Ping monitor<br/>connect: TCP Connect monitor<br/>http: HTTP monitor<br/>tcp_transaction: TCP transaction monitor<br/>program: External program monitor<br/>sip: SIP monitor<br/>rtsp: RTSP monitor</li> </ul>  |
| udp_accept_all | <p>If this monitor uses UDP, should it accept responses from any IP and port?</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:102</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| use_ssl        | <p>Whether or not the monitor should connect using SSL.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:86</li> <li>Requires: can_use_ssl is set to "Yes"</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

| Key   | Description   |
|---|---|
| verbose                                     | <p>Whether or not the monitor should emit verbose logging. This is useful for diagnosing problems.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor.cpp:70</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| Additional keys used when type is "http"    |   |
| authentication                              | <p>The HTTP basic-auth &lt;user&gt;:&lt;password&gt; to use for the test HTTP request.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_http.cpp:66</li> <li>Requires: type is set to "http"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| body_regex                                  | <p>A regular expression that the HTTP response body must match. If the response body content doesn't matter then set this to .* (match anything).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_http.cpp:91</li> <li>Requires: type is set to "http"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| host_header                                 | <p>The host header to use in the test HTTP request.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_http.cpp:41</li> <li>Requires: type is set to "http"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| path  | <p>The path to use in the test HTTP request. This must be a string beginning with a / (forward slash).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_http.cpp:52</li> <li>Requires: type is set to "http"</li> <li>Value type: string</li> <li>Default value: "/"</li> </ul>   |
| status_regex                                | <p>A regular expression that the HTTP status code must match. If the status code doesn't matter then set this to .* (match anything).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_http.cpp:79</li> <li>Requires: type is set to "http"</li> <li>Value type: string</li> <li>Default value: "^[234][0-9][0-9]\$" </li> </ul>    |
| Additional keys used when type is "program" |   |

| Key                                      | Description  |
|--|--|
| arg!*                                    | <p>The arguments that will be passed to the program. For example, to specify the argument --foo=bar as part of the program's command-line you set the key arg!foo to the value bar.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_program.cpp:44</li> <li>• Requires: type is set to "program"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>                              |
| describe!*                               | <p>A description for the argument specified in place of the * character. For example, to describe the argument in the example for arg!* you could specify the description as the value for the key describe!foo.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_program.cpp:59</li> <li>• Requires: type is set to "program"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| program                                  | <p>The program to run. This must be an executable file, either within the conf/scripts directory or specified as an absolute path to some other location on the filesystem.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_program.cpp:86</li> <li>• Requires: type is set to "program"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>                                      |
| protocol                                 | <p>Which protocol the monitor checks.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_program.cpp:67</li> <li>• Requires: type is set to "program"</li> <li>• Value type: enumeration</li> <li>• Default value: "tcp"</li> <li>• Permitted values:<br/>tcp: TCP<br/>udp: UDP<br/>both: TCP and UDP</li> </ul>  |
| Additional keys used when type is "rtsp" |  |
| rtsp_body_regex                          | <p>The regular expression that the RTSP response body must match.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_rtsp.cpp:50</li> <li>• Requires: type is set to "rtsp"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |



| Key   | Description   |
|---|---|
| rtsp_path   | The path to use in the RTSP request (some servers will return 500 Internal Server Error unless this is a valid media file). <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_rtsp.cpp:60</li> <li>Requires: type is set to "rtsp"</li> <li>Value type: string</li> <li>Default value: "/"</li> </ul>      |
| rtsp_status_regex                                   | The regular expression that the RTSP response status code must match. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_rtsp.cpp:41</li> <li>Requires: type is set to "rtsp"</li> <li>Value type: string</li> <li>Default value: "^[234][0-9][0-9]\$"</li> </ul>   |
| Additional keys used when type is "sip"             |   |
| sip_body_regex                                      | The regular expression that the SIP response body must match. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_sip.cpp:77</li> <li>Requires: type is set to "sip"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| sip_status_regex                                    | The regular expression that the SIP response status code must match. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_sip.cpp:68</li> <li>Requires: type is set to "sip"</li> <li>Value type: string</li> <li>Default value: "^[234][0-9][0-9]\$"</li> </ul>  |
| sip_transport                                       | Which transport protocol the SIP monitor will use to query the server. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_sip.cpp:85</li> <li>Requires: type is set to "sip"</li> <li>Value type: enumeration</li> <li>Default value: "udp"</li> <li>Permitted values:<br/>udp: UDP<br/>tcp: TCP</li> </ul> |
| Additional keys used when type is "tcp_transaction" |   |
| close_string  | An optional string to write to the server before closing the connection. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_tcp_transaction.cpp:56</li> <li>Requires: type is set to "tcp_transaction"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                          |

| Key            | Description  |
|----------------|--|
| response_regex | <p>A regular expression to match against the response from the server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_tcp_transaction.cpp:34</li> <li>Requires: type is set to "tcp_transaction"</li> <li>Value type: string</li> <li>Default value: ".+"</li> </ul> |
| write_string   | <p>The string to write down the TCP connection.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/monitor_tcp_transaction.cpp:44</li> <li>Requires: type is set to "tcp_transaction"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                |

## conf/persistence

The conf/persistence directory contains configuration files for persistence classes. The name of a file is the name of the persistence class it defines. Persistence classes can be configured under the Catalogs > Persistence section of the Admin Server UI or by using functions under the Catalog.Persistence section of the SOAP API and CLI.

| Key         | Description  |
|-------------|--|
| delete      | <p>Whether or not the session should be deleted when a session failure occurs. (Note, setting a failure mode of 'choose a new node' implicitly deletes the session.)</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:132</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| failuremode | <p>The action the pool should take if the session data is invalid or it cannot contact the node specified by the session.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:122</li> <li>Value type: enumeration</li> <li>Default value: "newnode"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>newnode: Choose a new node to use</li> <li>url: Redirect the user to a given URL</li> <li>close: Close the connection (using error_file on Virtual Servers &gt; Edit &gt; Protocol Settings)</li> </ul> </li> </ul> |

| Key                                    | Description   |
|--|---|
| note                                   | <p>A description of the session persistence class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:57</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| type                                   | <p>The type of session persistence to use.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:75</li> <li>Value type: enumeration</li> <li>Default value: "ip"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>ip: IP-based persistence</li> <li>universal: Universal session persistence</li> <li>named: Named Node session persistence</li> <li>sardine: Transparent session affinity</li> <li>kipper: Monitor application cookies</li> <li>j2ee: J2EE session persistence</li> <li>asp: ASP and ASP.NET session persistence</li> <li>x-zeus: X-Zeus-Backend cookies</li> <li>ssl: SSL Session ID persistence</li> </ul> </li> </ul> |
| url                                    | <p>The redirect URL to send clients to if the session persistence is configured to redirect users when a node dies.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:146</li> <li>Requires: failuremode is set to "url" (case insensitive)</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| Additional keys used when type is "ip" |   |
| subnet_prefix_length_v4                | <p>When using IP-based session persistence, ensure all requests from this IPv4 subnet, specified as a prefix length, are sent to the same node. If set to 0, requests from different IPv4 addresses will be load-balanced individually.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:88</li> <li>Requires: type is set to "ip"</li> <li>Value type: int</li> <li>Default value: "0"</li> </ul>   |
| subnet_prefix_length_v6                | <p>When using IP-based session persistence, ensure all requests from this IPv6 subnet, specified as a prefix length, are sent to the same node. If set to 0, requests from different IPv6 addresses will be load-balanced individually.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:101</li> <li>Requires: type is set to "ip"</li> <li>Value type: int</li> <li>Default value: "0"</li> </ul>  |

| Key  | Description  |
|--|--|
| Additional keys used when type is "kipper" |  |
| cookie                                     | <p>The cookie name to use for tracking session persistence.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/session.cpp:110</li> <li>Requires: type is set to "kipper"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |

## conf/pools

The conf/pools directory contains configuration files for backend node pools. The name of a file is the name of the pool it defines. Pools can be configured under the Services > Pools section of the Admin Server UI or by using functions under the Pool section of the SOAP API and CLI.

| Key                         | Description  |
|-----------------------------|--|
| autoscale!addnode_delaytime | <p>The time in seconds from the creation of the node which the traffic manager should wait before adding the node to the autoscaled pool. Set this to allow applications on the newly created node time to initialize before being sent traffic.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:920</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: seconds</li> <li>Default value: "0"</li> </ul> |
| autoscale!cloudcredentials  | <p>The Cloud Credentials object containing authentication credentials to use in cloud API calls.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:932</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| autoscale!cluster           | <p>The ESX host or ESX cluster name to put the new virtual machine instances on.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1032</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                  | Description  |
|----------------------|--|
| autoscale!datacenter | <p>The name of the logical datacenter on the vCenter server. Virtual machines will be scaled up and down under the datacenter root folder.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1011</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| autoscale!datastore  | <p>The name of the datastore to be used by the newly created virtual machine.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1021</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| autoscale!enabled    | <p>Are the nodes of this pool subject to autoscaling? If yes, nodes will be automatically added and removed from the pool by the chosen autoscaling mechanism.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:825</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| autoscale!external   | <p>Whether or not autoscaling is being handled by an external system. Set this value to Yes if all aspects of autoscaling are handled by an external system, such as RightScale. If set to No, the traffic manager will determine when to scale the pool and will communicate with the cloud provider to create and destroy nodes as necessary.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:963</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| autoscale!extraargs  | <p>Any extra arguments to the autoscaling API. Each argument can be separated by comma. E.g in case of EC2, it can take extra parameters to the Amazon's RunInstance API say DisableApiTermination=false,Placement.Tenancy=default.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1068</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| autoscale!hysteresis | <p>The time period in seconds for which a change condition must persist before the change is actually instigated.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:895</li> <li>Value type: unsigned integer</li> <li>Default value: "20"</li> </ul>  |

| Key                         | Description  |
|-----------------------------|--|
| autoscale!imageid           | <p>The identifier for the image of the instances to create.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:861</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| autoscale!ipstouse          | <p>Which type of IP addresses on the node to use. Choose private IPs if the traffic manager is in the same cloud as the nodes, otherwise choose public IPs.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:876</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: enumeration</li> <li>Default value: "publicips"</li> <li>Permitted values:<br/>publicips: Public IP addresses<br/>privateips: Private IP addresses</li> </ul> |
| autoscale!lastnode_idletime | <p>The time in seconds for which the last node in an autoscaled pool must have been idle before it is destroyed. This is only relevant if min_nodes is 0.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:906</li> <li>Value type: unsigned integer</li> <li>Default value: "3600"</li> </ul>  |
| autoscale!max_nodes         | <p>The maximum number of nodes in this autoscaled pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:843</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "4"</li> </ul>   |
| autoscale!min_nodes         | <p>The minimum number of nodes in this autoscaled pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:834</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "1"</li> </ul>   |
| autoscale!name              | <p>The beginning of the name of nodes in the cloud that are part of this autoscaled pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:942</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                        | Description  |
|----------------------------|--|
| autoscale!port             | <p>The port number to use for each node in this autoscaled pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:951</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "80"</li> </ul>   |
| autoscale!refractory       | <p>The time period in seconds after the instigation of a re-size during which no further changes will be made to the pool size.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:886</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "180"</li> </ul>   |
| autoscale!response_time    | <p>The expected response time of the nodes in ms. This time is used as a reference when deciding whether a node's response time is conforming. All responses from all the nodes will be compared to this reference and the percentage of conforming responses is the base for decisions about scaling the pool up or down.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:975</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "1000"</li> </ul> |
| autoscale!scaledown_level  | <p>The fraction, in percent, of conforming requests above which the pool size is decreased. If the percentage of conforming requests exceeds this value, the pool is scaled down.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:995</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "95"</li> </ul>  |
| autoscale!scaleup_level    | <p>The fraction, in percent, of conforming requests below which the pool size is increased. If the percentage of conforming requests drops below this value, the pool is scaled up.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:985</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "40"</li> </ul>  |
| autoscale!securitygroupids | <p>List of security group IDs to associate to the new EC2 instance.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1042</li> <li>Requires: autoscale!enabled"issetto"yes"</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                     | Description   |
|-------------------------|---|
| autoscale!sizeid        | <p>The identifier for the size of the instances to create.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:852</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| autoscale!subnetids     | <p>List of subnet IDs where the new EC2-VPC instance(s) will be launched. Instances will be evenly distributed among the subnets. If the list is empty, instances will be launched inside EC2-Classic.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1054</li> <li>Requires: autoscale!enabled!issetto"yes"</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |
| bandwidth_class         | <p>The Bandwidth Management Class this pool uses, if any.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:105</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| disabled                | <p>A list of nodes in the pool that are in the 'disabled' state.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:58</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| dns_autoscale!enabled   | <p>When enabled, the Traffic Manager will periodically resolve the hostnames in the "hostnames" list using a DNS query, and use the results to automatically add, remove or update the IP addresses of the nodes in the pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1082</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>                                |
| dns_autoscale!hostnames | <p>A list of hostnames which will be used for DNS-derived autoscaling</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1093</li> <li>Requires: dns_autoscale!enabled!issetto"yes"</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| dns_autoscale!port      | <p>The port number to use for each node when using DNS-derived autoscaling</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1101</li> <li>Value type: unsigned integer</li> <li>Default value: "80"</li> </ul>   |



| Key                  | Description   |
|----------------------|---|
| draining             | <p>A list of nodes in the pool that are in the 'draining' state.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:47</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| failpool             | <p>If all of the nodes in this pool have failed, then requests can be diverted to another pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:69</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| fast_response        | <p>A lower threshold, in microseconds, on the response times of the backend nodes as measured by the traffic manager. All connections that get a response in a shorter time than this are considered equally fast.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:273</li> <li>Value type: unsigned integer</li> <li>Default value: "5000"</li> </ul>                             |
| favoured_bias        | <p>The bias used when choosing between a 'random' back-end and a 'favoured' one, expressed as a percentage. For example, a value of 10 means that the favoured back-end can have up to 10% more load than the 'random' one for it to be selected.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:281</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul> |
| ftp_support_rfc_2428 | <p>Whether or not the backend IPv4 nodes understand the EPRT and EPSV command from RFC 2428. It is always assumed that IPv6 nodes support these commands.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:483</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| keepalive            | <p>Whether or not the pool should maintain HTTP keepalive connections to the nodes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:240</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |

| Key                                    | Description  |
|--|--|
| keepalive!non_idempotent               | <p>Whether or not the pool should maintain HTTP keepalive connections to the nodes for non-idempotent requests.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:249</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| kerberos_protocol_transition!principal | <p>The Kerberos principal the traffic manager should use when performing Kerberos Protocol Transition.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1113</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| kerberos_protocol_transition!target    | <p>The Kerberos principal name of the service this pool targets.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:1121</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| lard_size                              | <p>The size of the LARD cache. This is used when recording unique URLs to provide request affinity, where the same request is sent to the same node.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:266</li> <li>Value type: unsigned integer</li> <li>Default value: "2047"</li> </ul>  |
| load_balancing!algorithm               | <p>The load balancing algorithm that this pool uses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:121</li> <li>Value type: enumeration</li> <li>Default value: "roundrobin"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>roundrobin: Round Robin</li> <li>wroundrobin: Weighted Round Robin</li> <li>cells: Perceptive</li> <li>connections: Least Connections</li> <li>wconnections: Weighted Least Connections</li> <li>responsetimes: Fastest Response Time</li> <li>random: Random Node</li> </ul> </li> </ul> |

| Key                                  | Description  |
|--------------------------------------|--|
| load_balancing!cells!connection_bias | <p>This indicates the value of existing connections to a back-end. As the value of this tunable increases, balancing tends away from response times, towards balancing by least number of connections to each back-end.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:155</li> <li>Value type: unsigned integer</li> <li>Default value: "15"</li> </ul>   |
| load_balancing!cells!min_cells       | <p>Minimum granularity of cells. If the 'fair share' number of cells for a single node drops below this value, the cells array is re-calculated. A value of 20 gives 5% precision in the display of backend server loads.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:148</li> <li>Value type: unsigned integer</li> <li>Default value: "20"</li> </ul>   |
| load_balancing!responsetime!percent  | <p>The percent that two response times must differ by before they are treated as different.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:142</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul>  |
| load_balancing!weighting!*           | <p>Weights for each node in the pool. The actual values in isolation do not matter, as long as they are valid integers, the per-node weightings are calculated on their relative values between the nodes. The key should be specified once-per-node with the node identifier (&lt;ip&gt;:&lt;port&gt;) replacing the * in each instance.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:136</li> <li>Value type: int</li> <li>Default value: &lt;none&gt;</li> </ul> |
| max_connect_time                     | <p>How long the pool should wait for a connection to a node to be established before giving up and trying another node.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:177</li> <li>Value type: seconds</li> <li>Default value: "4"</li> </ul>  |

| Key                               | Description  |
|-----------------------------------|--|
| max_connection_attempts           | <p>The maximum number of nodes to which the traffic manager will attempt to send a request before returning an error to the client. Requests that are non-retryable will be attempted against only one node. Zero signifies no limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:197</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| max_connections_pernode           | <p>The maximum number of concurrent connections allowed to each back-end node in this pool per machine. A value of 0 means unlimited connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:347</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| max_idle_connections_pernode      | <p>The maximum number of unused HTTP keepalive connections that should be maintained to an individual node. Zero signifies no limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:258</li> <li>Value type: unsigned integer</li> <li>Default value: "50"</li> </ul>   |
| max_queue_size                    | <p>The maximum number of connections that can be queued due to connections limits. A value of 0 means unlimited queue size.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:358</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| max_reply_time                    | <p>How long the pool should wait for a response from the node before either discarding the request or trying another node (retryable requests only).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:186</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| max_timed_out_connection_attempts | <p>The maximum number of connection attempts the traffic manager will make where the server fails to respond within the time limit defined by the max_reply_time setting. Zero signifies no limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:210</li> <li>Value type: unsigned integer</li> <li>Default value: "2"</li> </ul>                                    |
| monitors                          | <p>A list of monitors assigned to this pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:81</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                          | Description   |
|------------------------------|---|
| node_close_with_rst          | <p>Whether or not connections to the back-end nodes should be closed with a RST packet, rather than a FIN packet. This avoids the TIME_WAIT state, which on rare occasions allows wandering duplicate packets to be safely ignored.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:337</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| node_connclose               | <p>Close all connections to a node once we detect that it has failed.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:317</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| node_connection_attempts     | <p>The number of times the software will attempt to connect to the same back-end node before marking it as failed. This is only used when passive_monitoring is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:301</li> <li>Value type: unsigned integer</li> <li>Default value: "3"</li> </ul>   |
| node_delete_behavior         | <p>Specify the deletion behavior for nodes in this pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:222</li> <li>Value type: enumeration</li> <li>Default value: "immediate"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>immediate: All connections to the node are closed immediately.</li> <li>drain: Allow existing connections to the node to finish before deletion.</li> </ul> </li> </ul> |
| node_drain_to_delete_timeout | <p>The maximum time that a node will be allowed to remain in a draining state after it has been deleted. A value of 0 means no maximum time.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:232</li> <li>Value type: seconds</li> <li>Default value: "0"</li> </ul>  |
| node_fail_time               | <p>The amount of time, in seconds, that a traffic manager will wait before re-trying a node that has been marked as failed by passive monitoring.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:308</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |

| Key                | Description  |
|--------------------|--|
| node_so_nagle      | <p>Whether or not Nagle's algorithm should be used for TCP connections to the back-end nodes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:327</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| nodes              | <p>A list of nodes in this pool. A node should be specified as a &lt;ip&gt;:&lt;port&gt; pair.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:23</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| note               | <p>A description of the pool.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:32</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| passive_monitoring | <p>Whether or not the software should check that 'real' requests (i.e. not those from monitors) to this pool appear to be working. This should normally be enabled, so that when a node is refusing connections, responding too slowly, or sending back invalid data, it can mark that node as failed, and stop sending requests to it.</p> <p>If this is disabled, you should ensure that suitable health monitors are configured to check your servers instead, otherwise failed requests will not be detected and subsequently retried.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:95</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| persistence        | <p>The default Session Persistence class this pool uses, if any.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:167</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| priority!enabled   | <p>Enable priority lists.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:451</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| priority!nodes     | <p>Minimum number of highest-priority active nodes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:474</li> <li>Value type: unsigned integer</li> <li>Default value: "1"</li> </ul>   |

| Key                           | Description   |
|-------------------------------|---|
| priority!values               | <p>A list of node priorities, higher values signify higher priority. Priorities are specified using the format &lt;ip&gt;:&lt;port&gt;:&lt;priority&gt;, if a priority is not specified for a node it is assumed to be 1.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:467</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| queue_timeout                 | <p>The maximum time to keep a connection queued in seconds.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:367</li> <li>• Value type: seconds</li> <li>• Default value: "10"</li> </ul>  |
| service_discovery!enabled     | <p>Are the nodes of this pool determined by a Service Discovery plugin? If yes, nodes will be automatically added and removed from the pool by the traffic manager.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:771</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| service_discovery!interval    | <p>The minimum time before rerunning the Service Discovery plugin</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:802</li> <li>• Value type: unsigned integer</li> <li>• Default value: "10"</li> </ul>   |
| service_discovery!plugin      | <p>The plugin script a Service Discovery autoscaled pool should use to retrieve the list of nodes.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:782</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| service_discovery!plugin_args | <p>The arguments for the script specified in "service_discovery!plugin", e.g. a common instance tag, or name of a managed group of cloud instances.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:793</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| service_discovery!timeout     | <p>The maximum time a plugin should be allowed to run before timing out. Set to 0 for no timeout.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:812</li> <li>• Value type: unsigned integer</li> <li>• Default value: "0"</li> </ul>  |

| Key                   | Description   |
|-----------------------|---|
| smtp!send_starttls    | <p>If we are encrypting traffic for an SMTP connection, should we upgrade to SSL using STARTTLS.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:745</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl_cipher_suites     | <p>The SSL/TLS cipher suites to allow for connections to a back-end node. Leaving this empty will make the pool use the globally configured cipher suites, see configuration key <code>ssl!cipher_suites</code> in the Global Settings section of the System tab. See there for how to specify SSL/TLS cipher suites.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:518</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                 |
| ssl_client_auth       | <p>Whether or not a suitable certificate and private key from the SSL Client Certificates catalog be used if the back-end server requests client authentication.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:726</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssl_common_name_match | <p>A list of names against which the 'common name' of the certificate is matched; these names are used in addition to the node's hostname or IP address as specified in the config file or added by the autoscaler process.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:703</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssl_elliptic_curves   | <p>The SSL elliptic curve preference list for SSL connections from this pool using TLS version 1.0 or higher. Leaving this empty will make the pool use the globally configured preference list, <code>ssl!elliptic_curves</code> in the Global Settings section of the System tab. See there for how to specify SSL elliptic curves.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:570</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ssl_encrypt           | <p>Whether or not the pool should encrypt data before sending it to a back-end node.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:493</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |



| Key                       | Description  |
|---------------------------|--|
| ssl_enhance               | <p>SSL protocol enhancements allow your traffic manager to prefix each new SSL connection with information about the client. This enables Pulse Secure Virtual Traffic Manager virtual servers referenced by this pool to discover the original client's IP address. Only enable this if you are using nodes for this pool which are Pulse Secure vTMs, whose virtual servers have the ssl_trust_magic setting enabled.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:432</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>  |
| ssl_send_close_alerts     | <p>Whether or not to send an SSL/TLS "close alert" when initiating a socket disconnection.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:736</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| ssl_server_name           | <p>Whether or not the software should use the TLS 1.0 server_name extension, which may help the back-end node provide the correct certificate. Enabling this setting will force the use of at least TLS 1.0.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:714</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| ssl_session_cache_enabled | <p>Whether or not the SSL client cache will be used for this pool. Choosing the global setting means the value of the configuration key ssl!client_cache!enabled from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:656</li> <li>• Value type: enumeration</li> <li>• Default value: "use_default"</li> <li>• Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for use of the session cache</li> <li>enabled: Enable use of the session cache</li> <li>disabled: Disable use of the session cache</li> </ul> </li> </ul> |

| Key                         | Description  |
|-----------------------------|--|
| ssl_session_tickets_enabled | <p>Whether or not SSL session tickets will be used for this pool if the session cache is also enabled. Choosing the global setting means the value of the configuration key <code>ssl!client_cache!enabled</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:676</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for use of session tickets</li> <li>enabled: Enable use of session tickets</li> <li>disabled: Disable use of session tickets</li> </ul> </li> </ul> |
| ssl_signature_algorithms    | <p>The SSL signature algorithms preference list for SSL connections from this pool using TLS version 1.2 or higher. Leaving this empty will make the pool use the globally configured preference list, <code>ssl!signature_algorithms</code> in the Global Settings section of the System tab. See there for how to specify SSL signature algorithms.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:545</code></li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssl_strict_verify           | <p>Whether or not strict certificate verification should be performed. This will turn on checks to disallow server certificates that don't match the server name or a name in the <code>ssl_common_name_match</code> list, are self-signed, expired, revoked, or have an unknown CA.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:688</code></li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssl_support_ssl3            | <p>Whether or not SSLv3 is enabled for this pool. Choosing the global setting means the value of the configuration key <code>ssl!support_ssl3</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:586</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for SSLv3</li> <li>enabled: Enable SSLv3</li> <li>disabled: Disable SSLv3</li> </ul> </li> </ul>   |

| Key                | Description   |
|--------------------|---|
| ssl_support_tls1   | <p>Whether or not TLSv1.0 is enabled for this pool. Choosing the global setting means the value of the configuration key <code>ssl!support_tls1</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:602</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li><code>use_default</code>: Use the global setting for TLSv1.0</li> <li><code>enabled</code>: Enable TLSv1.0</li> <li><code>disabled</code>: Disable TLSv1.0</li> </ul> </li> </ul>   |
| ssl_support_tls1_1 | <p>Whether or not TLSv1.1 is enabled for this pool. Choosing the global setting means the value of the configuration key <code>ssl!support_tls1_1</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:620</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li><code>use_default</code>: Use the global setting for TLSv1.1</li> <li><code>enabled</code>: Enable TLSv1.1</li> <li><code>disabled</code>: Disable TLSv1.1</li> </ul> </li> </ul> |
| ssl_support_tls1_2 | <p>Whether or not TLSv1.2 is enabled for this pool. Choosing the global setting means the value of the configuration key <code>ssl!support_tls1_2</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:638</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li><code>use_default</code>: Use the global setting for TLSv1.2</li> <li><code>enabled</code>: Enable TLSv1.2</li> <li><code>disabled</code>: Disable TLSv1.2</li> </ul> </li> </ul> |
| transparent        | <p>Whether or not connections to the back-ends appear to originate from the source client IP address.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:290</code></li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

| Key                  | Description  |
|----------------------|--|
| udp_accept_from      | <p>The IP addresses and ports from which responses to UDP requests should be accepted.</p> <p>If set to accept responses from a specific set of IP addresses, you will need to enter a CIDR Mask (such as 10.100.0.0/16).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:384</li> <li>Value type: enumeration</li> <li>Default value: "dest_only"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>dest_only: Only the IP address and port to which the request was sent.</li> <li>dest_ip_only: Only the IP address to which the request was sent, but from any port.</li> <li>ip_mask: Only a specific set of IP addresses, but from any port.</li> <li>all: Any IP address and any port.</li> </ul> </li> </ul> |
| udp_accept_from_mask | <p>The CIDR mask that matches IPs we want to receive responses from.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:397</li> <li>Requires: udp_accept_from is set to "ip_mask"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| udp_response_timeout | <p>The maximum length of time that a node is permitted to take after receiving a UDP request packet before sending a reply packet. Zero indicates that there is no maximum, preventing a node that does not send replies from being presumed to have failed.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/pool_config.cpp:409</li> <li>Value type: seconds</li> <li>Default value: "0"</li> </ul>   |

## conf/protection

The conf/protection directory contains configuration files for service protection classes. The name of a file is the name of the protection class it defines. Service protection classes can be configured under the Catalogs > Protection section of the Admin Server UI or by using functions under the Catalog.Protection section of the SOAP API and CLI.

| Key                    | Description  |
|------------------------|--|
| allowed                | <p>Always allow access to these IP addresses. This overrides the connection limits for these machines, but does not stop other restrictions such as HTTP validity checks.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:238</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>                         |
| banned                 | <p>Disallow access to these IP addresses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:220</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| debug                  | <p>Whether or not to output verbose logging.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:74</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| enabled                | <p>Enable or disable this service protection class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:56</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| http!check_rfc2396     | <p>Whether or not requests with poorly-formed URLs be should be rejected. This tests URL compliance as defined in RFC2396. Note that enabling this may block some older, non-conforming web browsers.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:290</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| http!max_body_length   | <p>Maximum permitted length of HTTP request body data, set to 0 to disable the limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:270</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>   |
| http!max_header_length | <p>Maximum permitted length of a single HTTP request header (key and value), set to 0 to disable the limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:250</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>   |

| Key                     | Description   |
|-------------------------|---|
| http!max_request_length | <p>Maximum permitted size of all the HTTP request headers, set to 0 to disable the limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:260</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>  |
| http!max_url_length     | <p>Maximum permitted URL length, set to 0 to disable the limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:280</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>  |
| http!reject_binary      | <p>Whether or not URLs and HTTP request headers that contain binary data (after decoding) should be rejected.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:300</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| http!send_error_page    | <p>This setting tells the traffic manager to send an HTTP error message if a connection fails the service protection tests, instead of just dropping it. Details of which HTTP response will be sent when particular tests fail can be found in the Help section for this page.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:311</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| linger_time             | <p>After sending a HTTP error message to a client, wait up to this time before closing the connection.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:318</li> <li>Value type: seconds</li> <li>Default value: "3"</li> </ul>  |
| log_time                | <p>Log service protection messages at these intervals. If set to 0 no messages will be logged and no alerts will be sent.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:85</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |

| Key                 | Description  |
|---------------------|--|
| max_10_connections  | <p>Additional limit on maximum concurrent connections from the top 10 busiest connecting IP addresses combined. The value should be between 1 and 10 times the max_1_connections limit.</p> <p>(This limit is disabled if per_process_connection_count is No, or max_1_connections is 0, or min_connections is 0.)</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:167</li> <li>Value type: unsigned integer</li> <li>Default value: "200"</li> </ul>   |
| max_1_connections   | <p>Maximum concurrent connections each connecting IP address is allowed. Set to 0 to disable this limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:108</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>  |
| max_connection_rate | <p>Maximum number of new connections each connecting IP address is allowed to make in the rate_timer interval. Set to 0 to disable this limit. If applied to an HTTP Virtual Server each request sent on a connection that is kept alive counts as a new connection. The rate limit is per process: each process within a Traffic Manager accepts new connections from the connecting IP address at this rate. (Each Traffic Manager typically has several processes: one process per available CPU core).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:184</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| min_connections     | <p>Entry threshold for the max_10_connections limit: the max_10_connections limit is not applied to connecting IP addresses with this many or fewer concurrent connections.</p> <p>Setting to 0 disables both the max_1_connections and max_10_connections limits, if per_process_connection_count is Yes. (If per_process_connection_count is No, this setting is ignored.)</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:147</li> <li>Value type: unsigned integer</li> <li>Default value: "4"</li> </ul>   |
| note                | <p>A description of the service protection class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:52</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                          | Description   |
|------------------------------|---|
| per_process_connection_count | <p>Whether concurrent connection counting and limits are per-process. (Each Traffic Manager typically has several processes: one process per available CPU core.)</p> <p>If Yes, a connecting IP address may make that many connections to each process within a Traffic Manager. If No, a connecting IP address may make that many connections to each Traffic Manager as a whole.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:126</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| rate_timer                   | <p>How frequently the max_connection_rate is assessed. For example, a value of 1 (second) will impose a limit of max_connection_rate connections per second; a value of 60 will impose a limit of max_connection_rate connections per minute. The valid range is 1-99999 seconds.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:202</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>   |
| rule                         | <p>A TrafficScript rule that will be run on the connection after the service protection criteria have been evaluated. This rule will be executed prior to normal rules configured for the virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:97</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| testing                      | <p>Place the service protection class into testing mode. (Log when this class would have dropped a connection, but allow all connections through).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/protection.cpp:66</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

## conf/rate

The conf/rate directory contains configuration files for request rate shaping classes. The name of a file is the name of the rate shaping class it defines. Request rate shaping classes can be configured under the Catalogs > Rate section of the Admin Server UI or by using functions under the Catalog.Rate section of the SOAP API and CLI.



| Key                 | Description  |
|---------------------|--|
| max_rate_per_minute | Requests that are associated with this rate class will be rate-shaped to this many requests per minute, set to 0 to disable the limit. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/rate.cpp:152</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| max_rate_per_second | Although requests will be rate-shaped to the max_rate_per_minute, the traffic manager will also rate limit per-second. This smooths traffic so that a full minute's traffic will not be serviced in the first second of the minute, set this to 0 to disable the per-second limit. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/rate.cpp:165</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| note                | A description of the rate class. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/rate.cpp:130</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| queue_length        | The maximum number of items allowed in the queue for this rate class. A value of 0 means there is no limit on the number of connections that can be queued.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/rate.cpp:141</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |

## conf/rules

The conf/rules directory contains plain text and compiled TrafficScript rule files. The name of a file is the name of the rule it defines. Rules are managed under the Catalogs > Rules section of the Admin Server UI or by using functions under the Catalog.Rule section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/saml/trustedidps

Configuration for SAML IDP trust relationships.

| Key             | Description   |
|-----------------|---|
| add_zlib_header | Whether or not to add the zlib header when compressing the AuthnRequest <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/saml_trusted_idp.cpp:59</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>         |
| certificate     | The certificate used to verify Assertions signed by the identity provider <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/saml_trusted_idp.cpp:51</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| entity_id       | The entity id of the IDP <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/saml_trusted_idp.cpp:29</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| strict_verify   | Whether or not SAML responses will be verified strictly <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/saml_trusted_idp.cpp:67</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>                        |
| url             | The IDP URL to which Authentication Requests should be sent <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/saml_trusted_idp.cpp:41</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>               |

## conf/scripts

The conf/scripts directory contains programs and scripts that may be run by monitors of the program type. Monitor programs can be managed under the Catalogs > Extra Files > Monitor Programs section of the Admin Server UI or by using functions under the Catalog.Monitor section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/security

The conf/security file contains the security configuration of the software. Settings in this classes can be configured under the System > Security section of the Admin Server UI.

| Key                     | Description  |
|-------------------------|--|
| access                  | <p>Access to the admin server and REST API is restricted by usernames and passwords. You can further restrict access to just trusted IP addresses, CIDR IP subnets or DNS wildcards. These access restrictions are also used when another traffic manager initially joins the cluster, after joining the cluster these restrictions are no longer used. Care must be taken when changing this setting, as it can cause the administration server to become inaccessible.</p> <p>Access to the admin UI will not be affected until it is restarted.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:70</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ssh_intrusion!bantime   | <p>The amount of time in seconds to ban an offending host for.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:22</li> <li>Value type: unsigned integer</li> <li>Default value: "600"</li> </ul>  |
| ssh_intrusion!blacklist | <p>The list of hosts to permanently ban, identified by IP address or DNS hostname in a space-separated list.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:55</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssh_intrusion!enabled   | <p>Whether or not the SSH Intrusion Prevention tool is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:16</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssh_intrusion!findtime  | <p>The window of time in seconds the maximum number of connection attempts applies to. More than (maxretry) failed attempts in this time span will trigger a ban.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:37</li> <li>Value type: unsigned integer</li> <li>Default value: "600"</li> </ul>   |
| ssh_intrusion!maxretry  | <p>The number of failed connection attempts a host can make before being banned.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:29</li> <li>Value type: unsigned integer</li> <li>Default value: "6"</li> </ul>  |
| ssh_intrusion!whitelist | <p>The list of hosts to never ban, identified by IP address, DNS hostname or subnet mask, in a space-separated list.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/security.cpp:46</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |

## conf/servicediscovery

The conf/servicediscovery directory contains plugins for use with Service Discovery for pool nodes.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/services

A global load balancing service is used by a virtual server to modify DNS requests in order load balance data across different GLB locations.

| Key                 | Description   |
|---------------------|---|
| algorithm           | <p>Defines the global load balancing algorithm to be used.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:120</li> <li>Value type: enumeration</li> <li>Default value: "hybrid"</li> <li>Permitted values:               <ul style="list-style-type: none"> <li>load: Load</li> <li>geo: Geographic</li> <li>hybrid: Adaptive</li> <li>roundrobin: Round Robin</li> <li>weightedrandom: Weighted Random</li> <li>chained: Primary/Backup</li> </ul> </li> </ul> |
| all_monitors_needed | <p>Do all monitors assigned to a location need to report success in order for it to be considered healthy?</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:253</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| autofail            | <p>Enable/Disable automatic failback mode.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:139</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| autorecovery        | <p>The last location to fail will be available as soon as it recovers.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:148</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |

| Key                | Description  |
|--------------------|--|
| dc!weight!*        | Assign weights for each location. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:336</li> <li>Value type: unsigned integer</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| disable_on_failure | Locations recovering from a failure will become disabled. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:157</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| dnssec!*           | The domain this private key authenticates. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:319</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| domains            | The domains shown here should be a list of Fully Qualified Domain Names that you would like to balance globally. Responses from the back end DNS servers for queries that do not match this list will be forwarded to the client unmodified. Note: "*" may be used as a wild card. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:105</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>              |
| draining           | This is the list of locations for which this service is draining. A location that is draining will never serve any of its service IP addresses for this domain. This can be used to take a location off-line. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:225</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| enabled            | Enable/Disable our response manipulation of DNS. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:213</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| geo_effect         | How much should the locality of visitors affect the choice of location used? This value is a percentage, 0% means that no locality information will be used, and 100% means that locality will always control which location is used. Values between the two extremes will act accordingly. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:194</li> <li>Value type: unsigned integer</li> <li>Default value: "50"</li> </ul> |
| health_objects     | The objects that this service's health depends.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:244</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                  | Description   |
|----------------------|---|
| last_resort_response | The response to be sent in case there are no locations available. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:171</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| localips!*           | The IP addresses that are present in a location. If the Global Load Balancer decides to direct a DNS query to this location, then it will filter out all IPs that are not in this list. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:88</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |
| location_order       | The locations this service operates for and defines the order in which locations fail. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:130</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| log!always_flush     | Write log data to disk immediately, rather than buffering data.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:310</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| log!enabled          | Log connections to this GLB service? <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:281</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| log!filename         | The filename the verbose query information should be logged to. Appliances will ignore this. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:293</li> <li>Requires: log!enabled is set to "Yes"</li> <li>Value type: string</li> <li>Default value: "%zeushome%/zxtm/log/services/%g.log"</li> </ul>                 |
| log!format           | The format of the log lines. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:304</li> <li>Requires: log!enabled is set to "Yes"</li> <li>Value type: string</li> <li>Default value: "%t, %s, %l, %q, %g, %n, %d, %a"</li> </ul>  |
| monitors!*           | The monitors that are present in a location. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:234</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                        | Description   |
|----------------------------|---|
| optimistic_location_health | Is location health optimistic? Set true to treat a location as healthy if any peer reports it as healthy, set false to treat a location as failed if any peer reports a monitor failure.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY.<br><ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:272</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| peer_health_timeout        | Peer reported monitor state timeout in seconds.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY.<br><ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:262</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |
| return_ips_on_fail         | Return all or none of the IPs under complete failure.<br><ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:181</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| rules                      | Response rules to be applied in the context of the service, in order, comma separated.<br><ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:328</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| tll                        | The TTL for the DNS resource records handled by the GLB service.<br><ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/fqdn.cpp:205</li> <li>Value type: int</li> <li>Default value: "-1"</li> </ul>   |

## conf/servlets

The conf/servlets directory contains configuration files for Java Extension servlets. If there are any parameters configured for a Java servlet, this configuration is stored in this directory in a file with the same name as the full name of the servlet. Servlet parameters are configured by clicking on the servlet name in the Catalogs > Java section of the Admin Server UI or by using the various "Properties" functions in the CatalogJavaExtensions section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/settings.cfg

The conf/settings.cfg file contains general global settings that are used across a cluster. These settings are managed under the System > Global Settings section of the Admin Server UI or by using functions under the GlobalSettings section of the SOAP API and CLI.

| Key                          | Description  |
|------------------------------|--|
| accept_mutex                 | <p>Whether or not the software should put a lock around accept() calls.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1073</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| admin!honor_fallback_scsv    | <p>Whether or not the admin server, the internal control port and the config daemon honor the Fallback SCSV to protect connections against downgrade attacks.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2938</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| admin!insert_extra_fragment  | <p>Whether or not admin server SSL3 and TLS1 use one-byte fragments as a BEAST countermeasure for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3017</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| admin!ssl3_allow_rehandshake | <p>Whether or not SSL3/TLS re-handshakes should be supported for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3009</li> <li>Value type: enumeration</li> <li>Default value: "rfc5746"</li> <li>Permitted values:<br/>always: Always allow<br/>safe: Allow safe re-handshakes<br/>rfc5746: Only if client uses RFC 5746 (Secure Renegotiation Extension)<br/>never: Never allow</li> </ul> |



| Key                                  | Description  |
|--------------------------------------|--|
| admin!ssl3_ciphers                   | <p>The SSL ciphers to use for admin server and internal connections. For information on supported ciphers see the online help.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2956</li> <li>Value type: string</li> <li>Default value: "SSL_RSA_WITH_AES_128_GCM_SHA256,SSL_RSA_WITH_AES_128_CBC_SHA256,SSL_RSA_WITH_AES_128_CBC_SHA,SSL_RSA_WITH_AES_256_GCM_SHA384,SSL_RSA_WITH_AES_256_CBC_SHA256,SSL_RSA_WITH_AES_256_CBC_SHA,SSL_RSA_WITH_3DES_EDE_CBC_SHA,SSL_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256,SSL_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384,SSL_ECDHE_ECDSA_WITH_AES_128_CBC_SHA,SSL_DHE_DSS_WITH_AES_128_CBC_SHA,SSL_DHE_DSS_WITH_AES_256_CBC_SHA,SSL_DHE_DSS_WITH_3DES_EDE_CBC_SHA"</li> </ul> |
| admin!ssl3_diffie_hellman_key_length | <p>The length in bits of the Diffie-Hellman key for ciphers that use Diffie-Hellman key agreement for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3060</li> <li>Value type: enumeration</li> <li>Default value: "2048"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>1024: 1024</li> <li>2048: 2048</li> <li>3072: 3072</li> <li>4096: 4096</li> </ul> </li> </ul>   |
| admin!ssl3_min_rehandshake_interval  | <p>If SSL3/TLS re-handshakes are supported on the admin server, this defines the minimum time interval (in milliseconds) between handshakes on a single SSL3/TLS connection that is permitted. To disable the minimum interval for handshakes the key should be set to the value 0.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3046</li> <li>Value type: unsigned integer</li> <li>Default value: "1000"</li> </ul>  |
| admin!ssl_elliptic_curves            | <p>The SSL elliptic curve preference list for admin and internal connections. For information on supported curves see the online help.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2993</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                                    | Description  |
|--|--|
| admin!ssl_max_handshake_message_size   | <p>The maximum size (in bytes) of SSL handshake messages that the admin server and internal connections will accept. To accept any size of handshake message the key should be set to the value 0.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3075</li> <li>Value type: bytes</li> <li>Default value: "10240"</li> </ul> |
| admin!ssl_prevent_timing_side_channels | <p>Take performance degrading steps to prevent exposing timing side-channels with SSL3 and TLS used by the admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3029</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| admin!ssl_signature_algorithms         | <p>The SSL signature algorithms preference list for admin and internal connections. For information on supported algorithms see the online help.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2975</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| admin!support_ssl3                     | <p>Whether or not SSL3 support is enabled for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2906</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| admin!support_tls1                     | <p>Whether or not TLS1.0 support is enabled for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2912</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| admin!support_tls1_1                   | <p>Whether or not TLS1.1 support is enabled for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2919</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| admin!support_tls1_2                   | <p>Whether or not TLS1.2 support is enabled for admin server and internal connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2926</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |

| Key                     | Description   |
|-------------------------|---|
| afm_cluster_timeout     | <p>How long in seconds to wait for the application firewall control script to complete clustering operations for the application firewall.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3348</li> <li>Value type: int</li> <li>Default value: "30"</li> </ul>                              |
| afm_control_timeout     | <p>How long in seconds to wait for the application firewall control script to complete operations such as starting and stopping the application firewall.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3340</li> <li>Value type: int</li> <li>Default value: "300"</li> </ul>              |
| afm_enabled             | <p>Is the application firewall enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3312</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| afm_max_deciders        | <p>Maximum configurable number of application firewall deciders. The WAF codebase has an arbitrary limit of 64.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3321</li> <li>Value type: unsigned integer</li> <li>Default value: "64"</li> </ul>  |
| afm_state_interval      | <p>How often, in seconds, to gather the state of the application firewall in the cluster. A value of 0 means to not gather application firewall information at all.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3332</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul> |
| allow_consecutive_chars | <p>Whether or not to allow the same character to appear consecutively in passwords.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3269</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |

| Key                                   | Description   |
|---------------------------------------|---|
| appliance!bootloader_password         | <p>The password used to protect the bootloader. An empty string means there will be no protection.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:917</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!return_path_routing_enabled | <p>Whether or not the traffic manager will attempt to route response packets back to clients via the same route on which the corresponding request arrived.</p> <p>Note that this applies only to the last hop of the route - the behaviour of upstream routers cannot be altered by the traffic manager.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3640</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| appliance!returnpath!*!ipv4           | <p>The MAC address to IPv4 address mapping of a router the software is connected to. The * (asterisk) in the key name is the MAC address, the value is the IP address.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3652</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!returnpath!*!ipv6           | <p>The MAC address to IPv6 address mapping of a router the software is connected to. The * (asterisk) in the key name is the MAC address, the value is the IP address.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3664</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| optimizer!bandwidth_limit             | <p>How many Mb of data Web Accelerator is allowed to process in a second.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3399</li> <li>Value type: unsigned integer</li> <li>Default value: "100"</li> </ul>   |
| optimizer!cache_entry_lifetime        | <p>The period of time (in seconds) that unaccessed cache entries will be retained by Web Accelerator.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3501</li> <li>Value type: unsigned integer</li> <li>Default value: "86400"</li> </ul>   |

| Key                               | Description   |
|-----------------------------------|---|
| optimizer!cache_entry_limit       | <p>The maximum number of cache entries that will be retained by Web Accelerator before removing old entries to make room for new ones.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3525</li> <li>Value type: unsigned integer</li> <li>Default value: "20000"</li> </ul>                  |
| optimizer!default_profile         | <p>The Profile to use by default if no mappings are configured (or if Web Accelerator is licensed in Express mode)</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3625</li> <li>Value type: string</li> <li>Default value: "Express"</li> </ul>  |
| optimizer!default_scope           | <p>The Scope to use by default if no mappings are configured (or if Web Accelerator is licensed in Express mode)</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3613</li> <li>Value type: string</li> <li>Default value: "Any hostname or path"</li> </ul>                                   |
| optimizer!dependent_fetch_timeout | <p>How long to wait for dependent resource fetches (default 30 seconds).</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3449</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>   |
| optimizer!enable_edit_index       | <p>Whether or not the Web Accelerator index can be cleared if "/optimizer-clear-index" or compacted if "/optimizer-compact-index" is appended to an optimized URL.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3562</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| optimizer!enable_state_dump       | <p>Whether or not the Web Accelerator state will be dumped if "/optimizer-state-dump" is appended to an optimized URL.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3550</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

| Key  | Description  |
|--|--|
| optimizer!ipc_timeout                      | <p>The time after which connections between the traffic manager and Web Accelerator processes will be closed, should an optimization job take considerably longer than expected.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3538</li> <li>Value type: unsigned integer</li> <li>Default value: "120"</li> </ul>   |
| optimizer!max_concurrent_jobs              | <p>How many direct jobs can be in progress before optimization jobs start getting rejected by Web Accelerator.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3574</li> <li>Value type: unsigned integer</li> <li>Default value: "128"</li> </ul>   |
| optimizer!max_dependent_fetch_size         | <p>The maximum size of a dependent resource that can undergo Web Accelerator optimization. Any content larger than this size will not be optimized. Units of KB and MB can be used, no postfix denotes bytes. A value of 0 disables the limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3437</li> <li>Value type: string</li> <li>Default value: "2MB"</li> </ul>  |
| optimizer!max_original_content_buffer_size | <p>The maximum size of unoptimized content buffered in the traffic manager for a single backend response that is undergoing Web Accelerator optimization. Responses larger than this will not be optimized. Note that if the backend response is compressed then this setting pertains to the compressed size, before Web Accelerator decompresses it. Units of KB and MB can be used, no postfix denotes bytes. Value range is 1 - 128MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3419</li> <li>Value type: string</li> <li>Default value: "2MB"</li> </ul>  |
| optimizer!queue_buffer_size                | <p>The size in bytes of the operating system buffer which is used to send request URLs and data to Web Accelerator and return optimized resources from Web Accelerator. A larger buffer will allow a greater number of simultaneous resources to be optimized, particularly if a large number of requests are made at the same time, for example an HTML page containing hundreds of images to optimize. If this is set to zero, the default operating system buffer size will be used.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3601</li> <li>Value type: unsigned integer</li> <li>Default value: "131072"</li> </ul> |

| Key                             | Description   |
|---------------------------------|---|
| optimizer!resource_lifetime     | <p>The period of time (in seconds) that resource data is retained by Web Accelerator after it is no longer actively in use.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3489</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |
| optimizer!resource_memory_limit | <p>The maximum amount of memory the cache is allowed to have pinned. Once it goes over that limit, it starts releasing resource data in LRU order.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3512</li> <li>Value type: unsigned integer</li> <li>Default value: "256"</li> </ul>  |
| optimizer!secret                | <p>The secret key used to verify that URLs pointing to resources constructed by Web Accelerator have not been altered.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3387</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| optimizer!watchdog_interval     | <p>The period of time (in seconds) after which a previous failure will no longer count towards the watchdog limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3477</li> <li>Value type: seconds</li> <li>Default value: "300"</li> </ul>  |
| optimizer!watchdog_limit        | <p>The maximum number of times the Web Accelerator sub-process will be started or restarted within the interval defined by the optimizer!watchdog_interval setting. If the process fails this many times, it must be restarted manually from the Diagnose page. Zero means no limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3467</li> <li>Value type: unsigned integer</li> <li>Default value: "3"</li> </ul> |
| asp_cache_size                  | <p>The maximum number of entries in the ASP session cache. This is used for storing session mappings for ASP session persistence. Approximately 100 bytes will be pre-allocated per entry.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1882</li> <li>Value type: unsigned integer</li> <li>Default value: "32768"</li> </ul>   |

| Key                             | Description  |
|---------------------------------|--|
| auditlog!mandatory_retention    | <p>How long (in days) to enforce retention of audit log files (the default is 5 years).</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1467</li> <li>Value type: unsigned integer</li> <li>Default value: "1826"</li> </ul> |
| auditlog!via_eventd             | <p>Whether to mirror the audit log to EventD.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1487</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| auditlog!via_syslog             | <p>Whether to output audit log message to the syslog.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1477</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| auth!saml!key_lifetime          | <p>Lifetime in seconds of cryptographic keys used to decrypt SAML SP sessions stored externally (client-side).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3096</li> <li>Value type: seconds</li> <li>Default value: "86400"</li> </ul>                                 |
| auth!saml!key_rotation_interval | <p>Rotation interval in seconds for cryptographic keys used to encrypt SAML SP sessions stored externally (client-side).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3087</li> <li>Value type: seconds</li> <li>Default value: "14400"</li> </ul>                       |
| autodiscover!enabled            | <p>Whether or not to enable the traffic manager auto discovery port.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:735</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>                              |
| autoscaler!slm_interval         | <p>The interval at which the parent sends new SLM status to the autoscaler.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/autoscaler/autoscaler.cpp:261</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>               |



| Key                          | Description  |
|------------------------------|--|
| autoscaler!verbose           | <p>Whether or not detailed messages about the autoscaler's activity are written to the error log.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/autoscaler/autoscaler.cpp:276</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| bandwidth!full_speed_scale   | <p>How many times extra bandwidth to give to connections that are determined to be "full speed", i.e. using up as much bandwidth as we give them. A higher value means that slow connections won't reserve as much bandwidth and so slow down the connections that can go fast.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1220</li> <li>Value type: unsigned integer</li> <li>Default value: "4"</li> </ul>  |
| bandwidth!historic_weighting | <p>When sharing out bandwidth across the cluster, this controls how fast we shift bandwidth limits. A high number will mean that the per-traffic manager limits move slowly towards the new values, which should give smooth and slow changes across the cluster - good if all machines get a constant flow of traffic. A lower value means that bandwidth limits move quickly to the new distribution - good if traffic is bursty to different machines.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1277</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul> |
| bandwidth!license_sharing    | <p>For the global BW limits, how the bandwidth allocation should be shared between consumers. In 'pooled' mode, the allocation is shared between all consumers, who can write as much data as they want until the pool of data is exhausted. In 'quota' mode, bandwidth is divided between consumers, who can write only as much as they are allocated. Any unused bandwidth will be lost.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1300</li> <li>Value type: enumeration</li> <li>Default value: "pooled"</li> <li>Permitted values:<br/>quota: quota<br/>pooled: pooled</li> </ul>  |

| Key                        | Description   |
|----------------------------|---|
| bandwidth!max_spare_time   | <p>Maximum spare bandwidth to build up. A larger value means that if connections are slow for a while, we can use more of the previous difference between limit and quota for future transfers. However, too large a time will mean that we allow large "bursts" of traffic that exceed the bandwidth limits. Value is in milliseconds.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1266</li> <li>Value type: unsigned integer</li> <li>Default value: "200"</li> </ul>   |
| bandwidth!min_write        | <p>Minimum packet size when writing bandwidth. Don't write smaller chunks of data than this size. Writing tiny packets is inefficient and actually increases bandwidth usage because of the TCP and IP packet wrapper.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1256</li> <li>Value type: bytes</li> <li>Default value: "64"</li> </ul>  |
| bandwidth!pooled_min_write | <p>For the global BW limits using 'pooled' bandwidth allocation sharing between consumers, when the license limit is reached the allowance will be evenly distributed between the remaining consumers. Each consumer will, however be permitted to write at least this much data.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1310</li> <li>Value type: unsigned integer</li> <li>Default value: "4096"</li> </ul>  |
| bandwidth!refill_time      | <p>Time period, in milliseconds, between refreshing the bandwidth class quotas. The more frequent, the smoother the bandwidth will be, although the smaller the writes we'll do, which is less efficient. Note that this also has a big effect on per-connection limiting. If a single connection can complete within this time, then it effectively has no bandwidth limit at all.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1231</li> <li>Value type: unsigned integer</li> <li>Default value: "100"</li> </ul> |

| Key                           | Description  |
|-------------------------------|--|
| bandwidth!warn_time           | <p>For the global BW limits, how many seconds they must be running at maximum speed before we print a warning about the limit being hit. Set to 0 to disable any warning messages.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1287</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>   |
| banner_accept                 | <p>Whether or not users must explicitly agree to the displayed login_banner text before logging in to the Admin Server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:811</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| bgp!as_number                 | <p>The number of the BGP AS in which the traffic manager will operate. Must be entered in decimal.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:197</li> <li>Value type: unsigned integer</li> <li>Default value: "65534"</li> </ul>  |
| bgp!enabled                   | <p>Whether BGP Route Health Injection is enabled</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:188</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| child_control_command_timeout | <p>Timeout for waiting for child processes to respond to parent control requests. If a child process (zeus.zxtm, zeus.eventd, zeus.autoscaler, etc) takes longer than this number of seconds to respond to a parent control command, error messages will be logged for every multiple of this number of seconds, for example, if set to 10 seconds, a log message will be logged every 10 seconds, until the child responds or is automatically killed (see the child_control_kill_timeout setting).</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1029</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul> |

| Key                        | Description  |
|----------------------------|--|
| child_control_kill_timeout | <p>Timeout for waiting for child processes to respond to parent control requests. If a child process (zeus.zxtm, zeus.eventd, zeus.autoscaler, etc) takes longer than this number of seconds to respond to a parent control command, then the parent zeus.zxtm process will assume this process is stuck in an unresponsive loop and will kill it, log the termination event, and wait for a new process of the same type to restart. Set this to 0 to disable killing unresponsive child processes.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1044</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul> |
| chunk_size                 | <p>The default chunk size for reading/writing requests.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1120</li> <li>Value type: bytes</li> <li>Default value: "16384"</li> </ul>  |
| client_first_opt           | <p>Whether or not your traffic manager should make use of TCP optimisations to defer the processing of new client-first connections until the client has sent some data.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1067</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| cluster_identifier         | <p>Cluster identifier. Generally supplied by Services Director.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:261</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| config!storage_shared      | <p>Whether the storage for the traffic managers' configuration is shared between cluster members.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:390</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| config_check_time          | <p>How often configuration files should be checked for modifications by a user or an external application.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:433</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>   |

| Key                       | Description   |
|---------------------------|---|
| control!canupdate!default | <p>The default value of control!canupdate for new cluster members. If you have cluster members joining from less trusted locations (such as cloud instances) this can be set to No in order to make them effectively "read-only" cluster members.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:380</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| controlallow              | <p>The hosts that can contact the internal administration port on each traffic manager. This should be a list containing IP addresses, CIDR IP subnets, and localhost; or it can be set to all to allow any host to connect.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:363</li> <li>Value type: string</li> <li>Default value: "all"</li> </ul>                        |
| dns!checktime             | <p>How often to check the DNS configuration for changes.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1202</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>   |
| dns!hosts                 | <p>The location of the hosts file.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1188</li> <li>Value type: string</li> <li>Default value: "/etc/hosts"</li> </ul>  |
| dns!hostsfirst            | <p>Whether or not to try reading the dns!hosts file before calling gethostbyname(). This config key exists for testing purposes only.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1211</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| dns!max_ttl               | <p>Maximum Time To Live (expiry time) for entries in the DNS cache.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1158</li> <li>Value type: seconds</li> <li>Default value: "86400"</li> </ul>   |

| Key                    | Description   |
|------------------------|---|
| dns!maxasynctries      | <p>How often to send DNS request packets before giving up.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1179</li> <li>Value type: unsigned integer</li> <li>Default value: "2"</li> </ul>  |
| dns!min_ttl            | <p>Minimum Time To Live (expiry time) for entries in the DNS cache.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1151</li> <li>Value type: seconds</li> <li>Default value: "86400"</li> </ul>   |
| dns!negative_expiry    | <p>Expiry time for failed lookups in the DNS cache.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1165</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |
| dns!resolv             | <p>The location of the resolv.conf file.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1197</li> <li>Value type: string</li> <li>Default value: "/etc/resolv.conf"</li> </ul>   |
| dns!size               | <p>Maximum number of entries in the DNS cache.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1144</li> <li>Value type: unsigned integer</li> <li>Default value: "10867"</li> </ul>   |
| dns!timeout            | <p>Timeout for receiving a response from a DNS server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1172</li> <li>Value type: seconds</li> <li>Default value: "12"</li> </ul>   |
| dns_autoscale!resolver | <p>The IP address and port number of the DNS server to use for DNS-derived autoscaling, in the form addr:port. This is intended for test and debug purposes, and will override the configuration of the system resolver, which is usually defined in /etc/resolv.conf</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/autoscaler/autoscaler.cpp:254</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |

| Key                   | Description  |
|-----------------------|--|
| ec2!access_key_id     | <p>Amazon EC2 Access Key ID.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:32</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ec2!action_timeout    | <p>How long, in seconds, the traffic manager should wait while associating or disassociating an Elastic IP to the instance.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:97</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul> |
| ec2!awstool_timeout   | <p>The maximum amount of time requests to the AWS Query API can take before timing out.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3736</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |
| ec2!metadata_server   | <p>URL for the EC2 metadata server, <a href="http://169.254.169.254/latest/metadata">http://169.254.169.254/latest/metadata</a> for example.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:87</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                        |
| ec2!metadata_timeout  | <p>The maximum amount of time requests to the EC2 Metadata Server can take before timing out.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3745</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul>                                  |
| ec2!query_server      | <p>URL for the Amazon EC2 endpoint, <a href="https://ec2.amazonaws.com/">https://ec2.amazonaws.com/</a> for example.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:59</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ec2!secret_access_key | <p>Amazon EC2 Secret Access Key.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:44</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                          | Description   |
|------------------------------|---|
| ec2!verify_query_server_cert | <p>Whether to verify Amazon EC2 endpoint's certificate using CA(s) present in SSL Certificate Authorities Catalog.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:71</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| ec2!vpc_decluster_on_stop    | <p>Whether to decluster the traffic manager running inside vpc when the instance stops.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3726</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| errlevel                     | <p>The minimum severity of events/alerts that should be logged to disk. ERR_INFO will log all events; a higher severity setting will log fewer events. More fine-grained control can be achieved using events and actions in the Alerting section of the UI.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1440</li> <li>Value type: enumeration</li> <li>Default value: "6"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>1: ERR_FATAL</li> <li>2: ERR_SERIOUS</li> <li>5: ERR_WARN</li> <li>6: ERR_INFO</li> </ul> </li> </ul> |
| errlog                       | <p>The file to log event messages to.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1415</li> <li>Value type: string</li> <li>Default value: "%zeushome%/zxtm/log/errors"</li> </ul>   |
| fips!enabled                 | <p>Enable FIPS Mode (requires software restart).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2359</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| flipper!arp_count            | <p>The number of ARP packets a traffic manager should send when an IP address is raised.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:362</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |



| Key                          | Description  |
|------------------------------|--|
| flipper!arp_whoas            | <p>Whether or not ARP packets sent out to announce an IP address should be sent with a "who-has" message. If set to No, your traffic manager will send out ARP packets with an "is-at" message. This use of an "is-at" message is non-standard, but was the default behaviour in earlier releases of vTM software.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:374</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| flipper!autofailback         | <p>Whether or not traffic IPs automatically move back to machines that have recovered from a failure and have dropped their traffic IPs.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:209</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| flipper!autofailback_delay   | <p>Configure the delay of automatic failback after a previous failover event. This setting has no effect if autofailback is disabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:219</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>   |
| flipper!cache_arpcfd         | <p>Whether or not the traffic manager should cache the ARP socket (for sending ARP packets faster).</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:392</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| flipper!child_timeout        | <p>How long the traffic manager should wait for status updates from any of the traffic manager's child processes before assuming one of them is no longer servicing traffic.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:254</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>   |
| flipper!frontend_check_addrs | <p>The IP addresses used to check front-end connectivity. The text %gateway% will be replaced with the default gateway on each system. Set this to an empty string if the traffic manager is on an Intranet with no external connectivity.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:353</li> <li>Value type: list</li> <li>Default value: "%gateway%"</li> </ul>  |

| Key                            | Description  |
|--------------------------------|--|
| flipper!heartbeat_method       | <p>The method traffic managers should use to exchange cluster heartbeat messages.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:283</li> <li>Value type: enumeration</li> <li>Default value: "unicast"</li> <li>Permitted values:<br/>multicast: multicast<br/>unicast: unicast</li> </ul>                         |
| flipper!igmp_interval          | <p>The interval between unsolicited periodic IGMP Membership Report messages for Multi-Hosted Traffic IP Groups.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:426</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| flipper!max_tentative_failures | <p>The number of times the software should try to re-raise tentative addresses before giving up and raising an error about the address.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:406</li> <li>Value type: unsigned integer</li> <li>Default value: "3"</li> </ul> |
| flipper!monitor_interval       | <p>The frequency, in milliseconds, that each traffic manager machine should check and announce its connectivity.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:229</li> <li>Value type: unsigned integer</li> <li>Default value: "500"</li> </ul>  |
| flipper!monitor_timeout        | <p>How long, in seconds, each traffic manager should wait for a response from its connectivity tests or from other traffic manager machines before registering a failure.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:241</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>                    |
| flipper!multicast_address      | <p>The multicast address and port to use to exchange cluster heartbeat messages.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:308</li> <li>Requires: flipper!heartbeat_method is set to "multicast"</li> <li>Value type: string</li> <li>Default value: "239.100.1.1:9090"</li> </ul>                             |

| Key   | Description  |
|---|--|
| flipper!multicast_version                   | <p>The multicast version to be use (1, 2 or 3) for cluster heartbeat messages. A value of 0 will let the operating system choose (but note that Linux often gets this wrong). This setting is only supported when using 2.6 versions of the Linux kernel.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:322</li> <li>• Value type: int</li> <li>• Default value: "2"</li> </ul> |
| flipper!parent_timeout                      | <p>How long the traffic manager should wait for status updates from the traffic manager's parent process before assuming it has hung.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:266</li> <li>• Value type: seconds</li> <li>• Default value: "60"</li> </ul>  |
| flipper!routing_daemon_status_poll_interval | <p>Interval at which the parent process polls the routing daemon to update its status in AMP. A setting of 0 disables polling.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:434</li> <li>• Value type: seconds</li> <li>• Default value: "10"</li> </ul>   |
| flipper!routing_sw_run_ribd                 | <p>Whether the ribd routing daemon is to be run. The routing software needs to be restarted for this change to take effect.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:467</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| flipper!routing_sw_watchdog_interval        | <p>The period of time in seconds after which a failure will no longer count towards the watchdog limit.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:458</li> <li>• Value type: seconds</li> <li>• Default value: "300"</li> </ul>   |

| Key                               | Description  |
|-----------------------------------|--|
| flipper!routing_sw_watchdog_limit | <p>The maximum number of times the routing software suite of processes will be started or restarted within the interval defined by the flipper!routing_sw_watchdog_interval setting. If the routing software fails this many times within the interval, it will be stopped and can only be restarted manually from the Diagnose page or by switching OSPF off and on again. Zero means no limit.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:448</li> <li>Value type: unsigned integer</li> <li>Default value: "3"</li> </ul> |
| flipper!tentative_timeout         | <p>How long the traffic manager should endure the OS's mismanagement of IP addresses in the tentative state.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:399</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>  |
| flipper!tipv6_raise_deprecated    | <p>Mark Traffic IPv6 addresses as "deprecated" to prevent their use during IPv6 source selection.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:414</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| flipper!unicast_port              | <p>The unicast UDP port to use to exchange cluster heartbeat messages.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:332</li> <li>Requires: flipper!heartbeat_method is set to "unicast"</li> <li>Value type: unsigned integer</li> <li>Default value: "9090"</li> </ul>   |
| flipper!use_bindip                | <p>Whether or not cluster heartbeat messages should only be sent and received over the management network.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:384</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| flipper!verbose                   | <p>Whether or not a traffic manager should log all connectivity tests. This is very verbose, and should only be used for diagnostic purposes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:274</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

| Key                             | Description   |
|---------------------------------|---|
| ftp_data_bind_low               | <p>Whether or not the traffic manager should permit use of FTP data connection source ports lower than 1024. If No the traffic manager can completely drop root privileges, if Yes some or all privileges may be retained in order to bind to low ports.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1137</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| gslb!verbose                    | <p>Write a message to the logs for every DNS query that is load balanced, showing the source IP address and the chosen datacenter.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1538</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| http!max_chunk_header_length    | <p>The maximum length the header line of an HTTP chunk can have in an upload from the client. Header lines exceeding this length will be considered invalid. The traffic manager buffers the header line before it can read any payload data in the chunk; the limit exists to protect against malicious clients that send very long lines but never any payload data.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:728</li> <li>Value type: unsigned integer</li> <li>Default value: "256"</li> </ul> |
| http2_no_cipher_blacklist_check | <p>Disable the cipher blacklist check in HTTP2 (mainly intended for testing purposes)</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1387</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| http_copy_size                  | <p>If a HTTP request is smaller than this size, then copy it to save memory. A typical GET request is about 370 bytes plus the URL length.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1373</li> <li>Value type: bytes</li> <li>Default value: "512"</li> </ul>   |

| Key                        | Description   |
|----------------------------|---|
| http_max_vary_fields       | <p>Maximum number of fields that can be used to distinguish between two versions of a cacheable entity in a HTTP "Vary" header. Responses containing more than this number of fields are not cached.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1381</li> <li>Value type: unsigned integer</li> <li>Default value: "8"</li> </ul>        |
| http_stream_early_response | <p>Whether or not the traffic manager should continue to stream remaining data to an HTTP server when the server responds before all the client data has been sent.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1364</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| idle_connection_timeout    | <p>How long an unused HTTP keepalive connection should be kept before it is discarded.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1355</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>   |
| internal_config_logging    | <p>Whether or not messages pertaining to internal configuration files should be logged to the event log.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:743</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ioregister_timeout         | <p>Timeout for unregistered I/O events, in milliseconds. If the connection doesn't complete within this time, then read events should be enabled, so that we can spot the client closing the connection.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1015</li> <li>Value type: unsigned integer</li> <li>Default value: "1000"</li> </ul> |
| ip_cache_size              | <p>The maximum number of entries in the IP session cache. This is used to provide session persistence based on the source IP address. Approximately 100 bytes will be pre-allocated per entry.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1841</li> <li>Value type: unsigned integer</li> <li>Default value: "32768"</li> </ul>   |

| Key             | Description   |
|-----------------|---|
| ip_check_time   | <p>How often the local machine's IP addresses are checked for changes. DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:440</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>   |
| j2ee_cache_size | <p>The maximum number of entries in the J2EE session cache. This is used for storing session mappings for J2EE session persistence. Approximately 100 bytes will be pre-allocated per entry.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1869</li> <li>Value type: unsigned integer</li> <li>Default value: "32768"</li> </ul>                     |
| java!classpath  | <p>CLASSPATH to use when starting the Java runner.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3148</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| java!command    | <p>Java command to use when starting the Java runner, including any additional options.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3157</li> <li>Value type: string</li> <li>Default value: "java -server"</li> </ul>   |
| java!enabled    | <p>Whether or not Java support should be enabled. If this is set to No, then your traffic manager will not start any Java processes. Java support is only required if you are using the TrafficScript java.run() function.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3140</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| java!lib        | <p>Java library directory for additional jar files. The Java runner will load classes from any .jar files stored in this directory, as well as the * jar files and classes stored in traffic manager's catalog.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3190</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>       |

| Key               | Description   |
|-------------------|---|
| java!max_conns    | <p>Maximum number of simultaneous Java requests. If there are more than this many requests, then further requests will be queued until the earlier requests are completed. This setting is per-CPU, so if your traffic manager is running on a machine with 4 CPU cores, then each core can make this many requests at one time.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3176</li> <li>Value type: unsigned integer</li> <li>Default value: "256"</li> </ul> |
| java!session_age  | <p>Default time to keep a Java session.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3165</li> <li>Value type: seconds</li> <li>Default value: "86400"</li> </ul>   |
| kerberos!timeout  | <p>The period of time after which an outstanding Kerberos operation will be cancelled, generating an error for dependent operations.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kerberos_settings_keys.cpp:36</li> <li>Value type: seconds</li> <li>Default value: "20"</li> </ul>  |
| kerberos!verbose  | <p>Whether or not a traffic manager should log all Kerberos related activity. This is very verbose, and should only be used for diagnostic purposes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/kerberos_settings_keys.cpp:27</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| license_servers   | <p>A list of license servers for FLA licensing. A license server should be specified as a &lt;ip/host&gt;:&lt;port&gt; pair.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:699</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| listen_queue_size | <p>The listen queue size for managing incoming connections. It may be necessary to increase the System's listen queue size if this value is altered. If the value is set to 0 then the default system setting will be used.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1085</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |



| Key               | Description  |
|-------------------|--|
| load_change_limit | <p>The maximum change to load per second, when monitored by GLB. This limit does not apply to external setting of the load by a SOAP agent.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1561</li> <li>Value type: unsigned integer</li> <li>Default value: "800"</li> </ul>   |
| load_dampening    | <p>Load dampening factor. Every second, your traffic manager decreases the calculated "load" of all back-end nodes. For example, a value of 80 would mean that a node will have its load reduced to 80% of what it was a second ago.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:400</li> <li>Value type: unsigned integer</li> <li>Default value: "80"</li> </ul> |
| load_minimum      | <p>Minimum load value. Monitors that report a load lower than this value (in milliseconds) will be considered equally fast.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1569</li> <li>Value type: unsigned integer</li> <li>Default value: "50"</li> </ul>   |
| locations_enabled | <p>Is MSM enabled.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3372</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| log!flushtime     | <p>How long to wait before flushing the request log files for each virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1397</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>   |
| log!rate          | <p>The maximum number of connection errors logged per second when connection error reporting is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1423</li> <li>Value type: unsigned integer</li> <li>Default value: "50"</li> </ul>   |

| Key                       | Description   |
|---------------------------|---|
| log!reopen                | <p>How long to wait before re-opening request log files, this ensures that log files will be recreated in the case of log rotation.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1407</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| log!repeattime            | <p>How long to prevent an object from repeating its previous log line.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1460</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>  |
| log!time                  | <p>The minimum time between log messages for log intensive features such as SLM.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1450</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>   |
| log_export!auth!hec_token | <p>The HTTP Event Collector token to use for HTTP authentication with a Splunk server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1725</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| log_export!auth!http      | <p>The HTTP authentication method to use when exporting log entries.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1695</li> <li>Value type: enumeration</li> <li>Default value: "none"</li> <li>Permitted values:<br/>none: None<br/>basic: Basic (Username and Password)<br/>splunk: Splunk (HEC token)</li> </ul> |
| log_export!auth!password  | <p>The password to use for HTTP basic authentication.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1712</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| log_export!auth!username  | <p>The username to use for HTTP basic authentication.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1703</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                               | Description  |
|-----------------------------------|--|
| log_export!enabled                | <p>Monitor log files and export entries to the configured endpoint.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1677</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| log_export!endpoint               | <p>The URL to which log entries should be sent. Entries are sent using HTTP(S) POST requests.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1686</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| log_export!max_event_message_size | <p>The maximum size of any individual log entry to be exported. Log entries that exceed this size will be truncated. The maximum individual entry size must be at least 80 characters. A value of 0 means that no limit is imposed on the length of message for any individual entry.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1774</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>                                     |
| log_export!max_request_bandwidth  | <p>The maximum bandwidth to be used for sending HTTP requests to the configured endpoint, measured in kilobits per second. A value of zero means that no bandwidth limit will be imposed.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1794</li> <li>Value type: unsigned integer</li> <li>Default value: "10000"</li> </ul>  |
| log_export!max_request_size       | <p>The maximum amount of log data to export in a single request. A value of 0 means no limit.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1746</li> <li>Value type: bytes</li> <li>Default value: "65536"</li> </ul>   |
| log_export!max_response_size      | <p>The maximum permitted size of HTTP responses from the configured endpoint. Both headers and body data are included in the size calculation. A response exceeding this size will be treated as an error response. A value of 0 means that there is no limit to the size of response that will be considered valid.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1760</li> <li>Value type: bytes</li> <li>Default value: "131072"</li> </ul> |

| Key                                     | Description   |
|---|---|
| log_export!maximum_error_raising_period | <p>An upper limit to the interval for rate limiting all errors raised by the log exporter.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1813</li> <li>Value type: seconds</li> <li>Default value: "2147483647"</li> </ul>  |
| log_export!minimum_error_raising_period | <p>A lower limit to the interval for rate limiting all errors raised by the log exporter. The interval can only be shorter than this limit if the maximum interval is set to be less than this minimum limit.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1804</li> <li>Value type: seconds</li> <li>Default value: "1"</li> </ul>        |
| log_export!request_timeout              | <p>The number of seconds after which HTTP requests sent to the configured endpoint will be considered to have failed if no response is received. A value of 0 means that HTTP requests will not time out.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1784</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| log_export!tls_verify                   | <p>Whether the server certificate should be verified when connecting to the endpoint. If enabled, server certificates that do not match the server name, are self-signed, have expired, have been revoked, or that are signed by an unknown CA will be rejected.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1737</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| login_banner                            | <p>Banner text displayed on the Admin Server login page and before logging in to appliance SSH servers.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:797</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| login_delay                             | <p>The number of seconds before another login attempt can be made after a failed attempt.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:848</li> <li>Value type: seconds</li> <li>Default value: "4"</li> </ul>  |

| Key                       | Description   |
|---------------------------|---|
| max_idle_connections      | <p>The maximum number of unused HTTP keepalive connections with back-end nodes that the traffic manager should maintain for re-use. Setting this to 0 (zero) will cause the traffic manager to auto-size this parameter based on the available number of file-descriptors.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1345</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| max_login_attempts        | <p>The number of sequential failed login attempts that will cause a user account to be suspended. Setting this to 0 disables this feature. To apply this to users who have never successfully logged in, track_unknown_users must also be enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:866</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>                          |
| max_login_external        | <p>Whether or not usernames blocked due to the max_login_attempts limit should also be blocked from authentication against external services (such as LDAP and RADIUS).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:880</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| max_login_suspension_time | <p>The number of minutes to suspend users who have exceeded the max_login_attempts limit.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:893</li> <li>Value type: unsigned integer</li> <li>Default value: "15"</li> </ul>  |
| maxfds                    | <p>The maximum number of file descriptors that your traffic manager will allocate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1095</li> <li>Value type: unsigned integer</li> <li>Default value: "1048576"</li> </ul>   |
| min_alpha_chars           | <p>Minimum number of alphabetic characters a password must contain. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3220</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |

| Key                        | Description  |
|----------------------------|--|
| min_numeric_chars          | <p>Minimum number of numeric characters a password must contain. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3246</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| min_password_length        | <p>Minimum number of characters a password must contain. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3208</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| min_special_chars          | <p>Minimum number of special (non-alphanumeric) characters a password must contain. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3259</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| min_uppercase_chars        | <p>Minimum number of uppercase characters a password must contain. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3233</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| monitor_memory_size        | <p>The maximum number of each of nodes, pools or locations that can be monitored. The memory used to store information about nodes, pools and locations is allocated at start-up, so the traffic manager must be restarted after changing this setting.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:683</li> <li>Value type: unsigned integer</li> <li>Default value: "4096"</li> </ul> |
| monitor_scripts_per_second | <p>The maximum number of scripts to run per second. Setting this to 0 disables the limit.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/monitor/settings.cpp:70</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |

| Key                            | Description   |
|--------------------------------|---|
| notify!mail_interval           | <p>The minimum length of time that must elapse between alert emails being sent. Where multiple alerts occur inside this timeframe, they will be retained and sent within a single email rather than separately.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:480</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>   |
| notify!max_attempts            | <p>The number of times to attempt to send an alert email before giving up.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:491</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>   |
| object_pool_size               | <p>The size of the internal object cache. This cache helps to speed up tcp handling.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1893</li> <li>Value type: unsigned integer</li> <li>Default value: "100"</li> </ul>  |
| ospfv2!area                    | <p>The OSPF area in which the traffic manager will operate. May be entered in decimal or IPv4 address format.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:168</li> <li>Value type: string</li> <li>Default value: "0.0.0.1"</li> </ul>  |
| ospfv2!area_type               | <p>The type of OSPF area in which the traffic manager will operate. This must be the same for all routers in the area, as required by OSPF.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:180</li> <li>Value type: enumeration</li> <li>Default value: "normal"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>normal: Normal area</li> <li>stub: Stub area</li> <li>nssa: Not So Stubby Area (RFC3101)</li> </ul> </li> </ul> |
| ospfv2!authentication_key_id_a | <p>OSPFv2 authentication key ID. If set to 0, which is the default value, the key is disabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:113</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |

| Key                                   | Description  |
|---------------------------------------|--|
| ospfv2!authentication_key_id_b        | OSPFv2 authentication key ID. If set to 0, which is the default value, the key is disabled. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:133</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>                 |
| ospfv2!authentication_shared_secret_a | OSPFv2 authentication shared secret (MD5). If set to blank, which is the default value, the key is disabled. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:125</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ospfv2!authentication_shared_secret_b | OSPFv2 authentication shared secret (MD5). If set to blank, which is the default value, the key is disabled. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:145</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ospfv2!dead_interval                  | The number of seconds before declaring a silent router down. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:159</li> <li>Value type: seconds</li> <li>Default value: "40"</li> </ul>  |
| ospfv2!enabled                        | Whether OSPFv2 Route Health Injection is enabled <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:105</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| ospfv2!hello_interval                 | The interval at which OSPF "hello" packets are sent to the network. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/flipper_settings_keys.cpp:152</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>   |
| parent_timeout                        | Timeout for connections to the AMP port.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:999</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |



| Key                               | Description  |
|-----------------------------------|--|
| password_changes_per_day          | <p>The maximum number of times a password can be changed in a 24-hour period. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3283</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| password_reuse_after              | <p>The number of times a password must have been changed before it can be reused. Set to 0 to disable this restriction.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3298</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| periodic_log!enabled              | <p>Enable periodic logging</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3673</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| periodic_log!interval             | <p>Time interval in seconds for periodic logging</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3681</li> <li>Value type: unsigned integer</li> <li>Default value: "600"</li> </ul>   |
| periodic_log!max_archive_set_size | <p>Maximum size (in MBytes) for the archive periodic logs. When combined size of the archives exceeds this value, the oldest archives will be deleted. Set to 0 to disable archive size limit</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3717</li> <li>Value type: unsigned integer</li> <li>Default value: "50"</li> </ul> |
| periodic_log!max_log_set_size     | <p>Maximum size (in MBytes) for the current set of periodic logs. If this size is exceeded, the current set will be archived. Set to zero to disable archiving based on current set size.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3698</li> <li>Value type: unsigned integer</li> <li>Default value: "25"</li> </ul>     |

| Key                           | Description   |
|-------------------------------|---|
| periodic_log!max_num_archives | <p>Maximum number of archived log sets to keep. When the number of archived periodic log sets exceeds this, the oldest archives will be deleted.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3707</li> <li>Value type: unsigned integer</li> <li>Default value: "14"</li> </ul>   |
| periodic_log!run_count        | <p>Number of periodic logs which should be archived together as a run.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3689</li> <li>Value type: unsigned integer</li> <li>Default value: "144"</li> </ul>  |
| post_login_banner             | <p>Banner text to be displayed on the appliance console after login.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:823</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| protection!conncount_size     | <p>The amount of shared memory reserved for an inter-process table of combined connection counts, used by all Service Protection classes that have per_process_connection_count set to No. The amount is specified as an absolute size, eg 20MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:670</li> <li>Value type: string</li> <li>Default value: "20MB"</li> </ul> |
| rate!warn_period              | <p>For the global TPS limits (normal and SSL), and global BW limits, how frequently to repeat warnings about hitting limits.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1329</li> <li>Value type: seconds</li> <li>Default value: "3600"</li> </ul>  |
| rate!warn_time                | <p>For the global TPS limits (normal and SSL), how many seconds they must queue connections before we print a warning about the rate being hit. Set to 0 to disable any warning messages.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1321</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>          |

| Key                           | Description   |
|-------------------------------|---|
| rate_class_limit              | <p>The maximum number of Rate classes that can be created. Approximately 100 bytes will be pre-allocated per Rate class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:505</li> <li>Value type: unsigned integer</li> <li>Default value: "25000"</li> </ul>  |
| recent_conns                  | <p>How many recently closed connections each traffic manager process should save. These saved connections will be shown alongside currently active connections when viewing the Connections page. You should set this value to 0 in a benchmarking or performance-critical environment.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1504</li> <li>Value type: unsigned integer</li> <li>Default value: "500"</li> </ul>            |
| recent_conns_retain_time      | <p>The amount of time for which snapshots will be retained on the Connections page.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1514</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |
| recent_conns_snapshot_size    | <p>The maximum number of connections each traffic manager process should show when viewing a snapshot on the Connections page. This value includes both currently active connections and saved connections. If set to 0 all active and saved connection will be displayed on the Connections page.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1529</li> <li>Value type: unsigned integer</li> <li>Default value: "500"</li> </ul> |
| remote_licensing!owner        | <p>The Owner of a Services Director instance, used for self-registration.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:287</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| remote_licensing!owner_secret | <p>The secret associated with the Owner.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:301</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| remote_licensing!policy_id    | <p>The auto-accept Policy ID that this instance should attempt to use.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:313</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                                  | Description  |
|--------------------------------------|--|
| remote_licensing!registration_server | <p>A Services Director address for self-registration. A registration server should be specified as a &lt;ip/host&gt;:&lt;port&gt; pair.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:713</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| remote_licensing!script_timeout      | <p>Time-out value for the self-register script.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:321</li> <li>Value type: int</li> <li>Default value: "30"</li> </ul>   |
| remote_licensing!server_certificate  | <p>The certificate of a Services Director instance, used for self-registration.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:274</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| replicate_timeout                    | <p>Configuration replication (between traffic managers) timeout.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1006</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>   |
| rest!auth_timeout                    | <p>The length of time after a successful request that the authentication of a given username and password will be cached for an IP address. A setting of 0 disables the cache forcing every REST request to be authenticated which will adversely affect performance.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:159</li> <li>Value type: seconds</li> <li>Default value: "120"</li> </ul> |
| rest!block_for_future_max            | <p>Maximum amount of time in seconds to block the event queue waiting for unparalisable events like loading from disk.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:247</li> <li>Value type: int</li> <li>Default value: "4"</li> </ul>   |
| rest!enabled                         | <p>Whether or not the REST service is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:145</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |

| Key                                | Description   |
|------------------------------------|---|
| rest!http_compress_min             | <p>Minimum size in bytes a response body needs to be for compression (e.g. gzip) to be used. Set to 0 to always use compression when available.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:238</li> <li>Value type: unsigned integer</li> <li>Default value: "2048"</li> </ul> |
| rest!http_keep_alive_timeout       | <p>The length of time in seconds an idle connection will be kept open before the REST API closes the connection.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:203</li> <li>Value type: unsigned integer</li> <li>Default value: "600"</li> </ul>                                 |
| rest!http_max_resource_body_length | <p>Maximum size in bytes the body of an HTTP PUT request can be for a key-value resource (i.e. a JSON request)</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:221</li> <li>Value type: unsigned integer</li> <li>Default value: "10485760"</li> </ul>                              |
| rest!http_max_write_buffer         | <p>Maximum size in bytes the per-connection output buffer can grow to before being paused.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:212</li> <li>Value type: unsigned integer</li> <li>Default value: "4096"</li> </ul>  |
| rest!http_session_timeout          | <p>Maximum time in seconds to keep an idle session open for.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:229</li> <li>Value type: unsigned integer</li> <li>Default value: "600"</li> </ul>   |
| rest!max_http_header_len           | <p>The maximum allowed length in bytes of a HTTP request's headers.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:332</li> <li>Value type: unsigned integer</li> <li>Default value: "4096"</li> </ul>  |

| Key              | Description   |
|------------------|---|
| rest!proxy_map!* | <p>The path to the symlinked resource. Intermediate resources will be created. All new resources will be hidden.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:345</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| rest!repabstime  | <p>Configuration changes will be replicated across the cluster after this period of time, regardless of whether additional API requests are being made.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:183</li> <li>Value type: seconds</li> <li>Default value: "20"</li> </ul>   |
| rest!replulltime | <p>Configuration changes made via the REST API will be propagated across the cluster when no further API requests have been made for this period of time.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:171</li> <li>Value type: seconds</li> <li>Default value: "5"</li> </ul>  |
| rest!reptimeout  | <p>The period of time after which configuration replication across the cluster will be cancelled if it has not completed.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:194</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>   |
| shared_pool_size | <p>The size of the shared memory pool used for shared storage across worker processes (e.g. bandwidth shared data). This is specified as either a percentage of system RAM, 5% for example, or an absolute size such as 10MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1248</li> <li>Value type: string</li> <li>Default value: "10MB"</li> </ul> |
| slm_class_limit  | <p>The maximum number of SLM classes that can be created. Approximately 100 bytes will be pre-allocated per SLM class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:498</li> <li>Value type: unsigned integer</li> <li>Default value: "1024"</li> </ul>   |

| Key                | Description  |
|--------------------|--|
| snmp_user_counters | <p>The number of user defined SNMP counters. Approximately 100 bytes will be pre-allocated at start-up per user defined SNMP counter.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:455</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>   |
| so_rbuff_size      | <p>The size of the operating system's read buffer. A value of 0 (zero) means to use the OS default; in normal circumstances this is what should be used.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1105</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>   |
| so_wbuff_size      | <p>The size of the operating system's write buffer. A value of 0 (zero) means to use the OS default; in normal circumstances this is what should be used.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1115</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>  |
| soap!idle_minutes  | <p>The number of minutes that the SOAP server should remain idle before exiting. The SOAP server has a short startup delay the first time a SOAP request is made, subsequent SOAP requests don't have this delay.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:468</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>               |
| socket_opt         | <p>Whether or not the traffic manager should use potential network socket optimisations. If set to auto, a decision will be made based on the host platform.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1057</li> <li>Value type: enumeration</li> <li>Default value: "auto"</li> <li>Permitted values:<br/>auto: auto</li> </ul> <p>Yes: Yes<br/>No: No</p> |

| Key                         | Description   |
|-----------------------------|---|
| ssl!allow_rehandshake       | <p>Whether or not SSL/TLS re-handshakes should be supported. Enabling support for re-handshakes can expose services to Man-in-the-Middle attacks. It is recommended that only "safe" handshakes be permitted, or none at all.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2476</li> <li>Value type: enumeration</li> <li>Default value: "safe"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>always: Always allow</li> <li>safe: Allow safe re-handshakes</li> <li>rfc5746: Only if client uses RFC 5746 (Secure Renegotiation Extension)</li> <li>never: Never allow</li> </ul> </li> </ul> |
| ssl!cache!enabled           | <p>Whether or not the SSL server session cache is enabled, unless overridden by virtual server settings.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2624</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl!cache!expiry            | <p>How long the SSL session IDs for SSL decryption should be stored for.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2616</li> <li>Value type: seconds</li> <li>Default value: "1800"</li> </ul>   |
| ssl!cache!per_virtualserver | <p>Whether an SSL session created by a given virtual server can only be resumed by a connection to the same virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2771</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| ssl!cache!size              | <p>How many entries the SSL session ID cache should hold. This cache is used to cache SSL sessions to help speed up SSL handshakes when performing SSL decryption. Each entry will allocate approximately 1.5kB of metadata.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2605</li> <li>Value type: unsigned integer</li> <li>Default value: "6151"</li> </ul>  |



| Key                              | Description   |
|----------------------------------|---|
| ssl!cipher_suites                | <p>The SSL/TLS cipher suites preference list for SSL/TLS connections, unless overridden by virtual server or pool settings. For information on supported cipher suites see the online help.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2412</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssl!client_cache!enabled         | <p>Whether or the SSL client cache will be used, unless overridden by pool settings.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2752</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl!client_cache!expiry          | <p>How long in seconds SSL sessions should be stored in the client cache for, by default. Servers returning session tickets may also provide a lifetime hint, which will be used if it is less than this value.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2745</li> <li>Value type: seconds</li> <li>Default value: "14400"</li> </ul>   |
| ssl!client_cache!size            | <p>How many entries the SSL client session cache should hold, per child. This cache is used to cache SSL sessions to help speed up SSL handshakes when performing SSL encryption. Each entry will require approx 100 bytes of memory plus space for either an SSL session id or an SSL session ticket, which may be as small as 16 bytes or may be as large as a few kilobytes, depending upon the server behavior.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2731</li> <li>Value type: unsigned integer</li> <li>Default value: "1024"</li> </ul> |
| ssl!client_cache!tickets_enabled | <p>Whether or not session tickets may be requested and stored in the SSL client cache.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2759</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl!crl_mem!size                 | <p>How much shared memory to allocate for loading Certificate Revocation Lists. This should be at least 3 times the total size of all CRLs on disk. This is specified as either a percentage of system RAM, 1% for example, or an absolute size such as 10MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2889</li> <li>Value type: string</li> <li>Default value: "5MB"</li> </ul>  |

| Key  | Description  |
|--|--|
| ssl!diffie_hellman_client_min_modulus_size | <p>The minimum size in bits of the modulus in the domain parameters that the traffic manager will accept when connecting using finite field Diffie-Hellman key agreement as a client.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2564</li> <li>Value type: unsigned integer</li> <li>Default value: "1024"</li> </ul> |
| ssl!diffie_hellman_modulus_size            | <p>The size in bits of the modulus for the domain parameters used for cipher suites that use finite field Diffie-Hellman key agreement.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2554</li> <li>Value type: enumeration</li> <li>Default value: "2048"</li> <li>Permitted values:<br/>1024: 1024<br/>2048: 2048<br/>3072: 3072<br/>4096: 4096</li> </ul>            |
| ssl!disable_stitched_cbc_hmac              | <p>Enable or disable use of "stitched" CBC/HMAC mode ciphers</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2523</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssl!elliptic_curves                        | <p>The SSL/TLS elliptic curve preference list for SSL/TLS connections using TLS version 1.0 or higher, unless overridden by virtual server or pool settings. For information on supported curves see the online help.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2460</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                    |
| ssl!honor_fallback_scsv                    | <p>Whether or not ssl-decrypting Virtual Servers honor the Fallback SCSV to protect connections against downgrade attacks.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2486</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| ssl!insert_extra_fragment                  | <p>Whether or not SSL3 and TLS1 use one-byte fragments as a BEAST countermeasure.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2492</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

| Key  | Description  |
|--|--|
| ssl!max_handshake_message_size             | <p>The maximum size (in bytes) of SSL handshake messages that SSL connections will accept. To accept any size of handshake message the key should be set to the value 0.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2577</li> <li>Value type: bytes</li> <li>Default value: "10240"</li> </ul>   |
| ssl!min_rehandshake_interval               | <p>If SSL3/TLS re-handshakes are supported, this defines the minimum time interval (in milliseconds) between handshakes on a single SSL3/TLS connection that is permitted. To disable the minimum interval for handshakes the key should be set to the value 0.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2507</li> <li>Value type: unsigned integer</li> <li>Default value: "1000"</li> </ul>  |
| ssl!obscure_alert_descriptions             | <p>Whether SSL/TLS alert descriptions should be obscured (where reasonable) when sent to a remote peer. Alert descriptions are useful for diagnosing SSL/TLS connection issues when connecting to a remote peer. However those diagnostics may provide information that an attacker could use to compromise the system (as a concrete example, see Moeller, B., "Security of CBC Ciphersuites in SSL/TLS: Problems and Countermeasures"). If not enabled, alert descriptions that are known to facilitate compromise will still be obscured. Otherwise, if enabled, alert descriptions that can be safely mapped to a more general one, will be.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2541</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| ssl!ocsp_cache!size                        | <p>The maximum number of cached client certificate OCSP results stored. This cache is used to speed up OCSP checks against client certificates by caching results. Approximately 1040 bytes are pre-allocated per entry.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2784</li> <li>Value type: unsigned integer</li> <li>Default value: "2048"</li> </ul>   |
| ssl!ocsp_stapling!default_refresh_interval | <p>How long to wait before refreshing requests on behalf of the store of certificate status responses used by OCSP stapling, if we don't have an up-to-date OCSP response.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2821</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |

| Key  | Description   |
|--|---|
| ssl!ocsp_stapling!maximum_refresh_interval | <p>Maximum time to wait before refreshing requests on behalf of the store of certificate status responses used by OCSP stapling. (0 means no maximum.)</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2834</li> <li>Value type: seconds</li> <li>Default value: "864000"</li> </ul>   |
| ssl!ocsp_stapling!mem_size                 | <p>How much shared memory to allocate for the store of certificate status responses for OCSP stapling. This should be at least 2kB times the number of certificates configured to use OCSP stapling. This is specified as either a percentage of system RAM, 1% for example, or an absolute size such as 10MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2870</li> <li>Value type: string</li> <li>Default value: "1MB"</li> </ul> |
| ssl!ocsp_stapling!minimum_refresh_interval | <p>The minimum number of seconds to wait between OCSP requests for the same certificate.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2842</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>  |
| ssl!ocsp_stapling!prefetch                 | <p>The number of seconds before an OCSP response is stale to make a new OCSP request.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2850</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>   |
| ssl!ocsp_stapling!time_tolerance           | <p>How many seconds to allow the current time to be outside the validity time of an OCSP response before considering it invalid.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2809</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>   |
| ssl!ocsp_stapling!verify_response          | <p>Whether the OCSP response signature should be verified before the OCSP response is cached.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2800</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

| Key                              | Description   |
|----------------------------------|---|
| ssl!prevent_timing_side_channels | <p>Take performance degrading steps to prevent exposing timing side-channels with SSL3 and TLS.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2517</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| ssl!signature_algorithms         | <p>The SSL/TLS signature algorithms preference list for SSL/TLS connections using TLS version 1.2 or higher, unless overridden by virtual server or pool settings. For information on supported algorithms see the online help.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2437</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ssl!support_ssl3                 | <p>Whether or not SSL3 support is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2370</li> <li>Requires: fipsenabled is set to "Yes"</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| ssl!support_tls1                 | <p>Whether or not TLS1.0 support is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2375</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl!support_tls1_1               | <p>Whether or not TLS1.1 support is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2381</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl!support_tls1_2               | <p>Whether or not TLS1.2 support is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2387</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl!tickets!enabled              | <p>Whether or not session tickets will be issued to and accepted from clients that support them, unless overridden by virtual server settings.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2711</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |

| Key                             | Description   |
|---------------------------------|---|
| ssl!tickets!reissue_policy      | <p>When an SSL session ticket will be reissued (ie when a new ticket will be generated for the same SSL session).</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2689</li> <li>• Value type: enumeration</li> <li>• Default value: "never"</li> <li>• Permitted values:<br/>always: always<br/>never: never</li> </ul>  |
| ssl!tickets!ticket_expiry       | <p>The length of time for which an SSL session ticket will be accepted by a virtual server after the ticket is created. If a ticket is reissued (if ssl!tickets!reissue_policy is set to 'always') this time starts at the time when the ticket was reissued.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2677</li> <li>• Value type: seconds</li> <li>• Default value: "14400"</li> </ul>   |
| ssl!tickets!ticket_key_expiry   | <p>The length of time for which an auto-generated SSL ticket key will be used to decrypt old session ticket, before being deleted from memory. This setting is ignored if there are any entries in the (REST-only) SSL ticket keys catalog.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2661</li> <li>• Value type: seconds</li> <li>• Default value: "86400"</li> </ul>   |
| ssl!tickets!ticket_key_rotation | <p>The length of time for which an auto-generated SSL ticket key will be used to encrypt new session tickets, before a new SSL ticket key is generated. The ticket encryption key will be held in memory for ssl!tickets!ticket_key_expiry, so that tickets encrypted using the key can still be decrypted and used. This setting is ignored if there are any entries in the (REST-only) SSL ticket keys catalog.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2646</li> <li>• Value type: seconds</li> <li>• Default value: "14400"</li> </ul> |
| ssl!tickets!time_tolerance      | <p>How many seconds to allow the current time to be outside the validity time of an SSL ticket before considering it invalid.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2702</li> <li>• Value type: seconds</li> <li>• Default value: "30"</li> </ul>  |

| Key                                      | Description  |
|--|--|
| ssl!validate_server_certificates_catalog | <p>Whether the traffic manager should validate that SSL server certificates form a matching key pair before the certificate gets used on an SSL decrypting virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2587</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| ssl_cache_size                           | <p>The maximum number of entries in the SSL session persistence cache. This is used to provide session persistence based on the SSL session ID. Approximately 200 bytes will be pre-allocated per entry.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1829</li> <li>Value type: unsigned integer</li> <li>Default value: "32768"</li> </ul>  |
| ssld!accel                               | <p>Whether or not the SSL hardware is an "accelerator" (faster than software). By default the traffic manager will only use the SSL hardware if a key requires it (i.e. the key is stored on secure hardware and the traffic manager only has a placeholder/identifier key). With this option enabled, your traffic manager will instead try to use hardware for all SSL decrypts.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2123</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| ssld!azure!api_version                   | <p>The version of the Azure Key Vault REST API.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2303</li> <li>Value type: string</li> <li>Default value: "2015-06-01"</li> </ul>  |
| ssld!azure!client_id                     | <p>The client identifier used when accessing the Microsoft Azure Key Vault.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2273</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ssld!azure!client_secret                 | <p>The client secret used when accessing the Microsoft Azure Key Vault.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2283</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                             | Description   |
|---------------------------------|---|
| ssld!azure!connect_timeout      | <p>Timeout for establishing a connection to the Azure Key Vault REST API. Using a value of 0 will use libcurl's built-in timeout.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2314</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul>  |
| ssld!azure!idle_timeout         | <p>Idle timeout for a connection to the Azure Key Vault REST API. Using a value of 0 will deactivate the timeout.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2325</li> <li>Value type: unsigned integer</li> <li>Default value: "30"</li> </ul>                  |
| ssld!azure!key_list_conns       | <p>The maximum number of concurrent HTTPS connections that will be used to retrieve the list of keys stored in an Azure Key Vault.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2336</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul> |
| ssld!azure!vault_url            | <p>The URL for the REST API of the Microsoft Azure Key Vault.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2264</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssld!azure!verify_rest_api_cert | <p>Whether or not the Azure Key Vault REST API certificate should be verified.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2292</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssld!backoff                    | <p>The delay before attempting to restart SSL hardware support if it has failed to start. Two log lines will be generated for each retry.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2195</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>   |



| Key                          | Description  |
|------------------------------|--|
| ssld!driver!*                | <p>A special key namespace for additional SSL configuration data.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2348</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ssld!driver!pkcs11_debug     | <p>Print verbose information about the PKCS11 hardware security module to the event log.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2254</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| ssld!driver!pkcs11_lib       | <p>The location of the PKCS#11 library for your SSL hardware if it is not in a standard location. The traffic manager will search the standard locations by default.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2209</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| ssld!driver!pkcs11_slot_desc | <p>The label of the SSL Hardware slot to use. Only required if you have multiple HW accelerator slots.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2245</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssld!driver!pkcs11_slot_type | <p>The type of SSL hardware slot to use.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2233</li> <li>Value type: enumeration</li> <li>Default value: "operator"</li> <li>Permitted values:<br/>operator: Operator Card Set<br/>softcard: Soft Card<br/>module: Module Protected</li> </ul>          |
| ssld!driver!pkcs11_user_pin  | <p>The User PIN for the PKCS token (PKCS#11 devices only).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2221</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                | Description   |
|--------------------|---|
| ssld!failure_count | <p>The number of consecutive failures from the SSL hardware that will be tolerated before the traffic manager assumes its session with the device is invalid and tries to log in again. This is necessary when the device reboots following a power failure.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2172</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul> |
| ssld!libdir        | <p>Additional library search paths required by the device library.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2135</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ssld!library       | <p>The type of SSL hardware to use. The drivers for the SSL hardware should be installed and accessible to the traffic manager software.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2109</li> <li>Value type: enumeration</li> <li>Default value: "none"</li> <li>Permitted values:<br/>none: None<br/>pkcs11: PKCS#11<br/>azure: Microsoft Azure Key Vault</li> </ul>                    |
| ssld!nworkers      | <p>The maximum number of concurrent requests the traffic manager will offload to the accelerator device.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2146</li> <li>Value type: unsigned integer</li> <li>Default value: "128"</li> </ul>   |
| ssld!queuelen      | <p>The maximum number of requests that will be queued to the accelerator device.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2157</li> <li>Value type: unsigned integer</li> <li>Default value: "512"</li> </ul>   |

| Key                  | Description   |
|----------------------|---|
| ssld!timeout         | <p>The length of time to wait for SSL hardware support to start before stopping it and retrying. This depends on the behaviour of your vendor-supplied library when the hardware is unavailable. A value of 0 means wait forever.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2185</li> <li>Value type: seconds</li> <li>Default value: "20"</li> </ul> |
| statd!days           | <p>Number of days to store historical traffic information, if set to 0 the data will be kept indefinitely.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:412</li> <li>Value type: unsigned integer</li> <li>Default value: "90"</li> </ul>   |
| statd!sync_enabled   | <p>Enable or disable syncing of logs in the cluster.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:418</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| statd!write_interval | <p>The interval between writes of the statd logs and syncs in the cluster.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:424</li> <li>Value type: unsigned integer</li> <li>Default value: "300"</li> </ul>   |
| state_sync_time      | <p>How often to propagate the session persistence and bandwidth information to other traffic managers in the same cluster. Set this to 0 (zero) to disable propagation.</p> <p>Note that a cluster using "unicast" heartbeat messages cannot turn off these messages.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3114</li> <li>Value type: seconds</li> <li>Default value: "3"</li> </ul>             |
| state_sync_timeout   | <p>The maximum amount of time to wait when propagating session persistence and bandwidth information to other traffic managers in the same cluster. Once this timeout is hit the transfer is aborted and a new connection created.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:3126</li> <li>Value type: seconds</li> <li>Default value: "6"</li> </ul>  |

| Key                           | Description   |
|-------------------------------|---|
| telemetry!enabled             | <p>Allow the reporting of anonymized usage data to Pulse Secure for product improvement and customer support purposes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:754</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| telemetry!internal_use        | <p>Tag exported data with an arbitrary string, to mark is as not being "real" data</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:781</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| telemetry!test_schedule       | <p>Instruct the telemetry system to use a fast schedule for testing</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:772</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| telemetry!url                 | <p>Override the default URL for telemetry data export.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:765</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| tip_class_limit               | <p>The maximum number of Traffic IP Groups that can be created.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:512</li> <li>Value type: unsigned integer</li> <li>Default value: "10000"</li> </ul>   |
| track_unknown_users           | <p>Whether to remember past login attempts from usernames that are not known to exist (should be set to No for an Admin Server accessible from the public Internet). This does not affect the audit log.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:907</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| trafficscript!data_local_size | <p>The maximum amount of memory available to store TrafficScript data.local.set() information. This can be specified as a percentage of system RAM, 5% for example; or an absolute size such as 200MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:651</li> <li>Value type: string</li> <li>Default value: "5%"</li> </ul>     |

| Key                                  | Description   |
|--------------------------------------|---|
| trafficscript!data_size              | <p>The maximum amount of memory available to store TrafficScript data.set() information. This can be specified as a percentage of system RAM, 5% for example; or an absolute size such as 200MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:633</li> <li>Value type: string</li> <li>Default value: "5%"</li> </ul>   |
| trafficscript!execution_time_warning | <p>Raise an event if a TrafficScript rule runs for more than this number of milliseconds in a single invocation. If you get such events repeatedly, you may want to consider re-working some of your TrafficScript rules. A value of 0 means no warnings will be issued.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:546</li> <li>Value type: unsigned integer</li> <li>Default value: "500"</li> </ul>  |
| trafficscript!max_instr              | <p>The maximum number of instructions a TrafficScript rule will run. A rule will be aborted if it runs more than this number of instructions without yielding, preventing infinite loops.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:580</li> <li>Value type: unsigned integer</li> <li>Default value: "100000"</li> </ul>  |
| trafficscript!memory_warning         | <p>Raise an event if a TrafficScript rule requires more than this amount of buffered network data. If you get such events repeatedly, you may want to consider re-working some of your TrafficScript rules to use less memory or to stream the data that they process rather than storing it all in memory. This setting also limits the amount of data that can be returned by request.GetLine().</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:530</li> <li>Value type: bytes</li> <li>Default value: "1048576"</li> </ul> |
| trafficscript!regex_cache_size       | <p>The maximum number of regular expressions to cache in TrafficScript. Regular expressions will be compiled in order to speed up their use in the future.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:590</li> <li>Value type: unsigned integer</li> <li>Default value: "57"</li> </ul>   |
| trafficscript!regex_match_limit      | <p>The maximum number of ways TrafficScript will attempt to match a regular expression at each position in the subject string, before it aborts the rule and reports a TrafficScript error.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:604</li> <li>Value type: unsigned integer</li> <li>Default value: "10000000"</li> </ul>  |

| Key                                 | Description   |
|-------------------------------------|---|
| trafficscript!regex_match_warn_perc | <p>The percentage of trafficscript!regex_match_limit at which TrafficScript reports a performance warning.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:614</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul>  |
| trafficscript!variable_pool_use     | <p>Allow the pool.use and pool.select TrafficScript functions to accept variables instead of requiring literal strings.</p> <p>Enabling this feature has the following effects:</p> <ul style="list-style-type: none"> <li>Your traffic manager may no longer be able to know whether a pool is in use.</li> <li>Errors for pools that aren't in use will not be hidden.</li> <li>Some settings displayed for a Pool may not be appropriate for the type of traffic being managed.</li> <li>Pool usage information on the pool edit pages and config summary may not be accurate.</li> <li>Monitors will run for all pools (with this option disabled monitors will only run for Pools that are used).</li> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:567</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| transaction_export!auto_brief       | <p>The maximum buffering of transaction metadata before events are switched to brief mode automatically. Each child process is permitted to buffer this amount of verbose event data, if this buffer size is exceeded, then events are recorded in brief until space becomes available. A value of 0 disables this feature.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1642</li> <li>Value type: bytes</li> <li>Default value: "0"</li> </ul>  |
| transaction_export!enabled          | <p>Export metadata about transactions processed by the traffic manager to an external location.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1580</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| transaction_export!endpoint         | <p>The endpoint to which transaction metadata should be exported. The endpoint is specified as a hostname or IP address with a port.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1591</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                                   | Description  |
|---------------------------------------|--|
| transaction_export!failure_interval   | <p>The interval at which reconnection failures will be reported in the event log.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1656</li> <li>Value type: seconds</li> <li>Default value: "120"</li> </ul>   |
| transaction_export!memory             | <p>The maximum amount of transaction metadata pending export to buffer. If the buffer size is exceeded, metadata pertaining to new transactions will be dropped until more buffer space becomes available.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1630</li> <li>Value type: bytes</li> <li>Default value: "100000"</li> </ul> |
| transaction_export!reconnect_interval | <p>The interval at which reconnection will be attempted to the analytics engine following a disconnection or connection failure.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1649</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>   |
| transaction_export!tls                | <p>Whether the connection to the specified endpoint should be encrypted.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1597</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| transaction_export!tls_timeout        | <p>The maximum time allowed to complete a TLS handshake after completing a TCP connection. If the TLS handshake does not complete in time, the connection is considered to have failed.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1617</li> <li>Value type: unsigned integer</li> <li>Default value: "4"</li> </ul>              |
| transaction_export!tls_verify         | <p>Whether the server certificate presented by the endpoint should be verified, preventing a connection from being established if the certificate does not match the server name, is self-signed, is expired, is revoked, or has an unknown CA.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1609</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>           |

| Key                      | Description  |
|--------------------------|--|
| uipage_banner            | <p>Banner text to be displayed on all Admin Server pages.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:835</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| universal_cache_size     | <p>The maximum number of entries in the global universal session cache. This is used for storing session mappings for universal session persistence. Approximately 100 bytes will be pre-allocated per entry.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1855</li> <li>Value type: unsigned integer</li> <li>Default value: "32768"</li> </ul>   |
| webcache!avg_path_length | <p>The estimated average length of the path (including query string) for resources being cached. An amount of memory equal to this figure multiplied by max_file_num will be allocated for storing the paths for cache entries. This setting can be increased if your web site makes extensive use of long URLs.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2006</li> <li>Value type: unsigned integer</li> <li>Default value: "512"</li> </ul>  |
| webcache!blocksize       | <p>The size of the blocks of shared memory that are allocated for the content cache. Every entry in the content cache will use at least this amount of memory. You can specify the number of bytes, kB, or MB. Unless you know that you are serving almost exclusively very small or very large files, there is no reason to change this value.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1929</li> <li>Value type: string</li> <li>Default value: "0"</li> </ul>              |
| webcache!disk            | <p>Whether or not to use a disk-backed (typically SSD) cache. If set to Yes cached web pages will be stored in a file on disk. This enables the traffic manager to use a cache that is larger than available RAM. The webcache!size setting should also be adjusted to select a suitable maximum size based on your disk space.</p> <p>Note that the disk caching is optimized for use with SSD storage.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2022</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |



| Key                              | Description  |
|----------------------------------|--|
| webcache!disk_dir                | <p>If disk caching is enabled, this sets the directory where the disk cache file will be stored. The traffic manager will create a file called webcache.data in this location.</p> <p>Note that the disk caching is optimized for use with SSD storage.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2037</li> <li>Value type: string</li> <li>Default value: "%zeushome%/zxtm/internal"</li> </ul>  |
| webcache!max_byte_range_segments | <p>Maximum number of range segments allowed in a range request. Requests containing more segments than this will get a 416 "Requested Range Not Satisfiable" response, even if the page actually contains the requested ranges. This setting is useful to protect against byte-range-related DoS attacks.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2049</li> <li>Value type: int</li> <li>Default value: "500"</li> </ul> |
| webcache!max_file_num            | <p>Maximum number of entries in the cache. Approximately 0.9 KB will be pre-allocated per entry for metadata, this is in addition to the memory reserved for the content cache and for storing the paths of the cached resources.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1981</li> <li>Value type: unsigned integer</li> <li>Default value: "10000"</li> </ul>   |
| webcache!max_file_size           | <p>Largest size of a cacheable object in the cache. This is specified as either a percentage of the total cache size, 2% for example, or an absolute size such as 20MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1950</li> <li>Value type: string</li> <li>Default value: "2%"</li> </ul>  |
| webcache!max_handles             | <p>Maximum number of webcache handles to allow per process. This is a limit on the maximum number of cached objects being simultaneously served, not a limit on the maximum that can be in the cache. A value of 0 indicates that we should use the system per-process limit on number of FDs.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2059</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |

| Key                            | Description  |
|--------------------------------|--|
| webcache!max_path_length       | <p>The maximum length of the path (including query string) for the resource being cached. If the path exceeds this length then it will not be added to the cache.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1992</li> <li>Value type: unsigned integer</li> <li>Default value: "2048"</li> </ul>  |
| webcache!min_size_accept_range | <p>If a page is stored in the cache, the traffic manager will add the header "Accept-Ranges: bytes" to responses that are not chunked, not compressed and exceed a certain size (and do not have it yet). This expert tunable specifies the minimum size a page has to have for the traffic manager to add the Accept-Ranges header.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2070</li> <li>Value type: unsigned integer</li> <li>Default value: "256"</li> </ul> |
| webcache!normalize_query       | <p>Enable normalization (lexical ordering of the parameter-assignments) of the query string.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1968</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| webcache!size                  | <p>The maximum size of the HTTP web page cache. This is specified as either a percentage of system RAM, 20% for example, or an absolute size such as 200MB.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1913</li> <li>Value type: string</li> <li>Default value: "20%"</li> </ul>   |
| webcache!url_store_keep_free   | <p>Percentage of space to keep free in the URL store.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2093</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul>  |
| webcache!url_store_max_mallocs | <p>How many times to attempt to malloc space for a cache URL before giving up. 0 means never give up.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2078</li> <li>Value type: unsigned integer</li> <li>Default value: "256"</li> </ul>  |

| Key                         | Description   |
|-----------------------------|---|
| webcache!url_store_num_bins | <p>The number of bins to use for the URL store. 0 means no binning.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:2086</li> <li>Value type: unsigned integer</li> <li>Default value: "64"</li> </ul> |
| webcache!verbose            | <p>Add an X-Cache-Info header to every HTTP response, showing whether the request and/or the response was cacheable.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/settings.cpp:1958</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>    |

## conf/slm

The conf/slm directory contains configuration files for service level monitoring (SLM) classes. The name of a file is the name of the SLM class it defines. SLM classes can be configured under the Catalogs > SLM section of the Admin Server UI or by using functions under the Catalog.SLM section of the SOAP API and CLI.

| Key           | Description  |
|---------------|--|
| note          | <p>A description for the SLM class.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/slm_config.cpp:15</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| response_time | <p>Responses that arrive within this time limit, expressed in milliseconds, are treated as conforming.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/slm_config.cpp:22</li> <li>Value type: unsigned integer</li> <li>Default value: "1000"</li> </ul> |

| Key               | Description   |
|-------------------|---|
| serious_threshold | When the percentage of conforming responses drops below this level, a serious error level message will be emitted. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/slm_config.cpp:32</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| warning_threshold | When the percentage of conforming responses drops below this level, a warning message will be emitted. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/slm_config.cpp:42</li> <li>Value type: unsigned integer</li> <li>Default value: "50"</li> </ul>            |

## conf/ssl/cas

The conf/ssl/cas directory contains SSL certificate authority certificates (CAs) and certificate revocation lists (CRLs) which can be used when validating server and client certificates. CAs and CRLs can be managed under the Catalogs > SSL > CAs and CRLs section of the Admin Server UI or by using functions under the Catalog.SSL.CertificateAuthorities section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/ssl/client\_keys

The conf/ssl/client\_keys directory contains SSL public and private key files for use when connecting to backend nodes that require clients certificate authentication. For each key managed by the software there will be two files, the file names give the name of the SSL keypair followed by .public or .private depending on which key is in the file. Client keys keys can be managed under the Catalogs > SSL > Client Certs section of the Admin Server UI or by using functions under the Catalog.SSL.ClientCertificates section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/ssl/dnssec\_keys

Config for DNSSEC private keys. Contains the keys id and algorithm followed by a RSA key block. Other key types can be converted using our cert tool.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/ssl/server\_keys

The conf/ssl/server\_keys directory contains SSL public and private key files for use with virtual servers that have ssl\_decrypt enabled. For each key managed by the software there will be two files, the file names give the name of the SSL keypair followed by .public or .private depending on which key is in the file. If a keypair was generated by the software there will also be a corresponding .request file (which can be used to have your key signed by a CA). Server keys can be managed under the Catalogs > SSL > Server Certs section of the Admin Server UI or by using functions under the Catalog.SSL.Certificates section of the SOAP API and CLI.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/ssl/ticket\_keys

Configuration for SSL ticket encryption keys when managed externally via the ssl/ticket\_keys REST API endpoints.

| Key            | Description   |
|----------------|---|
| algorithm      | <p>The algorithm used to encrypt session tickets. The algorithm determines the length of the key that must be provided.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/ssl_ticket_key.cpp:46</li> <li>Value type: enumeration</li> <li>Default value: "aes_256_cbc_hmac_sha256"</li> <li>Permitted values:<br/>aes_256_cbc_hmac_sha256: AES-256 CBC with HMAC-SHA256. Requires a total of 64 bytes of key material.</li> </ul>   |
| id             | <p>A 16-byte key identifier, with each byte encoded as two hexadecimal digits. Key identifiers are transmitted in plaintext at the beginning of a TLS session ticket, and are used to identify the ticket encryption key that was used to encrypt a ticket. (They correspond to the 'key_name' field in RFC 5077.) They are required to be unique across the set of SSL ticket encryption keys.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/ssl_ticket_key.cpp:61</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| key            | <p>The session ticket encryption key, with each byte encoded as two hexadecimal digits. The required key length is determined by the chosen key algorithm. See the documentation for the 'algorithm' field for more details.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/ssl_ticket_key.cpp:74</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| validity_end   | <p>The latest time at which this key may be used to encrypt new session tickets. Given as number of seconds since the epoch (1970-01-01T00:00:00Z).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/ssl_ticket_key.cpp:95</li> <li>Value type: seconds</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| validity_start | <p>The earliest time at which this key may be used to encrypt new session tickets. Given as number of seconds since the epoch (1970-01-01T00:00:00Z).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/ssl_ticket_key.cpp:84</li> <li>Value type: seconds</li> <li>Default value: &lt;none&gt;</li> </ul>  |

## conf/supplementarykeys

This is a magic key section for supplementary keys. It exists so that they get loaded BEFORE ordinary base keys.

| Key  | Description |
|--|-------------|
| There are no items to display for this configuration type. |             |

## conf/users

The conf/users file defines login details for users with access to the software. This is a single file containing details for all locally managed users of the software. The asterisk (\*) in the keys represents the name of the user the key applies to, for example the key to store the applet width for the 'admin' user is user!admin!appletwidth. Users are managed under the System > Users section of the web UI. In the SOAP API and CLI users are managed using functions in the Users section.

| Key                   | Description   |
|-----------------------|---|
| user!*!applet_max_vs  | <p>The maximum number of virtual server traffic bars to show in the applet.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:299</li> <li>Value type: unsigned integer</li> <li>Default value: "5"</li> </ul>   |
| user!*!group          | <p>The user's Permission Group.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:229</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| user!*!old_password!* | <p>A salted MD5 hash of the user's nth most recent password. This config key is used to track older passwords set by an user to implement password policy settings. This key's value is updated by the software only. The config key is of the form 'user!&lt;username&gt;!old_password!&lt;n&gt;' where &lt;username&gt; is the name of the user and &lt;n&gt; takes integer values starting from 0 and signifies the nth most recent password.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:267</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul> |

| Key                             | Description  |
|---------------------------------|--|
| user!*!old_password_timestamp!* | <p>The timestamp of the nth most recent password. This key is of the form user!&lt;username&gt;!old_password_timestamp!&lt;n&gt;, and stores the timestamp when the user!&lt;username&gt;!old_password!&lt;n&gt; was recorded in the file. See 'user!*!old_password!*' config key description for more details.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:282</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| user!*!password                 | <p>A salted MD5 hash of the user's password. User records from older versions of the software may use a crypt()-style hash.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:240</li> <li>• Value type: password</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| user!*!password!timestamp       | <p>Timestamp representing the time that the current password was created. This is used internally by the software to track password expiry.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:251</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| user!*!status                   | <p>The user's status.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:318</li> <li>• Value type: enumeration</li> <li>• Default value: "1"</li> <li>• Permitted values:<br/>1: Active<br/>2: Suspended</li> </ul>   |
| user!*!trafficscript_editor     | <p>Use the advanced TrafficScript editor when modifying rules. This adds automatic line numbering, syntax highlighting and indentation.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:307</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| user!*!use_applet               | <p>Enable the Admin Server UI traffic monitoring applet.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/balancer.cpp:290</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |



## conf/vservers

The conf/vservers directory contains configuration files that define virtual servers. The name of a file is the name of the virtual server it defines. Virtual servers can be configured under the Services > Virtual Servers section of the Admin Server UI or by using functions under the VirtualServer section of the SOAP API and CLI.

| Key                   | Description  |
|-----------------------|--|
| add_cluster_ip        | <p>Whether or not the virtual server should add an "X-Cluster-Client-Ip" header to the request that contains the remote client's IP address.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:689</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| add_x_forwarded_for   | <p>Whether or not the virtual server should append the remote client's IP address to the X-Forwarded-For header. If the header does not exist, it will be added.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:700</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>                       |
| add_x_forwarded_proto | <p>Whether or not the virtual server should add an "X-Forwarded-Proto" header to the request that contains the original protocol used by the client to connect to the traffic manager.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:721</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| address               | <p>The addresses on which to listen for incoming connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:150</li> <li>Value type: list</li> <li>Default value: "*"</li> </ul>   |
| alt_certificates      | <p>The SSL certificates and corresponding private keys.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1458</li> <li>Requires: ssl_decrypt is set to "Yes"</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| optimizer!enabled     | <p>Whether the virtual server should optimize web content.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2039</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

| Key                      | Description   |
|--------------------------|---|
| optimizer!profile!*!urls | <p>The application scopes for which to apply a particular acceleration profile.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2048</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| auth!saml!idp            | <p>Name of the Trusted Identity Provider configuration to use. To create Identity Providers, please visit section Trusted Identity Providers</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:156</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| auth!saml!nameid_format  | <p>The NameID format to request and expect from the identity provider.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:167</li> <li>Value type: enumeration</li> <li>Default value: "none"</li> <li>Permitted values:<br/>none: none<br/>unspecified: unspecified<br/>emailAddress: emailAddress</li> </ul>  |
| auth!saml!sp_acs_url     | <p>The 'Assertion Consumer Service' endpoint for the SAML service provider on this virtual server, ie the endpoint to which the identity provider will cause the user agent to send SAML assertions. This should be an HTTPS URL, must be in the same cookie domain as all hostnames used by the end user to access the virtual server (see cookie configuration) and the port must be the port on which this virtual server is listening. It must match the URI placed by the identity provider in the 'Recipient' attribute in the SAML assertion, if present.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:143</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| auth!saml!sp_entity_id   | <p>The entity ID to be used by the SAML service provider function on this virtual server. This should usually be a URL, or a URN, however it may be any string. It must match the entity ID placed by the identity provider in the 'Audience' field in the SAML assertion.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:123</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                             | Description  |
|---------------------------------|--|
| auth!saml!time_tolerance        | <p>Time tolerance on authentication checks. When checking time-stamps and expiry dates against the current time on the system, allow a tolerance of this many seconds. For example, if a SAML response contains a 'NotOnOrAfter' that is 4 seconds in the past according to the local time, and the tolerance is set to 5 seconds, it will still be accepted. This is to prevent a lack of clock synchronization from resulting in rejection of SAML responses.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:107</li> <li>• Value type: seconds</li> <li>• Default value: "5"</li> </ul> |
| auth!session!cookie_attribute   | <p>Attributes of cookie used for authentication session.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:72</li> <li>• Value type: string</li> <li>• Default value: "HttpOnly; SameSite=Strict"</li> </ul>  |
| auth!session!cookie_name        | <p>Name of cookie used for authentication session.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:61</li> <li>• Value type: string</li> <li>• Default value: "VS_SamlSP_Auth"</li> </ul>   |
| auth!session!log_external_state | <p>Whether or not to include state of authentication sessions stored encrypted on the client as plaintext in the logs.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:89</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| auth!session!timeout            | <p>Timeout on authentication session.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:82</li> <li>• Value type: seconds</li> <li>• Default value: "7200"</li> </ul>   |
| auth!type                       | <p>Type of authentication to apply to requests to the virtual server.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:40</li> <li>• Value type: enumeration</li> <li>• Default value: "none"</li> <li>• Permitted values:<br/>none: None<br/>saml_sp: SAML Service Provider</li> </ul>  |

| Key                        | Description  |
|----------------------------|--|
| auth!verbose               | <p>Whether or not detailed messages about virtual server authentication should be written to the error log.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:48</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| auto_upgrade_protocols     | <p>A case-insensitive list of HTTP "Upgrade" header values that will trigger the HTTP connection upgrade auto-detection.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:784</li> <li>Value type: list</li> <li>Default value: "websocket"</li> </ul>   |
| autodetect_upgrade_headers | <p>Whether the traffic manager should check for HTTP responses that confirm an HTTP connection is transitioning to the WebSockets protocol. If that such a response is detected, the traffic manager will cease any protocol-specific processing on the connection and just pass incoming data to the client/server as appropriate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:772</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| bandwidth_class            | <p>The bandwidth management class that this server should use, if any.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:230</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| client_cas                 | <p>The certificate authorities that this virtual server should trust to validate client certificates. If no certificate authorities are selected, and client certificates are requested, then all client certificates will be accepted.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1820</li> <li>Requires: ssl_decrypt is set to "Yes"</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| close_with_rst             | <p>Whether or not connections from clients should be closed with a RST packet, rather than a FIN packet. This avoids the TIME_WAIT state, which on rare occasions allows wandering duplicate packets to be safely ignored.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:383</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

| Key                | Description  |
|--------------------|--|
| completionrules    | <p>Rules that are run at the end of a transaction, in order, comma separated.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:260</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| connect_timeout    | <p>The time, in seconds, for which an established connection can remain idle waiting for some initial data to be received from the client. The initial data is defined as a complete set of request headers for HTTP, SIP and RTSP services, or the first byte of data for all other services. A value of 0 will disable the timeout.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:571</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>                           |
| cookie!domain      | <p>The way in which the traffic manager should rewrite the domain portion of any cookies set by a back-end web server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1022</li> <li>Value type: enumeration</li> <li>Default value: "0"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>0: Do not rewrite the domain</li> <li>1: Rewrite the domain to the host header of the request</li> <li>2: Rewrite the domain to the named domain value</li> </ul> </li> </ul> |
| cookie!newdomain   | <p>The domain to use when rewriting a cookie's domain to a named value.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1034</li> <li>Requires: cookie!domain is set to "2"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| cookie!pathregex   | <p>If you wish to rewrite the path portion of any cookies set by a back-end web server, provide a regular expression to match the path:</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1044</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| cookie!pathreplace | <p>If cookie path regular expression matches, it will be replaced by this substitution. Parameters \$1-\$9 can be used to represent bracketed parts of the regular expression.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1056</li> <li>Requires: cookie!pathregex is set to a regular expression</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                    | Description  |
|------------------------|--|
| cookie!secure          | <p>Whether or not the traffic manager should modify the "secure" tag of any cookies set by a back-end web server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1071</li> <li>Value type: enumeration</li> <li>Default value: "0"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>0: Do not modify the 'secure' tag</li> <li>1: Set the 'secure' tag</li> <li>2: Unset the 'secure' tag</li> </ul> </li> </ul> |
| dns!edns_client_subnet | <p>Enable/Disable use of EDNS client subnet option</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2269</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| dns!edns_udpsize       | <p>EDNS UDP size advertised in responses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2216</li> <li>Value type: unsigned integer</li> <li>Default value: "4096"</li> </ul>   |
| dns!max_udpsize        | <p>Maximum UDP answer size.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2224</li> <li>Value type: unsigned integer</li> <li>Default value: "4096"</li> </ul>   |
| dns!rrset_order        | <p>Response record ordering.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2255</li> <li>Value type: enumeration</li> <li>Default value: "fixed"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>fixed: Fixed</li> <li>cyclic: Cyclic</li> </ul> </li> </ul>   |
| dns!verbose            | <p>Whether or not the DNS Server should emit verbose logging. This is useful for diagnosing problems.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2244</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| dns!zones              | <p>The DNS zones</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2236</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                     | Description   |
|-------------------------|---|
| enabled                 | <p>Whether the virtual server is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:127</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| error_file              | <p>Specify how the traffic manager should respond to the client when an internal or backend error is detected. In addition to sending custom or default error pages, the traffic manager can be instructed to close the connection without returning a response.</p> <p>Custom error pages can be uploaded via the Extra Files catalog page.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:670</li> <li>Value type: string</li> <li>Default value: "Default"</li> </ul> |
| ftp!ssl_data            | <p>Use SSL on the data connection as well as the control connection (if not enabled it is left to the client and server to negotiate this).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1778</li> <li>Requires: ssl_decrypt is set to "Yes"</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| ftp_data_source_port    | <p>The source port to be used for active-mode FTP data connections. If 0, a random high port will be used, otherwise the specified port will be used. If a port below 1024 is required you must first explicitly permit use of low ports with the ftp_data_bind_low global setting.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1126</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| ftp_force_client_secure | <p>Whether or not the virtual server should require that incoming FTP data connections from the client originate from the same IP address as the corresponding client control connection.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1084</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ftp_force_server_secure | <p>Whether or not the virtual server should require that incoming FTP data connections from the nodes originate from the same IP address as the node.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1093</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |

| Key                | Description  |
|--------------------|--|
| ftp_portrange_high | <p>If non-zero, then this controls the upper bound of the port range to use for FTP data connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1108</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| ftp_portrange_low  | <p>If non-zero, then this controls the lower bound of the port range to use for FTP data connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1101</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| glb_services       | <p>The associated GLB services for this DNS virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2202</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| gzip!chunk         | <p>Use HTTP chunking to deliver data to the client. If this is turned off, we won't use chunking when gzipping server data. This would mean that the response couldn't be kept-alive.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1379</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |
| gzip!compresslevel | <p>Compression level (1-9, 1=low, 9=high).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1349</li> <li>Value type: unsigned integer</li> <li>Default value: "1"</li> </ul>   |
| gzip!enabled       | <p>Compress web pages sent back by the server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1341</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |



| Key                   | Description   |
|-----------------------|---|
| gzip!etag_rewrite     | <p>How the ETag header should be manipulated when compressing content.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1410</li> <li>Value type: enumeration</li> <li>Default value: "wrap"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>ignore: Leave the ETag unchanged</li> <li>delete: Delete the ETag header</li> <li>weaken: Change the ETag header to specify a weak match</li> <li>wrap: Wrap the ETag, and attempt to unwrap safe conditional requests</li> </ul> </li> </ul> |
| gzip!include_mime     | <p>MIME types to compress. Complete MIME types can be used, or a type can end in a '*' to match multiple types.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1397</li> <li>Value type: list</li> <li>Default value: "text/html text/plain"</li> </ul>  |
| gzip!maxsize          | <p>Maximum document size to compress (0 means unlimited).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1365</li> <li>Value type: bytes</li> <li>Default value: "10000000"</li> </ul>   |
| gzip!minsize          | <p>Minimum document size to compress.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1357</li> <li>Value type: bytes</li> <li>Default value: "1000"</li> </ul>   |
| gzip!nosize           | <p>Compress documents with no given size.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1371</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| http2!connect_timeout | <p>The time, in seconds, to wait for a request on a new HTTP/2 connection. If no request is received within this time, the connection will be closed. This setting overrides the connect_timeout setting. If set to 0 (zero), the value of connect_timeout will be used instead.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:863</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |

| Key                           | Description  |
|-------------------------------|--|
| http2!data_frame_size         | <p>This setting controls the preferred frame size used when sending body data to the client. If the client specifies a smaller maximum size than this setting, the client's maximum size will be used. Every data frame sent has at least a 9-byte header, in addition to this frame size, prepended to it.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:847</li> <li>• Value type: bytes</li> <li>• Default value: "4096"</li> </ul>   |
| http2!enabled                 | <p>This setting allows the HTTP/2 protocol to be used by a HTTP virtual server. Unless use of HTTP/2 is negotiated by the client, the virtual server will fall back to HTTP 1.x automatically.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:795</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| http2!header_table_size       | <p>This setting controls the amount of memory allowed for header compression on each HTTP/2 connection.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:804</li> <li>• Value type: bytes</li> <li>• Default value: "4096"</li> </ul>   |
| http2!headers_index_blacklist | <p>A list of header names that should never be compressed using indexing.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:938</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| http2!headers_index_default   | <p>The HTTP/2 HPACK compression scheme allows for HTTP headers to be compressed using indexing. Sensitive headers can be marked as "never index", which prevents them from being compressed using indexing. When this setting is Yes, only headers included in http2!headers_index_blacklist are marked as "never index". When this setting is No, all headers will be marked as "never index" unless they are included in http2!headers_index_whitelist.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:929</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul> |
| http2!headers_index_whitelist | <p>A list of header names that can be compressed using indexing when the value of http2!headers_index_default is set to No.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:950</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>  |

| Key                             | Description   |
|---------------------------------|---|
| http2!headers_size_limit        | <p>The maximum size, in bytes, of decompressed headers for an HTTP/2 request. If the limit is exceeded, the connection on which the request was sent will be dropped. A value of 0 disables the limit check. If a service protection class with http!max_header_length configured is associated with this service then that setting will take precedence.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:963</li> <li>• Value type: unsigned integer</li> <li>• Default value: "262144"</li> </ul> |
| http2!idle_timeout_no_streams   | <p>The time, in seconds, to wait for a new HTTP/2 request on a previously used HTTP/2 connection that has no open HTTP/2 streams. If an HTTP/2 request is not received within this time, the connection will be closed. A value of 0 (zero) will disable the timeout.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:876</li> <li>• Value type: unsigned integer</li> <li>• Default value: "120"</li> </ul>  |
| http2!idle_timeout_open_streams | <p>The time, in seconds, to wait for data on an idle HTTP/2 connection, which has open streams, when no data has been sent recently (e.g. for long-poll requests). If data is not sent within this time, all open streams and the HTTP/2 connection will be closed. A value of 0 (zero) will disable the timeout.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:890</li> <li>• Value type: unsigned integer</li> <li>• Default value: "600"</li> </ul>  |
| http2!max_concurrent_streams    | <p>This setting controls the number of streams a client is permitted to open concurrently on a single connection.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:823</li> <li>• Value type: unsigned integer</li> <li>• Default value: "200"</li> </ul>  |
| http2!max_frame_size            | <p>This setting controls the maximum HTTP/2 frame size clients are permitted to send to the traffic manager.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:832</li> <li>• Value type: bytes</li> <li>• Default value: "16384"</li> </ul>  |
| http2!max_header_padding        | <p>The maximum size, in bytes, of the random-length padding to add to HTTP/2 header frames. The padding, a random number of zero bytes up to the maximum specified.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:902</li> <li>• Value type: bytes</li> <li>• Default value: "0"</li> </ul>   |

| Key                            | Description  |
|--------------------------------|--|
| http2!merge_cookie_headers     | <p>Whether Cookie headers received from an HTTP/2 client should be merged into a single Cookie header using RFC6265 rules before forwarding to an HTTP/1.1 server. Some web applications do not handle multiple Cookie headers correctly.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:912</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |
| http2!stream_window_size       | <p>This setting controls the flow control window for each HTTP/2 stream. This will limit the memory used for buffering when the client is sending body data faster than the pool node is reading it.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:814</li> <li>• Value type: bytes</li> <li>• Default value: "65535"</li> </ul>   |
| http_chunk_overhead_forwarding | <p>Handling of HTTP chunk overhead. When vTM receives data from a server or client that consists purely of protocol overhead (contains no payload), forwarding of such segments is delayed until useful payload data arrives (setting "lazy"). Changing this key to "eager" will make vTM incur the overhead of immediately passing such data on; it should only be used with HTTP peers whose chunk handling requires it.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:759</li> <li>• Value type: enumeration</li> <li>• Default value: "lazy"</li> <li>• Permitted values:<br/>lazy: lazy<br/>eager: eager</li> </ul> |
| issued_certs_never_expire      | <p>When the virtual server verifies certificates signed by these certificate authorities, it doesn't check the 'not after' date, i.e., they are considered valid even after their expiration date has passed (but not if they have been revoked).</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1856</li> <li>• Requires: ssl_decrypt is set to "Yes"</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>  |

| Key                                    | Description   |
|--|---|
| issued_certs_never_expire_depth        | <p>This setting gives the number of certificates in a certificate chain beyond those listed as issued_certs_never_expire whose certificate expiry will not be checked. For example "0" will result in the expiry checks being made for certificates issued by issued_certs_never_expire certificates, "1" will result in no expiry checks being performed for the certificates directly issued by issued_certs_never_expire certificates, "2" will avoid checking expiry for certificates issued by certificates issued by the issued_certs_never_expire certificates as well, and so on.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1876</li> <li>Value type: unsigned integer</li> <li>Default value: "1"</li> </ul> |
| keepalive                              | <p>Whether or not the virtual server should use keepalive connections with the remote clients.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:679</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| keepalive_timeout                      | <p>The length of time that the virtual server should keep an idle keepalive connection before discarding it. A value of 0 (zero) will mean that the keepalives are never closed by the traffic manager.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:597</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>  |
| kerberos_protocol_transition!enabled   | <p>Whether or not the virtual server should use Kerberos Protocol Transition.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:180</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| kerberos_protocol_transition!principal | <p>The Kerberos principal this virtual server should use to perform Kerberos Protocol Transition.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:189</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| kerberos_protocol_transition!target    | <p>The Kerberos principal name of the service this virtual server targets.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver_auth.cpp:197</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                            | Description   |
|--------------------------------|---|
| location!regex                 | <p>If the 'Location' header matches this regular expression, rewrite the header using the 'location!replace' pattern:</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:992</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| location!replace               | <p>If the 'Location' header matches the 'location!regex' regular expression, rewrite the header with this pattern (parameters such as \$1-\$9 can be used to match parts of the regular expression):</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1005</li> <li>• Requires: location!regex is set to a regular expression</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| location!rewrite               | <p>The action the virtual server should take if the "Location" header does not match the location!regex regular expression.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:982</li> <li>• Value type: enumeration</li> <li>• Default value: "1"</li> <li>• Permitted values:<br/>0: Nothing;<br/>2: Rewrite the hostname to the request's "Host" header, and rewrite the protocol and port if necessary;<br/>1: Do not rewrite the hostname. Rewrite the protocol and port if the hostname matches the request's "Host" header.</li> </ul> |
| log!always_flush               | <p>Write log data to disk immediately, rather than buffering data.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2111</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| log!client_connection_failures | <p>Should the virtual server log failures occurring on connections to clients.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:629</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>  |
| log!enabled                    | <p>Whether or not to log connections to the virtual server to a disk on the file system.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2060</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |

| Key                             | Description  |
|---------------------------------|--|
| log!filename                    | <p>The name of the file in which to store the request logs. The filename can contain macros which will be expanded by the traffic manager to generate the full filename.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2089</li> <li>• Requires: log!enabled is set to "Yes"</li> <li>• Value type: string</li> <li>• Default value: "%zeushome%/zxtm/log/%v.log"</li> </ul>   |
| log!format                      | <p>The log file format. This specifies the line of text that will be written to the log file when a connection to the traffic manager is completed. Many parameters from the connection can be recorded using macros.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2105</li> <li>• Requires: log!enabled is set to "Yes"</li> <li>• Value type: string</li> <li>• Default value: "%h %l %u %t "%r" %s %b "%{Referer}i" "%{User-agent}i""</li> </ul> |
| log!save_all                    | <p>Whether to log all connections by default, or log no connections by default. Specific connections can be selected for addition to or exclusion from the log using the TrafficScript function requestlog.include().</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2072</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| log!server_connection_failures  | <p>Should the virtual server log failures occurring on connections to nodes.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:623</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| log!session_persistence_verbose | <p>Should the virtual server log session persistence events.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:651</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |
| log!ssl_failures                | <p>Should the virtual server log failures occurring on SSL secure negotiation.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:635</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>   |

| Key                        | Description   |
|----------------------------|---|
| logssl_resumption_failures | <p>Should the virtual server log messages when attempts to resume SSL sessions (either from the session cache or a session ticket) fail. Note that failure to resume an SSL session does not result in the SSL connection being closed, but it does cause a full SSL handshake to take place.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:644</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| max_client_buffer          | <p>The amount of memory, in bytes, that the virtual server should use to store data sent by the client. Larger values will use more memory, but will minimise the number of read() and write() system calls that the traffic manager must perform.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:432</li> <li>Value type: bytes</li> <li>Default value: "65536"</li> </ul>  |
| max_concurrent_connections | <p>The maximum number of concurrent TCP connections that will be handled by this virtual server. If set to a non-zero value, the traffic manager will limit the number of concurrent TCP connections that this virtual server will accept to the value specified. When the limit is reached, new connections to this virtual server will not be accepted. If set to 0 the number of concurrent TCP connections will not be limited.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:347</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>                      |
| max_server_buffer          | <p>The amount of memory, in bytes, that the virtual server should use to store data returned by the server. Larger values will use more memory, but will minimise the number of read() and write() system calls that the traffic manager must perform.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:444</li> <li>Value type: bytes</li> <li>Default value: "65536"</li> </ul>  |
| max_transaction_duration   | <p>The total amount of time a transaction can take, counted from the first byte being received until the transaction is complete. For HTTP, this can mean all data has been written in both directions, or the connection has been closed; in most other cases it is the same as the connection being closed.</p> <p>The default value of 0 means there is no maximum duration, i.e., transactions can take arbitrarily long if none of the other timeouts occur.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:615</li> <li>Value type: seconds</li> <li>Default value: "0"</li> </ul> |



| Key          | Description   |
|--------------|---|
| mimeldefault | <p>Auto-correct MIME types if the server sends the "default" MIME type for files.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:743</li> <li>Value type: string</li> <li>Default value: "text/plain"</li> </ul>   |
| mimeldetect  | <p>Auto-detect MIME types if the server does not provide them.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:730</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| mss          | <p>The maximum TCP segment size. This will place a maximum on the size of TCP segments that are sent by this machine, and will advertise to the client this value as the maximum size of TCP segment to send to this machine. Setting this to zero causes the default maximum TCP segment size to be advertised and used.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:396</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| note         | <p>A description for the virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:159</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| pool         | <p>The default pool to use for traffic.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:196</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| port         | <p>The port on which to listen for incoming connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:136</li> <li>Value type: unsigned integer</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| private_key  | <p>The SSL private key.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1435</li> <li>Requires: ssl_decrypt is set to "Yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key        | Description   |
|------------|---|
| protection | <p>The service protection class that should be used to protect this server, if any.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:209</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| protocol   | <p>The protocol that the virtual server is using.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:185</li> <li>• Value type: enumeration</li> <li>• Default value: "http"</li> <li>• Permitted values: <ul style="list-style-type: none"> <li>http: HTTP</li> <li>ftp: FTP</li> <li>imapv2: IMAPv2</li> <li>imapv3: IMAPv3</li> <li>imapv4: IMAPv4</li> <li>pop3: POP3</li> <li>smtp: SMTP</li> <li>ldap: LDAP</li> <li>telnet: Telnet</li> <li>ssl: SSL</li> <li>https: SSL (HTTPS)</li> <li>imaps: SSL (IMAPS)</li> <li>pop3s: SSL (POP3S)</li> <li>ldaps: SSL (LDAPS)</li> <li>udpstreaming: UDP - Streaming</li> <li>udp: UDP</li> <li>dns: DNS (UDP)</li> <li>dns_tcp: DNS (TCP)</li> <li>sipudp: SIP (UDP)</li> <li>siptcp: SIP (TCP)</li> <li>rtsp: RTSP</li> <li>server_first: Generic server first</li> <li>client_first: Generic client first</li> <li>stream: Generic streaming</li> </ul> </li> </ul> |

| Key                     | Description   |
|-------------------------|---|
| proxy_close             | <p>If set to Yes the traffic manager will send the client FIN to the back-end server and wait for a server response instead of closing the connection immediately. This is only necessary for protocols that require half-close support to function correctly, such as "rsh". If the traffic manager is responding to the request itself, setting this key to Yes will cause the traffic manager to continue writing the response even after it has received a FIN from the client.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:366</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| proxy_protocol          | <p>Expect connections to the traffic manager to be prefixed with a PROXY protocol header. If enabled, the information contained in the PROXY header will be available in TrafficScript. Connections that are not prefixed with a valid PROXY protocol header will be discarded.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:409</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| proxy_protocol_optional | <p>Connections which do not include a PROXY protocol header are not rejected, but are treated as ordinary non-PROXY protocol connections. DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:418</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| public_cert             | <p>The SSL public certificate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1445</li> <li>Requires: ssl_decrypt is set to "Yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| recent_conns!enabled    | <p>Whether or not connections handled by this virtual server should be shown on the Activity &gt; Connections page.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:472</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| recent_conns!save_all   | <p>Whether or not all connections handled by this virtual server should be shown on the Connections page. Individual connections can be selectively shown on the Connections page using the recentconns.include() TrafficScript function.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:485</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

| Key                           | Description  |
|-------------------------------|--|
| request_client_cert           | <p>Whether or not the virtual server should request an identifying certificate from each client.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1795</li> <li>Value type: enumeration</li> <li>Default value: "0"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>0: Do not request a client certificate</li> <li>1: Request, but do not require a client certificate</li> <li>2: Require a client certificate</li> </ul> </li> </ul> |
| request_tracing!enabled       | <p>Record a trace of major connection processing events for each request and response.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:493</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| request_tracing!trace_io      | <p>Include details of individual I/O events in request and response traces. Requires request tracing to be enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:503</li> <li>Requires: request_tracing!enabled is set to "Yes"</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| responserules                 | <p>Rules to be applied to responses, in order, comma separated.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:250</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| rtsp_streaming_portrange_high | <p>If non-zero this controls the upper bound of the port range to use for streaming data connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1143</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| rtsp_streaming_portrange_low  | <p>If non-zero this controls the lower bound of the port range to use for streaming data connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1136</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |

| Key                    | Description   |
|------------------------|---|
| rtsp_streaming_timeout | <p>If non-zero data-streams associated with RTSP connections will timeout if no data is transmitted for this many seconds.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1154</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| rules                  | <p>Rules to be applied to incoming requests, in order, comma separated.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:241</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| rules_on_connect       | <p>Only applicable for Client First Generic Protocol. Allows Virtual Traffic Manager to execute rules on a client connects without waiting for data from the client.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:267</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| serverfirst_banner     | <p>If specified, the traffic manager will use the value as the banner to send for server-first protocols such as FTP, POP, SMTP and IMAP. This allows rules to use the first part of the client data (such as the username) to select a pool. The banner should be in the correct format for the protocol, e.g. for FTP it should start with "220 "</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1331</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>              |
| sip_dangerous_requests | <p>The action to take when a SIP request with body data arrives that should be routed to an external IP.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1299</li> <li>Value type: enumeration</li> <li>Default value: "node"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>node: Send the request to a back-end node</li> <li>forbid: Send a 403 Forbidden response to the client</li> <li>forward: Forward the request to its target URI (dangerous)</li> </ul> </li> </ul> |
| sip_follow_route       | <p>Should the virtual server follow routing information contained in SIP requests. If set to No requests will be routed to the chosen back-end node regardless of their URI or Route header.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1285</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |

| Key                          | Description  |
|------------------------------|--|
| sip_max_connection_mem       | <p>SIP clients can have several pending requests at one time. To protect the traffic manager against DoS attacks, this setting limits the amount of memory each client can use. When the limit is reached new requests will be sent a 413 response. If the value is set to 0 (zero) the memory limit is disabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1314</li> <li>Value type: bytes</li> <li>Default value: "65536"</li> </ul> |
| sip_mode                     | <p>The mode that this SIP virtual server should operate in.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1240</li> <li>Value type: enumeration</li> <li>Default value: "pi"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>lb: SIP Routing</li> <li>pi: SIP Gateway</li> <li>fc: Full Gateway</li> </ul> </li> </ul>   |
| sip_rewrite_uri              | <p>Replace the Request-URI of SIP requests with the address of the selected back-end node.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1273</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| sip_streaming_portrange_high | <p>If non-zero this controls the upper bound of the port range to use for streaming data connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1255</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| sip_streaming_portrange_low  | <p>If non-zero, then this controls the lower bound of the port range to use for streaming data connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1248</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| sip_streaming_timeout        | <p>If non-zero a UDP stream will timeout when no data has been seen within this time.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1264</li> <li>Value type: seconds</li> <li>Default value: "60"</li> </ul>  |

| Key                     | Description  |
|-------------------------|--|
| sip_timeout_messages    | <p>When timing out a SIP transaction, send a 'timed out' response to the client and, in the case of an INVITE transaction, a CANCEL request to the server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1226</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| sip_transaction_timeout | <p>The virtual server should discard a SIP transaction when no further messages have been seen within this time.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1216</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>   |
| slm                     | <p>The service level monitoring class that this server should use, if any.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:220</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| smtp!expect_starttls    | <p>Whether or not the traffic manager should expect the connection to start off in plain text and then upgrade to SSL using STARTTLS when handling SMTP traffic.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1767</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| so_nagle                | <p>Whether or not Nagle's algorithm should be used for TCP connections.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:373</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssl_cipher_suites       | <p>The SSL/TLS cipher suites to allow for connections to this virtual server. Leaving this empty will make the virtual server use the globally configured cipher suites, see configuration key <code>ssl!cipher_suites</code> in the Global Settings section of the System tab. See there for how to specify SSL/TLS cipher suites.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1575</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |

| Key                     | Description   |
|-------------------------|---|
| ssl_client_cert_headers | <p>What HTTP headers the virtual server should add to each request to show the data in the client certificate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1890</li> <li>Value type: enumeration</li> <li>Default value: "none"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>none: No data</li> <li>simple: Certificate fields</li> <li>all: Certificate fields and certificate text</li> </ul> </li> </ul>  |
| ssl_decrypt             | <p>Whether or not the virtual server should decrypt incoming SSL traffic.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1425</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssl_elliptic_curves     | <p>The SSL elliptic curve preference list for SSL connections to this virtual server using TLS version 1.0 or higher. Leaving this empty will make the virtual server use the globally configured preference list, ssl!elliptic_curves in the Global Settings section of the System tab. See there for how to specify elliptic curves.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1627</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssl_headers             | <p>Whether or not the virtual server should add HTTP headers to each request to show the SSL connection parameters.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1513</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| ssl_honor_fallback_scsv | <p>Whether or not the Fallback SCSV sent by TLS clients is honored by this virtual server. Choosing the global setting means the value of configuration key ssl!honor_fallback_scsv from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1756</li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for Fallback SCSV</li> <li>enabled: Enable Fallback SCSV</li> <li>disabled: Disable Fallback SCSV</li> </ul> </li> </ul> |



| Key                        | Description   |
|----------------------------|---|
| ssl_max_key_size           | <p>The maximum client RSA/DSA certificate key size that the virtual server should accept.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2014</li> <li>Value type: unsigned integer</li> <li>Default value: "2048"</li> </ul>   |
| ssl_min_key_size           | <p>The minimum client RSA/DSA certificate key size that the virtual server should accept.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2022</li> <li>Value type: unsigned integer</li> <li>Default value: "512"</li> </ul>  |
| ssl_ocsplissuer!*!aia      | <p>Whether or not the traffic manager should use AIA information contained in a client certificate to determine which OCSP responder to contact.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1930</li> <li>Value type: Yes / No</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssl_ocsplissuer!*!nonce    | <p>Use the OCSP nonce extension, which protects against OCSP replay attacks. Some OCSP servers do not support nonces.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1965</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values: <ul style="list-style-type: none"> <li>off: No nonce check</li> <li>on: Use nonce, server does not have to reply with nonce</li> <li>strict: Use nonce, server must reply with nonce</li> </ul> </li> </ul> |
| ssl_ocsplissuer!*!required | <p>Should we do an OCSP check for this issuer, and is it required or optional.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1922</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values: <ul style="list-style-type: none"> <li>none: None</li> <li>optional: OCSP check optional</li> <li>strict: OCSP check required</li> </ul> </li> </ul>   |

| Key                                    | Description  |
|--|--|
| ssl_ocspissuer!*!responder_certificate | <p>The expected responder certificate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1975</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ssl_ocspissuer!*!signer                | <p>If set the request will be signed with the supplied certificate.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1952</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ssl_ocspissuer!*!url                   | <p>Which OCSP responders this virtual server should use to verify client certificates.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1942</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ssl_ocsp_max_response_age              | <p>The number of seconds for which an OCSP response is considered valid if it has not yet exceeded the time specified in the 'nextUpdate' field. If set to 0 (zero) then OCSP responses are considered valid until the time specified in their 'nextUpdate' field.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1990</li> <li>Value type: seconds</li> <li>Default value: "0"</li> </ul>                    |
| ssl_ocsp_stapling                      | <p>If OCSP URIs are present in certificates used by this virtual server, then enabling this option will allow the traffic manager to provide OCSP responses for these certificates as part of the handshake, if the client sends a TLS status_request extension in the ClientHello.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1551</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| ssl_ocsp_time_tolerance                | <p>The number of seconds outside the permitted range for which the 'thisUpdate' and 'nextUpdate' fields of an OCSP response are still considered valid.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2002</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| ssl_ocsp_timeout                       | <p>The number of seconds after which OCSP requests will be timed out.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1911</li> <li>Value type: seconds</li> <li>Default value: "10"</li> </ul>  |

| Key                         | Description  |
|-----------------------------|--|
| ssl_send_close_alerts       | <p>Whether or not to send an SSL/TLS "close alert" when the traffic manager is initiating an SSL socket disconnection.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1536</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| ssl_session_cache_enabled   | <p>Whether or not use of the session cache is enabled for this virtual server. Choosing the global setting means the value of configuration key ssl!session_cache_enabled from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1718</li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for use of the session cache</li> <li>enabled: Enable use of the session cache</li> <li>disabled: Disable use of the session cache</li> </ul> </li> </ul> |
| ssl_session_tickets_enabled | <p>Whether or not use of session tickets is enabled for this virtual server. Choosing the global setting means the value of configuration key ssl!tickets!enabled from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1737</li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for use of session tickets</li> <li>enabled: Enable use of the session tickets</li> <li>disabled: Disable use of the session tickets</li> </ul> </li> </ul>       |
| ssl_signature_algorithms    | <p>The SSL signature algorithms preference list for SSL connections to this virtual server using TLS version 1.2 or higher. Leaving this empty will make the virtual server use the globally configured preference list, ssl!signature_algorithms in the Global Settings section of the System tab. See there for how to specify TLS signature algorithms.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1602</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                          | Description   |
|------------------------------|---|
| ssl_sites!*!alt_certificates | <p>The SSL public certificates for a particular destination site IP or SNI hostname. The specific site replaces the * (asterisk) in the key name, the value must be a valid file name in the conf/ssl/server_keys directory without the private or public file name extensions. The key can be specified multiple times to cover multiple IP addresses.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1504</li> <li>• Requires: ssl_decrypt is set to "Yes"</li> <li>• Value type: list</li> <li>• Default value: &lt;none&gt;</li> </ul>                 |
| ssl_sites!*!private_key      | <p>The SSL private key for a particular destination site IP.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1468</li> <li>• Requires: ssl_decrypt is set to "Yes"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |
| ssl_sites!*!public_cert      | <p>The SSL public certificate for a particular destination site IP or SNI hostname. The specific site replaces the * (asterisk) in the key name, the value must be a valid certificate in the conf/ssl/server_keys directory. The key can be specified multiple times to cover multiple IP addresses.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1484</li> <li>• Requires: ssl_decrypt is set to "Yes"</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |
| ssl_support_ssl3             | <p>Whether or not SSLv3 is enabled for this virtual server. Choosing the global setting means the value of configuration key ssl_support_ssl3 from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1644</li> <li>• Value type: enumeration</li> <li>• Default value: "use_default"</li> <li>• Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for SSLv3</li> <li>enabled: Enable SSLv3</li> <li>disabled: Disable SSLv3</li> </ul> </li> </ul> |

| Key                | Description   |
|--------------------|---|
| ssl_support_tls1   | <p>Whether or not TLSv1.0 is enabled for this virtual server. Choosing the global setting means the value of configuration key <code>ssl!support_tls1</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1661</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for TLSv1.0</li> <li>enabled: Enable TLSv1.0</li> <li>disabled: Disable TLSv1.0</li> </ul> </li> </ul>   |
| ssl_support_tls1_1 | <p>Whether or not TLSv1.1 is enabled for this virtual server. Choosing the global setting means the value of configuration key <code>ssl!support_tls1_1</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1680</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for TLSv1.1</li> <li>enabled: Enable TLSv1.1</li> <li>disabled: Disable TLSv1.1</li> </ul> </li> </ul> |
| ssl_support_tls1_2 | <p>Whether or not TLSv1.2 is enabled for this virtual server. Choosing the global setting means the value of configuration key <code>ssl!support_tls1_2</code> from the Global Settings section of the System tab will be enforced.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1699</code></li> <li>Value type: enumeration</li> <li>Default value: "use_default"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>use_default: Use the global setting for TLSv1.2</li> <li>enabled: Enable TLSv1.2</li> <li>disabled: Disable TLSv1.2</li> </ul> </li> </ul> |
| ssl_trust_magic    | <p>If the traffic manager is receiving traffic sent from another traffic manager, then enabling this option will allow it to decode extra information on the true origin of the SSL connection. This information is supplied by the first traffic manager.</p> <ul style="list-style-type: none"> <li>From: <code>/home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1526</code></li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

| Key                     | Description  |
|-------------------------|--|
| ssl_use_ocsp            | <p>Whether or not the traffic manager should use OCSP to check the revocation status of client certificates.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1902</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| strip_x_forwarded_proto | <p>Whether or not the virtual server should strip the 'X-Forwarded-Proto' header from incoming requests.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:709</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| syslog!enabled          | <p>Whether or not to log connections to the virtual server to a remote syslog host.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2121</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| syslog!format           | <p>The log format for the remote syslog. This specifies the line of text that will be sent to the remote syslog when a connection to the traffic manager is completed. Many parameters from the connection can be recorded using macros.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2184</li> <li>Requires: syslog!enabled is set to "Yes"</li> <li>Value type: string</li> <li>Default value: "%h %l %u %t "%r" %s %b "%{Referer}i" "%{User-agent}i""</li> </ul> |
| syslog!ipendpoint       | <p>The remote host and port (default is 514) to send request log lines to.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2136</li> <li>Requires: syslog!enabled is set to "Yes"</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| syslog!msg_len_limit    | <p>Maximum length in bytes of a message sent to the remote syslog. Messages longer than this will be truncated before they are sent.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2148</li> <li>Requires: syslog!enabled is set to "Yes"</li> <li>Value type: unsigned integer</li> <li>Default value: "1024"</li> </ul>  |

| Key                                      | Description  |
|--|--|
| timeout                                  | <p>A connection should be closed if no additional data has been received for this period of time. A value of 0 (zero) will disable this timeout. Note that the default value may vary depending on the protocol selected.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:585</li> <li>Value type: seconds</li> <li>Default value: "300"</li> </ul>  |
| transaction_export!brief                 | <p>Whether to export a restricted set of metadata about transactions processed by this virtual server. If enabled, more verbose information such as client and server headers and request tracing events will be omitted from the exported data.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:539</li> <li>Requires: transaction_export!enabled is set to "Yes"</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| transaction_export!enabled               | <p>Export metadata about transactions handled by this service to the globally configured endpoint. Data will be exported only if the global transaction_export!enabled setting is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:515</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| transaction_export!hi_res                | <p>Whether the transaction processing timeline included in the metadata export is recorded with a high, microsecond, resolution. If set to No, timestamps will be recorded with a resolution of milliseconds.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:527</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| transaction_export!http_header_blacklist | <p>The set of HTTP header names for which corresponding values should be redacted from the metadata exported by this virtual server.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:551</li> <li>Value type: list</li> <li>Default value: "Authorization"</li> </ul>  |
| transparent                              | <p>Whether or not bound sockets should be configured for transparent proxying.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:2277</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

| Key                             | Description  |
|---------------------------------|--|
| udp_endpoint_persistence        | <p>Whether UDP datagrams received from the same IP address and port are sent to the same pool node if they match an existing UDP session. Sessions are defined by the protocol being handled, for example SIP datagrams are grouped based on the value of the Call-ID header.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1205</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>            |
| udp_port_smp                    | <p>Whether or not UDP datagrams should be distributed across all traffic manager processes. This setting is not recommended if the traffic manager will be handling connection-based UDP protocols.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1191</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| udp_response_datagrams_expected | <p>The virtual server should discard any UDP connection and reclaim resources when the node has responded with this number of datagrams. For simple request/response protocols this can be often set to 1. If set to -1, the connection will not be discarded until the udp_timeout is reached.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1181</li> <li>Value type: int</li> <li>Default value: "1"</li> </ul> |
| udp_timeout                     | <p>The virtual server should discard any UDP connection and reclaim resources when no further UDP traffic has been seen within this time.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:1165</li> <li>Value type: seconds</li> <li>Default value: "7"</li> </ul>   |
| webcache!control_out            | <p>The "Cache-Control" header to add to every cached HTTP response, no-cache or max-age=600 for example.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:321</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| webcache!enabled                | <p>If set to Yes the traffic manager will attempt to cache web server responses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:278</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |



| Key                     | Description   |
|-------------------------|---|
| webcache!errorpage_time | Time period to cache error pages for. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:308</li> <li>Value type: seconds</li> <li>Default value: "30"</li> </ul>  |
| webcache!refresh_time   | If a cached page is about to expire within this time, the traffic manager will start to forward some new requests on to the web servers. A maximum of one request per second will be forwarded; the remainder will continue to be served from the cache. This prevents "bursts" of traffic to your web servers when an item expires from the cache. Setting this value to 0 will stop the traffic manager updating the cache before it expires. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:300</li> <li>Value type: seconds</li> <li>Default value: "2"</li> </ul> |
| webcache!time           | Maximum time period to cache web pages for. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:285</li> <li>Value type: seconds</li> <li>Default value: "600"</li> </ul>   |
| write_on_connect        | If set to Yes the traffic manager will try to write data to a back-end server before it has confirmation that the TCP connection has fully opened, saving time. Some operating systems allow this, but others will return errors and so it is not enabled by default.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/virtualserver.cpp:332</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |

## conf/zeusafm.conf

The conf/zeusafm.conf file contains configuration files for the application firewall. Some keys present in the zeusafm.conf are not documented here. Refer to the Pulse Secure Web Application Firewall documentation for further details. The configuration can be edited under the System > Application Firewall section of the Administration Server or by using functions under the AFM section of the SOAP API and CLI.

| Key                | Description   |
|--------------------|---|
| clusterPwd         | <p>The shared secret that all SAF cluster members use to communicate. Must be set and be consistent across the cluster</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/afm.cpp:105</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                       |
| decisionServerPort | <p>The port to which the Enforcer rule should send traffic so it can be distributed between the decider processes.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/afm.cpp:93</li> <li>Value type: unsigned integer</li> <li>Default value: "8100"</li> </ul>   |
| restServerIP       | <p>The Application Firewall REST Internal IP Address, always set to localhost when the traffic manager's REST API is enabled, otherwise blank.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/afm.cpp:69</li> <li>Value type: string</li> <li>Default value: "127.0.0.1"</li> </ul> |
| restServerUseSSL   | <p>If the Application Firewall should use SSL for its Internal REST server always set to No currently</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/afm.cpp:78</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| updaterPort        | <p>The Application Firewall Updater Slave Port, this port is used on all IP addresses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/afm.cpp:57</li> <li>Value type: unsigned integer</li> <li>Default value: "8092"</li> </ul>   |

## conf/zxtms

The conf/zxtms directory contains a configuration file for each traffic manager in your cluster. The name of each file is the hostname of the traffic manager it represents. These files contain host-specific configuration data and on each installation of the software, the conf/./global.cfg file is sym-linked to the host's own configuration in the conf/zxtms directory. The files may contain a variety of configuration options that are configured in various locations under the System section of the Admin Server UI and the System section of the SOAP API and CLI.

| Key                               | Description   |
|-----------------------------------|---|
| adminMasterXMLIP                  | <p>The Application Firewall master XML IP.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1429</li> <li>Value type: string</li> <li>Default value: "0.0.0.0"</li> </ul>   |
| adminMasterXMLPort                | <p>The Application Firewall XML Master port, this port is used on all IP addresses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1343</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>  |
| adminServerPort                   | <p>The Application Firewall Administration Server port, this port is only open on localhost.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1373</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| adminSlaveXMLIP                   | <p>The Application Firewall slave XML IP.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1441</li> <li>Value type: string</li> <li>Default value: "0.0.0.0"</li> </ul>  |
| adminSlaveXMLPort                 | <p>The Application Firewall XML Slave port, this port is used on all IP addresses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1357</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| aod-magic-fixed-decider-base-port | <p>The base port from which the Application Firewall decider processes should run. Ports will be used sequentially above this for each additional decider process that runs.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1296</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul> |
| appliance!card!*!interfaces       | <p>The order of the interfaces of a network card</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:734</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!card!*!label            | <p>The labels of the installed network cards</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:724</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                          | Description  |
|------------------------------|--|
| appliance!disable_cloud_init | <p>Whether to disable the cloud-init service</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:624</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |
| appliance!disable_kpti       | <p>Whether the traffic manager appliance should run without kernel page table isolation (KPTI). KPTI provides protection to prevent unprivileged software from being potentially able to read arbitrary memory from the kernel (i.e. the Meltdown attack, CVE-2017-5754); however this protection incurs a general system performance penalty. If you are running trusted software on the appliance, and the trade-off between performance at the cost of 'defense in depth' favors the former in your deployment, you may wish to enable this configuration key. If you are unsure, it is recommended that you leave this key disabled, which is also the default.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:640</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| appliance!dnscache           | <p>The DNS cache setting the appliance should use and place in /etc/systemd/resolved.conf.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:952</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!dnssec             | <p>The DNSSEC setting the appliance should use and place in /etc/systemd/resolved.conf.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:967</li> <li>Value type: enumeration</li> <li>Default value: "no"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>yes: DNSSEC enabled</li> <li>no: DNSSEC disabled</li> <li>allow_downgrade: Use DNSSEC when available</li> </ul> </li> </ul>   |
| appliance!enabled            | <p>Whether or not "appliance" features are enabled.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:574</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!gateway            | <p>The default gateway.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:898</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                    | Description   |
|------------------------|---|
| appliance!gateway6     | The default IPv6 gateway. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:907</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!hostname     | Name (hostname.domainname) of the appliance. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:882</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!hosts!*      | Static host name entries to be placed in the /etc/hosts file. The * (asterisk) in the key name is the host name, the value is the IP address. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1090</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!if!*!autoneg | Enable or disable auto-negotiation for an interface, the interface name is used in place of the * (asterisk). <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:805</li> <li>Value type: Yes / No</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!if!*!bmode   | Trunking mode (only 802.3ad is currently supported).<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:824</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values:<br/>802.3ad: IEEE 802.3ad<br/>balance-alb: Adaptive Load Balancing</li> </ul> |
| appliance!if!*!bond    | Make this interface a member of the specified trunk.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:815</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!if!*!duplex  | Enable or disable full-duplex for an interface, the interface name is used in place of the * (asterisk). <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:835</li> <li>Value type: Yes / No</li> <li>Default value: &lt;none&gt;</li> </ul>   |

| Key                       | Description   |
|---------------------------|---|
| appliance!if!*!mode       | <p>Set the configuration mode of an interface, the interface name is used in place of the * (asterisk).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:866</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values:<br/>Static: Static<br/>DHCP: DHCP</li> </ul>  |
| appliance!if!*!mtu        | <p>Set the maximum transmission unit (MTU) of the interface.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:855</li> <li>Value type: unsigned integer</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!if!*!speed      | <p>Set the speed of an interface, the interface name is used in place of the * (asterisk).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:846</li> <li>Value type: enumeration</li> <li>Default value: &lt;none&gt;</li> <li>Permitted values:<br/>10: 10Mbps<br/>100: 100Mbps<br/>1000: 1Gbps<br/>10000: 10Gbps<br/>40000: 40Gbps<br/>100000: 100Gbps</li> </ul> |
| appliance!ip!*!addr       | <p>Set the IP address for the interface, the interface name is used in place of the * (asterisk).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:752</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!ip!*!isexternal | <p>Set whether or not an interface is externally or internally facing, the interface name is used in place of the * (asterisk).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:775</li> <li>Value type: Yes / No</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!ip!*!mask       | <p>Set the IP mask (netmask) for an interface, the interface name is used in place of the * (asterisk).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:764</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                        | Description   |
|----------------------------|---|
| appliance!ip!ipmi!errlimit | <p>Number of consecutive unexpected errors allowed from ipmitool before reporting. If set to 0 all unexpected errors are reported, otherwise one is reported from each consecutive series of at least that many errors.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:787</li> <li>Value type: unsigned integer</li> <li>Default value: "10"</li> </ul> |
| appliance!ipmi!lan!access  | <p>Whether IPMI LAN access should be enabled or not.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1476</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| appliance!ipmi!lan!addr    | <p>The IP address of the appliance IPMI LAN channel.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1496</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!ipmi!lan!gateway | <p>The default gateway of the IPMI LAN channel.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1516</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!ipmi!lan!ipsrc   | <p>The addressing mode the IPMI LAN channel operates.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1486</li> <li>Value type: enumeration</li> <li>Default value: "static"</li> <li>Permitted values:<br/>static: Static IP Address<br/>dhcp: Address obtained by DHCP</li> </ul>  |
| appliance!ipmi!lan!mask    | <p>Set the IP netmask for the IPMI LAN channel.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1507</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!ipv4_forwarding  | <p>Whether or not IPv4 forwarding is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1105</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>   |

| Key                         | Description  |
|-----------------------------|--|
| appliance!ipv6_forwarding   | <p>Whether or not IPv6 forwarding is enabled.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1112</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| appliance!licence_agreed    | <p>Whether or not the license agreement has been accepted. This determines whether or not the Initial Configuration wizard is displayed.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1160</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul> |
| appliance!manageazureroutes | <p>Whether or not the software manages the Azure policy routing.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:28</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!managebootloader  | <p>Whether or not the software manages the system bootloader's password</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:596</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| appliance!managecron        | <p>Whether or not the software manages the system's cronjobs to ensure they are running as the correct user.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:589</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>                             |
| appliance!manageec2conf     | <p>Whether or not the software manages the EC2 config.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:86</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!managegateway     | <p>Whether or not the software manages the system's gateway configuration.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:889</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!managehostname    | <p>Whether or not the software manages the system's hostname.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:873</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |



| Key                           | Description  |
|-------------------------------|--|
| appliance!managehosts         | Whether or not the software manages the system's /etc/hosts file. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1077</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |
| appliance!manageif            | Whether or not the software manages system's network interfaces. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:795</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |
| appliance!manageip            | Whether or not the software manages the system's IP addresses. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:741</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |
| appliance!manageipmi          | Whether or not the software manages the system's IPMI configuration. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1127</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| appliance!manageiptrans       | Whether or not the software manages the IP transparency <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:603</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>  |
| appliance!managenat           | Whether or not the software manages the system's NAT configuration. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1098</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |
| appliance!managentpservers    | Whether or not the software manages which NTP servers the system uses. <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:703</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>                                       |
| appliance!managereservedports | Whether or not the software manages the system configuration for reserved ports <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:610</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>                              |
| appliance!manageresolver      | Whether or not the software manages the system's name resolution (i.e. the /etc/systemd/resolved.conf file). <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:916</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul> |

| Key                         | Description  |
|-----------------------------|--|
| appliance!managerreturnpath | <p>Whether or not the software manages return path routing. If disabled, the appliance won't modify iptables / rules / routes for this feature.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1068</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!manageroute       | <p>Whether or not the software manages the system's routing tables.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1008</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!manageservices    | <p>Whether or not the software manages the system services</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:617</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!managesnmp        | <p>Whether or not the software manages a system net-snmp service as a proxy to the internal SNMP service.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1120</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!managessh         | <p>Whether or not the software manages the system's SSH server settings.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:975</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!managesysctl      | <p>Whether or not the software manages user specified sysctl keys.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1171</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| appliance!managetimezone    | <p>Whether or not the software manages the system's timezone setting.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:581</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| appliance!manageusers       | <p>Whether or not the software manages system users. If enabled then users in the software's 'admin' group will be able to log into the system as a local 'admin' user with root privileges and the local 'root' user will have its password kept in sync with the software's 'admin' user.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1137</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul> |

| Key                     | Description   |
|-------------------------|---|
| appliance!managevpcconf | <p>Whether or not the software manages the EC2-VPC secondary IPs.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:79</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!nameservers   | <p>The IP addresses of the nameservers the appliance should use and place in /etc/systemd/resolved.conf.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:928</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!ntpserver     | <p>The NTP servers the appliance should use to synchronize its clock.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:713</li> <li>Value type: string</li> <li>Default value: "0.zeus.pool.ntp.org 1.zeus.pool.ntp.org 2.zeus.pool.ntp.org 3.zeus.pool.ntp.org"</li> </ul>   |
| appliance!routes!*!gw   | <p>One of the keys used to specify a route. The IP of the route destination is used in place of the * (asterisk) and the value is the gateway IP to configure for the route. See also appliance!routes!mask and appliance!routes!if.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1042</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>        |
| appliance!routes!*!if   | <p>One of the keys used to specify a route. The IP of the route destination is used in place of the * (asterisk) and the value is the network interface to configure for the route. See also appliance!routes!mask and appliance!routes!gw.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1059</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |
| appliance!routes!*!mask | <p>One of the keys used to specify a route. The IP of the route destination is used in place of the * (asterisk) and the value is the netmask to apply to the IP. See also appliance!routes!gw and appliance!routes!if.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1025</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                     |
| appliance!searchdomains | <p>The search domains the appliance should use and place in /etc/systemd/resolved.conf.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:940</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                            | Description   |
|--------------------------------|---|
| appliance!ssh!enabled          | Whether or not the SSH server is enabled on the appliance. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:983</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>  |
| appliance!ssh!passwordallowed  | Whether or not the SSH server allows password based login. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1001</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| appliance!ssh!port             | The port that the SSH server should listen on. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:992</li> <li>Value type: unsigned integer</li> <li>Default value: "22"</li> </ul>   |
| appliance!sysctl!*!description | Comments for user specified sysctl keys.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1193</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| appliance!sysctl!*!value       | User specified sysctl values for sysctl keys.<br>DO NOT SET OR MODIFY THIS KEY MANUALLY. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1183</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| appliance!timezone             | The timezone the appliance should use. This must be a path to a timezone file that exists under /usr/share/zoneinfo/. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:695</li> <li>Value type: string</li> <li>Default value: "US/Pacific"</li> </ul>  |
| appliance!vlans                | The VLANs the software should raise. A VLAN should be configured using the format <dev>.<vlanid>, where <dev> is the name of a network device that exists in the host system, eth0.100 for example. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1152</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul> |
| authenticationServerIP         | The Application Firewall Authentication Server IP. <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1453</li> <li>Value type: string</li> <li>Default value: "0.0.0.0"</li> </ul>   |

| Key                     | Description  |
|-------------------------|--|
| autodiscover!product_id | <p>This key overrides the product ID used by traffic manager instances to discover each other when clustering. Traffic managers will only discover each other if their product IDs are the same and their versions are compatible.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:257</li> <li>Value type: string</li> <li>Default value: "ZXTM"</li> </ul>   |
| bind_one                | <p>If set to Yes all connections to a given IP will always be handled by the same software process.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:421</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| cloud_platform          | <p>Cloud platform where the traffic manager is running.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1204</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| control!bindip          | <p>The IP address that the software should bind to for internal administration communications. See also controlport. If the software is not part of a cluster the default is to use 127.0.0.1 and there should be no reason to touch this setting. If the software is part of a cluster then the default is to listen on all raised IPs, in this case an alternative configuration is to listen on a single IP address. This may be useful if you have a separate management network and wish to restrict control messages to it. It is important to ensure that the controlallow (in the conf/settings.cfg file) is compatible with the IP configured here.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:185</li> <li>Value type: string</li> <li>Default value: "*"</li> </ul> |
| control!canupdate       | <p>Whether or not this instance of the software can send configuration updates to other members of the cluster. When not clustered this key is ignored. When clustered the value can only be changed by another machine in the cluster that has control!update set to Yes. If set to No then it will not be possible to log into the admin server for this instance.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:244</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |

| Key                     | Description   |
|-------------------------|---|
| control!certificate     | <p>The public part of the security certificate used to identify this traffic manager for the purposes of command and control messages.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:220</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>                    |
| control!verbose         | <p>Whether or not the control port should be verbose about connection errors. Enable for debugging control port problems.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:229</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>                                       |
| controlport             | <p>The port that the software should listen on for internal administration communications. See also control!bindip.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:163</li> <li>Value type: unsigned integer</li> <li>Default value: "9080"</li> </ul>  |
| decisionServerPortBase  | <p>The Application Firewall internal communication base port. The Application Firewall will use ports sequentially above this for internal communication. These ports are bound only to localhost.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1329</li> <li>Value type: unsigned integer</li> <li>Default value: "10000"</li> </ul> |
| developer_mode_accepted | <p>Whether user has accepted the Developer mode and will not be prompted for uploading license key</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:532</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| disk_serious            | <p>The percentage level of disk usage that triggers a SERIOUS event log entry</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:561</li> <li>Value type: unsigned integer</li> <li>Default value: "95"</li> </ul>   |
| disk_warn               | <p>The percentage level of disk usage that triggers a WARN event log entry</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:552</li> <li>Value type: unsigned integer</li> <li>Default value: "85"</li> </ul>  |

| Key                        | Description   |
|----------------------------|---|
| ec2!availability_zone      | <p>The availability zone of this EC2 instance, should be set when the appliance is first booted. Not required for non-EC2 systems.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:54</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| ec2!instanceid             | <p>The EC2 instance ID of this EC2 virtual appliance, should be set when the appliance is first booted. Not required for non-EC2 systems.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:42</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ec2!trafficips!public_enis | <p>List of MAC addresses of interfaces which the traffic manager can use to associate the EC2 elastic IPs (Traffic IPs) to the instance.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:98</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| ec2!vpcid                  | <p>The ID of the VPC the instance is in, should be set when the appliance is first booted. Not required for non-VPC EC2 or non-EC2 systems.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/global_cfg_keys.cpp:66</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| externalip                 | <p>This is the optional external ip of the traffic manager, which is used to circumvent natting when traffic managers in a cluster span different networks.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1231</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| flipper!bgp_router_id      | <p>The BGP router id</p> <p>If set to empty, then the IPv4 address used to communicate with the default IPv4 gateway is used instead.</p> <p>Specifying 0.0.0.0 will stop the traffic manager routing software from running the BGP protocol.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:658</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul> |

| Key                           | Description  |
|-------------------------------|--|
| flipper!ospfv2_ip             | <p>The traffic manager's permanent IPv4 address which the routing software will use for peering and transit traffic, and as its OSPF router ID.</p> <p>If set to empty, then the address used to communicate with the default IPv4 gateway is used instead.</p> <p>Specifying 0.0.0.0 will stop the traffic manager routing software from running the OSPF protocol.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:644</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| flipper!ospfv2_neighbor_addrs | <p>The IP addresses of routers which are expected to be found as OSPFv2 neighbors of the traffic manager. A warning will be reported if some of the expected routers are not peered, and an error will be reported if none of the expected routers are peered. An empty list disables monitoring. The special value %gateway% is a placeholder for the default gateway.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:491</li> <li>• Value type: list</li> <li>• Default value: "%gateway%"</li> </ul>      |
| flipper!rhi_support           | <p>This key does nothing.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:465</li> <li>• Value type: Yes / No</li> <li>• Default value: "No"</li> </ul>  |
| flipper!routing_sw_log_level  | <p>The routing software log level. Values are: 0 - emergency 1 - alert 2 - critical 3 - error 4 - warning 5 - notification 6 - informational 7 - debug Messages with priority less or equal to the set level will be logged.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:677</li> <li>• Value type: unsigned integer</li> <li>• Default value: "4"</li> </ul>   |
| gid                           | <p>The group ID that the software's worker processes will run as. For example, on typical Linux installations this could be set to 65534 for the unprivileged "nobody" group.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:147</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>   |



| Key                      | Description  |
|--------------------------|--|
| iptables!config_enabled  | <p>Whether the Traffic Manager should configure the iptables built-in chains to call Traffic Manager defined rules (e.g. the IP transparency chain). This should only be disabled in case of conflict with other software that manages iptables, e.g. firewalls. When disabled, you will need to add rules manually to use these features - see the user manual for details.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:650</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul> |
| iptrans!chain            | <p>The iptables named chain to use for IP transparency rules.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:669</li> <li>• Value type: string</li> <li>• Default value: "STM_IPTrans"</li> </ul>  |
| iptrans!fwmark           | <p>The netfilter forwarding mark to use for IP transparency rules</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:675</li> <li>• Value type: unsigned integer</li> <li>• Default value: "320"</li> </ul>  |
| iptrans!iptables_enabled | <p>Whether IP transparency may be used via netfilter/iptables. This requires Linux 2.6.24 and the iptables socket extension. For older Linux versions, the "ztrans" kernel module may be used instead.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:658</li> <li>• Value type: Yes / No</li> <li>• Default value: "Yes"</li> </ul>   |
| iptrans!routing_table    | <p>The special routing table ID to use for IP transparency rules</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:682</li> <li>• Value type: unsigned integer</li> <li>• Default value: "320"</li> </ul>   |
| java!port                | <p>The port the Java Extension handler process should listen on. This port will be bound for localhost communications only.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:265</li> <li>• Value type: unsigned integer</li> <li>• Default value: "9060"</li> </ul>   |
| kerberos!hostname        | <p>The hostname to use in Kerberos principal names.<br/>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1257</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul>  |

| Key                      | Description  |
|--------------------------|--|
| kerberos!num_kpt_threads | <p>How many worker threads the Kerberos Protocol Transition helper process will use.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1266</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| kmod_policy              | <p>The policy for loading and unloading kernel modules</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:448</li> <li>Value type: enumeration</li> <li>Default value: "enabled"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>enabled: Load modules when required, unload performance impacting modules when not required</li> <li>nounload: Load modules when required, no automatic unloading</li> <li>disabled: Do not load or unload kernel modules</li> </ul> </li> </ul> |
| location                 | <p>This is the location of the local traffic manager is in.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1217</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| nameip                   | <p>Replace Traffic Manager name with an IP address.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:543</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| num_optimizer_threads    | <p>How many worker threads the Web Accelerator process should create to optimise content. By default, one thread will be created for each CPU on the system.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:124</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| num_children             | <p>The number of worker processes the software will run. By default, one child process will be created for each CPU on the system. You may wish to reduce this to effectively "reserve" CPU(s) for other processes running on the host system.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:117</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| numberOfCPUs             | <p>The number of Application Firewall decider process to run.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1279</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |

| Key                              | Description  |
|----------------------------------|--|
| remote_licensing!email_addresses | <p>The e-mail address sent as part of a remote licensing request.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1545</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| remote_licensing!message         | <p>A free-text field sent as part of a remote licensing request.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1557</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| replicate_config_log_max         | <p>The size (in kb) of the config replication log before it gets truncated. A zero value implies no truncation takes place.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1240</li> <li>Value type: unsigned integer</li> <li>Default value: "5120"</li> </ul>   |
| replicate_config_truncate_size   | <p>The size (in kb) the config replication log will get truncated to.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1248</li> <li>Value type: unsigned integer</li> <li>Default value: "1"</li> </ul>  |
| rest!bindips                     | <p>A list of IP Addresses which the REST API will listen on for connections. The list should contain IP addresses (IPv4 or IPv6) or a single entry containing an asterisk (*). This indicates that the REST API should listen on all IP Addresses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:208</li> <li>Value type: list</li> <li>Default value: "*"</li> </ul> |
| rest!port                        | <p>The port on which the REST API should listen for requests.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:194</li> <li>Value type: unsigned integer</li> <li>Default value: "9070"</li> </ul>   |
| restServerPort                   | <p>The Application Firewall REST Internal API port, this port should not be accessed directly</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1311</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |

| Key                | Description   |
|--------------------|---|
| snmp!allow         | <p>Restrict which IP addresses can access the SNMP command responder service. The value can be all, localhost, or a list of IP CIDR subnet masks. For example 10.100.0.0/16 would allow connections from any IP address beginning with 10.100.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:380</li> <li>Value type: list</li> <li>Default value: "all"</li> </ul>  |
| snmp!auth_password | <p>The authentication password. Required (minimum length 8 bytes) if snmp!security_level includes authentication.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:323</li> <li>Requires: snmp!security_level is set to "authNoPriv"</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>  |
| snmp!bindip        | <p>The IP address the SNMP service should bind its listen port to. The value * (asterisk) means SNMP will listen on all IP addresses.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:366</li> <li>Value type: string</li> <li>Default value: "*"</li> </ul>   |
| snmp!community     | <p>The community string required for SNMPv1 and SNMPv2c commands. (If empty, all SNMPv1 and SNMPv2c commands will be rejected).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:300</li> <li>Value type: string</li> <li>Default value: "public"</li> </ul>  |
| snmp!enabled       | <p>Whether or not the SNMP command responder service should be enabled on this traffic manager.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:270</li> <li>Value type: Yes / No</li> <li>Default value: "No"</li> </ul>  |
| snmp!hash_alg      | <p>The hash algorithm for authenticated SNMPv3 communications.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:332</li> <li>Requires: snmp!security_level is set to "authNoPriv"</li> <li>Value type: enumeration</li> <li>Default value: "md5"</li> <li>Permitted values: <ul style="list-style-type: none"> <li>md5: MD5</li> <li>sha1: SHA-1</li> </ul> </li> </ul> |
| snmp!port          | <p>The port the SNMP command responder service should listen on. The value default denotes port 161 if the software is running with root privileges, and 1161 otherwise.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:290</li> <li>Value type: string</li> <li>Default value: "default"</li> </ul>  |

| Key                  | Description  |
|----------------------|--|
| snmp!priv_password   | <p>The privacy password. Required (minimum length 8 bytes) if snmp!security_level includes privacy (message encryption).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:354</li> <li>Requires: snmp!security_level is set to "authPriv"</li> <li>Value type: password</li> <li>Default value: &lt;none&gt;</li> </ul>                          |
| snmp!security_level  | <p>The security level for SNMPv3 communications.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:309</li> <li>Value type: enumeration</li> <li>Default value: "noAuthNoPriv"</li> <li>Permitted values:<br/>noAuthNoPriv: No Authentication, No Privacy<br/>authNoPriv: Authentication only<br/>authPriv: Authentication and Privacy</li> </ul> |
| snmp!username        | <p>The username required for SNMPv3 commands. (If empty, all SNMPv3 commands will be rejected).</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:340</li> <li>Value type: string</li> <li>Default value: &lt;none&gt;</li> </ul>   |
| soap!max_requests    | <p>The maximum SOAP requests before the SOAP processes restarts. Set to 0 to disable.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:523</li> <li>Value type: unsigned integer</li> <li>Default value: "0"</li> </ul>   |
| start_flipper        | <p>Whether or not to start the flipper process.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:429</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>   |
| start_sysd           | <p>Whether or not to start the sysd process on software installations. Appliance and EC2 will always run sysd regardless of this config key.</p> <p>DO NOT SET OR MODIFY THIS KEY MANUALLY.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:438</li> <li>Value type: Yes / No</li> <li>Default value: "Yes"</li> </ul>                          |
| trafficip!*!networks | <p>A configuration of networks keyed by interface, used by flipper to choose an interface to raise a Traffic IP on.</p> <ul style="list-style-type: none"> <li>From: /home/tstace/dev_ztm182/products/zxtm/flipper/config.cpp:688</li> <li>Value type: list</li> <li>Default value: &lt;none&gt;</li> </ul>  |

| Key                           | Description  |
|-------------------------------|--|
| uid                           | <p>The user ID that the software's worker processes will run as. For example, on typical Linux installations this could be set to 65534 for the unprivileged "nobody" user.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:136</li> <li>• Value type: string</li> <li>• Default value: &lt;none&gt;</li> </ul> |
| updateControlCenterPort       | <p>The Application Firewall Updater GUI Backend Port, this port is used on localhost only.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1417</li> <li>• Value type: unsigned integer</li> <li>• Default value: "0"</li> </ul>  |
| updateExternControlCenterPort | <p>The Application Firewall Updater External Control Center Port, this port is used on localhost only.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1402</li> <li>• Value type: unsigned integer</li> <li>• Default value: "8091"</li> </ul>   |
| updateGUIServerPort           | <p>The Application Firewall Updater GUI Server Port, this port is used on localhost only.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1388</li> <li>• Value type: unsigned integer</li> <li>• Default value: "0"</li> </ul>   |
| updaterIP                     | <p>The Application Firewall Updater IP.</p> <ul style="list-style-type: none"> <li>• From: /home/tstace/dev_ztm182/products/zxtm/lb/config.cpp:1465</li> <li>• Value type: string</li> <li>• Default value: "0.0.0.0"</li> </ul>   |