# Prime Infrastructure 1.3

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**Everything in this presentation is as we understand it, errors might occur!**

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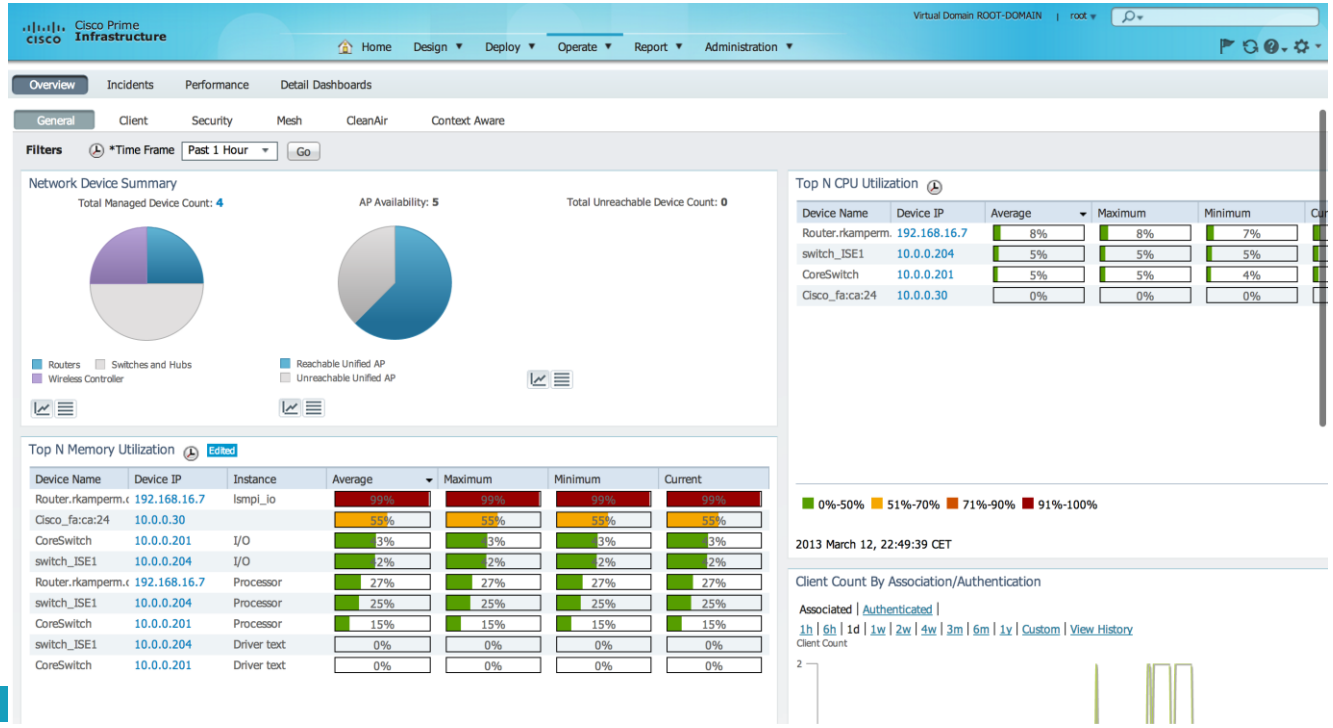
# Agenda

- Prime Infrastructure
  - What's new
  - Licenses and expected changes
  - How to get to PI 1.3 (upgrade paths, WCS, NCS, LMS)
  - Upgrading form FIPS releases (NCS/PI 1.1.2.12 and 1.1.3.2)
  - Roadmap

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# What's new! (Actual release number is 1.3.0.20

Critical bug fixes that improve quality and stability (+100 fixes)

Support the following new software:

- Cisco Wireless LAN Controller release 7.4
- Cisco Mobility Service Engine (MSE) release 7.4

Supports the following new hardware:

- Cisco Aironet 1600 Series Access Point
- Cisco Catalyst 3850 Series Ethernet Stackable Switch
- Cisco NAM 2304 Appliance
- Cisco IE 2000 Series Switches

NEW!

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# What's new! (continued)

- Quality improvements in the area of **backup and restore, database management, high availability, configuration and maps**.
- This release supports Cisco Aironet 1600 Series Access Points and enables you to manage the 1600 Series from Cisco Prime Infrastructure. You can plan, deploy, and manage the 1600 Series through Cisco Prime Infrastructure.
- Cisco Catalyst 3850 Series Ethernet Stackable Switch (in this release only as a switch, not as a controller, will come)
- Cisco NAM 2304 Appliance
- Cisco IE 2000 Series Switches (industrial Ethernet)

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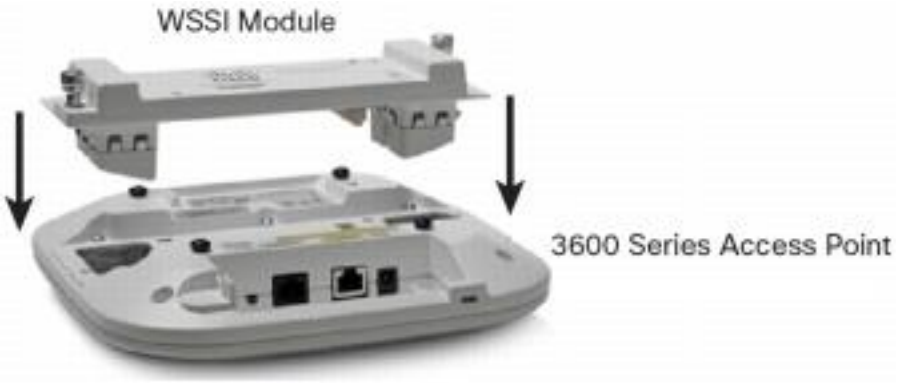
# What's new! (continued)

- Prime Infrastructure provides management support for new access point hardware: WSSI module. The WSSI module is field-upgradable, third radio module add-on to the 3600 Series Access Point. Enables increased client performance by offloading spectrum Monitoring and Security capabilities to third radio, while the integrated radios concurrently serve 2.4 and 5 GHz client devices.

- Advanced location services and analytics with the use of Mobility Services Engine (MSE) and new MSE features such as WSSI module, Qualcomm, Meridian, and wIPS. For more information, see the following URL:

- http://www.cisco.com/en/US/docs/wireless/mse/3350/release/notes/mse7_4_100_0.html#wp1195132

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# What's new! (continued)

- Support for the Multicast DNS (mDNS) protocol is introduced. This feature allows you to to easily deploy and manage Bonjour Services Directory. Typically needed for Apple Bonjour Services such as Apple TV and AirPrint across the campus with the use of Wireless LAN Controllers

- This release provides the following additional RADIUS support features on FlexConnect.
  - A primary or secondary RADIUS server per FlexConnect group is sufficient.
  - The FlexConnect group allows you to configure Primary or Secondary RADIUS server which may not present in the controller.

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# What's new! (continued)

- Support for Application Visibility and Control (AVC) is introduced. AVC classifies applications using Cisco's Deep Packet Inspection (DPI) techniques with Network-Based Application Recognition (NBAR) engine and provides application-level visibility and control into Wi-Fi network. After recognizing the applications, the AVC feature allows you to either drop or mark the traffic.

- Using AVC, the controller can detect more than 1000 applications. AVC enables you to perform real-time analysis and create policies to reduce network congestion, costly network link usage, and infrastructure upgrades.Ease of deploying Apple Bonjour Services such as Apple TV and AirPrint across the campus with the use of Wireless LAN Controllers

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Cisco Prime Infrastructure

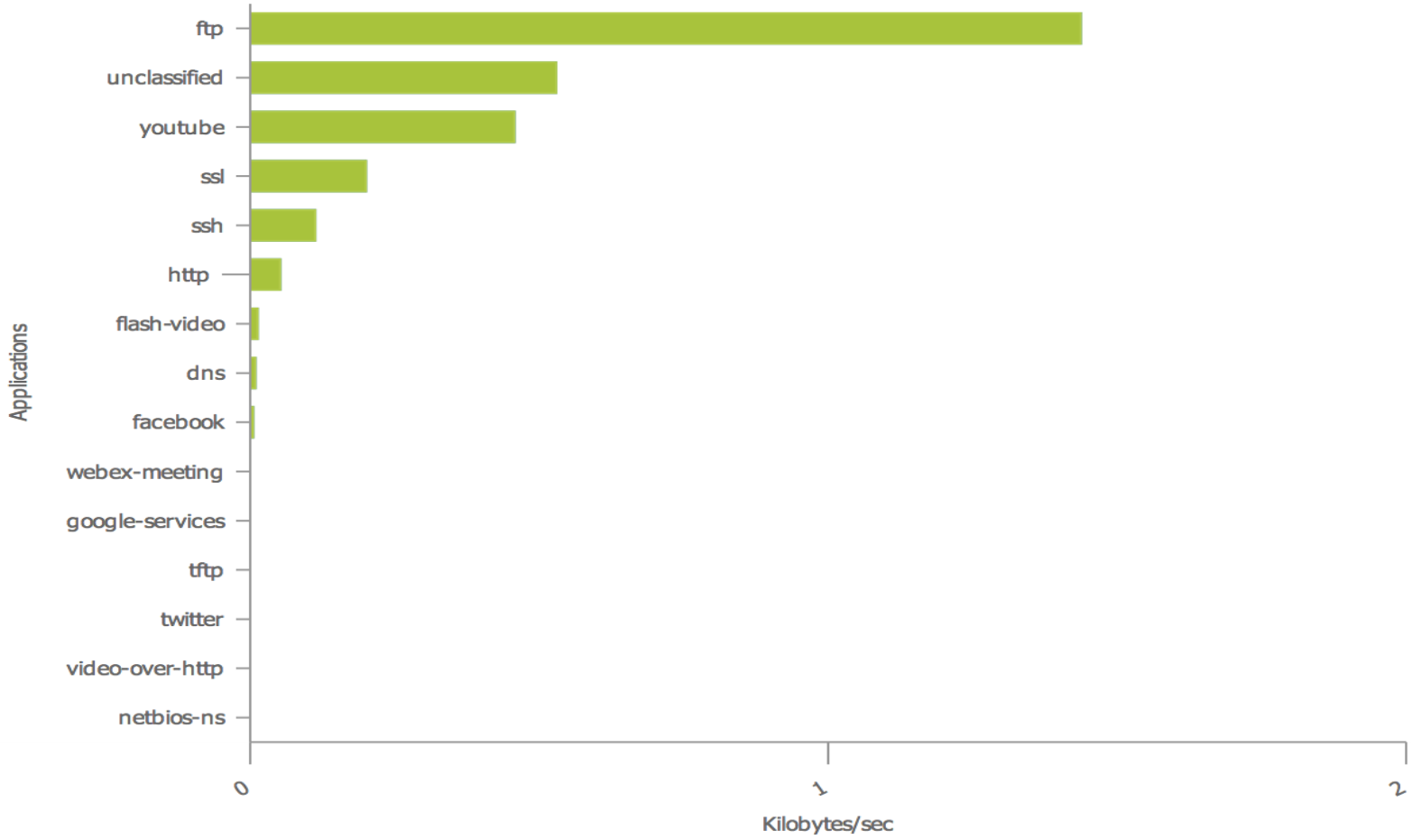
Home | Design | Deploy | Operate | Report

Overview | Incidents | Performance | Detail Dashboards

Site | Device | Interface | Application | Voice/Video | End User Experience

Filters *Interface *Time Frame Past 24 Hours Network Aware

## Top N Applications




Unknown Traffic Wireless Traffic Wired Traffic

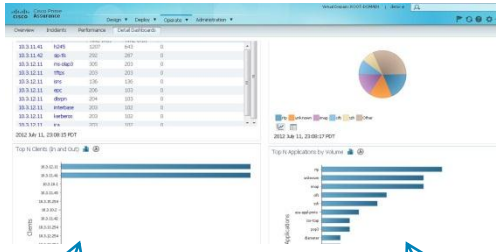
# How is Assurance Achieved ?

By normalizing and correlating data across multiple sources – leverage the power of embedded Cisco instrumentation

Cisco ISR
NBAR2, PA, Medianet

NAM module/Appliance

Prime Infrastructure



Cisco ASR
NBAR2, AVC, Medianet

Cisco 6509
Netflow, Medianet

Wireless Controller
NBAR2 / AVC

Cisco Catalyst 3750-X w/ 3K-X 10G
Netflow, Medianet

SNMP/CLI Polling | SPAN/ ERSPAN | Netflow | WAAS | PA | MEDIANET | NBAR | NBAR2

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# Rich Application Visibility and Analysis

Site | Device | Interface | Application | Voice/Video | End User Experience

Filters *Application citriximaclient *Time Frame Past 1 Hour Site Go

Worst N Sites by Transaction Time

| Site | Application | Maximum Transaction Time (ms) | Average Transaction Time (ms) | Past 24 Hour Trend (ms) | |
|---|---|---|---|---|---|
| IND Branch | citriximaclient | 5015 | 1585 | | 2891 |
| SJ Data Center | citriximaclient | 5015 | 604 | | 825 |
| San Jose Campus | citriximaclient | 1036 | 594 | | 683 |
| LON Branch | citriximaclient | 975 | 514 | | 1383 |
| RTP Branch | citriximaclient | 892 | 241 | | 219 |

Experience

Top N Clients (In and Out)

Clients: 10.0.250.13, 10.0.250.14, 10.0.250.12, 10.0.250.11, 10.0.250.15, 10.15.13.21, 10.15.12.24, 10.15.12.23

Application Traffic Analysis

Bytes/sec, Packets/sec, Time

Bytes/sec, Packets/sec

Analysis

Application ART Analysis

Dashlet Title: Application ART Analysis
Refresh Dashlet
Refresh Interval: 5 minutes
Time Filter Lock
Time Frame: Past 1 Hour
Data Source: Default
Metric Type: Average Response Time
Reset

Average Response Time
Maximum Response Time
Average Server Response Time
Maximum Server Network Time
Average Transaction Time
Maximum Transaction Time
Average Retransmit Time
Average Client Response Time
Maximum Client Network Time
Average Server Network Time

Average Response Time

Server

App Server Performance

| App Server | Site | Application | | | | |
|---|---|---|---|---|---|---|
| 10.0.250.13 | SJ Data Center | citriximaclient | 422 | 697 | | 424 |
| 10.0.250.12 | SJ Data Center | citriximaclient | 415 | 798 | | 435 |
| 10.0.250.11 | SJ Data Center | citriximaclient | 413 | 884 | | 478 |
| 10.0.250.14 | SJ Data Center | citriximaclient | 360 | 932 | | 472 |
| 10.0.250.15 | SJ Data Center | citriximaclient | 333 | 580 | | 428 |

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# Cisco Prime Infrastructure

## One Management

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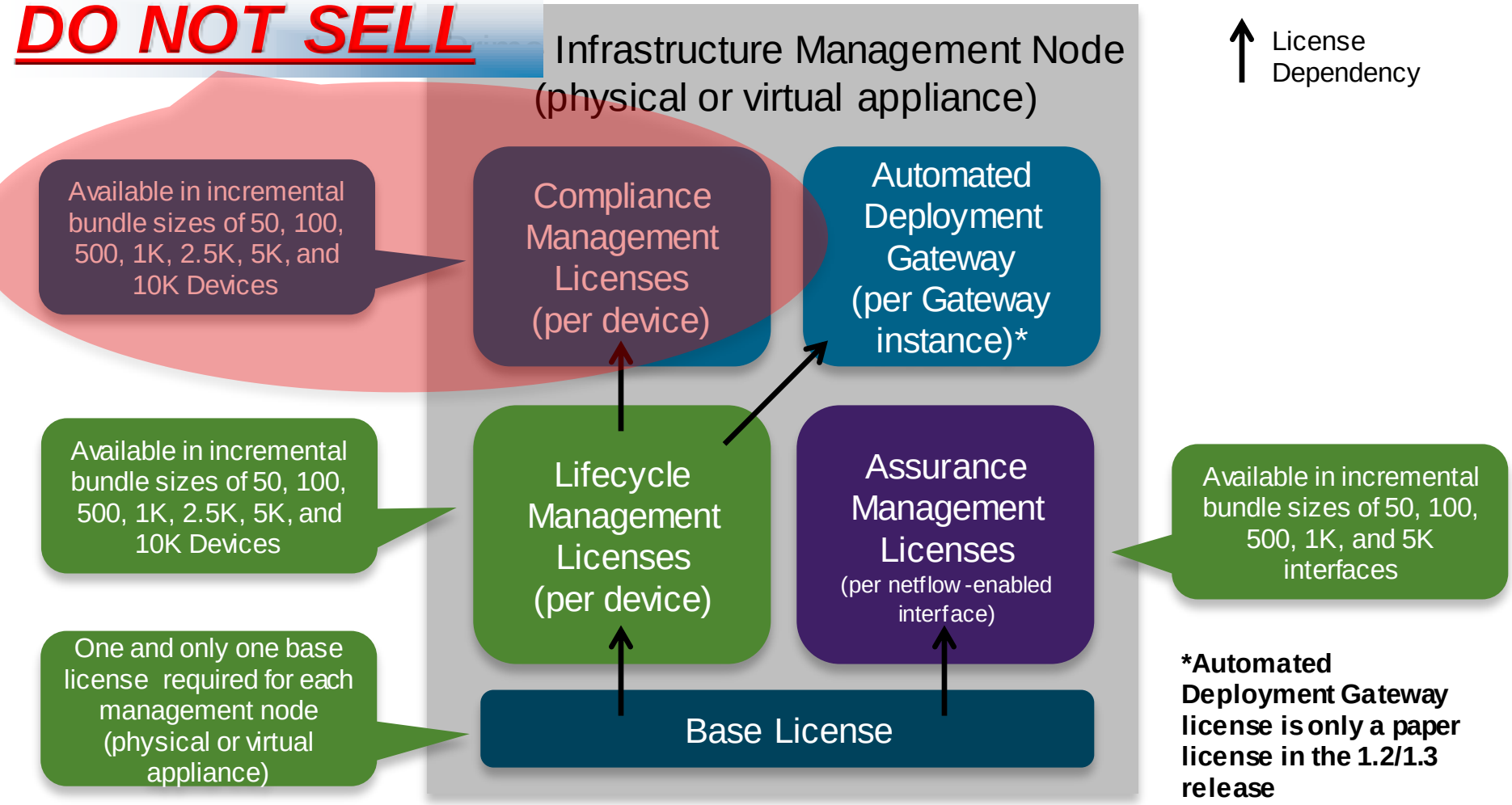
# Prime Infrastructure 1.2 – License Model Overview




***Automated Deployment Gateway license is only a paper license in the 1.2/1.3 release**

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# How to get to PI 1.3 (License part)

Most common examples : (that never fit ;-))

In general, if customer has an active SASU for NCS 1.0, PI 1.1, PI 1.2 the upgrade cost is $0

- WCS 7.0 or NCS 1.0 with no SASU = Always $1995 no matter the number of concurrent licenses(so you have 500 licenses you get 500 licenses)
- PI1.1 with no SASU = $XXXX depending on number of licenses
- Customer has LMS 4.X with an active SAS = $0, if no SAS or LMS 2.x/3.x there is a discount
- Customer should afterwards buy a SASU contract for 1.21.3, price depending on number of devices, this will ensure free upgrade to 2.0

In all cases customer will still need to purchase Assurance licenses if that functionality is needed.
In PI 1.2/1.3 Assurance is licensed per netflow interface, from 2.0 it will be per device where AVC/netflow is enabled (an AP for which a controller is sending its traffic info will count as an device)

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# How to get to PI 1.3 (software part)

You can upgrade the following products to Cisco Prime Infrastructure 1.3:

- Cisco Prime Network Control System 1.1.0 (1.1.0.58)
- Cisco Prime Network Control System 1.1.1 (1.1.1.24)
- Cisco Prime Infrastructure 1.2.1.12

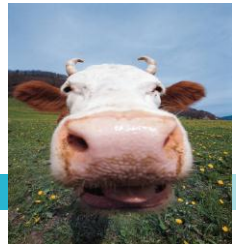
AND NO OTHER VERSIONS!

You must apply a patch to your existing system before you start any upgrade to Prime Infrastructure

**Table 7 Point Patch Files**

| If your existing system is... | Download this point patch file |
|---|---|
| Cisco Prime Network Control System 1.1.0 (1.1.0.58) | ncs_patch-1.1.0.58-upgrade-12.tar.gz |
| Cisco Prime Network Control System 1.1.1 (1.1.1.24) | ncs_patch-1.1.1.24-upgrade-12.tar.gz |
| Prime Infrastructure 1.2 (PI 1.2.0.103) | pi_1.2.1.12_update.tar.gz |

Tip : RTFM



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# How to get to PI 1.3 from FIPS

**FIPS = Federal Information Processing Standard**

**The upgrading of Cisco Prime Network Control System 1.1.2.12 or 1.1.3.2 to Cisco Prime Infrastructure 1.3 is not supported directly. If you plan to upgrade from Cisco Prime Network Control System 1.1.2.12 or 1.1.3.2 to Cisco Prime Infrastructure 1.3.0.20, contact Cisco TAC for upgrade instructions and assistance.**

**Also, read the following software advisory for more information on how to upgrade.**
**http://www.cisco.com/en/US/docs/net_mgmt/prime/infrastructure/1.3/software/advisory/Software_Advisory_CPI_1_1_2_and_1_1_3.pdf**

**SORRY!**

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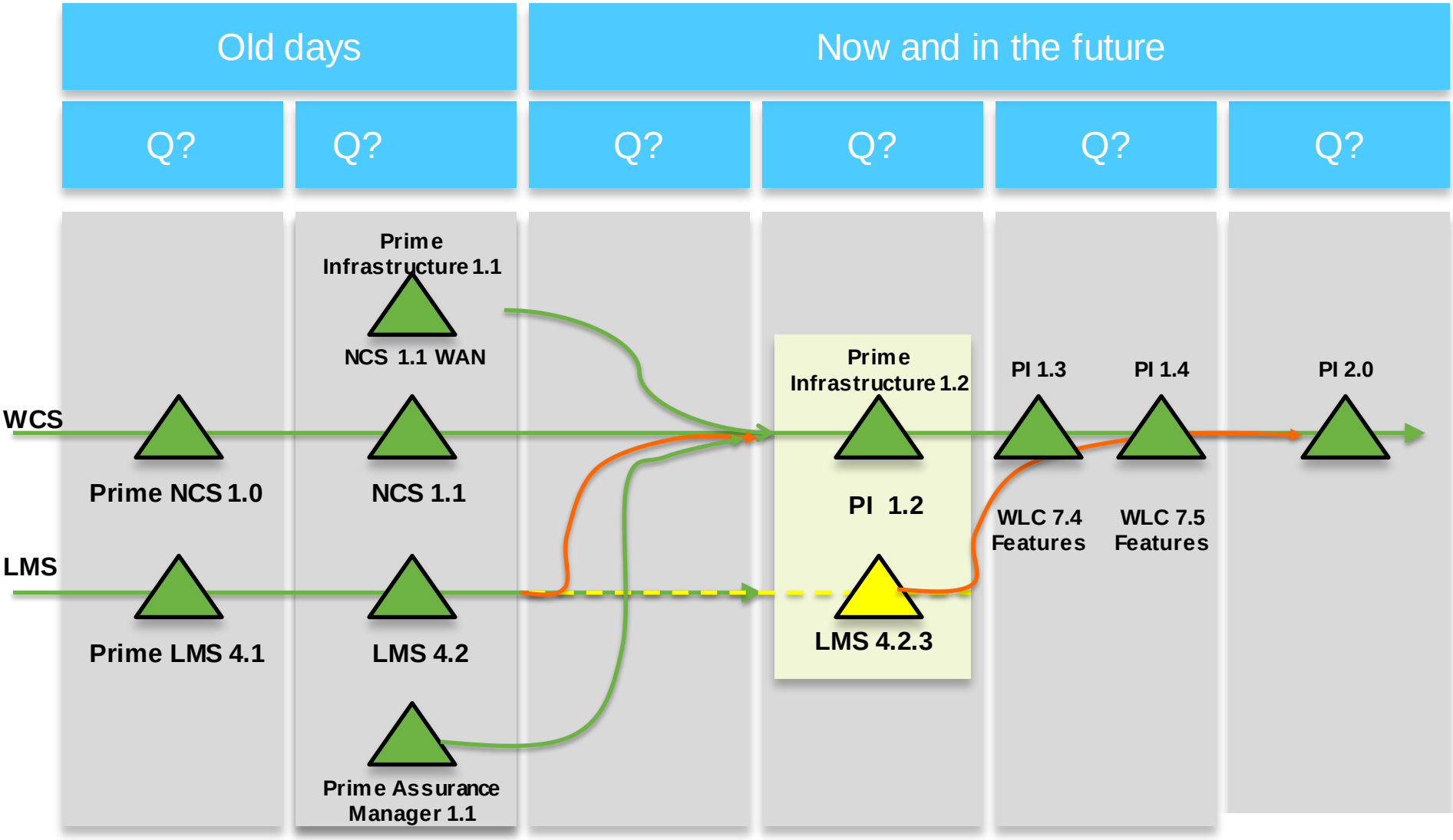
# Roadmap


Old days
Now and in the future
Q?
Q?
Q?
Q?
Q?
Q?
Prime Infrastructure 1.1
NCS 1.1 WAN
Prime Infrastructure 1.2
PI 1.3
PI 1.4
PI 2.0
WCS
Prime NCS 1.0
NCS 1.1
PI 1.2
WLC 7.4 Features
WLC 7.5 Features
LMS
Prime LMS 4.1
LMS 4.2
LMS 4.2.3
Prime Assurance Manager 1.1

Thank you.