Cisco Smart Software Manager
satellite Enhanced Edition
Cisco Engineering Licensing Office
Why Do We Care About Software Licensing?

**Today’s Experience**

1. Customer or Partner Places Order (9 Tools)
2. Customer Enters PAK for Each License
3. Customer Receives or Downloads and Installs Software (2 of 5 Tools)
5. Customer Uses Software
6. Customer Manages Software (10 Tools)

**Tomorrow’s Experience**

1. Customer or Partner Places Order in Cisco™ Commerce
2. Customer Activates and Uses Software
3. Customer Manages Licenses

Customer System:
- Routers
- Switches
- Video
- Unified Communications

**Tools**
- Today (9 Tools)
- Tomorrow (10 Tools)
Cisco® Smart Software Licensing is not just a new licensing tool. It transforms the way you think about Cisco and software lifecycle management.

### Limited View
Customers do not know what they own.

### PAK Registration
Manually register each device. Unlock with license key.

### Device Specific
Licenses specific to only one device.

### Locked
You cannot use more than you paid for.

### Complete View
Software, services, and devices at one easy-to-use portal.

### Easy Registration
No PAKs. Easy activation. Device is ready to use.

### Company Specific
Flexible licensing. Use across devices.

### Unlocked
Add users and licenses as needed.
Deploying Smart License Enabled Products

1. Direct cloud access (Default)
Cisco product sends usage information directly over the internet or through a HTTP Proxy Server. No additional components are needed.

2. Access Through An On-Premise License Management
Cisco products send usage information to a locally installed satellite. Periodically, exchange information automatically in connected environments or manually in disconnected environments.

3. Full Offline Access – License Reservation
Use copy/paste information between product and Cisco.com to manually check in and out Licenses. Functionally equivalent to current node locking, but with Smart License tracking.
What is Cisco Smart Software Manager (SSM) satellite?

A Cisco Smart Software Manager satellite is...

- A component of Cisco Smart Licensing and works in conjunction with the cloud-based Cisco Smart Software Manager (SSM)

A Cisco Smart Software Manager satellite is ideal for...

- Customers who have strict security requirements and do not want their products to communicate with the central licensing database on Smart Software Manager over a direct Internet connection
How does Cisco SSM satellite Work?

1. Install/Register to Cisco SSM
   - Install Smart Software Manager satellite & register it to Cisco SSM

2. Self-Register/Report
   - Devices and software products self-register and report license consumption

3. Synchronize Local Database
   - Choose to periodically synchronize local database to the Cisco SSM to ensure up to date files

Cisco SSM satellite Benefits

**Trusted Security**
- Secure on-premises single source of truth of license consumption

**Real-time Entitlement**
- Near real-time license entitlement based on synchronization schedules with backend install base

**Utilization Visibility**
- Complete view of software, services, and devices in easy-to-use portal

**Increased Control**
- Flexible licensing pooling enable licenses to be reused across devices and the organization

**Unlocked**
- Elimination of the node-locking of licenses to devices, simplifies the RMA process

**Cost Reduction**
- Save time and money through efficient license usage
How customers deploy multiple satellites with satellite Classic

* Now imaging this is 500 satellites and it was your job to support them... monthly
How customers want to deploy multiple satellites with satellite Enhanced Edition (Multi-tenancy)
Multi-Tenancy & Hierarchical satellite

Customer Smart Accounts
Virtual Accounts

Accounts (equivalent to CSSM SA/VA pair)
Local Virtual Accounts (not visible to CSSM)

Virtual Accounts (on SSM satellite LE, visible to CSSM)

Cisco Smart Software Manager

SSM Enhanced Edition (EE)

How Cisco Views EE Account
Account: Quebec.CM
VA: DEFAULT
10 CSR1Kv
5 ASA

How User Views EE Account
Account: Quebec.CM
VA: DEFAULT
10 CSR1Kv
5 ASA

VA: Quebec
5 ASA
VA: Yukon

VA: Ontario

Canada Motors
Account: Quebec.CM
VA: Quebec
10 CSR1Kv
5 ASA
VA: Yukon

VA: Ontario

Virtual Accounts (on SSM satellite LE, visible to CSSM)

Hierarchical satellite (Future)
## Smart Software Manager satellite Classic vs Enhanced Edition – Highlights

### satellite Classic

- **Single Tenant** – one customer (represented by a Smart Account) can have multiple satellites but a satellite can manage one Smart Account only.
- **Registration & Synchronization with CSSM**
- **Cent OS code base with similar UI as CSSM**
- **Single User Role with local password database**
- **One portal for license and system management**
- **Limited management tools for troubleshooting**
- **4K device scalability (10K with satellite 5.0.1)**

### satellite Enhanced Edition

- **Multi-tenancy** – support multiple Smart Accounts on CSSM through a single management portal.
- **Registration & Synchronization with CSSM**
- **CSSM code base with converge UI**
- **Multiple User Roles via multiple authentication methods (LDAP, OAuth2, local)**
- **Separate Administration and License Management portals**
- **License Hierarchy, Syslog, Proxy, etc.**
- **More robust management tools**
- **10K with version 6.0, grow to 500K device scalability**
- **Support hierarchical satellites (future)**
Enhanced Edition – Deployment Model Overview

CSSM satellite Enhanced Edition

Service Providers

Cisco Partners

Large Enterprises

Supports multiple local accounts

Scales up to 10,000 product instances, 500K devices and 500 accounts

Provides online or offline connectivity

Similar User Interface to Cisco SSM

Enables faster code drop and feature parity at Cisco SSM

To get a more detailed description of satellite Enhanced Edition in the User Guide, visit

www.cisco.com/go/smartsatellite

**Licensing Portal**
- Similar functionality to software.cisco.com
- Users can manage their local accounts, users, product instances, devices and licenses
- Users can create new satellite accounts, request access to satellite accounts and manage satellite accounts and local virtual accounts

**Administration Portal**
- Enables internal administrative functions including user control, account management, registration, synchronization, and much more
- Supports additional functionality including external authentication, syslog and proxy support
- Restricted to only authorized users
Licensing and Administration Portal Roles

**Licensing Portal Roles**

- **Local Account Admins**
  - Have read-only permission on the Admin portal and have role-based access control in the licensing portal.
- **Local Account Users**
- **Local VA Admins**
- **Local VA Users**

**Administration Portal Roles**

- **System Users**
  - Have all of the abilities as the System Operator plus they can approve and delete local accounts and complete all system configurations.
- **System Operators**
  - Have full admin access to all the local accounts, can perform satellite registration/synchronization, & can not change system configurations.
- **System Admins**

Similar to CSSM Smart Account and Virtual Account roles but at the local level within the satellite.
Deployment Modes – Connected v. Disconnected

**Connected**
- Mode is used when there is **direct connectivity** to cisco.com from the satellite
- License consumption and entitlement can be synchronized with Cisco SSM on-demand or automatically via scheduling
- Standard model for EE, easiest to deploy

**Disconnected**
- Mode is used when there is **no connectivity** to cisco.com from the satellite
- Satellite can be synchronized with Cisco SSM via a file upload and download
Satellite Setup Workflow

Kickstart Installation → Network Configuration → Request a New Account → Approve the Account Request → Register an Account to Cisco SSM

- Network Configuration
- System Configuration

Satellite Operational

- Product Registration
- Periodic Sync

Satellite EE Setup Video Demo

Satellite Enhanced Edition

Satellite Classic
### What’s New with Smart Software Manager satellite Enhanced Edition 6.1.0?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Control</td>
<td>Allow customers located outside EULF/ENC to which US Export restriction apply to request specific export control licenses and associated quantity.</td>
</tr>
<tr>
<td>Application Redundancy</td>
<td>For application redundancy enabled products, to prevent double counting of licenses on a active/active or active/standby or fail-over scenarios.</td>
</tr>
<tr>
<td>User Groups</td>
<td>Group users so operations such as role assignment can be applied to multiple users within the group instead of individual users.</td>
</tr>
<tr>
<td>Custom Virtual Account Tagging</td>
<td>Allow local Virtual Accounts to be tagged for easy virtual account classification, grouping, locating and/or role assignment</td>
</tr>
<tr>
<td>License Tagging</td>
<td>User-defined tags that can be created and tagged to licenses. They are useful for classifying, locating, and grouping licenses</td>
</tr>
<tr>
<td>Virtual Account Search</td>
<td>Search local Virtual Accounts by Name or by Tag</td>
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<tr>
<td>Advanced License Search</td>
<td>Search Licenses based on detailed information such as SKU, Product Family, Expiration Date, or PAK</td>
</tr>
<tr>
<td>Bulk Operations</td>
<td>Enable transfer of multiple licenses between local virtual accounts</td>
</tr>
<tr>
<td>API Toolkit</td>
<td>Allow applications to call satellite APIs for virtual account, token, license, product instance, reporting, and alert operations</td>
</tr>
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</table>
Smart Product Telemetry & Visibility

The Cisco Smart License requires the following minimal exchange of information during install/provisioning time.

<table>
<thead>
<tr>
<th>Information Collected</th>
<th>Required?</th>
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<tbody>
<tr>
<td>Trusted Unique Identifier (SUDI/SUVI/ID)</td>
<td>Yes</td>
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<tr>
<td>Licenses Consumed</td>
<td>Yes</td>
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<tr>
<td>Organization Identifier (ID Token)</td>
<td>Yes</td>
</tr>
<tr>
<td>Hostname</td>
<td>No</td>
</tr>
<tr>
<td>AAA ID of User Making Change</td>
<td>No</td>
</tr>
<tr>
<td>Feature Tags</td>
<td>No</td>
</tr>
<tr>
<td>Other Smart Call Home Information</td>
<td>No</td>
</tr>
</tbody>
</table>

By default more information is exchanged, but this is configurable.

Cisco Checks:
- Licenses
- Device IDs
- Business Rules
  - Then
- Authorizes Use
Satellite Enhanced Edition Feature Gaps

- DLC (Device-Led Conversion),
- 3rd party integration (Apple Push Notification and TTS)
- GUI Shut Down/Diagnostic Logs
- Utility billing
- Backup/Restore
- High Availability
New satellite Enhanced Edition Synchronization Behavior

Previously, if satellite doesn’t sync with CSSM after 90-days, it no longer functions properly and a new satellite need to be redeployed/PIs re-registered.

Satellite Enhanced Edition relaxes this rule such that it doesn’t need to sync to CSSM for 1 year and continue to function until 365th day.

- This allows satellite to address synchronization frequency issue for customers who are not able to sync it with CSSM within 90 days.
- Satellite still expires after 365 days. Satellite has to be re-deployed and all its PIs re-registered
# Smart Software Manager satellite Releases

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<tbody>
<tr>
<td>Release</td>
<td>satellite 2.0 (Initial Release)</td>
<td>2.1.0</td>
<td>2.1.3</td>
<td>2.2.0</td>
<td>2.3.0</td>
<td>2.5.0</td>
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<tr>
<td>Image Type</td>
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<tr>
<td>Features List</td>
<td>Product Registration</td>
<td>In-place Upgrade</td>
<td>Simplified Installation</td>
<td>Network Utility</td>
<td>Export Control</td>
<td>Sync Optimization</td>
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<tr>
<td></td>
<td>Network &amp; Manual Registration</td>
<td>Immediate Registration to CSSM</td>
<td>Automated Software Delivery</td>
<td>Configurable Headers</td>
<td>Multi-NIC</td>
<td>TG Removal</td>
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<tr>
<td></td>
<td>Logging</td>
<td>Automatic HTTPS communication from product instances to satellite</td>
<td>Collector Login Removal</td>
<td>Login Failure Message Removal</td>
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<td></td>
<td>4K Device</td>
<td>Default secure HTTPS access to satellite UI</td>
<td>CLI Access Removal</td>
<td>UI Restart/Shutdown</td>
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<td></td>
<td>User Access Management</td>
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<td>JeOS Framework</td>
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<tr>
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<td>2.5.2</td>
<td>3.0.0</td>
<td>satellite 3.1.0</td>
<td>satellite 4.0.0</td>
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<td>satellite 4.2.0</td>
<td>satellite 5.0.1</td>
<td>Satellite Enhanced Edition 6.0.0</td>
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<tr>
<td>Features List</td>
<td>Migration UI</td>
<td>Single DC High Availability</td>
<td>CSPC</td>
<td>CentOS FIPS Compliance</td>
<td>Device Led Conversion</td>
<td>Critical Bug Fixes (Slow UI, High CPU)</td>
<td>Utility Billing</td>
<td>Multi-tenancy DoD Compliance</td>
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<td></td>
<td>CBR8 Registration Issue Resolution</td>
<td>Backup/Restore</td>
<td>3rd Party Software Support</td>
<td>IPV6</td>
<td>Security Updates</td>
<td>Critical Bug Fixes on HA and NTP</td>
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<td></td>
<td>Password Looping</td>
<td>CentOS framework</td>
<td>ISO Packaging</td>
<td>Enhanced Backup/Restore</td>
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<td>Root Access Removal</td>
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**Smart Software Manager satellite Classic**

**Smart Software Manager satellite Enhanced Edition**

**Cisco**
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<tr>
<td>Dates</td>
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<tr>
<td>Release</td>
<td>6.1.0</td>
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<td>Format</td>
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For More Information

[Cisco Smart Software Manager satellite]

http://www.cisco.com/go/smartsatellite