Cisco Enterprise Management 3.X: Prime Infra. 3.x Ordering and Licensing Guide (Incl. Smart Licensing update)

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How to use this ordering guide

The Cisco Prime™ Infrastructure 3.x, Management 3.x Ordering Guide addresses key use cases and customer situations.

Hyperlinks allow you to quickly get to the information you want, within 3 – 4 clicks.

Each use case includes the key ordering steps and the associated bill of materials.

In each use case where you want to upgrade from an earlier version of Cisco® Prime Infrastructure, and need to migrate historical data to version 3.x, we will show you various stages of upgrade paths to follow.

Note that customers that do not need to migrate historical data to Cisco Prime Infrastructure 3.x. You can do a fresh installation of it, then export MAPs, device inventory, and licenses from earlier versions and import them into Prime Infrastructure 3.x. You can skip the intermediate steps.

A full list of part numbers (new product SKUs and upgrade SKUs) is provided in the Appendix.

A number of footnotes and appendixes provide links to relevant information necessary to install a new version of Prime Infrastructure 3.x or for upgrading from legacy versions.

To access information about installation/upgrading instructions please Click here.
Cisco Prime Infrastructure Ordering Guide

- What is new with Cisco Prime™ Infrastructure 3.x (PI 3.x) licensing
- Ordering Prime Infrastructure 3.x Traditional Licenses (new customers and existing customers)
- Ordering Prime Infrastructure 3.x Smart Licenses for (PI 3.1 or higher)
- Upgrading from PI 2.2 to PI 3.x
- Upgrading from Legacy to PI 3.x (Summary)
- Migrating from legacy offerings (WCS, LMS) to PI 2.2 to PI 3.x
- Upgrading from generation 2 to generation 3 of the Cisco® Prime Infrastructure physical appliance
- Appendices (A-L)
  
  A. Prime Infrastructure scale and sizing guidelines
  B. Prime Infrastructure 3.x licensing overview
  C. Complete list of product and services part numbers
  D. Complete list of upgrade and migration part numbers
  E. Using Management Token as an alternative to using category-specific licenses
  G. End-of-sale and end-of-life notices
  H. Using the licensing interface (incl. saving .LIC files)
  I. Obtaining a Prime Infrastructure evaluation license
  J. Contact information to get help with ordering and licensing
  K. Resources (guides: upgrade, installation)
  L. License application guidelines and Entitlements
  M. Smart Licensing Update
Licensing Overview in Cisco Prime Infrastructure 3.x
Cisco Prime Infrastructure 3.x Licensing Changes (1 of 2) Traditional Licensing

- Cisco Prime™ Infrastructure 3.x (PI 3.x) are now offered under one Cisco Enterprise Management 3.x License
- PI 3.x lifecycle and assurance licenses are now combined into a single management license. These licenses are offered on a per-device basis (as in PI 1.x, 2.x) and are NOT node-locked. They are available in single-device increments (no more PAKs of 25, 50, etc.).
  - PI 3.x licenses are now linked to the category or sub-category of network devices (as in Cisco ONE™ Software)
  - Examples include C1-PI-LFAS-AP-K9, C1-PI-LFAS-2K3K-K9, etc.
- Customers deploying Prime Infrastructure for the first time should purchase a Cisco Enterprise Management 3.x License as described in this document.
- Customers with a valid services contract on earlier versions of Prime Infrastructure (PI 2.x, 1.x, NCS 1.x etc.) can upgrade to PI 3.x at no additional cost.
  - Customers without a valid services contract or with expired services contracts can purchase PI 1.x/2.x to 3.x upgrade licenses and then upgrade the PI 1.x or 2.x to a PI 3.x instance, as described in this document. They MUST attach service contract in this case.
- Customers with valid support contracts on PI 2.x or 1.x can upgrade to PI 3.x at no cost.
- Inline Upgrade from PI 2.x to PI 3.1 is Not supported (Click here to download the upgrade instructions document)
Cisco Prime Infrastructure 3.x
Licensing Changes/Smart Licensing Support

- Beginning with PI 3.1 release, Prime Infrastructure licenses can be purchased using Smart Licenses.
- For more updates on Smart licensing refer Appendix M
- Cisco Prime Infrastructure 3.1 and higher will support smart license usage
  A single instance of Prime Infrastructure can run either in traditional licensing mode or smart licensing mode and not both
  - If customers are running multiple instances of Prime Infrastructure, they are allowed to transition each of these servers at once or in phases
  - Customers running two or more instances of Prime Infrastructure in smart licensing mode can use “license pooling” functionality across these servers
  - For more detailed information Smart Licensing please Click here
Licensing Model Overview
Cisco Prime Infrastructure 3.x

Notes:
- One and only one base license is required for each Prime™ Infrastructure management node (physical or virtual appliance)
- A collector license increases a PI node from 20,000 to 80,000 flows per second
- Per-device licenses are available in single-device increments
Ordering Cisco Prime Infrastructure Traditional/Classic Licenses
(New Customers and Existing Customers Who Want to Add Capacity)
Ordering Cisco Prime Infrastructure 3.x  
(Traditional License)

- **Click here** Customers purchasing Cisco Prime® Infrastructure for the first time
- **Click here** Customers adding new functions or capacity to existing PI servers
  - Additional capacity – lifecycle and assurance
  - New functionality – Cisco® Prime Infrastructure Operations Center
- **Click here** Customers upgrading from NCS 1.x, PI 1.x, and 2.x
- **Click here** Customers purchasing Prime Infrastructure Operations Center
1. Download and review the Cisco Prime™ Infrastructure 3.x Quick Start Guide (Click here to download the document)
2. Decide whether to deploy your PI server on a physical appliance or virtual appliance
   Customers are allowed to move from physical appliance deployment to virtual appliance deployment and vice versa
   Any Prime Infrastructure License that works on virtual appliance works on physical appliance and vice versa
3. If you want to download* virtual appliance software (Click here to download the software, choose the desired version e.g., 3.6)
   Physical appliance will ship with Prime Infrastructure pre-installed.
4. Review the Cisco® Prime Infrastructure scale and sizing guidelines (Click here to download the document)
   Take an approximate inventory of network devices that you will manage with PI
   1. Number of switches, routers, wireless access points
   2. Identify other requirements for Cisco Prime Infrastructure deployment (e.g., you may want to segment the network and deploy multiple PI instances to manage different segments; you may want to deploy PI in High Availability (HA))
   3. Decide on the number of PI server instances based on the above guidelines and your requirements. Unless you plan to manage the same number of devices on each server instance, you must create a separate bill of materials (BoM) for each server (explained later)
   4. Select the appropriate Management 3.x (lifecycle and assurance) part numbers and the quantity for each PI server based on the number of network devices that the PI server instance is intended to manage
First-time Purchase of Prime Infrastructure (2 of 5) (Traditional License)

Use case
Customer wants to purchase Cisco Prime™ Infrastructure to manage its network with 500 (APs), 60 (2Ks), 20 (3Ks), ISR1K (10), ISR4K (2). Include high availability, and deploy PI on a virtual appliance

Required
1. Start with TOP-LEVEL part number: R-MGMT3X-N-K9 (QTY. = 1)
2. Select the BASE LICENSE part number: L-MGMT3X-PI-BASE (QTY. = 1)
3. Select SOFTWARE* part number R-PI3X-SW-K9 (QTY. = 1)
4. Select the HIGH AVAILABILITY** part number: L-MGMT3X-HA (QTY. = 1)
5. Select MGMT (LF and AS) license part number(s): L-MGMT3X-<DEV>-K9, (QTY=n) (<DEV> = Device Type and Sub Type (AP, 2K, 3K .. ) n = 50/100/500/1000 .. 15,000) QTY depends on the number of network devices

Optional
1. Order additional support (a 1-year mandatory services contract is attached with each new order)

* Lifecycle and Assurance Lic. (QTY. 1 or more)
** Required only if you are deploying Prime Infra. in high availability configuration. HA license is required per HA Pair.

For example BoM 1 (Click here) ; For a full list of SKUs (Click here)
* For instructions upgrading and installing software (Click here), To access and download Prime Infra software with CCO ID/Password (Click here)
First-time Purchase of Prime Infrastructure (3 of 5) (Traditional License)

Example BoM #1: Customer wants to purchase Cisco Prime™ Infrastructure to manage its network with 500 (APs), 60 (2Ks), 20 (3Ks), ISR1K (10), ISR4K (2). Include HA and deploy PI on a virtual appliances (Services Part Numbers will be displayed when you order the product)

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<th>Product Part Number</th>
<th>Description</th>
<th>QTY</th>
<th>Services Part Number</th>
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<td>L-MGMT3X-AP-K9*</td>
<td>Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 AP</td>
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<th>Services Part Number</th>
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<tr>
<td>Lifecycle and Assurance License Options (Router Management)</td>
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<td>L-MGMT3X-ISR1-K9</td>
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<td>L-MGMT3X-ISR4-K9</td>
<td>Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 ISR4K</td>
<td>2</td>
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</table>

* Customers purchasing an AP (access point) management license for 2500 or more devices can use L-MGMG3X-AP-HV-K9 (high-volume license); These licenses can only be used for AP management.

** You do NOT need to purchase duplicate device management licenses for the secondary server.

High-availability deployments require that both primary and secondary appliances be identical (PHY/PHY, VM/VM, Gen 3/Gen 3, PI ver x/ver x)

The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Ordering Cisco Prime Infrastructure Physical Appliance
First-time Purchase of Prime Infrastructure (4 of 5)
If you choose a physical appliance deployment

Use case
Customer wants to purchase and deploy Cisco Prime™ Infrastructure on a physical appliance.*
(Services part numbers will be displayed when you order the product.)

Required*

1. Start with the TOP-LEVEL part number; PI-UCSM5-APL-K9 ** (QTY. = N)
   (N = Number of PI server instances that you plan to deploy)
   If you want to deploy PI in a high-availability configuration, order one pair of appliances for each instance.

2. Select the appliance SOFTWARE part number; PI-UCS-APL-IMG-3.x (3.x= 3.6, 3.7 etc QTY. = 1)
   If this selection is not available, go to the cisco.com download site to download an image and follow the instructions to install this image on the appliance.

For example BoM 2 (Click here); For a full list of SKUs (Click here)
Not all PI 3.x software releases are supported on the Gen 3 Physical appliance
All customers are strongly urged to upgrade to Gen 3 physical Appliance to run latest version of Prime Infrastructure.
** Option to purchase Gen 3 Appliance with SSD is also available in CCW
For information on upgrading Gen2 to Gen3 Physical appliances (Click here)
If you choose a physical appliance deployment

Example BoM #2

Customer wants to purchase and deploy Cisco Prime™ Infrastructure on a physical appliance. (Services part numbers will be displayed when you order the product.)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>QTY</th>
<th>Services Part Number</th>
<th>Description</th>
<th>QTY</th>
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<tbody>
<tr>
<td>Top-Level Part Number: Physical Appliance (Gen 3)</td>
<td>Prime Infrastructure UCS® Hardware Appliance (Gen 3)</td>
<td>1</td>
<td>CON-SNT-PIUCSM5A</td>
<td>SMARTnet® 8X5XNBD Cisco® Prime UCS Hardware</td>
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</tr>
<tr>
<td>PI-UCSM5-APL-K9</td>
<td>Prime Infrastructure UCS® Hardware Appliance (Gen 3)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Prime Infrastructure 3.x Generation 3 Appliance Software Options</td>
<td>Cisco Prime Infrastructure 3.x UCS Appliance Software ISO</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCS-APL-IMG-3.x*</td>
<td>Cisco Prime Infrastructure 3.x UCS Appliance Software ISO</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 3.x = 3.6, 3.7 etc. – please pick the version that you need

** To deploy Prime Infrastructure in high availability: Purchase two servers and a high-availability license per pair of HA. You do NOT need to purchase duplicate device management licenses for the secondary server.

HA deployments require that both primary and secondary appliances be identical (PHY/PHY, VM/VM, Gen3/Gen3, PI ver x/ver x)

The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Adding Capacity to Existing PI 3.x Servers (1 of 2)
(Traditional license) Lifecycle and Assurance

**Use case**
Customer wants to add network capacity and purchase corresponding Cisco Prime™ Infrastructure licenses to manage the added devices (access points, Cisco Catalyst® switches, routers) (Services part numbers will be displayed when you order the product.)

**Required**
1. Start with **TOP-LEVEL** part number R-MGMT3X-N-K9 (QTY = 1)
2. Select **MGMT (LF and AS)** license part number(s): L-MGMT3X-<DEV>-K9, (QTY=n)
   - <DEV> = Device Type and Sub Type (AP*, 2K, 3K .. )
   - n = 1/25/50/100/500/1000 .. 15,000
   - QTY depends on the number of network devices
   - The QTY depends on the number of network devices (access points, switches, routers)

**Optional**
1. Order **additional services** (a 1-year mandatory services contract is attached)

For example BoM 3 (Click here) ; For a full list of SKUs (Click here)
*Customers purchasing an access point management license for 2500 or more devices can use L-MGMG3X-AP-HV-K9 (high-volume license)
These licenses can only be used for AP management.
The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Adding Capacity to Existing PI 3.x Servers (2 of 2)

If you choose a physical appliance deployment

Example BoM #3

Customer wants to add network capacity and purchase corresponding Cisco Prime™ Infrastructure licenses to manage the added devices (access points, Cisco Catalyst® switches, routers). (Services part numbers will be displayed when you order the product.)

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<th>Product Part Number</th>
<th>Description</th>
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<th>Services Part Number</th>
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</tr>
<tr>
<td>R-MGMT3X-N-K9</td>
<td>Cisco® Ent MGMT: Lic For PI 3.x</td>
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<th>Description</th>
<th>QTY</th>
<th>Services Part Number</th>
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</thead>
<tbody>
<tr>
<td>Lifecycle and Assurance License Options (Access Point Management)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>L-MGMT3X-AP-K9*</td>
<td>Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 AP</td>
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</table>

| Lifecycle and Assurance License Options (Catalyst Switch Management) | | | | |
| L-MGMT3X-2K-K9       | Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 Catalyst® 2K | 20  |                      |             |
| L-MGMT3X-3K-K9       | Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 Cat 3K       | 10  |                      |             |

| Lifecycle and Assurance License Options (Router Management) | | | | |
| L-MGMT3X-ISR1-K9     | Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 ISR1K        | 10  |                      |             |
| L-MGMT3X-ISR4-K9     | Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 ISR4K        | 2   |                      |             |

| Lifecycle and Assurance License Options (Router Management) | | | | |
| L-MGMT3X-92XX-K9     | Cisco Ent MGMT: PI 3.x LF, 1 Cisco Catalyst 9200 Switch | 2   |                      |             |
| L-MGMT3X-95XX-K9     | Cisco Ent MGMT: PI 3.x LF, 1 Cisco Catalyst 9500 Switch | 4   |                      |             |

*Customers purchasing an access point management license for 2500 or more devices can use L-MGMMG3X-AP-HV-K9 (high-volume license)
These licenses can only be used for AP management.
The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Purchasing Cisco Prime Infrastructure Operations Center
Customer has deployed multiple instances of Cisco Prime™ Infrastructure 3.x and wants to deploy a Cisco® Prime Infrastructure Operations Center to manage those PI instances centrally. (Services part numbers will be displayed when you order the product.)

1. Start with **TOP-LEVEL** part number: **R-MGMT3X-N-K9** (QTY. = 1)
2. Select **SOFTWARE** part number **R-PI3X-SW-K9** (QTY. = 1)
3. Select the **OPER CNTR BASE LICENSE** part number: **L-MGMT3X-OPRCTR-B** (QTY. = 1)
4. Select **OPER CNTR SERVER LICENSE** part number: **L-MGMT3X-OPRCTR-1** (QTY. = n) (The quantity and type depend on the number of PI instances.)

Optional:

1. Order **additional services** (A 1-year mandatory services contract is attached.)

For instructions upgrading and installing software ([Click here](#)), To access and download Prime Infra software ([Click here](#))

Example BoM #7

For a full list of SKUs refer to Appendix D-E
Customer has deployed multiple instances of Cisco Prime™ Infrastructure 3.x and wants to deploy a Cisco® Prime Infrastructure Operations Center to manage those PI instances centrally. (Services part numbers will be displayed when you order the product.) The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.

<table>
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<th>Product Part Number</th>
<th>Description</th>
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Upgrading from Cisco Prime Infrastructure 2.2 to PI 3.x (the latest release)
# Upgrading from Legacy to PI 3.x (Summary)

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<th>Support-Contract</th>
<th>Upgrade options</th>
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<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td></td>
<td>4.0 and 4.1</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td></td>
<td>4.2</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td>WCS</td>
<td>7.0 and earlier</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td>NCS</td>
<td>1.0 and 1.1</td>
<td>Valid</td>
<td>Download PI 3.x and follow instructions to upgrade to PI 3.x</td>
</tr>
<tr>
<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td>PI</td>
<td>1.x</td>
<td>Valid</td>
<td>Download PI 3.x and follow instructions to upgrade to PI 3.x</td>
</tr>
<tr>
<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
<tr>
<td></td>
<td>2.x</td>
<td>Valid</td>
<td>Download PI 3.x and follow instructions to upgrade to PI 3.x</td>
</tr>
<tr>
<td></td>
<td>None/Expired</td>
<td>Valid</td>
<td>Buy UPG SKUs w/SWSS on UPG SKUs</td>
</tr>
</tbody>
</table>

**NCS WAN 1.1:** Router management functionality in PI 1.1 was incorporated into PI 1.x after PI 1.2 and there is no requirement to upgrade from NCS WAN 1.1 to later revisions; **PAM 1.x:** There is no upgrade path from Prime Assurance Manager

**** For instructions upgrading and installing software ([Click here](#)), To access and download Prime Infra software ([Click here](#))
The NCS 1.0, PI 1.x, and PI 2.x licenses all work on Prime™ Infrastructure 3.x. License files are located in the `/opt/CSCO/llums/licenses` directory on your system.
Upgrading from PI 2.2.x to PI 3.x (1 of 1)
(For Customers with a Valid Support Contract)

Customer Segment

Customers with valid services contracts
No additional license purchase is required
No license PAKs are required

Fresh Installation of PI 3.x is required.
No Inline upgrade is supported from PI 2.x to 3.1
due to change in DB release

If you are doing a fresh installation of PI 3.x, they can copy the licenses from legacy systems and install them on PI 3.x (re-host of licenses is NOT required)
The NCS 1.0, PI 1.x, and PI 2.x licenses all work on PI 3.x. License files are located in the /opt/CSCO/Ums/licenses directory on your system.

For instructions upgrading and installing software (Click here), To access and download Prime Infra software (Click here)
Upgrading from a Generation 2 to Generation 3 Cisco Prime Infrastructure Physical Appliance
Prime Infrastructure 3.x Physical Appliance
Physical Appliance Generation 2 Compared to Generation 3

**Generation 2**
Prime Infrastructure 3.x Physical Appliance:
- PI-UCS-APL-K9
- UCSC-C220-M4S
- 2.30 GHz E5-2650 v3/105 W 10C/25 MB Cache/DDR4 2133 MHz

**Generation 3**
Prime Infrastructure 3.x Physical Appliance:
- PI-UCSM5-APL-K9
- 2.4 GHz, 6148/150W DDR4 2666 MHz

<table>
<thead>
<tr>
<th>Gen 2 Appliance Scale</th>
<th>Gen 3 Appliance Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>20000</td>
<td>Max unified APs</td>
</tr>
<tr>
<td>3000</td>
<td>Max autonomous APs</td>
</tr>
<tr>
<td>1000</td>
<td>Max WLAN controllers</td>
</tr>
<tr>
<td>13000</td>
<td>Max wired (switches, routers)</td>
</tr>
<tr>
<td>25</td>
<td>Max MSE</td>
</tr>
<tr>
<td>1000</td>
<td>NAMs</td>
</tr>
<tr>
<td>20,000</td>
<td>Max number of devices (combination of wired, wireless)</td>
</tr>
</tbody>
</table>

Prime Infrastructure is now supported on Cisco DNA Center Appliance (DN2-HW-APL). For DN2 appliance Hardware Specifications and Scale, [Click here](#).
Upgrading from Generation 2 to Generation 3 Prime Infrastructure Physical Appliance (1 of 2)

A customer with a Cisco® UCS generation-2 physical appliance (PI-UCS-APL-K9) wants to upgrade to a generation-3 physical appliance.

1. Start with the **TOP-LEVEL UPG** part number: PI-UCSM5-APL-U-K9 (QTY. = N)
   (N = Number of Cisco Prime® Infrastructure server instances that you plan to deploy)
   If you are deploying high availability (HA), then order one pair of appliances for each instance.

2. Select the appliance **SOFTWARE** part number: PI-UCS-APL-IMG-3.x (QTY. = 1)
   If this selection is not available, go to the cisco.com download site to download the image and follow the instructions to install this image on the appliance.

An example bill of materials (BoM) is shown in the next slide.
For a full list of SKUs refer to [Appendix D-E](#).

---

**Example BoM #10**

**Required**

- A customer with a Cisco® UCS generation-2 physical appliance (PI-UCS-APL-K9) wants to upgrade to a generation-3 physical appliance.

- Start with the **TOP-LEVEL UPG** part number: PI-UCSM5-APL-U-K9 (QTY. = N)
  (N = Number of Cisco Prime® Infrastructure server instances that you plan to deploy)
  If you are deploying high availability (HA), then order one pair of appliances for each instance.

- Select the appliance **SOFTWARE** part number: PI-UCS-APL-IMG-3.x (QTY. = 1)
  If this selection is not available, go to the cisco.com download site to download the image and follow the instructions to install this image on the appliance.

---

An example bill of materials (BoM) is shown in the next slide.
For a full list of SKUs refer to [Appendix D-E](#).
Upgrading from Generation 2 to Generation 3 Prime Infrastructure Physical Appliance (2 of 2)

A customer with a Cisco® UCS generation-2 physical appliance (PI-UCS-APL-K9) wants to upgrade to a generation-3 physical appliance.

### Example BoM #10

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>QTY</th>
<th>Services Part Number</th>
<th>Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top-Level Part Number: Physical Appliance Upgrade (Gen 1 to Gen2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCSM5-APL-U-K9</td>
<td>Cisco Prime™ Physical Appliance Upgrade (Generation 2 to Generation 3)</td>
<td>1</td>
<td>CON-SNT-PIUCSM5A</td>
<td>SMARTnet® 8X5XNBD Cisco Prime UCS HW</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Prime Infrastructure 3.x Generation 2 Appliance Software Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCS-APL-IMG-3.x</td>
<td>Cisco Prime Infrastructure 3.x UCS Appliance Software ISO</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

If you plan to deploy Prime Infrastructure in high availability you will need to purchase two servers. High-availability deployments require that both primary and secondary appliances be identical (PHY/PHY, VM/VM, Gen3/Gen3, PI ver x/ver x).

The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Appendix A
Cisco Prime Infrastructure 3.x
Scale and Sizing Guidelines
Scale and Sizing Guidelines

• It is recommended to follow the respective version Quick Start Guide for Sizing and Scale Guidelines of Cisco Prime Infrastructure

• Click here to download the Prime Infrastructure Quick Start Guide document
Appendix B
Cisco Prime Infrastructure 3.x
Licensing Overview
Cisco Prime Infrastructure 3.x
Licensing Overview

Cisco Prime™ Infrastructure (PI) provides a single, integrated solution for complete lifecycle management of Cisco® routers, switches, and wireless devices, along with deep visibility into the end-user experience and application performance.

PI 3.x was released August 31, 2015. Customers are encouraged to deploy this version to get the latest enhancements and continued quality improvements.
Appendix D
Complete List of Prime Infrastructure 3.x Product and Services Part Numbers
New Customer Deployments
(Greenfield Customer Deployments)

Customers purchasing Cisco Prime™ Infrastructure for the first time

New Customer Deployment (Greenfield Deployment) → PI 3.x*

* For instructions upgrading and installing software (Click here)
To access and download Prime Infra software (Click here)
# Cisco Prime Infrastructure 3.x
## Top-Level Part Numbers (1 of 2)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-MGMT3X-N-K9</td>
<td>Cisco® Ent MGMT: Lic for PI 3.x</td>
<td>N/A</td>
</tr>
</tbody>
</table>

## Top-Level Part Number: Upgrade Part Numbers for Existing Cisco PI 2.x Customers

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-P-MGMT3X-U-K9</td>
<td>Cisco Prime™ Infra 1.x/2.x to Cisco Ent MGMT 3.x Upgrade</td>
<td>N/A</td>
</tr>
</tbody>
</table>

## Smart License

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-MGMT3X-N-K9</td>
<td>Cisco® Ent MGMT: Lic for PI 3.x</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# Cisco Prime Infrastructure 3.x
## Top-Level Part Numbers (2 of 2)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top-Level Part Number: Physical Appliance (Gen 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCSM5-APL-K9</td>
<td>Prime Infrastructure UCS® Hardware Appliance (Gen 3)</td>
<td>CON-SNT-PIUCSM5A</td>
<td>SMARTnet® 8X5XNBD Cisco® Prime UCS HW</td>
</tr>
<tr>
<td>Top-Level Part Number: Physical Appliance Upgrade (Gen 1 to Gen 2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCSM5-APL-U-K9</td>
<td>Cisco Prime™ Physical Appliance Upgrade (Generation 2 to Generation 3)</td>
<td>CON-SNT-PIUCSM5A</td>
<td>SMARTnet 8X5XNBD Cisco Prime UCS HW</td>
</tr>
</tbody>
</table>

Note: Services part numbers will be displayed when you order the product.
Gen-2 Prime UCS appliance (PI-UCS-APL-K9) is end of sale as of June 2019
## Cisco Prime Infrastructure 3.x
Base License Part Numbers (1 of 1)

### Smart License

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base License</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-MGMT3X-PI-BASE</td>
<td>Cisco® Ent MGMT: PI 3.xx Platform Base License</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-MGMT3X-PI-BASE</td>
<td>Cisco® Ent MGMT: PI 3.xx Platform Base License</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Starting with PI 2.2 and continuing to PI 3.x, we have removed the node locking for new SKUs. (Services part numbers will be displayed when you order the product.)
Cisco Prime Infrastructure 3.x
High-Availability Part Numbers (1 of 1)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime™ Infrastructure 3.x High-Availability License (RTU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-MGMT3X-HA</td>
<td>Cisco® Prime Infrastructure 3.x - High Availability RTU</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Smart License

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime™ Infrastructure 3.x High-Availability License (RTU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-MGMT3X-HA</td>
<td>Cisco® Prime Infrastructure 3.x - High Availability RTU</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Starting with PI 2.2 and continuing to PI 3.x, we have removed the node locking for new SKUs. (Services part numbers will be displayed when you order the product.)
# Cisco Prime Infrastructure 3.x
Software Part Numbers (1 of 1)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime™ Infrastructure 3.x Software Options</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-PI3X-SW-K9</td>
<td>Cisco® Prime Infrastructure 3.x Software</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Smart License**

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime Infrastructure 3.x Generation 2 Appliance Software Options</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCS-APL-IMG-3.x</td>
<td>Cisco Prime Infrastructure 3.x UCS® Appliance Software ISO</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: Services part numbers will be displayed when you order the product.
## Cisco Prime Infrastructure 3.x

### Collector License Options

<table>
<thead>
<tr>
<th>Collector License Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-MGMT3X-N-CL</td>
<td>Cisco® Ent MGMT: PI 3.x Collector License, 1 Server</td>
</tr>
</tbody>
</table>

### Smart License

<table>
<thead>
<tr>
<th>Collector License Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-MGMT3X-N-CL</td>
<td>Cisco® Ent MGMT: PI 3.x Collector License, 1 Server</td>
</tr>
</tbody>
</table>

Note: Starting with PI 2.2 and continuing to PI 3.x, we have removed the node locking for new SKUs. (Services part numbers will be displayed when you order the product.)
# Cisco Prime Infrastructure 3.x
Operations Center Part Numbers (1 of 1) (Traditional/Classic Licenses)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top-Level Part Number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-MGMT3X-N-K9</td>
<td>Cisco® Ent MGMT: Lic for PI 3.x</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Base License</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-MGMT3X-OPRCTR-B</td>
<td>Cisco Ent MGMT: PI 3.x Oper Cntr, BASE Lic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prime Infrastructure 3.x Software Options</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-PI3X-SW-K9</td>
<td>Cisco Prime™ Infrastructure 3.x Software</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Appliance Software Options (Gen 2)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCS-APL-IMG-3.x</td>
<td>Cisco Prime Infrastructure 3.x UCS Appliance Software ISO (Gen 3)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Operations Center Server License Options</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-MGMT3X-OPRCTR-1</td>
<td>Cisco Ent MGMT: PI 3.x Oper Cntr, 1 Srv Lic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Starting with PI 2.2 and continuing to PI 3.x, we have removed the node locking for new SKUs. (Services part numbers will be displayed when you order the product.)
## Cisco Prime Infrastructure 3.x
### Operations Center Part Numbers (1 of 1) (Smart Licenses)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top-Level Part Number</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-MGMT3X-N-K9</td>
<td>Cisco® Ent MGMT: Lic for PI 3.x</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Base License</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-MGMT3X-OPRCTR-B</td>
<td>Cisco Ent MGMT: PI 3.x Oper Cntr, BASE Lic</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prime Infrastructure 3.x Software Options</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-PI3X-SW-K9</td>
<td>Cisco Prime™ Infrastructure 3.x Software</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appliance Software Options (Gen 2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI-UCS-APL-IMG-3.x</td>
<td>Cisco Prime Infrastructure 3.x UCS Appliance Software ISO (Gen 3)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Operations Center Server License Options</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-MGMT3X-OPRCTR-1</td>
<td>Cisco Ent MGMT: PI 3.x Oper Cntr, 1 Srv Lic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Starting with PI 2.2 and continuing to PI 3.x, we have removed the node locking for new SKUs. (Services part numbers will be displayed when you order the product.)
Appendix E
Complete List of Prime Infrastructure 3.x Product and Services Part Numbers
For Customers Upgrading from LMS 4.x / WCS / NCS 1.x / PI 1.x / PI 2.x
## Cisco Prime Infrastructure 3.x Upgrade Options (1 of 2)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>**Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top-Level Part Number Upgrade Part Numbers for Existing Cisco Prime™ Infrastructure 1.x/2.x Customers</td>
<td>R-P-MGMT3X-U-K9</td>
<td>Cisco® Prime Infra 1.x/2.x to Cisco Ent MGMT 3.x Upgrade</td>
<td>N/A</td>
</tr>
<tr>
<td>Base License</td>
<td>L-MGMT3X-PI-BASE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cisco Ent MGMT: PI 3.xx Platform Base Lic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prime Infrastructure 3.x Software Options</td>
<td>R-PI3X-SW-K9</td>
<td>Prime Infrastructure 3.x Software</td>
<td></td>
</tr>
<tr>
<td>Prime™ Infrastructure 3.x High-Availability License (RTU)</td>
<td>L-MGMT3X-HA</td>
<td>Cisco Ent MGMT: PI 3.x (if applic), H/A Lic</td>
<td></td>
</tr>
</tbody>
</table>

* Customers are encouraged to add Assurance Licenses and match their number with Lifecycle Licenses
** Services part number entries are left blank since they depend on the customer choice.
# Cisco Prime Infrastructure 3.x Upgrade Options (2 of 2)

<table>
<thead>
<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>Services Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device Licenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-25-U</td>
<td>Prime™ Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 25 Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-50-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 50 Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-100-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 100 Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-500-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 500 Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-1000-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 100 Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-2.5K-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 2.5K Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-10K-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 10K Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-P-PI3X-LF-15K-U</td>
<td>Prime Infra 1.x/2.x Lifecycle to PI 3.x Lifecycle Upg 15K Dev</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product Part Number</strong></td>
<td><strong>Description</strong></td>
<td><strong>Services Part Number</strong></td>
<td><strong>Description</strong></td>
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<td><strong>Device Licenses</strong></td>
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<td>L-P-PI3X-AS-25-U</td>
<td>Prime Infra 2.x Assurance to PI 3.x Assurance Upg 25 Dev</td>
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<td>L-P-PI3X-AS-50-U</td>
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<td>L-P-PI3X-AS-500-U</td>
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<td>L-P-PI3X-AS-1K-U</td>
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<td>Prime Infra 2.x Assurance to PI 3.x Assurance Upg 15K Dev</td>
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Appendix F
Using a Management Token as an Alternative to a Category-Specific Management License
Management Tokens
What They Are and How to Purchase Them

Beginning with Prime™ Infrastructure 3.x, we introduced the concept of category-specific device licenses. Example: Lifecycle and Assurance (LF-AS) licenses for managing access points, Catalyst® switches, etc.

This offers significant benefits to customers who want the ability to track their management license usage.

This requires customers to take an approximate inventory of devices and their sub-categories, namely access points and switches (Cisco® Catalyst 2000 and 3000 Series) prior to purchasing PI 3.x licenses.

Some sales teams and partners feel that this might complicate the ordering process.

As a result, we have introduced Management Tokens as an alternative to category-specific device licenses. Each PI 3.x management token equates to one LF token and one AS token.

PI 3.x device licenses are tamper-resistant, human-readable, and follow a common format. They contain the type of license (LF or AS) and the number of managed devices and duration of validity (permanent or duration).

Customers can purchase L-MGMT3X-TKN-K9= as an alternative to equivalent category-specific device licenses based on the following:

**For 90% of devices:** Access points (all models), switches (Catalyst 2000 and 3000), routers (ISR 1000, CSR 1000, 800 series). One token equates to one device license (LF, AS pair)

**For all other devices:** Switches (Catalyst 4000, 6000, 9000 etc.), routers (ASR 1000, ISR 2000, 3000, 4000, etc.). Purchase “N” number of tokens per device. Mapping is shown in the next slide.
Guidelines for Purchasing Management Tokens

If the customer knows the mix of network devices that their PI will manage, they can use the mapping table (provided in the next slide) to estimate and purchase the total number of tokens needed to manage those devices.

If the customer does not know the mix of network device that their PI will manage, the recommendation is to purchase 130 tokens for every 100 devices they plan to manage with PI.

In either case,

• The customer needs to know an approximate number of devices that they plan to manage with PI
• It is recommended that customers adjust the device quantity to accommodate for growth in network devices

If the customer needs to manage a Cisco® networking device (switch, router, access point) that is not on the list of devices but is on the supported device list (link provided below), they can identify the device that is closest to another device on the list shown in the next slide and purchase the corresponding number of tokens per device.


Prime Infrastructure does not consume license for below devices.

• Wireless LAN controllers (WLCs) and Autonomous Access Points
• Adaptive Security Appliance (ASA Firewall) and Voice Gateway devices
• Meraki Access Points, Aruba and Third-Party devices.
# Management 3.x Tokens to Management 3.x License Mapping Table

<table>
<thead>
<tr>
<th>Managed Device</th>
<th>SKU and Qty to Purchase</th>
<th>OR</th>
<th>SKU and Qty to Purchase</th>
<th>Description</th>
</tr>
</thead>
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<td></td>
<td>Token SKU</td>
<td>Tokens/Device</td>
<td>Token SKU</td>
<td>Tokens/Device</td>
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<td>S-MGMT3X-AP</td>
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<td>Cat 1K</td>
<td>L-MGMT3X-TKN-K9=</td>
<td>1</td>
<td>L-MGMT3X-1K-K9=</td>
<td>S-MGMT3X-1K</td>
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<td>Cat 2K</td>
<td>L-MGMT3X-TKN-K9=</td>
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<td>L-MGMT3X-2K-K9=</td>
<td>S-MGMT3X-2K</td>
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<td>Cat 3K</td>
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<td>L-MGMT3X-3K-K9=</td>
<td>S-MGMT3X-3K</td>
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<tr>
<td>Cat 4K</td>
<td>L-MGMT3X-TKN-K9=</td>
<td>2</td>
<td>L-MGMT3X-4K-K9=</td>
<td>S-MGMT3X-4K</td>
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<td>Cat 6K</td>
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<td>3</td>
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<td>L-MGMT3X-96XX-K9=</td>
<td>S-MGMT3X-96XX-K9</td>
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</table>
## Management 3.x Tokens to Management 3.x License Mapping Table

<table>
<thead>
<tr>
<th>Managed Device</th>
<th>SKU and Qty to Purchase</th>
<th>OR</th>
<th>MGMT 3.x License SKU</th>
<th>MGMT 3.x Smart License SKU</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGR 1K</td>
<td>L-MGMT3X-TKN-K9</td>
<td>1</td>
<td>L-MGMT3X-ISR1-K9</td>
<td>S-MGMT3X-ISR1</td>
<td>Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 ISR 1K</td>
</tr>
<tr>
<td>CGR 2K</td>
<td>L-MGMT3X-TKN-K9</td>
<td>2</td>
<td>L-MGMT3X-ISR2-K9</td>
<td>S-MGMT3X-ISR2</td>
<td>Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 ISR 2K</td>
</tr>
</tbody>
</table>
Appendix G
End-of-Sale and End-of-Life (EoS/EoL) Notices
EoS and EoL Notices

Cisco Prime Infrastructure/LMS/WCS End-of-Life and End-of-Sale Notices

APIC-EM End-of-Life and End-of-Sale Notices
Appendix H
Using the Licensing Interface
How to Get UDI Information in PI 3.x

Migration from Physical appliance to Virtual appliance/Virtual appliance to Physical Appliance, requires contract to be updated with the migrated appliance serial number in order to get TAC support.

In Prime™ Infrastructure, navigate to Administration/Dashboards/System Monitoring Dashboard/Overview > System Information to retrieve UDI information.
How to View the License Summary

- Navigate to Administration, then click on Licenses under Licenses and Software Updates
  - You can select ‘Smart Software Licensing’ if you want to enable smart licensing mode.
License Summary (PI 3.X or Later)
How to backup and save Prime Infra .Lic files?

Customer doing **Inline Upgrade** (where possible), the .LIC files are automatically carried over the target version of PI; No additional action is required to migrate the licenses to the upgraded PI instance

Customer upgrading via **Fresh Install** (where possible) and if you are allowed to restore your full application backup from previous version of PI, the .LIC files are automatically carried over the target version of PI; No additional action is required to migrate the licenses to the upgraded PI instance

In some situations, customer may want to start with a PI server with no data but use existing licenses from a PI instance running a previous version of SW. In such situation, you can locate and copy .LIC files from that server and copy it over to the newly installed PI server running the desired version of SW

- .Lic files are located in/opt/CSCOlumos/licenses directory
- At the system CLI prompt, cd to/opt/CSCOlumos/licenses
- Locate .Lic files and FTP to some known location on your desktop/laptop PC.
- Starting from PI 3.1 and above, you can download the license file from PI GUI by navigating to Administration > License and Software Updates > Licenses > Files > License Files
Adding, Deleting and Downloading License Files

To add a license file: Click on the Add button. An upload box will appear. Browse and upload a license file. Log out and log in to the system. The license will be effective.

To delete a license file: Select the file to be deleted. Click on the Delete button. A confirmation popup box will appear. Click ok. Files will be deleted. Log out and log in from the system to let deletion take effect.

To download a license file: Select the file to be downloaded. Click on the Download button. A confirmation popup box will appear. Click ok. Files will be downloaded.
Licensing Dashboard
Licensing Dashboard
Appendix I
Obtaining a Cisco Prime Infrastructure 3.x Evaluation License and Software
Obtaining a Cisco Prime Infrastructure 3.x Evaluation License

If you need a custom evaluation license, send a request to ask-pi-license-req@cisco.com with below details:

- Customer CCO ID
- Total number of tokens required
Appendix J
Contact Information for Ordering and Licensing Assistance
Contact Information for Ordering and Licensing Assistance

For all ordering issues in Cisco® Commerce Workspace (bookings, holds, configurations):
cs-support@cisco.com

For eDelivery support questions or ordering issues (provide PO or SO number):
edelivery-customer-support@cisco.com

Customer Case Management Tool to open a support case:
https://www.cisco.com/cisco/psn/web/workspace
Appendix K
Links to additional Resources
Additional Resources

Links to Release Notes, Software Downloads, Deployment Guide, Field Notice etc.


https://software.cisco.com/download/navigator.html?mdfid=284145020&i=rm


Note: Please use the document related to the latest release of Cisco Prime™ Infrastructure (3.x)
Appendix L
Guidelines for License Application and Entitlements
Management Servers (e.g., LMS, WCS, NCS, PI and PI Operations Center) can only accept specific licenses. Detailed list of SKUs that can run on a management server is show in the table on the next slide.

Demo/Evaluation licenses and Permanent licenses cannot be mixed in most cases. (Exception) Demo/Evaluation Assurance licenses may be used with Permanent Lifecycle and BASE licenses.

PI servers will accept licenses that are for current PI version and earlier versions (backward compatibility).

Node lock removed licenses can only be applied to PI 2.2 and higher versions of PI. A particular instance of a node lock removed license CAN ONLY be applied on a single PI server.

On rare occasions, customers accidentally purchase licenses for later versions of PI and want to run an older version of PI; in such cases, customers can request licensing team to downgrade their licenses.

A single PI server can be run only with PI licenses or Operations Center Licenses and not both. PI servers with Operations Center Licenses will run as Operations Center.

A single PI server instance either run in Traditional Licensing Mode or Smart Licensing Mode.
## Guidelines for License application (2 of 9)

To avoid installing incorrect licenses on management servers please use this table.

<table>
<thead>
<tr>
<th>Management Server</th>
<th>LMS</th>
<th>WCS</th>
<th>NCS</th>
<th>PI 1.1</th>
<th>PI 1.2,1.3 &amp; 1.4</th>
<th>PI 2.0, 2.1</th>
<th>PI 2.2</th>
<th>PI 3.0</th>
<th>PI 3.1 - PI 3.5</th>
<th>PI 3.6 - PI 3.8</th>
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<td><strong>Traditional (Classic) or Smart licenses</strong></td>
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<td>1 or more</td>
</tr>
</tbody>
</table>

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Guidelines for License application (3 of 9)

How to upgrade from one PI version to a later version and attach services support contract?

Customers with valid support contract on PI can upgrade from an earlier version to another later version of PI software at NO ADDITIONAL COST.

Customers with expired support contract or with no support contract can use upgrade licenses to upgrade from one version of PI to later versions of PI software and attach support contract.

Customers are strongly encouraged to attach Support Contract when purchasing Upgrade licenses.

No License files are issued as part of the purchase of Upgrade part numbers or purchase of support on older part numbers. The existing licenses on their current PI servers will work with the later versions of PI software.

Upgrade licenses can only be purchased by customers who have purchased the full product licenses in the past (e.g. Customers with PI 1.x/2.x licenses can purchase PI 3.x upgrade licenses).

Upgrade licenses purchased must have matching licenses in terms of device count on earlier versions (e.g. Customers with 25 device Lifecycle license on PI 1.x/2.x can only purchase 25 device upgrade license).

Customers can reach out to licensing team to help manually generate these licenses. To allow Cisco Licensing to manually generate these licenses, customers must show proof of ownership/purchase of the license that entitle them to upgrade.

Licensing @cisco.com is decommissioned and you can open your case online using the Support Case manager at http://cs.co/scmswl.
Guidelines for License application (4 of 9)

How licenses are treated when customers upgrade from one PI version to later versions?

When customers upgrade from NCS 1.0, PI 1.1/1.2/1.3/1.4, PI 2.1 to PI (PI 2.2, 3.x), the licenses (BASE, Lifecycle (LF), Assurance (AS) in particular) from earlier versions of NCS or PI will work on later version of PI. (No additional action is required from customer side)

Customers can add LFAS licenses (from PI 3.x or Cisco ONE purchases).

When customers upgrade from PI 1.x or 2.x to PI 3.x version. the LF and AS licenses from earlier PI release will continue to work on PI 3.x. (No additional action is required from customer side)

Until PI 2.2

**LF and AS Licenses**

LF and AS licenses were offered with separate Part #s and offered in Packs of 25, 50, .. 15K device licenses only

**Consumption model**

All managed devices (APs, Routers, and Switches and stacks) consumed just one LF and/or AS (where applicable) Licenses per device

**Tokens vs License**

Each LF/AS/BASE device license translates to a single corresponding LF/AS Tokens and BASE license.

e.g., 25 device LF license (L-PI2X-LF-25 translates to 25 LF tokens

Licensing Dashboard on PI 3.1.3 and above can be used to display all the purchased and grandfathered tokens

Beginning with Cisco ONE (2.x and 3.x) and PI 3.0

**LF and AS Licenses**

LF and AS licenses were offered in LF+AS Bundled Part #s. LF and AS licenses were no longer available for purchasing separately.

LFAS license could be purchased in increment of 1 device license rather than having to purchase Packs of 25, 50 etc.

Different LFAS licenses are offered for different device categories (e.g APs, Routers, Switches and sub categories (cat 2K, 4k etc)
Guidelines for License application (5 of 9)

How should customers attach missing Assurance (AS) licenses to existing PI 2.x or 3.x servers?

- We recommend that the customer match Lifecycle (LF) and Assurance (AS) licenses. Customer must purchase PI 3.x enterprise management license to add capacity to assurance license.
- We are exploring ways to use any unused LF licenses (tokens) as Assurance (AS) licenses (tokens) PI server will let customers know that customers need to match AS and LF licenses.

Can I convert term based smart PI license got via Cisco DNA license purchase into PI traditional license?

- No. ‘PI-LFAS-AP-T / PI-LFAS-T’ are term based smart PI licenses comes with Wireless DNA license (AIR -DNA Essential and Advantage) and DNA license of Cat 9K switches (Advantage & Premier). These PI term licenses are smart licenses and can’t be converted into traditional licenses. Customer should run Prime Infrastructure in smart licensing mode to consume these term based smart PI licenses.
- If customer is already running PI in traditional licensing mode with perpetual licenses, then they should convert all of these perpetual licenses to smart and assign to same smart account where the term based smart PI licenses are being deposited. These traditional licenses will remain perpetual after converting to smart.
Guidelines for License application (6 of 9)

How does the new consumption model in PI 3.x work?

License (Token) Consumption model beginning with 3.1.3

Most management licenses (APs, ISR 1K Routers, and Cat 2K and 3K Switch licenses) convert to 1 LF token and 1 AS token. These managed devices (APs, ISR 1K Routers, and Cat 2K and 3K Switch licenses) consume 1 token (LF and AS (as applicable)) per device.

Other management licenses (ISR 2K, 3K, 4K, Cat 4K, 6K Switch licenses) convert to 2 or more LF and AS token pairs. These managed devices (ISR 2K, 3K, 4K, Cat 4K, 6K Switch licenses) consume 2 or more LF and AS token pairs per device.

Stack of switches will now consume 1 license per stacked switch. (i.e., a stack of three Cat 3850s will consume three LF and AS pairs.

License Grandfathering Process (Automatic process and no action required on the part of customer) Customers can upgrade to 3.1.3 and above will not be required to purchase additional licenses to accommodate for new consumption model. This above feature is enabled using an automatic grandfathering process. A dashboard on PI 3.1.3 can be used to display all the purchased and grandfathered tokens. Starting from PI 3.8, grandfather tokens are considered when CSSM reporting compliance in smart licensing mode.
Guidelines for License application (7 of 9)

How should customers resolve licensing issues (license consolidation, license split, redeem missing licenses?)

- Occasionally, customers request licensing team to **consolidate** a bunch of smaller licenses into a single license; Cisco licensing is generally given approval to oblige with the above requests.

- Occasionally, customers request Cisco to **split** their large lifecycle license to multiple smaller chunks (e.g., Split 10 K licenses to 2 x 5 K licenses).
  
  In these cases, customers must ensure that they have one BASE license for each of the individual instances of PI server being deployed – they must purchase the **necessary BASE license** to satisfy this requirement.
How should customers resolve LMS and Compliance licensing issues?

Occasionally, customers either misplace licenses or never redeem their PAKs for licenses. Cisco licensing will generate these missing licenses and will require the customer to provide proof of purchase or evidence that they upgraded using PUT tool.

Ex 1. Customers purchased or upgraded from NCS 1.0 to PI 1.1 (with valid services contract) and did not redeem LMS PAK and potentially misplaced the LMS PAK; They can come back to licensing team later and request LMS licenses. Customers must how proof of upgrade.

Ex 2. Customers upgraded from LMS 4.1 to 4.2 (via PUT) and did not redeem PI 1.1 PAK; They can come back to licensing team later and request unredeemed PI licenses. Customers must show proof of upgrade.

LMS 4.2 Licenses cannot be purchased independently and can only be purchased by purchasing PI 1.x (where x <> 0), PI 2.x.

Customers purchasing PI 1.x (where x <> 0), PI 2.x get PI licenses and LMS 4.2 licenses (provided as a shadow or duplicate license). Hence these LMS licenses cannot be again converted to PI licenses since it would amount to “double dipping”.

Guidelines for License application (8 of 9)
How do customers get clarification on NCS WAN Licenses?

NCS WAN 1.1 Licenses were offered for customers purchasing PI 1.1 and these were only used to test router management functionality on NCSWAN (a separate instance of NCS 1.x).

Router management function on PI was integrated to main branch of PI and hence NCS WAN 1.1 has been discontinued. Hence these NCS WAN 1.1 licenses cannot be again converted to PI licenses since this would also amount to “double dipping”

Customers are eligible to get a free BASE license if and only if they have purchased upgrade from WCS to PI 1.x/WCS to NCS 1.x in the past. For other cases, they have to buy the base license.
Attaching/renewing Services Contract

How do customers attach services contract?

By purchasing support contracts, the customers benefit greatly by receiving free upgrades from one version of the product to another at no additional cost.

They also receive world class/industry leading technical support.

A large majority of business customers purchase and regularly renew service contract for all Cisco products.

The support contracts are offered with various terms (1yr, 3yr, etc.) and conditions (5x8, 24x7, etc.).

Customers are encouraged to select the terms & conditions that are most suitable for their business needs.

Customers are responsible for attaching and periodically renewing support contracts per published Cisco Guidelines.

Occasionally, customers let the support contract expire or try to attach contract past the EoS/EoL milestones. In such cases, customers should purchase upgrade licenses and use that opportunity attach services contracts.

The UPG SKUs are listed at 25% of list price of the full product. After applying the discounts, these upgrade SKUs become very attractive alternative way to re-attach expired support contracts and missing support contracts and enjoy the full benefits described above. You could view paying for upg SKUs as paying a “late fee” for attaching services contract passed the deadline.
Appendix M
Smart Licensing Update
Ordering Cisco Prime Infrastructure Smart Licenses
Smart License Workflow

Before ordering Smart Licenses

Create at least one smart account and one or more virtual accounts within that smart account

- For instructions on creating smart account and virtual accounts within a Smart Accounts (Click here)
- For instructions on purchasing and assigning a BoM to a Smart Account/Virtual Account (Click here)
- For instructions on managing smart licenses (aka entitlements) with Smart Account/Virtual Accounts (Click here)

When Purchasing Smart Licenses

You will assign those purchases to your Smart Virtual Account

- For instructions on managing smart licenses (aka entitlements) with Smart Account/Virtual Accounts (Click here)

Before Using Smart Licenses

You will need to enable Smart Licensing Mode in PI

- For instructions on enabling smart licensing in Prime Infrastructure instance (Click here)
First-Time Purchase of Prime Infrastructure (1 of 2)
(Smart License)

Use case

Customer wants to purchase Cisco Prime™ Infrastructure to manage its network with 500 (APs), 60 (2Ks), 20 (3Ks), ISR1K (10), ISR4K (2). Include high availability, and deploy PI on a virtual appliance

Required

1. Start with TOP-LEVEL part number: S-MGMT3X-N-K9 (QTY. = 1)
2. Select the BASE LICENSE part number: S-MGMT3X-PI-BASE (QTY. = 1)
3. Select SOFTWARE* part number R-PI36-SW-K9 (QTY. = 1)
4. Select the HIGH AVAILABILITY** part number: S-MGMT3X-HA (QTY. = 1)
5. Select MGMT (LF and AS) license part number(s): S-MGMT3X-<DEV>-K9, (QTY=n)
   (<DEV> = Device Type and Sub Type (AP, 2K, 3K .. )
   n = 1/25/50/100/500/1000 .. 15,000)
   QTY depends on the number of network devices

Optional

1. Order additional support (a 1-year mandatory services contract is attached with each new order)

For example BoM 1s (Click here); For full list of SKUs (Click here)

* For instructions upgrading and installing software (Click here). To access and download Prime Infra software (Click here)

** Required only if you are deploying Prime Infra. in high availability configuration.
Customer wants to purchase Cisco Prime™ Infrastructure to manage its network with 500 (APs), 60 (2Ks), 20 (3Ks), ISR1K (10), ISR4K (2). Include HA and deploy PI on a virtual appliances (Services Part Numbers will be displayed when you order the product)

<table>
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<tr>
<th>Product Part Number</th>
<th>Description</th>
<th>QTY</th>
<th>Services Part Number</th>
<th>Description</th>
<th>QTY</th>
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</table>

* Customers purchasing an AP (access point) management license for 2500 or more devices can use S-MGMG3X-AP-HV (high-volume license); These licenses can only be used for AP management.
** You do NOT need to purchase duplicate device management licenses for the secondary server.
*High-availability deployments require that both primary and secondary appliances be identical (PHY/PHY, VM/VM, Gen1/Gen1, PI ver x/ver x).
The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Adding Capacity to Existing PI 3.x Servers (1 of 2)
(Smart License) Lifecycle and Assurance

Use case

Customer wants to add network capacity and purchase corresponding Cisco Prime™ Infrastructure licenses to manage the added devices (access points, Cisco Catalyst® switches, routers, Cisco Nexus® switches). (Services part numbers will be displayed when you order the product.)

Required

1. Start with TOP-LEVEL part number S-MGMT3X-N-K9 (QTY = 1)
2. Select MGMT (LF and AS) license part number(s): S-MGMT3X-<DEV>-K9, (QTY=n)
   
   - <DEV> = Device Type and Sub Type (AP*, 2K, 3K .. )
   - n = 1/25/50/100/500/1000 .. 15,000
   - QTY depends on the number of network devices

   The QTY depends on the number of network devices (access points, switches, routers)

Optional

1. Order additional services (a 1-year mandatory services contract is attached)

For example BoM 3s (Click here); For a full list of SKUs (Click here)

*Customers purchasing an access point management license for 2500 or more devices can use S-MGMG3X-AP-HV (high-volume license) These licenses can only be used for AP management.

The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.

No need to re-purchase base and HA licenses

Lifecycle and Assurance Lic. (QTY. 1 or more)

PI Base Lic. (QTY. 1)  (Opt) H/A Lic. (QTY. 1)

PI Virtual or Physical Appliance
Customer wants to add network capacity and purchase corresponding Cisco Prime™ Infrastructure licenses to manage the added devices (access points, Cisco Catalyst® switches and routers). (Services part numbers will be displayed when you order the product.)

<table>
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<th>Product Part Number</th>
<th>Description</th>
<th>QTY</th>
<th>Services Part Number</th>
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<td>S-MGMT3X-3K</td>
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<tr>
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</table>

*Customers purchasing an access point management license for 2500 or more devices can use S-MGMG3X-AP-HV (high-volume license). These licenses can only be used for AP management. The services part number and description cells are left blank since the content will vary depending on the type of services SKU and duration of service you select.
Setting up Smart Accounts and Virtual Accounts
Cisco Software Central (CSC)
Request Smart Account – Setup Holding Account for Partners and Distributors

1. Access Cisco Software Central (CSC) – software.cisco.com and click Request a Partner Holding Account to create a Holding Account. To create your Customer Smart Account or to request a Customer Smart Account on behalf of an end customer, click Request a Smart Account.

The next slides demonstrate how to create a Holding Smart Account, which you will need. Creating a Customer Smart Account is the same process, but you click Request a Smart Account Instead. More details:

- Request Customer Smart Account
- Setup Customer Smart Account
On the Smart Account Request page, select Yes or No to assign yourself or someone else to be the account creator and represent the company.

Creator
This individual has the authority to represent his or her company and create the Account. Note that the Creator can also be the Requestor.

If you are requesting an account on behalf of a customer, these are similar steps that you would take to request a Customer Smart Account account from CSC. During this step you would say no, and enter in the customer email address.
Cisco Software Central (CSC)
Request Smart Account – Update the Account Domain Identifier (Optional)

1. Click **Edit** to update the Domain Identifier of the Account (optional – requires additional approval time).
2. In the Edit Account Identifier dialog box, review and update domain identifier information and click **OK**.
3. Enter Account Name (Company Name) and click **Continue** to complete the smart account request.

**Account Domain Identifier**
- Identifies company owning the account
- Relies on internet domain of company
- Defaults to Creator email domain – can be changed through manual approval
Review the Account information and Click **Create Account**. It will go into pending state until the person specified as the Creator completes the setup process. They will receive an email with instructions. If the requestor indicated that they were also the creator, then they will proceed to selected the company address at this time, which is demonstrated in the next section.
Complete Smart Account Setup

Cisco will approve the domain (if edited) and Send Approval Email with Next Steps
Creator will receive this email from Cisco to complete the Smart Account Setup. Once this is complete and Cisco has approved any domain changes, the account will be created and ready for use.

1. Click **Complete Smart Account Setup** to continue with the smart account creation.

2. You need a CCO ID. If you don’t have one, click **register for a new account**.
Creator will Accept the role or decline and/or nominate another person. In this example, we are assuming they accepted the creator role.
Cisco Software Central (CSC)
Complete Smart Account Setup

1. Enter the Account Name in the Account Name field. Edit domain if needed.

2. Click Continue.

*Note: the Account Name should reference the Company Name, to mirror the Domain of the Account Owner’s Company. E.g. If the Domain is Cisco.com, the Account Name should be Cisco.
Cisco Software Central (CSC)
Complete Smart Account Setup – Search Address

1. Select the corporate headquarters legal country location for the Smart Account.

2. Enter the name of the company. Search results will populate. You can also click Show more Results.

Smart Account Setup

In order to validate the identity of the new account, Cisco requires that the account be associated with the legal address for the company/organization headquarters.

Company/Organization Headquarters Search

- Country
  - [Canada]

- Company/Organization
  - [My Corporation]

- Can’t find the address? Enter the company/organization name and city.

Note: Fields may be pre-populated. If you need to filter the search list, type in more specific address details.

Show more results
Cisco Software Central (CSC)
Complete Smart Account Setup – Select Address

1. This is the Show more Results screen. Select Address and click Continue.

2. If you are unable to find your address, click Can’t find the address? checkbox to create a new address.

### Smart Account Setup

In order to validate the identity of the new account, Cisco requires that the account be associated with the legal address for the company/organization headquarters.

#### Company/Organization Headquarters Search

- **Country:**
  - Canada
- **Company/Organization:**
  - My Corporation

<table>
<thead>
<tr>
<th>Company/Organization Name</th>
<th>Address</th>
<th>City</th>
<th>StateRegion/Province</th>
<th>Zip Code/Postal Code</th>
<th>Country</th>
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<tbody>
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<td>3210 RAILWAY ST S</td>
<td>RENFREW</td>
<td>ON</td>
<td>K7V 1R6</td>
<td>CANADA</td>
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<td>STRATHROY</td>
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<td>K7R 1J3</td>
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</tbody>
</table>

Showing All 4 Records

[1] Can’t find the address? Enter the company/organization headquarters address instead
1. Enter the company/organization headquarters address if you cannot find the address. Click Continue.

2. Click Use Modified Address.

Smart Account Setup

In order to validate the identity of the new account, Cisco requires that the account be associated with the legal address for the company/organization headquarters. If you cannot find the address, enter the company/organization headquarters address instead.

Enter Company/Organization Headquarters Address

- Company/Organization Name:
  - My Corporation Inc.
- County:
  - Canada
- Address 1:
  - 6555 Kingston Road
- Address 2:
  - Secondary address where company is headquartered
- City:
  - Toronto
- State/Province/Region:
  - Ontario
- Zip Code/Postal Code:
  - 12345

Address Modified

The address you entered has been modified for accuracy and to standardize formatting.

Entered: 5555 KINGSTON ROAD, TORONTO, ONTARIO, M3C 0C1, CANADA
Modified: 5555 KINGSTON RD, TORONTO, ONTARIO, M3C 0C1, CANADA

Use Modified Address

Enter a Different Address
Cisco Software Central (CSC)
Complete Smart Account Setup - Select Additional Approvers and Administrators

1. Add Approvers or designate yourself as the approver. The Approver should have the authority to bind the company in any agreements pertaining to the Smart Account.

2. Add Account Administrators.

3. Click Continue.

**Approver:**
- A User with the authority to bind their company to license agreement and any agreements pertaining to the Smart Account
- Accepts the Smart Licensing agreement

**Administrator:**
- Approve access for other users’ smart accounts
- License management in Smart Software Manager
- Can accept the Smart Licensing agreement \(\rightarrow\) becomes Approver
Review the account information and click **Create Account** to complete the Account Setup.
Confirmation page. Click **Cisco Software Central** to view and manage your Smart Account. To manage the individual Smart Licenses, go to SSM.
Purchasing and Assigning a BoM to a Smart Account
CCW Ordering Scenarios

**PAK Based Licenses**

**Smart Account assignment** is **optional but recommended** since PAKs will **automatically be available** in LRP and **visible** at the enterprise-wide level.

The best practice is to **assign** the End Customer Smart Account at **the time of order** for the PAKs to be automatically available in LRP. You can assign an end Customer Smart Account up until the order is fulfilled, which is usually 24-48 hours after the order is placed.

Otherwise, PAKs can be assigned to the Smart Account post order in LRP so Customers can benefit from enterprise-wide access control and visibility.

**Smart Licenses**

**Smart Account assignment** is **mandatory** to submit the order. The Smart Licenses will be automatically activated and available in SSM.

Detailed Smart Account assignment scenarios will be covered later in this deck, but the initial order can be assigned to either the Customer Smart Account or the Holding Smart Account and re-assigned to the Customer Smart Account post order.
You can only assign smart accounts in CCW Order.

1. Create standalone order and add a smart account enabled SKU and assign smart account information.

2. Add a smart account enabled SKU in Quote, convert to an order, and assign smart account in Order.

Service Contracts and Subscriptions tabs are now consolidated under one single Services and Subscriptions Tab.
On the Order Initiation page, you can assign a Smart Account upfront by clicking **Assign Smart Account**. The assignment will cascade to all licenses on the order, for both Smart Account Mandatory (Smart Licenses) and Smart Account Optional SKUs (Classic PAKs). You can also assign Smart Accounts after you have added items. Holding Account is assigned to the entire Order, whereas a Customer Smart Account is assigned to the specific lines, and can be edited at the line level.
CCW
When is Smart Account Assignment Required

1. Add SKUs through the as-is CCW process.
2. For mandatory Smart License SKUs, the SA and Smart Account Required message in red text are displayed. Smart Account assignment is required to submit the order.
3. For optional Smart SKUs, Smart Account message is displayed in black text.

SA Icon and “Smart Account Required”: SA assignment Mandatory (Smart Licensing) “Smart Account message” = SA assignment optional. (e.g. PAKs). Provides more holistic view of classic PAK licenses in LRP.

CCW displays the Smart Account Icon in the collapsed view of an Assemble To Order (ATO) when one of the minors is “Mandatory,” even if the ATO itself is not “Mandatory”. This applies to Order, Quote and Configuration.
CCW
View Smart Account Name and edit Smart Account (Items tab)

1. For SKUs already assigned to a Smart Account, the name of the Smart Account is displayed in black.

2. You can click the pen icon to edit/change Smart Account.
CCW
Smart License Delivery Email

1 For Smart License enabled products, the provisioning is not completed through the standard eDelivery process. In the email received, Customer will need to click To View Your Smart Licenses. This will take them to SSM, where they will view licenses and register them to a device.

- If the licenses are Classic/PAK licenses, it will say Register Claim Certificates (PAKs) instead and those will be accessible in LRP through the as-is process today or automatically available in LRP if assigned to a Smart Account in CCW.

**Note:** PAKs will continue to be fulfilled through the selected option – physical or eDelivery.

If they were assigned to a Customer Smart Account from CCW, they will be automatically available in LRP. If they weren’t, then they will be registered and managed in LRP following the as-is process.
Manage Smart Accounts
Click the **Arrow** icon next to the Smart Account name to display the list of accounts and then select the desired account to switch to.

This view will only be available to:
- Someone who has access to multiple customer accounts
- Someone who can access their own holding account and end customer accounts
To access and manage Smart Account, click **Manage Smart Account**.
Account Name can be modified by Account Approver or Administrator in Account Properties tab. *Note: the Account Name should reference the Company Name, to mirror the Domain of the Account Owner’s Company. E.g. If the Domain is Cisco.com, the Account Name should be Cisco.
In Virtual Accounts tab, click **New Virtual Account** to add a new Virtual Account.

Enter name and description and make it the default account if desired. Click **Save**.
Cisco Software Central (CSC)
Manage Holding Smart Accounts - Edit Virtual Accounts

1. Click Virtual Account link to edit the existing virtual accounts.
2. You can edit name, description, and change default in the General tab.
3. Associated users display in the Users tab.
4. Click Delete to delete the Virtual Account.

Note: Manage orders assigned to the Holding Smart account in CCW.
Click **Add New User**.

Enter CCO ID or Email and select Role Context and User role.

Click **Continue**.

**New User**

Enter the name, Cisco.com ID and access privileges for the new user. When you complete the process, the user will be sent an email with instructions for accessing the Smart Account.

1. Email or Cisco.com ID:
   - locnvrguy@cisco.com

2. Role Context:
   - Holding Account Management

3. User Roles:
   - Assign a Role

**Users**

<table>
<thead>
<tr>
<th>User Name</th>
<th>Email Address</th>
<th>Company</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry Smith</td>
<td><a href="mailto:locwchar2@mgisdfsdd.com">locwchar2@mgisdfsdd.com</a></td>
<td>TEST - HP_Test_DF_CCW</td>
<td>CCW Order Management (1) Remove...</td>
</tr>
<tr>
<td>Loc Nguyen</td>
<td><a href="mailto:locnvrguy@cisco.com">locnvrguy@cisco.com</a></td>
<td>Cisco Systems, Inc.</td>
<td>Smart Account Management (2), Holding Account Management (1) Remove...</td>
</tr>
<tr>
<td>Lauren Iserman</td>
<td><a href="mailto:liserman@ciscoo.com">liserman@ciscoo.com</a></td>
<td>Cisco Systems, Inc.</td>
<td>Smart Account Management (2), Holding Account Management (1) Remove...</td>
</tr>
<tr>
<td>Elizabeth Holt</td>
<td><a href="mailto:elholt@cisco.com">elholt@cisco.com</a></td>
<td>Cisco Systems, Inc.</td>
<td>Smart Account Management (2), Holding Account Management (1) Remove...</td>
</tr>
</tbody>
</table>
### Holding Smart Account Roles

<table>
<thead>
<tr>
<th>Role Context</th>
<th>User Roles</th>
<th>Main Tasks</th>
<th>Role in CSC</th>
<th>Role in CCW</th>
</tr>
</thead>
</table>
| Smart Account Management | Smart Account Approver                  | • Add users                                                                | • View and approve Smart Licensing Agreement  
• Authority to bind the company to license agreements  
• View Account properties  
• Add/delete Smart Account Approvers and Administrators | • None                          |
|                        | Smart Account Administrator             | • Account Properties                                                       | • View and approve Smart Licensing Agreement (upon accepting becomes Approver)  
• Edit Account properties  
• License Management in SSM  
• Add/delete Smart Account Approvers and Administrators | • None                          |
| Holding Account Management | Holding Account Administrator          | • Administer Account Organization and Users  
• Create Virtual Accounts  
• Add users to account | • Edit Account properties  
• Add/Delete Holding Account Administrators, Holding Virtual Account Administrators, Holding Account Order Management Users, Holding Virtual Account Order Management users  
• Add/Delete/Edit Holding Virtual Accounts | • None                          |
| Holding Virtual Account Administrator | Holding Virtual Account Administrator | • Manage specific Virtual Account. Does not have access to overall account | • View Account properties  
• View Virtual Accounts  
• View users of Holding Accounts  
• Add/Delete Virtual Account Administrators and Holding Virtual Account Order Admin Users (for that specific virtual account)  
• Set Mail Notifications related to order provisioning | • None                          |
| CCW Order Management | Holding Account Order Administrator     | • Search and View Orders assigned to the account (including Virtual Accounts)  
• Re-assignment of Smart Account in CCW | • View Account properties  
• View all Virtual Accounts  
• Set Mail Notifications related to order provisioning | • View the Holding Account and Holding Virtual Account Orders in CCW,  
• Modify assignment of Smart accounts in CCW |
|                        | Holding Virtual Account Order Administrator | • Search and View Orders assigned to a specific Virtual Account  
• Re-assignment of Smart Account in CCW for the specific Virtual Account | • View Account properties  
• View specific Virtual Accounts  
• Set Mail Notifications related to order provisioning | • Modify assignment of Smart accounts for Orders assigned to the specific Virtual account in CCW,  
• Set Mail Notifications for which they are a member of the Virtual Account. |
### Holding Smart Account Roles

<table>
<thead>
<tr>
<th>Role Context</th>
<th>User Roles</th>
<th>Main Tasks</th>
<th>Role in CSC</th>
<th>Role in SSM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smart Account Management</strong></td>
<td>Smart Account Approver</td>
<td>• Approve Cisco Agreements and Add users</td>
<td>• View and approve Smart Licensing Agreement</td>
<td>• None</td>
</tr>
<tr>
<td></td>
<td>Smart Account Administrator</td>
<td>• Approve Cisco Agreements and Add users</td>
<td>• View and approve Smart Licensing Agreement (upon accepting Administrator becomes Approver)</td>
<td>• None</td>
</tr>
<tr>
<td><strong>Smart Licensing</strong></td>
<td>Smart Licensing Administrator</td>
<td>• Administer Account Organization and Users</td>
<td>• View and approve agreements</td>
<td>• View and approve agreements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Manage license inventory of overall account</td>
<td>• View Account properties</td>
<td>• Add/Delete Edit Virtual Accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Create Virtual Accounts</td>
<td>• Add/Delete Smart Licensing Administrators and Smart Licensing Virtual Account Administrators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Add users to account</td>
<td>• Add/Delete/ Edit Virtual Accounts</td>
<td>• Takes action on Alerts</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>If partner is managing the entire account on your behalf, provide them with this role</em></td>
<td>• View logs, history and reports</td>
<td>• Generate tokens for all Virtual Accounts to register products</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Set Mail Notifications</td>
<td>• Transfer product instances and licenses across virtual accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Manage satellites and sync collectors</td>
</tr>
<tr>
<td></td>
<td>Smart Licensing Virtual Account Administrator</td>
<td>• Manage specific Virtual Account. Does not have access to overall account</td>
<td>• View Account properties</td>
<td>• View Virtual Accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Manage license inventory of specific Virtual Account</td>
<td>• Add/Delete Smart Licensing Virtual Account Administrators for their specific Virtual Accounts</td>
<td>• Takes action on Alerts for specific Virtual Accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>If partner is managing on specific Virtual Accounts on your behalf, provide them with this role</em></td>
<td>• Generate tokens for their Virtual Accounts in SSM</td>
<td>• Generate tokens for specific Virtual Accounts to register products</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Transfer product instances and licenses across Virtual Accounts for which they are a member in SSM</td>
<td>• Transfer product instances and licenses across virtual accounts they own</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Register products and manage satellites, sync collectors for Virtual account for which they are a member in SSM</td>
<td>• View logs, history and reports for specific Virtual Accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Set Mail Notifications</td>
<td>• Set Mail Notifications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Manage satellites and sync collectors</td>
</tr>
</tbody>
</table>

Account Management for Customer Smart Accounts is done within CSC and License management and activation is done in SSM.

Account Creator is automatically provided the Smart Account Administrator and Holding Account Administrator roles.
Edit email notification settings for when orders are provisioned to the Holding Smart Account.
Cisco Software Central (CSC)  
Manage Holding Smart Accounts – Event Log

1. View all activity at the Smart Account level to have better visibility into the Smart Account.

2. Filter results by a specific date range, Event type (user management, virtual account management or Smart Account management), or search by the user who took the action.

Note: License activity is not available in CSC. Go to SSM for Smart Licenses or LRP for Classic PAK based licenses.
Smart Account
Transaction Traceability
You can now view Smart Account transactions in the post-sale assignment page via a new “View History” link at the header and line levels.

1. Click View History at the Header level.

2. You can access Smart Account Historical details for both Customer and Holding Accounts.
Smart Account Transaction Traceability

View History

Smart Account Historical details are available also at the line level.

3 Click View History at the Line Level.

4 View Historical Information.
Customer Support

Submitting Cases

Software Licensing Support

- Customers with Software Licensing issues/questions can open a case using standard Cisco processes:
  - Online
  - Email
  - Phone

Software Licensing Support Hours

- Monday – Friday: 8:00 am – 5:00 pm (US PT)

Product Support

- Technical Assistance Center (TAC)
  - Customers can contact TAC for product support issues & questions using existing Cisco processes
Prime Migration to Cisco DNA Center
Cisco DNA Center and Prime Paradigms
# Configuration - Traditional Network Management vs Intent Based

<table>
<thead>
<tr>
<th>Traditional Management</th>
<th>Intent Based Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisioning is achieved using Templates and Configuration Groups</td>
<td>Abstract services normalized across device types</td>
</tr>
<tr>
<td>Configuration Templates are mostly customer provided CLIs pushed via management console</td>
<td>Pushes Cisco CVD best practices</td>
</tr>
<tr>
<td>Manual failure recovery via another CLI template</td>
<td>Maintain profile versions with In-built transactionality</td>
</tr>
<tr>
<td>Day 0 and Day N updates via multiple CLI template or composite templates</td>
<td>Capability to roll back on failure</td>
</tr>
<tr>
<td></td>
<td>Simplified Day 0/N updates via settings and profiles at site/regional level</td>
</tr>
</tbody>
</table>
SWIM - Traditional Network Management vs Intent Based

**Traditional Management**

- Separate Software Update Workflows for Wired and Wireless devices
- No concept of image standardization
- Limited set of Pre Checks that cannot be customized
- No support for Software Image Patches
- Compliance of Images is done by manually creating the scripts to be executed

**Intent Based Automation**

- Standardization of software by Network device role, device type and location
- Pre and Post check Validations provide seamless updates
- Patching capabilities to reduce downtime during software upgrades
- Automatic Compliance and Integrity Checks for Images
# Streaming Telemetry vs. SNMP/Legacy Polling

## Traditional Telemetry
- SNMP/Legacy data pull methods
  - Pull based data import
  - CPU overhead with data crawlers
  - Data intensive without optimizations
  - No real time notification and false alarms
  - Min polling has too many black holes

## Streaming Telemetry
- Intent-based Wireless Infrastructure
  - Push based data export
  - Low CPU overhead
  - Optimized for Data export (KPI, Events)
  - Notification send seconds after change
  - Reduced delay in management data
## Alarms vs. Insights

### Traditional Telemetry

- **SNMP/Legacy data pull methods**
  - Raw info - need expert to understand
  - Every event generates an alarm
  - Many alarms for the same root cause
  - No guidance about how to resolve alarm
  - No correlation with affected users

### Streaming Telemetry

- **Intent-based Wireless Infrastructure**
  - Very descriptive with explanation of the issue
  - Alarm and false positive suppression
  - Correlated insights with root cause analysis
  - Suggested actions based on expert knowledge
  - Clear indication of affected users and locations
Migration Scenarios
Deployment with Prime and Cisco DNA Center

Cisco® Catalyst® 9400 Series
- Cisco DNA Center is used for Day 0 and Day 2
- One time migration from Prime to Cisco DNA Center

Cisco® Catalyst® 9400 Series
- Run Cisco DNA Center and Prime together in the network
- Cisco DNA Center is used for Automation or Assurance or both for parts of the network

There is only one system that will make changes to the network
Migration Scenarios

- Full Migration from Prime to Cisco DNA Center
- Prime and Cisco DNA Center Co-existence
  - Cisco DNA Center on Assurance Mode
  - Cisco DNA Center on Automation + Assurance Mode
  - Cisco DNA Center on Automation Mode

There is only one system that will make changes to the network.
Full Migration: Prime to Cisco DNA Center

One time migration to Cisco DNA Center

Prime
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

Cisco DNA Center
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites
1. Assurance in Cisco DNA Center and Config in Prime

- Reports
- Configuration of WLC
- Update of Maps
- Rogue
- Compliance

Prime
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

Select WLC – Migrate to Cisco DNA Center

Identify the Sites Managed by WLC

WSA Data

- SNMP and Traps

Cisco DNA Center
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

WLC is RO in Cisco DNA Center
- Maps synced from Prime for selected sites
- Issues and resolution in Cisco DNA Center
- Sensor and Proactive troubleshooting
2. Assurance and Automation in Cisco DNA Center

Prime
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

WLC is RO in Prime
- Reports
- Rogue
- Maps synced from Cisco DNA Center for migrated sites
- Cannot push changes to WLC or AP’s managed by Cisco DNA Center

Cisco DNA Center
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

Select WLC – Migrate to Cisco DNA Center

Identify the Sites Managed by WLC

Identify WLC

SNMP and Traps

WSA Data

• Automated Deployment
• Issues and resolution in DNAC
• Sensor and Proactive troubleshooting
• Maps and AP Placement
3. Automation in Cisco DNA Center and Monitoring with Prime

Prime
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

Cisco DNA Center
- Devices
- Maps
- CMX Settings
- ISE Mapping
- Groups/Sites

WLC is RO in Prime
- Reports
- Rogue
- Maps synced from DNAC for migrated sites
- Troubleshooting from Prime

Select WLC – Migrate to Cisco DNA Center

Identify the Sites Managed by WLC

SNMP and Traps

• Automated Deployment
• Software Update
• Day 2 Changes
• Maps and AP Placement
Gaps
# Lifecycle Management: Prime Infra vs Cisco DNA Center

<table>
<thead>
<tr>
<th>Feature</th>
<th>Prime Infra</th>
<th>Cisco DNA Center</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovery and Inventory</td>
<td>✔</td>
<td>✔</td>
<td>Cisco DNA Center supports CDP, LLDP and IP range based discovery only</td>
</tr>
<tr>
<td>Device Groups and Port Groups</td>
<td>✔</td>
<td></td>
<td>Port Groups will be available in the upcoming release of Cisco DNA Center</td>
</tr>
<tr>
<td>Configuration Templates</td>
<td>✔</td>
<td>★</td>
<td>Network profiles and Template Editor is available in Cisco DNA Center</td>
</tr>
<tr>
<td>Configuration Archive</td>
<td>✔</td>
<td>★</td>
<td>Will be available in the upcoming release of Cisco DNA Center</td>
</tr>
<tr>
<td>Baseline/Configuration compliance</td>
<td>✔</td>
<td>★</td>
<td>Will be available in the upcoming release of Cisco DNA Center</td>
</tr>
<tr>
<td>Software Image Management</td>
<td>✔</td>
<td>✔</td>
<td>Cisco DNA Center supports SMU Upgrade and Image compliance</td>
</tr>
<tr>
<td>Wired Topology</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Plug and Play</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>ISE and CMX Integration</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Cisco DNA Spaces Integration</td>
<td>✗</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>CLI preview</td>
<td>✔</td>
<td>★</td>
<td>Will be available in the upcoming release of Cisco DNA Center</td>
</tr>
<tr>
<td>Reporting</td>
<td>✔</td>
<td>✔</td>
<td>Limited Reports in Cisco DNA Center</td>
</tr>
<tr>
<td>SDA</td>
<td>✗</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Proactive Sensor Testing</td>
<td>✗</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Third Party Device support</td>
<td>✔</td>
<td>✔</td>
<td>Multivendor Device Pack SDK support is in roadmap for Cisco DNA Center</td>
</tr>
<tr>
<td>Integration with ITSM (ServiceNow)</td>
<td>✗</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>IPAM Integration (Infoblox/BlueCat)</td>
<td>✗</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Tableau Integration for Reports</td>
<td>✗</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

- ✔ Equivalent support
- ✔ Limited Support
- ★ Roadmap
- ✗ Not Supported
## Assurance Management: Prime Infra vs Cisco DNA Center

<table>
<thead>
<tr>
<th>Feature</th>
<th>Prime Infra</th>
<th>Cisco DNA Center</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Health Monitoring</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Interface Health Monitoring</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Performance Monitoring</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Alarms and Events</td>
<td>✔️</td>
<td>✔️</td>
<td>Cisco DNA Center reports issues and correlated Insights</td>
</tr>
<tr>
<td>Issues, Suggested Actions and Remediation</td>
<td>✗</td>
<td>✔️</td>
<td>Cisco DNA Center uses AI Network Analytics and Machine Learning</td>
</tr>
<tr>
<td>Syslogs</td>
<td>✔️</td>
<td>★</td>
<td>Certain syslogs are shown. Full support is in roadmap</td>
</tr>
<tr>
<td>Path trace</td>
<td>✗</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Wireless heatmaps for troubleshooting</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Real Time Client and Application Data</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Rogue Management and Detection</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>wIPS</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Application Visibility and Control</td>
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<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Real Time Troubleshooting</td>
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<td>✔️</td>
<td></td>
</tr>
<tr>
<td>360 views</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Application performance Monitoring</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>End User Experience Monitoring</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Application Policies</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Device Health Monitoring</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

 Equivalent support ✔️  Limited Support ✔️  Roadmap ★  Not Supported ✗
## System and Platform: Prime Infra vs Cisco DNA Center

<table>
<thead>
<tr>
<th>Feature</th>
<th>Prime Infra</th>
<th>Cisco DNA Center</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Premise - Virtual Machine</td>
<td>✔</td>
<td>✭</td>
<td>VM deployment is in roadmap for Cisco DNA Center</td>
</tr>
<tr>
<td>On Premise - Hardware Appliance</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Cloud Deployment</td>
<td>✘</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>High Availability</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>North Bound APIs</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Backup and Restore/Disaster Recovery</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Operation Center (Manager of Manager)</td>
<td>✔</td>
<td>✭</td>
<td>Roadmap Feature for Cisco DNA Center</td>
</tr>
<tr>
<td>Smart Licensing</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>IPv6 Support</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Audit logging</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>RBAC</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Device Support</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>
Gradual migration from Prime to Cisco DNA Center

- Assurance for some part of network
- Automation and Assurance for part of network
- Automation for part and Assurance for full network
- Automation and Assurance for full network
The bridge to possible