

Feature History for Smart Licensing Using Policy

This table provides release and related information for features explained in this module.

These features are available on all releases subsequent to the one they were introduced in, unless noted otherwise.

Table 1: Feature History for Smart Licensing Using Policy

Feature Name	Releases	Feature Information
Smart Licensing Using Policy	Cisco IOS XE Amsterdam 17.3.2	An enhanced version of Smart Licensing, with the overarching objective of providing a licensing solution that does not interrupt the operations of your network, rather, one that enables a compliance relationship to account for the hardware and software licenses you purchase and use. Starting with this release, Smart Licensing Using Policy is automatically enabled on the device. This is also the case when you upgrade to this release. By default, your Smart Account and Virtual Account in CSSM is enabled for Smart Licensing Using Policy.
Cisco DNA Center Support for Smart Licensing Using Policy	Cisco IOS XE Amsterdam 17.3.2	Cisco DNA Center supports Smart Licensing Using Policy functionality starting with Cisco DNA Center Release 2.2.2. When you use Cisco DNA Center to manage a product instance, Cisco DNA Center connects to CSSM, and is the interface for all communication to and from CSSM. For information about the comptabile controller and product instance versions, see: Support Information for Controller: Cisco DNA Center. For information about this topology, see the Cisco DNA Center as a Controller and Using Cisco DNA Center as a Controller.

Feature Name	Releases	Feature Information
Smart Software Manager On-Prem (SSM On-Prem) Support for Smart Licensing Using Policy	Cisco IOS XE Amsterdam 17.3.3	SSM On-Prem is an asset manager, which works in conjunction with CSSM. It enables you to administer products and licenses on your premises instead of having to directly connect to CSSM. For information about the comptabile SSM On-Prem and product instance versions, see: Cisco Smart Software Manager On-Prem (SSM On-Prem). For an overview of this topology, and to know how to implement it, see SSM On-Prem Deployment and Workflow for Topology: SSM On-Prem Deployment. For information about migrating from an exisiting version of SSM On-Prem, to one that supports Smart Licensing Using Policy, see Migrating to a Version of SSM On-Prem That Supports Smart Licensing Using Policy.
Smart Licensing Using Policy	Cisco IOS XE Bengaluru 17.4.1	Starting with this release, Smart Licensing Using Policy is supported on these platforms: • Catalyst 8000V Edge Software • Catalyst 8200 Series Edge Platforms • Cisco 1100 Terminal Services Gateway • Cisco Cloud Services Router 1000v. (To support Smart Licensing Using Policy, this platform requires upgrade from a CSRv .bin image to a Catalyst 8000V software image.) • Cisco Integrated Services Virtual Router. (To support Smart Licensing Using Policy, this platform requires upgrade from an ISRv .bin image to a Catalyst 8000V software image.) See Supported Products for the complete list of products that support the feature.

Feature Name	Releases	Feature Information
License Management for Smart Licensing Using Policy, Using Cisco vManage	Cisco IOS XE Bengaluru 17.5.1a	Cisco SD-WAN operates together with Cisco SSM to provide license management through Cisco vManage for devices operating with Cisco SD-WAN. For this you have to implement a topology where Cisco vManage is connected to CSSM. For information about the comptabile controller and product instance versions, see: Support Information for Controller: Cisco vManage. For information about this topology, see the Connected to CSSM Through a Controller and Workflow for Topology: Connected to CSSM Through a Controller sections of this document. More information about Cisco vManage is also available in the License Management for Smart Licensing Using Policy section of the *Cisco SD-WAN Getting Start Guide*.
Phasing Out of device-specific HSECK9 licenses.	Cisco IOS XE Bengaluru 17.6.1a	With the introduction of Cisco Digital Network Architecture (Cisco DNA), device-specific HSECK9 licenses that are available on Cisco 1000 Series Integrated Services Routers and Cisco 4000 Series Integrated Services Routers, are being phased-out to simplify HSECK9 license management. Starting with this release, instead of tagging HSECK9 licenses according to router model (for example, ISR_4331_Hsec), HSECK9 licenses are tagged as *Router US Export Lic for DNA (DNA_HSEC)*. If you have unused device-specific HSECK9 licenses, mutiple options are available to you. See Phasing Out of Device-Specific HSECK9 Licenses.
Snapshots for PAK licenses	Cisco IOS XE Bengaluru 17.6.2	The library that manages PAK licenses is being deprecated from the software image. In order to continue supporting and honouring any existing PAK licenses you may have, the system automatically takes a snapshot of the PAK license and triggers a Device-Led Conversion process, to convert the PAK license to a Smart License. See: Snapshots for PAK Licenses.

Feature Name	Releases	Feature Information
Factory-installed trust code	Cisco IOS XE Cupertino 17.7.1a	For new hardware orders, a trust code is now installed at the time of manufacturing. You cannot use a factory-installed trust code to communicate with CSSM. See Benefits of Smart Licensing Using Policy and Trust Code.
Support for trust code in additional topologies		A trust code is automatically obtained in topologies where the product instance initiates the sending of data to *CSLU* and in topologies where the product instance is in an air-gapped network. See: • Trust Code • Connected to CSSM Through CSLU and Tasks for Product Instance-Initiated Communication. • CSLU Disconnected from CSSM and Tasks for Product Instance-Initiated Communication. • No Connectivity to CSSM and No CSLU and Workflow for Topology: No Connectivity to CSSM and No CSLU.
Ability to save authorization code request and return in a file and simpler upload in the CSSM Web UI		If your product instance is in an air-gapped network, you can now save a SLAC request in a file on the product instance. The SLAC request file must be uploaded to the CSSM Web UI. You can then download the file containing the SLAC code and install it on the product instance. You can also upload a return request file in a similar manner. With this new method you do not have to gather and enter the required details on the CSSM Web UI to generate a SLAC. You also do not have to locate the product instance in the CSSM Web UI to return an authorization code. In the CSSM Web UI, the request or return file is uploaded in the same location and in the same way as you upload a RUM report. See Generating and Saving a SLAC Request on the Product Instance, Removing and Returning an Authorization Code, and Uploading Data or Requests to CSSM and Downloading a File.
Support to collect software version in a RUM report		

Feature Name	Releases	Feature Information
		If version privacy is disabled (**no license smart privacy version** global configuration command), the Cisco IOS-XE software version running on the product instance and Smart Agent version information is *included* in the RUM report. See license smart (global config).
RUM Report optimization and availability of statistics		RUM report generation and related processes have been optimized. This includes a reduction in the time it takes to process RUM reports, better memory and disk space utilization, and visibility into the RUM reports on the product instance (how many there are, the processing state each one is in, if there are errors in any of them, and so on). See show license rum, show license tech, and show license all.
Account information included in **show** command outputs		A RUM acknowledgement (ACK) includes the Smart Account and Virtual Account that was reported to, in CSSM. Account information is displayed in the output of various **show** commands and is always as per the latest available ACK on the product instance. See show license summary, show license status, show license all, and show license tech.
CSLU support for Linux		Support for CSLU deployment on a machine (laptop or desktop) running Linux. CSLU is compatible with Linux in the following formats. See Cisco Smart License Utility (CSLU).

Feature Name	Releases	Feature Information
Managed Service License Agreement (MSLA) Support with Smart Licensing Using Policy.	Cisco IOS XE Cupertino 17.9.1a	For Catalyst 8000V Edge Software running in the autonomous mode, you can implement a post-paid model for licenses, where you pay for the actual usage of a license instead of pre-paying for the licenses you may require. See: Managed Service License Agreement (MSLA) and Utility Mode.
New mechanism to send data privacy related information		A new mechanism to send all data privacy related information was introduced. This information is no longer included in a RUM report.If data privacy is disabled (**no license smart privacy** {**all** | **hostname** | **version**}} global configuration command), data privacy related information is sent in a separate sync message or offline file. Depending on the topology you have implemented, the product instance initiates the sending of this information in a separate message, or CSLU and SSM On-Prem initiates the retrieval of this information from the product instance, or this information is saved in the offline file that is generated when you enter the license smart save usage privileged EXEC command See license smart (global config).
Hostname support		If you configure a hostname on the product instance and disable the corresponding privacy setting (**no license smart privacy hostname** global configuration command), hostname information is sent from the product instance. Depending on the topology you have implemented, the hostname information is received by CSSM, and CSLU or SSM On-Prem. It is then displayed on the corresponding user interface. See license smart (global config).
Support for trust code in additional topologies		A trust code is automatically obtained in topologies where CSLU initiates the retrieval of data from the product instance. See: Trust Code, Connected to CSSM Through CSLU, CSLU Disconnected from CSSM.
VRF support		

Feature Name	Releases	Feature Information
		On a product instance where VRF is supported, you can configure a VRF to send all licensing data to CSSM, or CSLU, or SSM On-Prem. To configure a VRF, enter the **license smart vrf** *vrf_string* command in global configuration mode. See license smart (global config).
RUM report throttling		For all topologies where the product instance initiates communication, the minimum reporting frequency is throttled to one day. This means the product instance does not send more than one RUM report a day. The affected topologies are: *Connected Directly to CSSM*, *Connected to CSSM Through CSLU* (product instance-initiated communication), *CSLU Disconnected from CSSM* (product instance-initiated communication), and *SSM On-Prem Deployment* (product instance-initiated communication). You can override the reporting frequency throttling, by entering the **license smart sync** command in privileged EXEC mode. This triggers an on-demand synchronization with CSSM or CSLU, or SSM On-Prem, to send and receive any pending data. RUM report throttling also applies to the Cisco IOS XE Amsterdam 17.3.6 and later releases of the 17.3.x train, and Cisco IOS XE Bengaluru 17.6.4 and later releases of the 17.6.x train. From Cisco IOS XE Cupertino 17.9.1, RUM report throttling is applicable to *all* subsequent releases. See: Connected Directly to CSSM, Connected to CSSM Through CSLU, CSLU Disconnected from CSSM, SSM On-Prem Deployment.
Permanent License Reservation (PLR) in Smart Licensing Using Policy	Cisco IOS XE Dublin 17.10.1a	A PLR enables you to use an unlimited count of any license on the product instance. It is suited to a high-security deployment or entirely air-gapped networks where a product instance cannot communicate online, with anything outside its network. See: Permanent License Reservation in the Smart Licensing Using Policy Environment

Feature Name	Releases	Feature Information
Snapshots for PAK licenses	Cisco IOS XE Dublin 17.11.1a	The PAK-managing library is discontinued and the provision to ***take*** a snapshot is no longer available. Software images from Cisco IOS XE Dublin 17.11.1a onwards rely only on the snapshotted information about PAK licenses. If you have a PAK license without a snapshot, and you want to upgrade to Cisco IOS XE Dublin 17.11.1a or a later release, you will have to upgrade twice. First upgrade to one of the releases where the system can take a snapshot of the PAK license and complete DLC, and then again upgrade to the required, later release. See: Snapshots for PAK Licenses.
Forced return option for an HSECK9 license that is in-use	Cisco IOS XE Dublin 17.15.1	The **force-reload** [**no-prompt**] keywords were introduced. See: Returning SLAC for an HSECK9 License That Is In-Use.

Use Cisco Feature Navigator to find information about platform and software image support. To access Cisco Feature Navigator, go to https://cfnng.cisco.com/