Pulse Secure®

Pulse Connect Secure
Pulse Policy Secure

License Configuration for PSA-V:
On-Premise and Public Clouds
Deployment Guide

Pulse Secure, LLC
2700 Zanker Road, Suite
200 San Jose, CA 95134
www.pulsesecure.net

Pulse Secure and the Pulse Secure logo are trademarks of Pulse Secure, LLC in the United States. All other trademarks, service marks, registered trademarks, or registered service marks are the property of their respective owners.

Pulse Secure, LLC assumes no responsibility for any inaccuracies in this document. Pulse Secure, LLC reserves the right to change, modify, transfer, or otherwise revise this publication without notice.

Pulse Connect Secure/Pulse Policy Secure License Configuration for PSA-V: On-Premise and Public Clouds Deployment Guide The information in this document is current as of the date on the title page.

END USER LICENSE AGREEMENT

The Pulse Secure product that is the subject of this technical documentation consists of (or is intended for use with) Pulse Secure software. Use of such software is subject to the terms and conditions of the End User License Agreement ("EULA") posted at https://www.pulsesecure.net/support/eula. By downloading, installing or using such software, you agree to the terms and conditions of that EULA."

Revision History

Revision and Date	Added/Updated/Removed	Remarks
2.0 February 2019	• Removed references to SPE • Added Core License Distribution feature	• Removed references to SPE, to retain only PSA-V. • New feature applicable from PCS/PPS 9.0R3 onwards.
1.0, October 2017	Initial version	NA

Contents

Introduction

In previous releases, the virtual appliances depended on a physical/virtual license server to lease license counts. From PCS 8.3R3/PPS 5.4R3 onwards, the Pulse Connect Secure (PCS) or the Pulse Policy Secure (PPS) virtual machines (VM) are enabled to provision licenses through the Pulse Secure Cloud Licensing Service (PCLS). The PCS/PPS also periodically sends heartbeat messages to PCLS for auditing purposes.

NOTE: Refer to **Enhancement to Upgrade and New VA Licensing Deployment** to understand the impact of the enhancements in the PCS/PPS.

PCLS Overview

The Pulse Secure Cloud Licensing Service (PCLS) is a managed environment hosted by Pulse Secure. The PCLS simplifies the enterprise experience. PCLS enables software license enforcement and provides the license keys as applicable to the authorization codes for On-Premises and Cloud-Based virtual applications.

Leasing Licenses

A virtual appliance downloads licenses from PCLS through authorization codes. The VM sends heartbeats every 12 hours or as configured on the PCLS. If it is not able to connect to PCLS for 24 days, in the case of PSA-V, all the installed licenses get disabled. They get re-enabled only when the communication with PCLS is restored through heartbeats or the authorization codes. PCS/PPS logs this information under Event Logs.
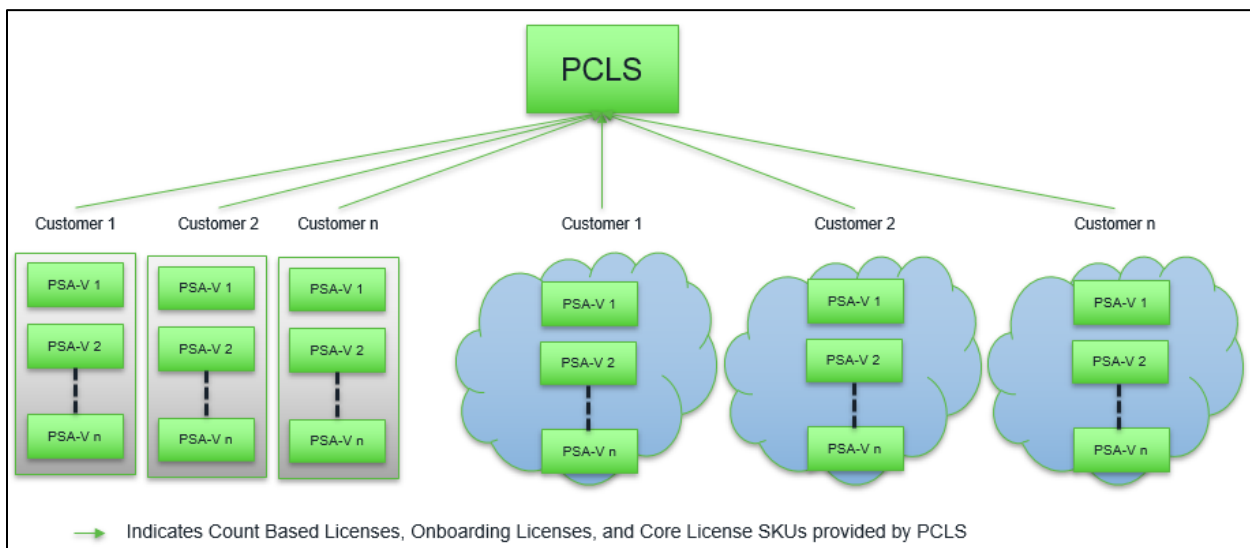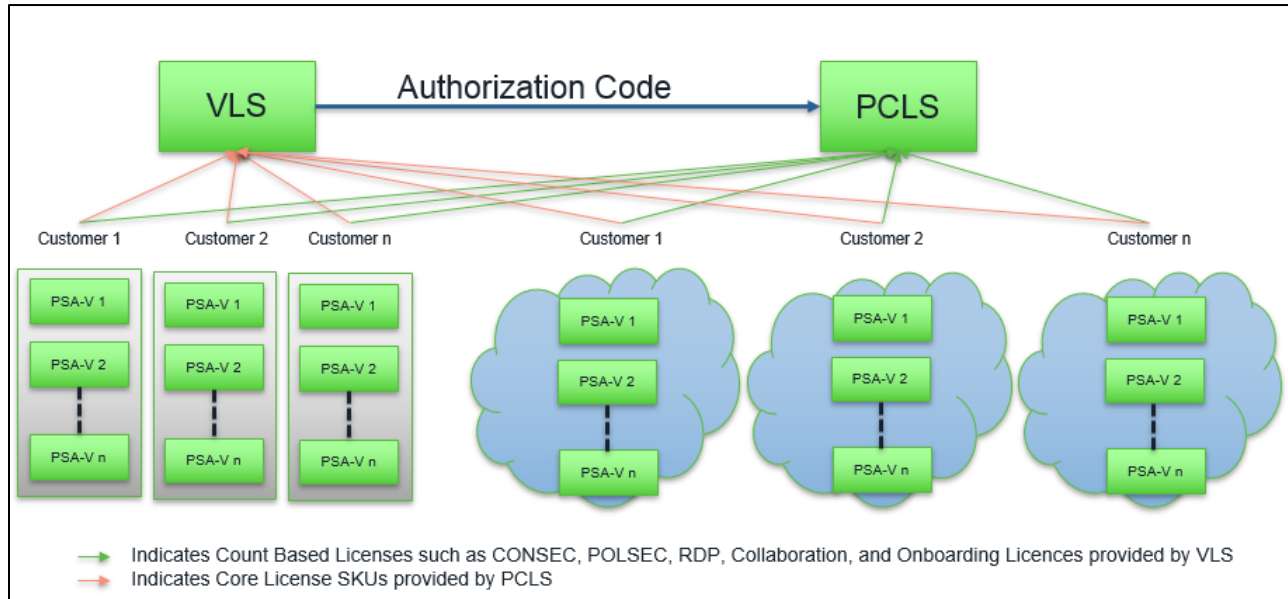
Figure 1: Licensing through PCLS

Figure 2: Licensing through VLS and PCLS

Core License Distribution from License Server

The virtual appliance downloads the licenses from PCLS through authorization codes. Considering high security environments where accessing cloud service is not allowed, the core license distribution feature provides leasing the core licenses from the license server. For more information, refer to *PCS/PPS 9.0R3 License Management Guide*.

i NOTE: This feature is applicable on VMs deployed with PCS9.0R3/PPS9.0R3 only.
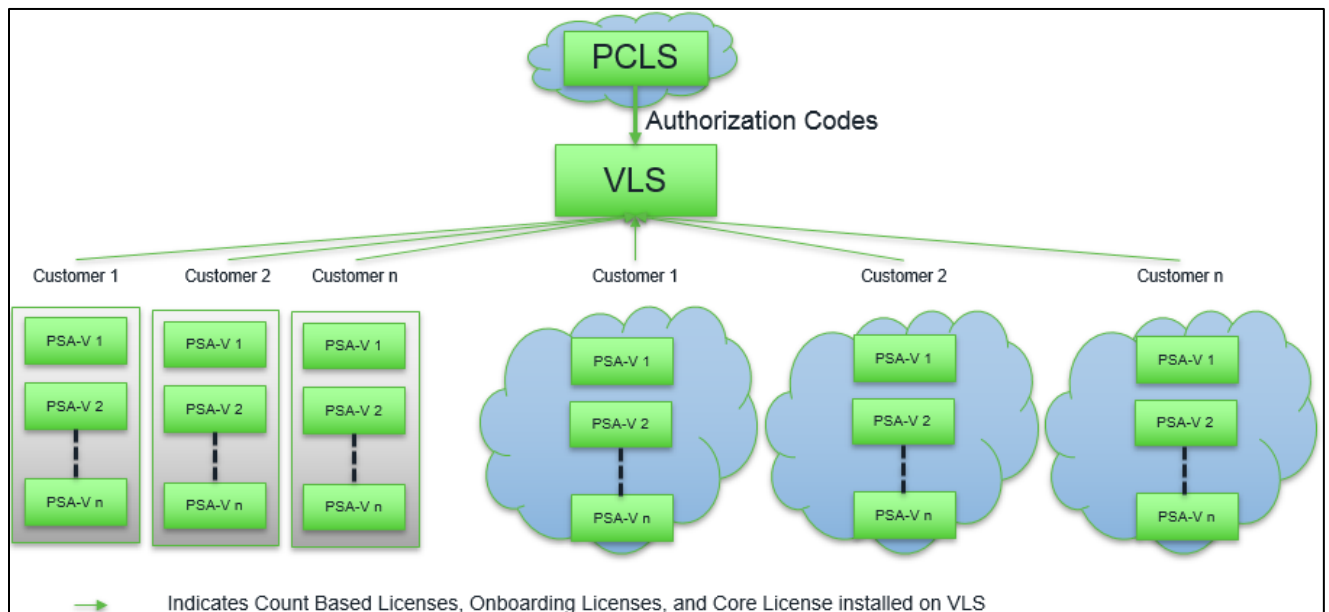
License server supports the following licensing models:

- **Limited Core Licensing**: MSSP installs core packs on the license server that allows leasing a given number of cores to the license clients. An administrator can only lease cores and needs a separate license to lease concurrent or named users. Example: SKU PS-CORE-XXC-NYR where XX is 20, 40, 100, 250 and 500.
  The SKUs are stackable. VLS/HLS can reclaim the number of cores allocated to a license client by deleting the license client entry.

- **Unlimited Core Licensing**: MSSP allows to lease as many core licenses from the license server as needed. Concurrent licenses are also made part of MSSP. Example: PS-MSP-XXC-NYR.

Both these licensing models are available as Subscription.

Licensing Deployment Scenarios with PCLS

The following lists the possible licensing deployment scenarios with PCLS.

- **The customer already has a license server with ConSec Licenses and wants to add a PCS appliance on a PSA-V.**
  Use the Authorization code to PCLS to obtain the license to activate the VA type as a specific VA (PSA3000- V, PSA5000-V, or PSA7000-V). Configure the PCS to use the Corporate license server for the user licenses.

- **A fresh deployment of a PCS appliance with a specified number of users on a PSA-V.**
  Use the Authorization code to PCLS to obtain the license to activate the VA type and user licenses.

- **The customer wants to add a PCS appliance with a specific number of users on a VA and has a Corporate license server to obtain additional licenses.**
  Use the Authorization code to PCLS to obtain the license to activate the VA type and user licenses. Configure the PCS to use the Corporate license Server for the user licenses.

- **The customer has a license server and varied number of users on VA and wants to distribute the licenses as needed.**
  Note: This feature is applicable for the license server and appliances deployed with PCS9.0R3/PPS9.0R3 only.

  Use the Authorization code to PCLS to obtain the core license and install on the license server. Distribute the licenses that include consec, polsec, onboarding, meeting, rdp and core licenses, to the virtual appliances concurrently without the need to install specific license on the VA.

Enhancement to Upgrade and New VA Licensing Deployment

From PCS 8.3R3/PPS 5.4R3 onwards, on a new deployment, ensure to install a core license from PCLS to enable the cores. By default, the number of users is restricted to two users.

On upgrade from an older version to PCS 8.3R3/PPS 5.4R3 or later, core licenses are NOT enforced. Customer need not install any core licenses. The customer can lease the user licenses from license server or get licenses using authorization codes from the PCLS.

On upgrade of the PSA-V to PCS 8.3R3/PPS5.4R3, core license is not mandatory. However, on upgrade to PCS9.0Rx/PPS9.0Rx, core license is mandatory.

Obtaining License Keys from PCLS

Authorizing a PCS/PPS VM

An administrator obtains an authorization code for his entitlement externally through E-mail. The PCS/PPS VM first contacts the PCLS and the licenses get installed on the PSA-V. The license summary page shows the installed licenses. If the authorization code is not valid, PCLS sends an appropriate error message, which gets logged in PCS/PPS VM logs.

In addition to functioning as PCS/PPS, the VM periodically sends heartbeat messages to the PCLS. The heartbeat message includes various attributes of the VM like `machine-id, uuid, mac-addr, external-ip, internal-ip, internal-mac, external-mac, nc-count, numberof-nodes, version-number, build-number, heartbeat-token, ipv4-addr, node-state, active-sessions, pulse-count, pulse-version` and so on. This helps PCLS to identify duplicate/cloned VM instances.

NOTE: In the initial release of PCLS, there is no enforcement. PCLS just collects the data and stores in the database. But, the first version of PCS/PPS VM executes the **stop** command from PCLS and disables itself.

Obtaining License Keys

An administrator obtains an authorization code for his entitlement externally through E-mail. The administrator enters the authorization code in the license server download page to validate and fetch the license keys. If validation is successful, the administrator receives the license keys in return.

To obtain license keys:

1. Go to **System > Configuration > Licensing > Download Licenses**.
2. Under **On demand license** downloads, enter the authorization code in the text box.
3. Click on **Download and Install**.

4. Go to the **License Summary** tab to view a list of the licenses installed.

NOTE: Ensure to install a core license from PCLS to enable the cores. By default, the number of users is restricted to two users.

Viewing the License Summary

To view the licensing summary:

1. Go to **System > Configuration > Licensing > Licensing Summary**.

2. The **Installed license details** lists the license keys obtained through PCLS. Administrators can manually enter only the evaluation licenses.
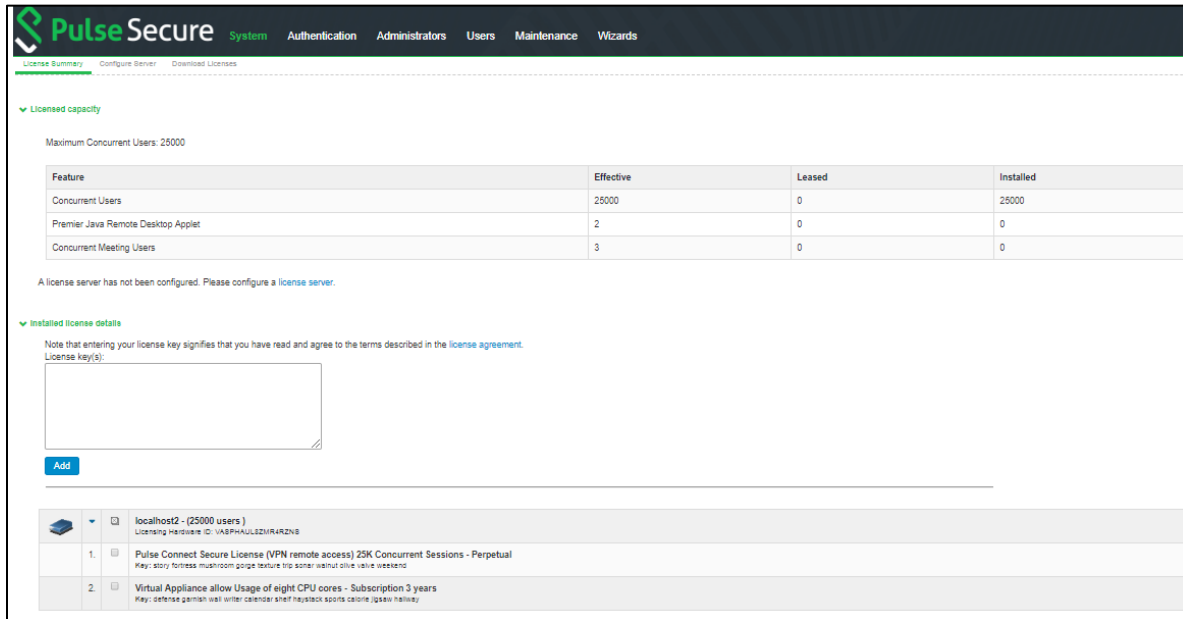
NOTE: PCS/PPS VM needs to connect to PCLS through port 443. It can lease licenses from a license server and get license keys from PCLS. In this case, the licenses leased, and license keys obtained from PCLS gets added.

Virtual Appliance Platform Licensing

To define uniform hardware sizing on VMs, only limited number of cores can be assigned to the system. Even if admins assign more cores to the system, the system enforces only the allowed number of cores by the platform licenses. New SKUs are added to the licensing SKUs as features and are enforced by the licensing framework.

NOTE: On upgrade from an older version to PCS 8.3R3/PPS 5.4R3 or later, core licenses are NOT enforced. Customer need not install any core licenses. The customer can lease the user licenses from license server or get licenses using authorization codes from the PCLS.

Since a licensing server cannot give the licenses while launching the VMs, the administrator needs to register with PCLS and fetch the required licenses from PCLS. New SKUs are added to the number of cores. VMs can fetch the licenses required for the assigned cores by the hypervisor if the VM is registered with PCLS.

To enable required performance, the VM is assigned the required number of cores. The following table lists the approximate cores assigned to each platform:

Platform License	Number of Licensed Cores
PSA3000-V	2
PSA5000-V	4
PSA7000-V	8

The license SKUs for PSA-V appliances On-Premise and Public Cloud platforms are available in evaluation and subscription modes. Please contact **https://www.pulsesecure.net/support** for queries regarding licenses.