



Prime Infrastructure Update

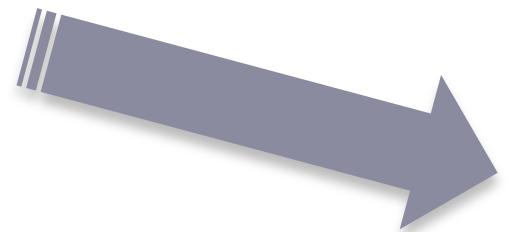
Agenda

- Prime Infrastructure Update
- Prime Infrastructure 2.2
- Licensing Update
- Converged Access deployment – Simplified
- IWAN Management with Prime Infrastructure
- Prime Infrastructure Nihau Release

Finally!!! A single release for
Wireless Management

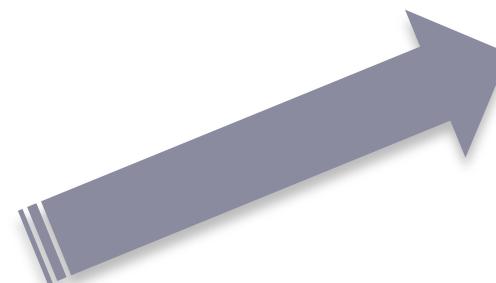
One Release for all Wireless Management

PI 1.x (1.3.x, 1.4.x)



PI 2.2

PI 2.x (2.0, 2.1.x)



- Configuration and Monitoring for AireOS 7.4, 7.5, 7.6 and 8.0
- Monitoring Support for 8.1
- Up to MSE 8.0
- ISE 1.2, 1.3

12 Months of Solid Execution

PI 2.0

Sep 2013

PI 2.1

Apr 2014

PI 2.2

Nov 2014
FCS RR

PI Niihau

Q2 CY15*
(Targeting Apr 2015)

- Return to stability
- Restore Back-up addressed
- Wired Device Packs
- WLAN device support sync
- Quality improvements
- Nexus 9K
- Quality ++
- L2 Topology
- UI and Map Performance
- IWAN / CA provisioning
- Tech Packs
- Architectural improvements
- LMS features
- IWAN monitoring
- DC Assurance

Prime Infrastructure 2.2

Platform

Topology

PI Operations Center

R/W API's

Technology Packs

Wireless

CUWN - 8.0 and 8.1 Support with APs

Converged Access – 3.6 and 3.7 with APs

Maps Performance Improvements

Meraki AP Support Tech Pack

Wired

IPV6 Device Management

QoS Monitoring Support

IWAN Configuration Workflows

Datacenter

UCS Server Assurance

Nexus 9K Assurance

VM Support via Tech Pack

New AP Platforms Supported

Cisco AP 1700



Cisco AP 1572

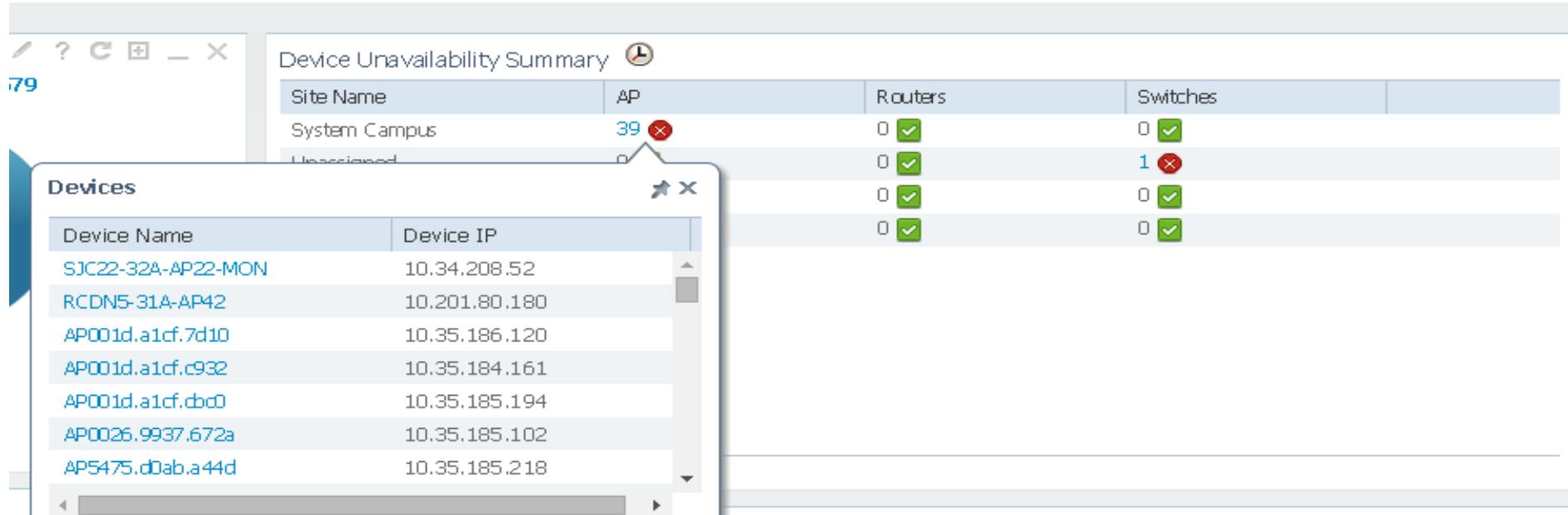
World Regulatory Domain APs



New Wireless Features

- Policy Classification Engine
- Client SSO
- Bonjour configuration
- PMIP V6 enhancements
- IPv6 – clients and WLC
- Sleeping Client
- 802.11w
- PEAP/EAP-TLS on AP in Flex mode
- Flex Connect Audit Support
- FlexConnect VLAN Config (FlexConnect Groups)
- DHCP Proxy in WLAN Config
- Clean Air Express on AP 1600/AP1700

Monitoring Enhancements



The screenshot shows a monitoring interface with the following details:

Device Unavailability Summary:

Site Name	AP	Routers	Switches
System Campus	39 ✖	0 ✓	0 ✓
Unassigned	0 ✓	0 ✓	1 ✖
	0 ✓	0 ✓	0 ✓
	0 ✓	0 ✓	0 ✓

Devices:

Device Name	Device IP
SJC22-324-AP22-MON	10.34.208.52
RCDNS-31A-AP42	10.201.80.180
AP001d.a1cf.7d10	10.35.186.120
AP001d.a1cf.c932	10.35.184.161
AP001d.a1cf.dbc0	10.35.185.194
AP0026.9937.672a	10.35.185.102
AP5475.d0ab.a44d	10.35.185.218

Use Case:

How do I know if my AP is up/down
What is the health of my site?

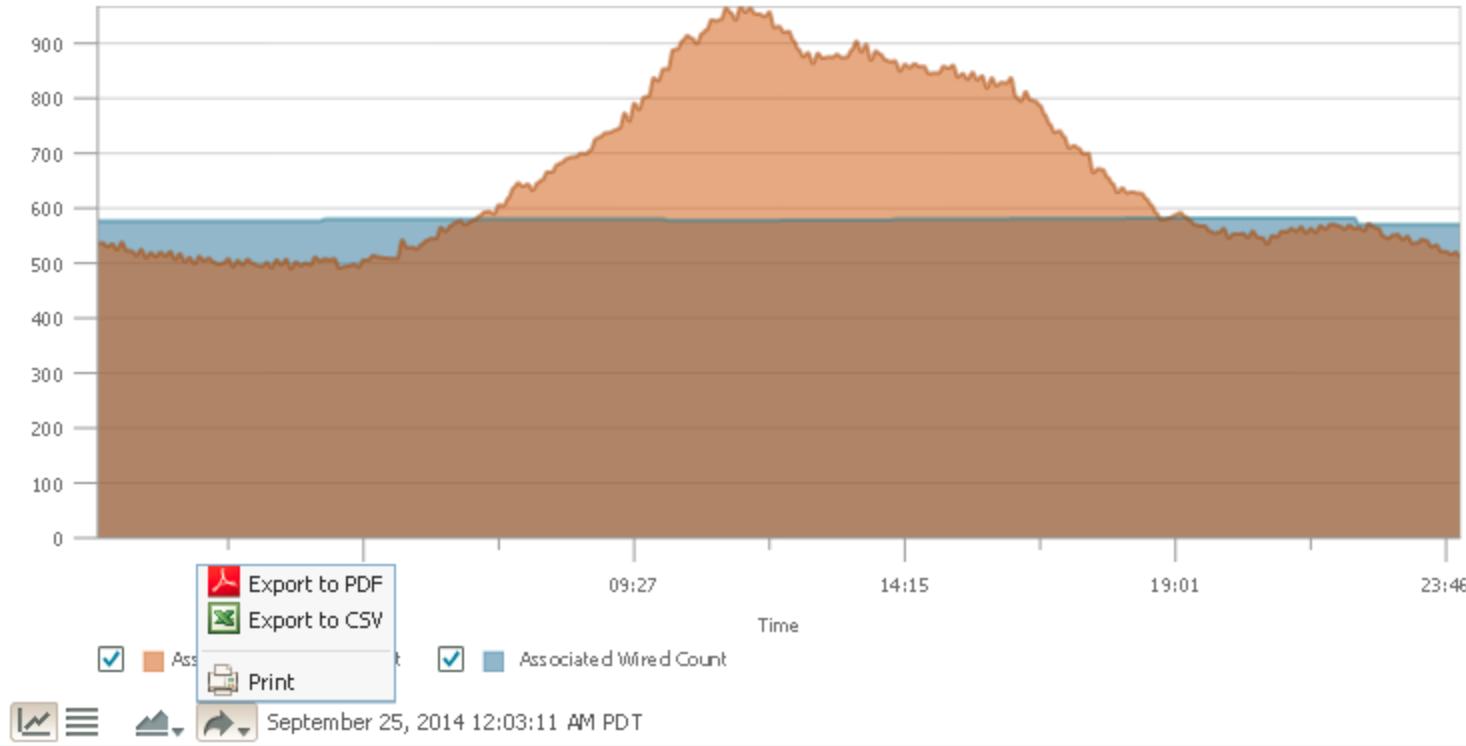
New Wireless Dashlets

Client Count By Association/Authentication

Associated | Authenticated

Zoom: 1h | 6h | 1d | 1w | 2w | 4w | 3m | 6m | 1y | View History | From: 9/24/2014 12:03 AM | To: 9/25/2014 12:03 AM

Client Count



- Customize graph type
- Export dashlet to PDF and CSV

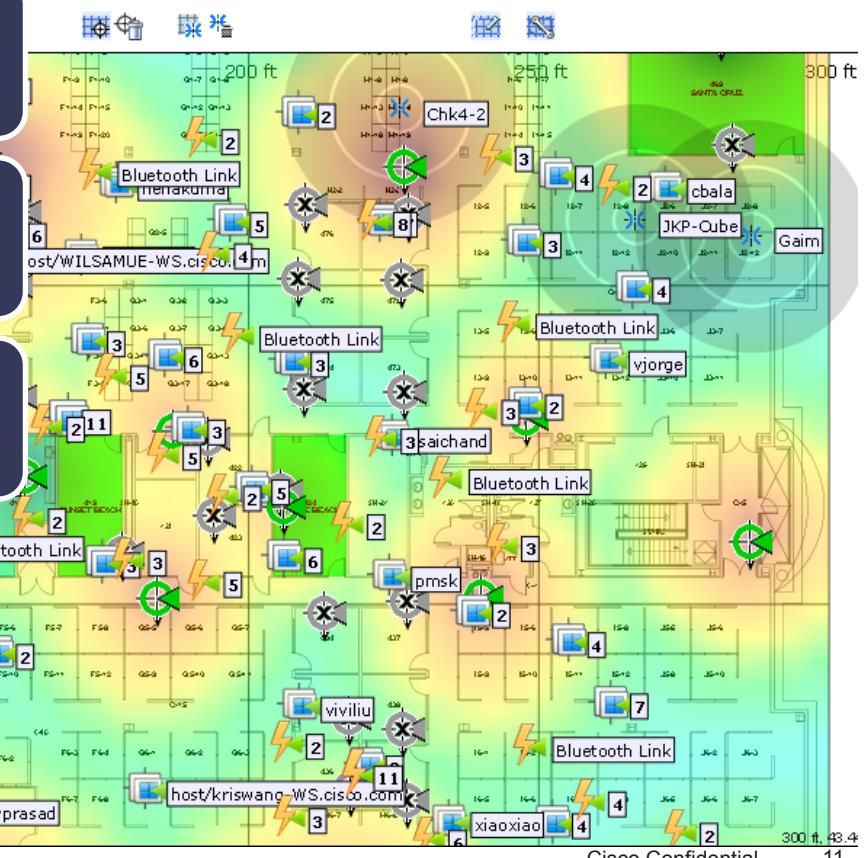
Wireless Maps Enhancements

Zoom improvements 133% to 1052%

Faster loading of maps

AP placement in maps

Intelligent user-specific caching



New AP Dashboard

AP Details

Access Point Details

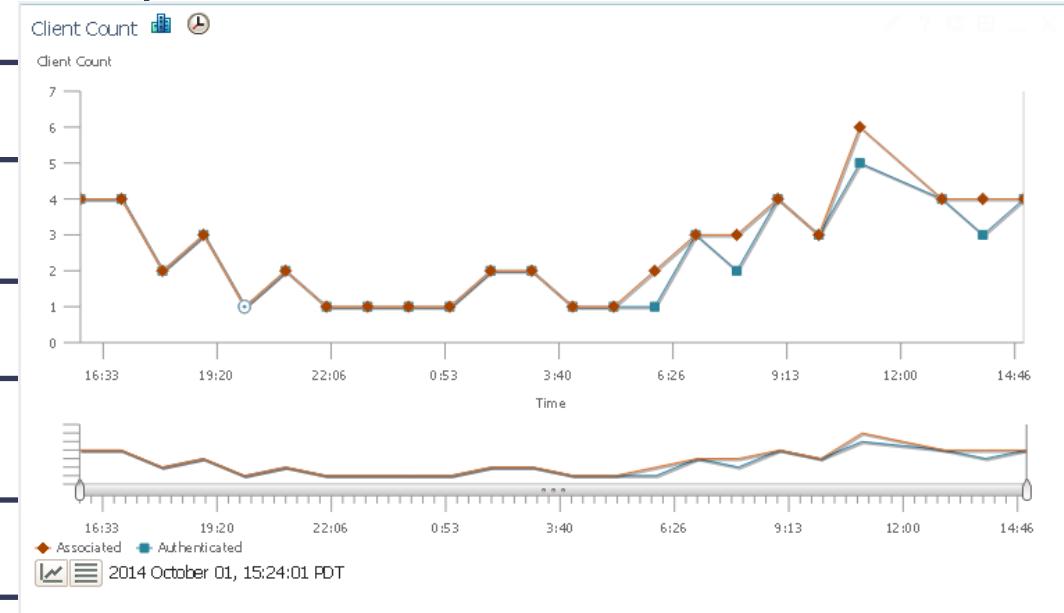
Property	Value
AP Name	SJC14-42A-AP-C3
Radio Mac	18:e7:28:9d:c3:30
Ethernet Mac	18:e7:28:80:f6:58
Model	AIR-CAP3702I-A-K9
Controller	10.32.37.6
Location	default location
Map Location	System Campus > SJC-14 > 4th Floor
Base Radio	AP SJC14-42A-AP-C3, Interface 802.11b/g/n AP SJC14-42A-AP-C3, Interface 802.11a/...

Top applications by bandwidth

Top clients by bandwidth

Clients count on the AP over time

Channel Utilization and AP throughput over time



Prime Infrastructure – Meraki Support



- Discovery
- Inventory
- Reachability
- Cross launch into Meraki dashboard
- No Wired in Phase 1
- Technology pack on PI 2.2

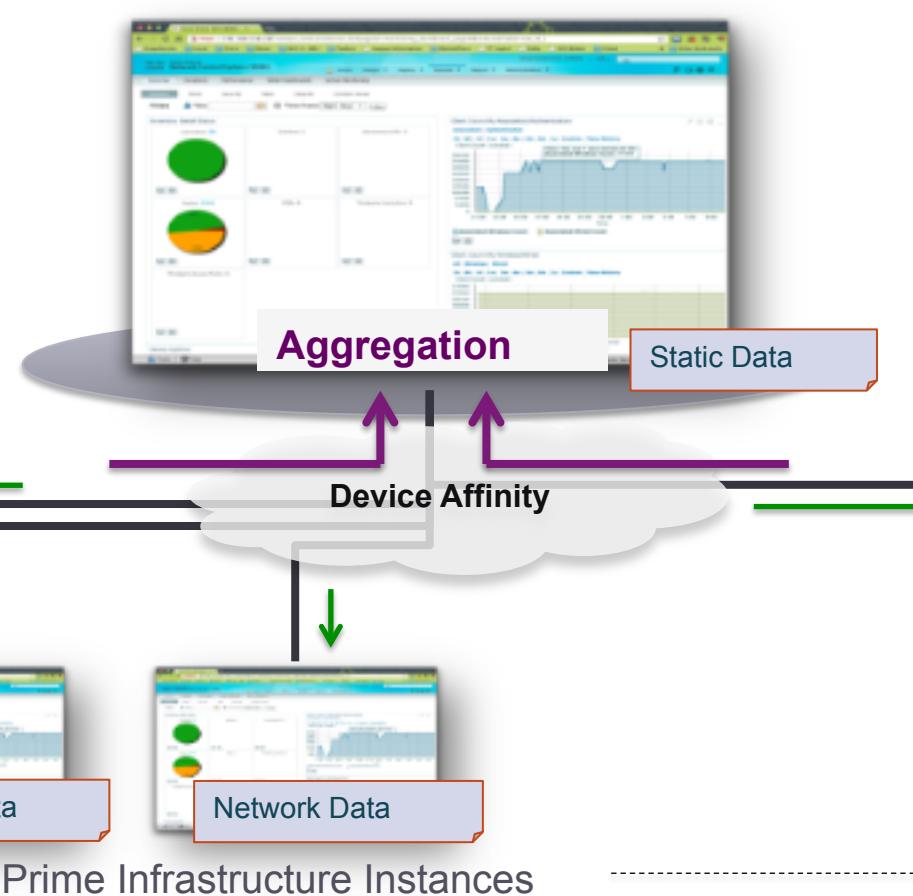
The screenshot shows the Cisco Prime Infrastructure interface for a Meraki Controller. The top navigation bar includes Cisco, Cisco Prime Infrastructure, Dashboard, Monitor, Configuration, Inventory, Maps, and Search Menu/Prime Data. The main content area shows the device details for a Meraki Dashboard with IP 35.1.1.2. The 'Summary' tab is selected, displaying general information like IP Address/DNS Name, Device Name, Device Type, Up Time, Reachability Status, Location, Contact, Cisco Identity Capable, and Location Capable. To the right, sections for Unique Device Identifier (UDI) and Inventory (Software Version, Model No.) are visible. Below the summary, there are two monitoring charts: 'CPU Utilization' and 'Memory Utilization', each with a line graph showing average utilization over various time frames (1h, 6h, 1d, 1w, 2w, 4w, 3m, 6m, 1y, Custom, View Hi). The CPU utilization chart shows a flat line at 0%, while the memory utilization chart shows a flat line at approximately 10%.

Cisco Prime Infrastructure – Operations Center

Centralized Visualization Across Multiple PI Instances

Operations Center use cases:

- Centralized search and reporting
- Geographic or horizontal scaling
- Enables separate instances for Wireless, Wired or Datacenter

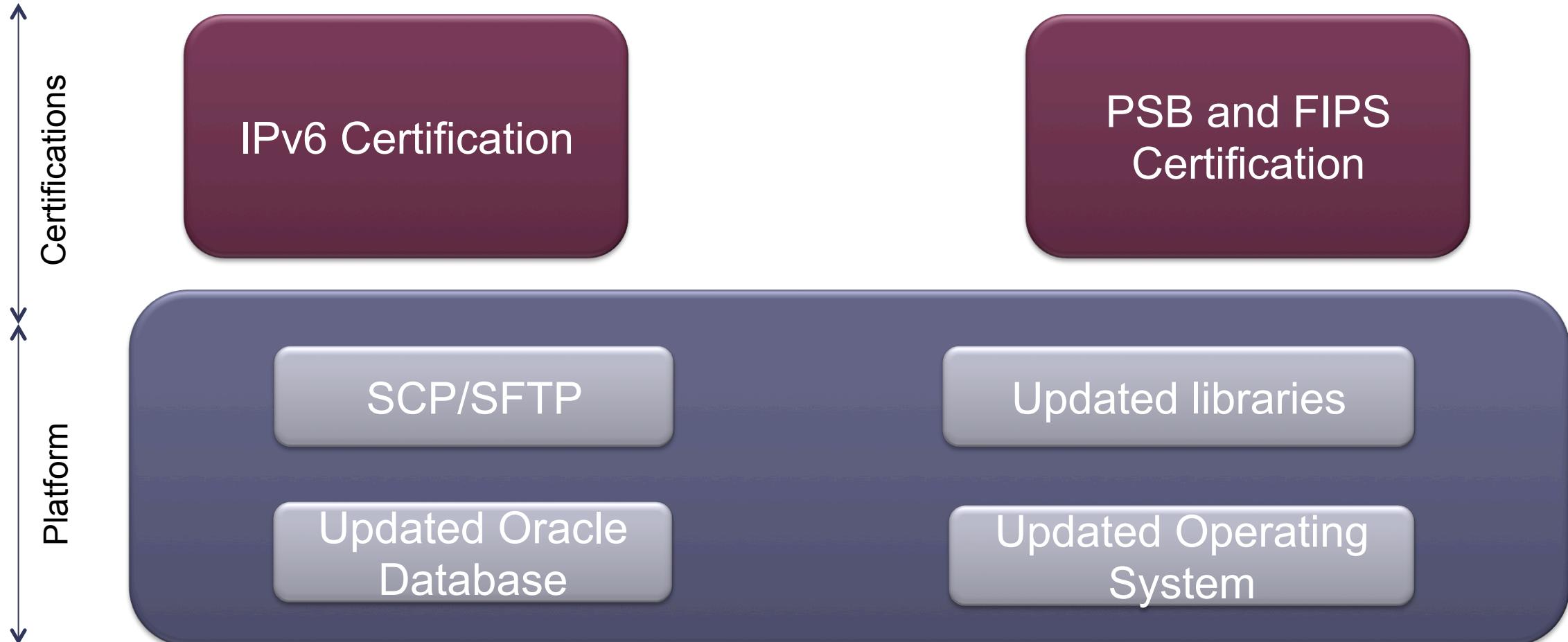


Single Pane Monitoring

- Unified Assets View
- Unified Alarms View
- Unified Clients views
- Consolidated Reports
- Consolidated Dashlets
- Consolidated Search

Platform Enhancements

Management Platform Security Enhancements



Converged Menu

Single Menu for All Operational Tasks

The image displays four screenshots of the Cisco Prime Converged Menu interface, illustrating the single menu for all operational tasks:

- Dashboard:** Shows the main navigation bar with tabs for Dashboard, Monitor, Configuration, Inventory, Maps, Services, Reports, and Administration. The Dashboard tab is active, showing a summary of network health and links to Overview, Wireless, and Performance sections.
- Monitor:** Shows the Monitor tab active, with sub-sections for Network Devices, Wireless Technologies, Monitoring Policies, Alarms and Events, and Clients and Users.
- Configuration:** Shows the Configuration tab active, with sub-sections for Network Devices, Wireless Technologies, Templates, Plug and Play, and a scheduled configuration task.
- Inventory:** Shows the Inventory tab active, with sub-sections for Device Management and Grouping.

- Similar to Classic View
- Classic view is deprecated
- Maps and Topology at top level
- Device Work Center optimized

Network Topology Visualization Device & Site Connectivity

Cisco Prime Infrastructure

Virtual Domain ROOT-DOMAIN | mbasinsk | Search Menu/Prime Data

Dashboard | Monitor | Configuration | Inventory | Maps | Services | Reports | Administration

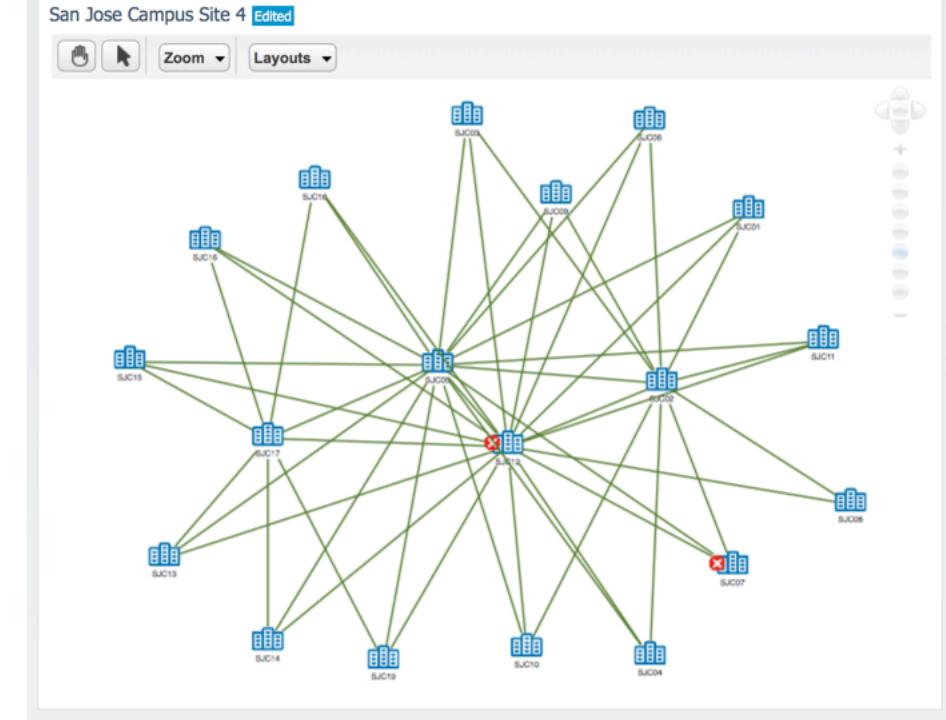
Overview Wireless Performance

General Incidents Client Network Devices Network Interface Service Assurance Service Health

Filters *Time Frame Past 1 Hour Go

San Jose Campus Site 4 Edited

Zoom Layouts



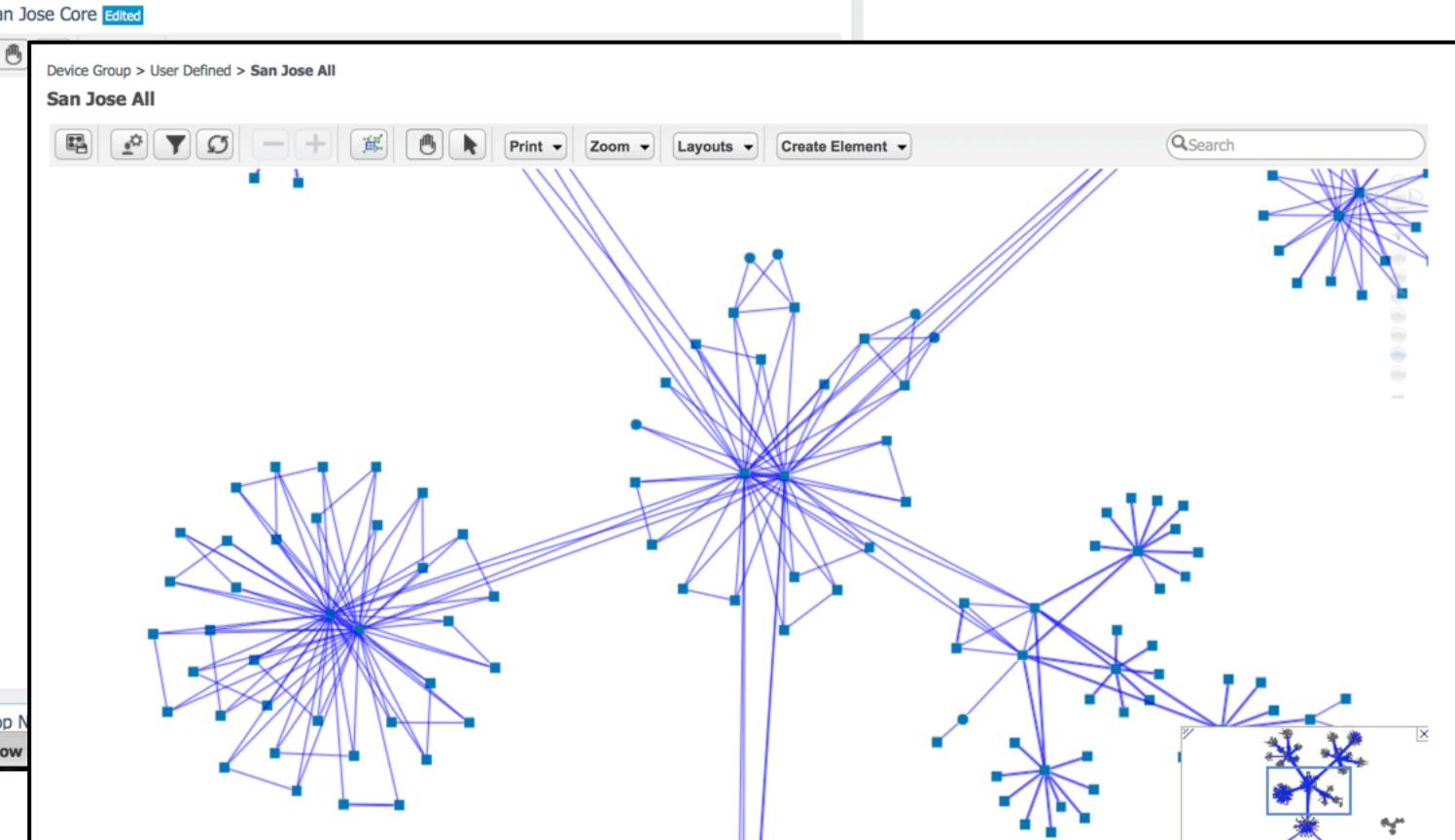
San Jose Core Edited

Device Group > User Defined > San Jose All

San Jose All

Print Layouts Create Element

Search



Network Device Summary

Top N Workflow

© 2013-2014 Cisco and/or its affiliates. All rights reserved.

Network Topology Visualization

Device 360 Launch to Topology “N-Hop” Drill Down

Cisco Prime Infrastructure

Monitor > Alarms and Events

Alarms and Events

Device Groups

- All Devices
- Device Type
- Location
- User Defined

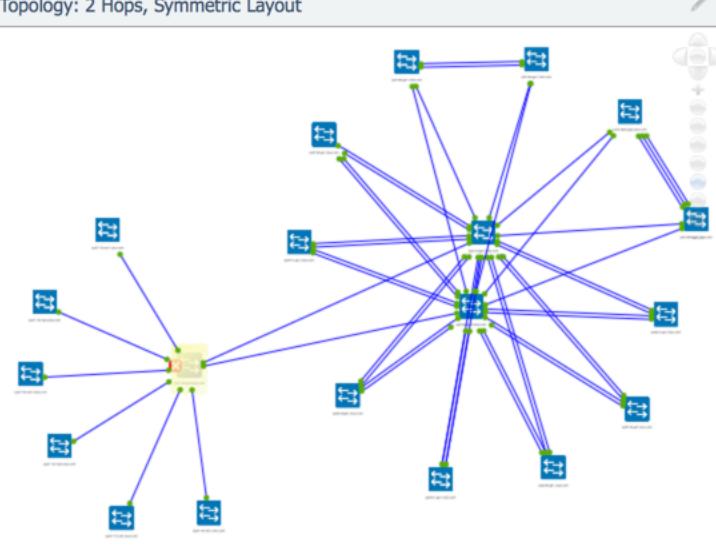
Device 360° Views

sjc07-00-gw2.cisco.com

Cisco Catalyst 6506 Switch

up for 324 days 18 hrs 34 mins 54 secs

Topology: 2 Hops, Symmetric Layout



Minor Load threshold violation r... Not Ackno... AP sjc12-41-cap1, Interfa... August 6, 2014 9:42:07 P...

Minor Noise threshold violation r... Not Ackno... AP sjc12-41-cap1, Interfa... August 6, 2014 9:42:07 P...

Minor Interference threshold viol... Not Ackno... AP sjc12-41-cap1, Interfa... August 6, 2014 9:42:07 P...

Minor Load threshold violation r... Not Ackno... AP sjc12-42-cap21, Interf... August 6, 2014 9:42:33 P...

Minor Noise threshold violation r... Not Ackno... AP sjc12-42-cap21, Interf... August 6, 2014 9:42:33 P...

Minor Interference threshold viol... Not Ackno... AP sjc12-42-cap21, Interf... August 6, 2014 9:42:33 P...

Minor Interference threshold viol... Not Ackno... AP sjc12-21-cap1, Interfa... August 6, 2014 9:42:55 P...

Virtual Domain ROOT-DOMAIN | mbasinsk | Search Menu/Prime Data

Services Reports Administration

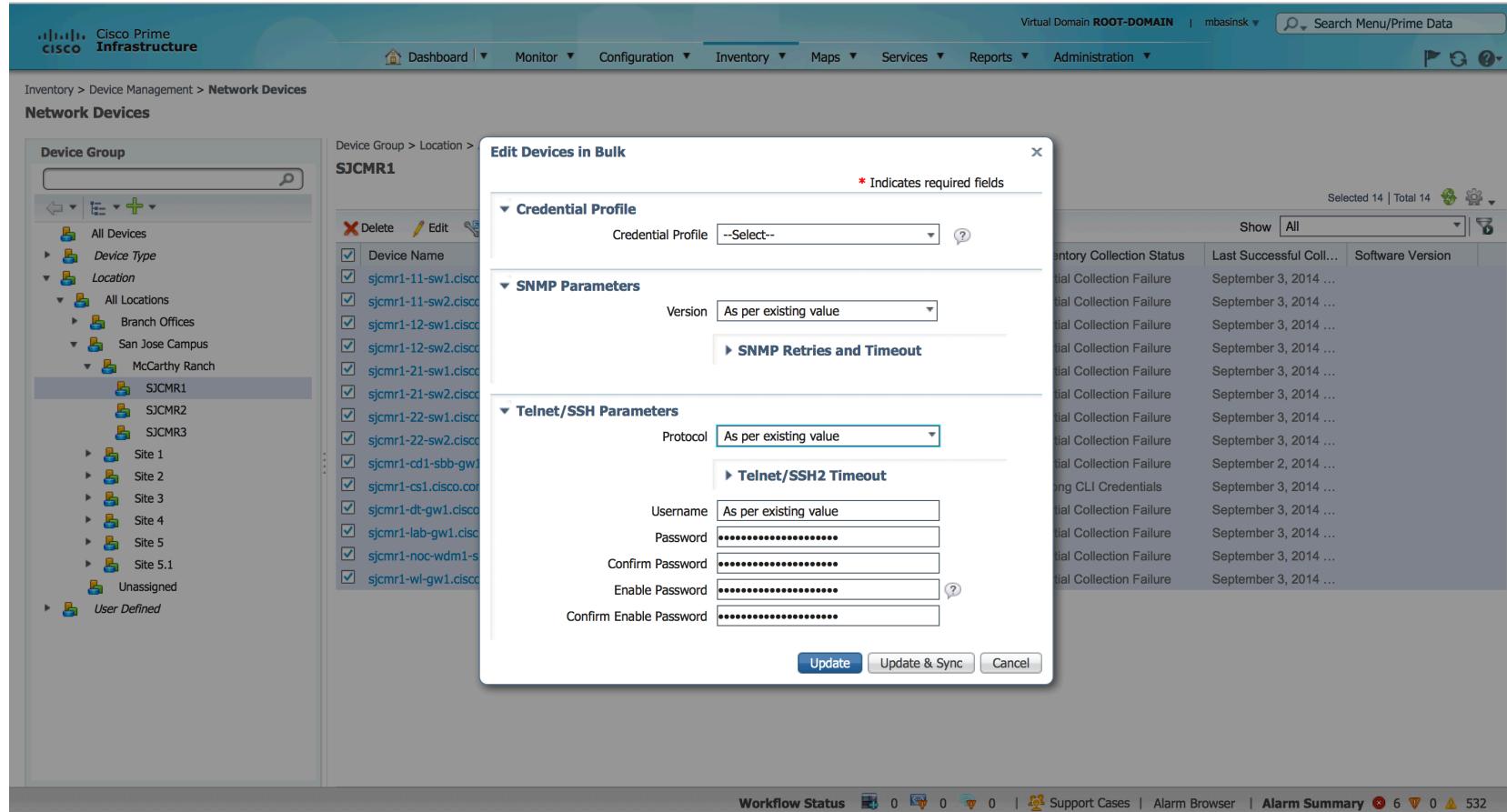
Selected 0 | Total 461

Timestamp	Owner	Category	Condition
August 6, 2014 10:53:09 ...	Switches a...	Switch down	
August 10, 2014 4:09:57 ...	AP	Radio administrativ...	
August 8, 2014 6:27:01 P...	Switches a...	Switch down	
August 6, 2014 9:41:24 P...	AP	Radio load threshol...	
August 12, 2014 7:32:44 ...	AP	Radio load threshol...	
August 12, 2014 9:08:04 ...	AP	Radio load threshol...	
August 9, 2014 1:13:23 P...	AP	Radio load threshol...	
August 6, 2014 9:41:50 P...	AP	Radio load threshol...	
August 6, 2014 9:41:50 P...	AP	Radio load threshol...	
August 6, 2014 9:41:50 P...	AP	Radio load threshol...	
August 8, 2014 4:22:17 A...	AP	Radio load threshol...	
August 12, 2014 9:53:13 ...	AP	Radio load threshol...	
August 11, 2014 4:52:15 ...	AP	Radio load threshol...	
August 12, 2014 10:03:15...	AP	Radio load threshol...	
August 6, 2014 9:42:07 P...	AP	Radio load threshol...	
August 6, 2014 9:42:07 P...	AP	Radio load threshol...	
August 6, 2014 9:42:07 P...	AP	Radio load threshol...	
August 6, 2014 9:42:33 P...	AP	Radio load threshol...	
August 6, 2014 9:42:33 P...	AP	Radio load threshol...	
August 6, 2014 9:42:33 P...	AP	Radio load threshol...	
August 6, 2014 9:42:55 P...	AP	Radio load threshol...	

Workflow Status: 0 0 0 0 | Support Cases | Alarm Browser | Alarm Summary: 3 0 0 458

Credential Profiles & Bulk Device Edit

Bulk credential & UDF management



Use Case:
SoX requirement- update device credentials, once every 6 months

Installation Simplified

- Removal of license "node lock"
- Simplified OVA install – One OVA file for all types of PI instances
- VMWare ESXi 5.5 support
- Virtual IP for High Availability
- New PI Appliance
- External Oracle Database (Post PI 2.2 via Tech Pack)

Additional Platform Features

- Flexible Grouping Hierarchy
- Management of network devices via IPv6
- Read Write REST APIs
 - Adding devices in bulk, managing wireless devices, provisioning WLANs
- Native IE browser support
 - No Chrome Plug-In needed
- Improvements in Job handling
 - Periodic jobs, copy run start option, stop/continue failure option, improved presentation of job results

Significant Architectural Improvements

Kauai (Nov 2014)

- Background tasks improvements:
 - AP discovery, MAPs
- New converged UI
- Operations Center
- Device and Technology support packs (non-wireless)
- Security (PSB and FIPS compliance)
- Fast Failover (<30 secs) for HA (available as Tech pack)
- External DB support (available as Tech pack)
- Maps zooming, performance and reliability improved with smarter caching and better concurrency control.

Nihau (Q2 CY15)

- New UI framework (Vudu)
- Technology Stack convergence (inventory, polling and scheduler)
- Optimize additional Background Tasks
- Client discovery via enriched traps
- Inline aggregation of performance data
- AP support via async device packs.
- Service discovery, correlation
- Multi-layer correlation and RCA
- SNMP timeout visibility and reporting
- Large SP T1 customer scale support

With the architectural improvements, the new UCS appliance or the flexible OVA, Prime Infrastructure will deliver to published scale.

Upgrade to 2.2

Backup Prime Infrastructure

- PI 1.4
- PI 2.1

Install PI 2.2 system

- New OVA install
- Install ISO on appliance

Restore from backup

- No re-hosting of licenses

- No inline upgrade support to PI 2.2
- Recommended upgrade is through backup and restore
- No need for license re-hosting as VUDI check is removed

Why no inline upgrade:

Upgraded platform (OS)

Upgraded database

Continuing Push to LMS Transition

Nov
2014

Prime Infra
Kauai / 2.2

COMPLIANCE
AND CHANGE

MONITOR AND
TROUBLESHOOT

USER TRACKING

INVENTORY AND
REPORTING

USABILITY

View All
Syslogs (0-7)

IPv6 Dev Mgmt
Cred Mgmt

Physical
Topology

Apr*
2015

Prime Infra
Niihau

Config Chg mgmt
Baseline
compliance

Better Alarm
Management

Port /Switch Util
as a Tech Pack
Post-Niihau

Flexible Reporting
via
APIs and PCP

L2 / L3 Topo
Geographical
Maps on Cloud

H2*
2015

Prime Infra
Lanai

Image, Policy
Compliance

Automated
Actions

Nexus Client &
AD / CUCM
based tracking

SWIM
improvements

Chassis View

Licensing Update

No Node Lock Starting with 2.2

Servers running PI 2.2 and higher will work with both licenses

Node Lock is removed from PI Licenses starting with PI 2.2

Implications

- Two kinds of licenses will be issued
 - Licenses with Node lock (For backward compatibility w/ servers running PI 2.1 and lower versions)
 - Licenses without Node (For all servers PI 2.2 and higher)
- Removes the need for re-hosting
- Node lock removed licenses still will retain the following
 - Device count
 - Expiration dates (for evaluation or demo or NFR)

New UCS Appliance

Scale numbers estimates and will be revised after testing

ISO Image Avail Today

PRIME-NCS-APL-K9
2.4 GHz, Intel E5620

1 RU, Dual Power sup.,
Hot swappable HDD

- 8 Cores
- 16 GB
- 4 x 300 GB
- RAID 5

Gen1 Appliance Scale
5,000 Unif APs
3,000 Auton APs
500 WLCs
6,000 Switches + Rtrs
25 MSE
500 NAMs
10,000 Total Devices

ISO Image Avail Mar 2015

CPU
MEM
HDD
RAID

- 10 Cores
- 64 GB
- 8 x 900GB
- RAID 10

PI-UCS-APL-K9
UCSC-C220-M4S
2.30 GHz E5-2650 v3/105W 10C/
25MB Cache/DDR4 2133MHz

1 RU, Dual Power sup.,
Hot swappable HDD

Gen 2 Appliance Scale
10,000 Unif. APs
3,000 Auton APs
1,000 WLCs
10,000 Switches + Rtrs
25 MSE
1,000 NAMs
20,000 Total Devices

Physical Appliance FAQ

Current Prime Physical Appliance (Gen 1), PRIME-NCS-APL-K9

- Is four year old server platform and scheduled for EoS/EoL in Q1 CY2015
- **Yes, current PHY Appliance will support up to and including PI 2.2**

UCS based Physical Appliance (Gen 2), PI-UCS-APL-K9

- Scheduled to launch in Q1 CY2015 and orderability: Q1 CY2015
- Will support PI 2.2 or higher
- Will have a corresponding ISO image

**For scalability info please refer to Scalability Table*



WCS

- Product Family AIRMGMU

NCS

- Product Family AIRNCS
- Gen 1 Appliance

Prime Infrastructure 1.x

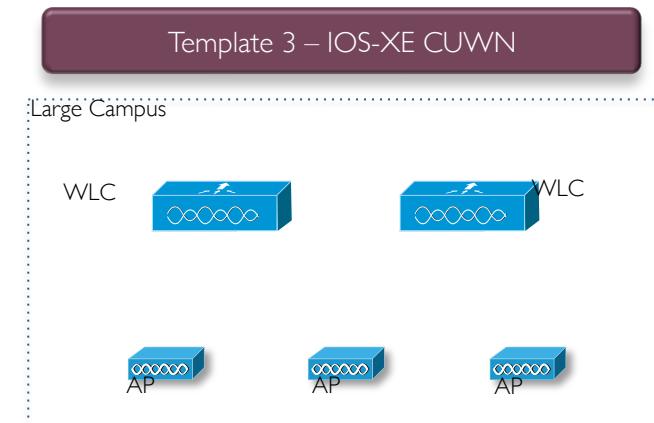
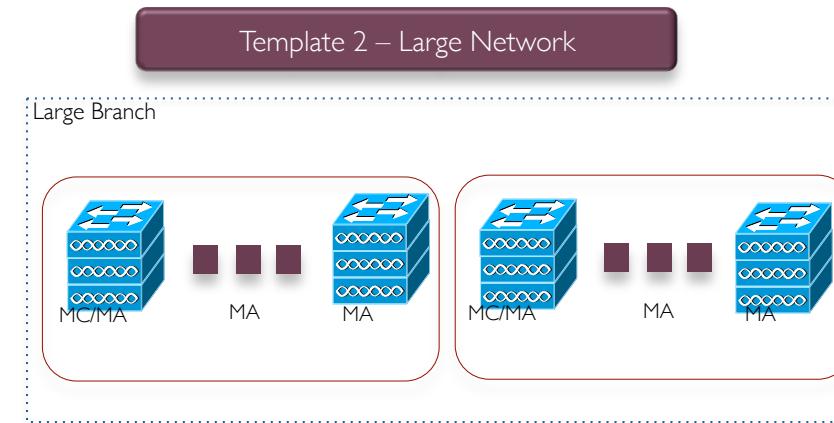
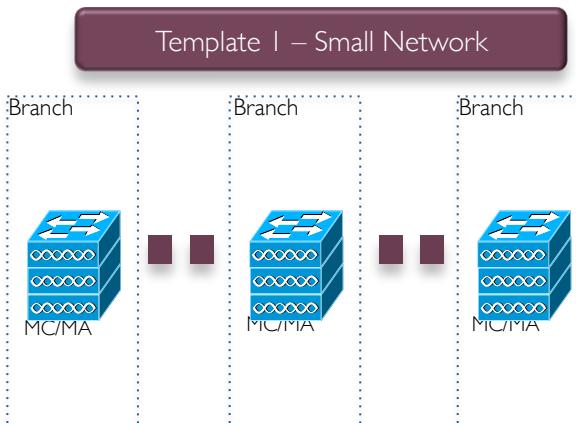
- 1.2.x
- 1.3.x
- 1.4.x
- Product Family INFRA

Simplifying Converged Access Deployment

Simplified Converged Access Deployment



- Supports 3 deployment models based on best practice
- CVD based prescriptive templates that can be edited
- Full tested wireless configuration for converged access enabled in less than a minute
- Guided workflow for multi-site deployment



Select the CA Workflow from Services

Tech Pack
Dec 2014

The screenshot shows the Cisco Prime Infrastructure web interface. At the top, there is a navigation bar with links to various services like AVC, Data Center, Prime Infrastructure, Tools, BI, Cisco Employee Services, Eng @ Cisco, My Yahoo!, Rev Recognition, WLC - Config guide, FlexConnect - Walmart, and Manager Landing Page. The main menu includes Dashboard, Monitor, Configuration, Inventory, Maps, Services (selected), Reports, and Administration. The Services menu is expanded, showing Network Services (TrustSec), Router Virtual Containers (WAAS-XE), Guest Users, IWAN, and Converged Access (which is underlined). On the left, a 'Converged Access' workflow is displayed with four steps: 'Before You Begin' (play icon), 'Choose Configuration' (gear icon), 'Select Devices' (server icon), and 'Confirmation' (document icon). Below this, a 'Before You Begin' section shows 'Configurations' (selected) and 'Branch IOS-XE Wireless Controller'. The interface has a blue header and a white body with some light gray sections.

Step 1: Select the CA Design Type

Converged Access



Choose Configuration

This allows you to choose the available configuration options.

Select Deployment Model

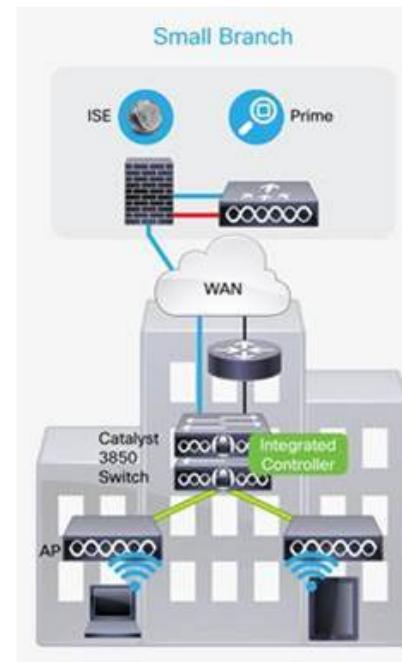
Small Branch Environment

This is normally a small site such as a satellite office or a chain store. There is typically no onsite IT support. Network reliability is critical because most network services and resources are located at the central headquarters. Any simplification and efficiency improvements at a single branch office can translate into significant savings for companies when multiplied by their large number of sites. Converged access for a small branch site can be implemented by a single stack of Cisco Catalyst 3850 switches to support local LAN and wireless needs. No dedicated WLC is needed.

Features: Advanced QoS, NetFlow, other services for wireless and wired traffic, Layer 3 visibility, and WAN efficiency.

Benefits: Management simplicity, good availability due to mobility agent/mobility controller redundancy within the Cisco Catalyst 3850 switch stack, optimized multicast, mobile device onboarding, BYOD and wireless continuity with either WAN outage or switch failure within the stack. These benefits are also shared with environments described next.

Scalability: The Cisco Catalyst 3850 switch stack serves as wireless mobility agent and mobility controller to support up to 50 access points and 2000 wireless clients.



Provide design and topology for the design selection

Step 2: Select the devices

Converged Access



Before You Begin → Choose Configuration → **Select Devices** → IOS-XE Controller - Sma... → Confirmation

Select Devices

Devices

<input type="checkbox"/> Name	Description	Type	IP Address/DNS	Vendor
<input type="checkbox"/> All Devices	List of All Devices			
<input type="checkbox"/> Edison-225	Edison-225	Switches and Hubs	172.20.116.225	Cisco
<input type="checkbox"/> Edison-224	Edison-224	Switches and Hubs	172.20.116.224	Cisco
<input type="checkbox"/> Edison-227	Edison-227	Switches and Hubs	172.20.116.227	Cisco
<input type="checkbox"/> Katana-228	Katana-228	Wireless Controller	172.20.116.228	Cisco
<input type="checkbox"/> Edison-226	Edison-226	Switches and Hubs	172.20.116.226	Cisco
<input type="checkbox"/> Device Type	Device Type			
<input type="checkbox"/> Location	Location based groups			
<input type="checkbox"/> User Defined	User Defined Device Groups			

Cancel Previous Next

Select the list of devices to enable converged access and guest access

Step 3: Configure details for Converged access

Converged Access



Values filled in the **'ALL Selected Devices'** will be used for each device. Any device specific value filled in per device, will override the value provided under **'ALL Selected Devices'**. **'APPLY'** does not check mandatory parameters for **'ALL Selected Devices'**. It is applicable only for individual devices.

Devices	
	Name
<input checked="" type="radio"/>	All Selected Devices
<input type="radio"/>	Edison-225
<input type="radio"/>	Edison-224
<input type="radio"/>	Edison-227
<input type="radio"/>	Katana-228

WLAN 1

SSID Name:

ID:

Security:

Pre-Shared Key:

Client VLAN Name:

WLAN 2

SSID Name:

ID:

Security:

Pre-Shared Key:

Client VLAN Name:

WLAN 3

SSID Name:

ID:

Security:

Pre-Shared Key:

- User Inputs
- SSID details
- Guest Network
- Security
- AVC configuration
- Wireless Management

Converged Access Deployed

WLAN : 4 SSID Support – WPA2-Ent/WPA2-Personal/Open/Guest-CWA, 802.11 AC, Captive Bypass-Portal, Fast SSID-Change etc.

Application Experience : Wireless Flexible Netflow, Application Visibility and Per-SSID BW allocation

Security : Radius, TACACS+, 802.1X, CWA, AAA-Override, Client Timeout, NAC, DHCP Snooping, ARP Inspection, Clear Password Encryption etc.

Wireless Best Practices : Band-Select, RRM, CleanAir, DCA Channel, Radius Timeout, WiFi Direct Policy etc

IWAN Management with Prime Infrastructure

IWAN Management with PI 2.2 Release

Configuration

- Workflow for IWAN Configuration for Hub/Spoke routers
 - Green-field and brown field deployments
 - Customize IWAN technology enablement
- AVC Work Center
 - Network assessment
 - NBAR Protocol Pack Management
 - Multi-device AVC configuration
 - Create and Manage custom application
- QoS Management
 - Best practices based design
 - Create/Modify/Delete
 - NBAR and DSCP based configuration support

Monitoring

- Network performance (CPU/Memory/Interface)
- Network Application Health Dashboard
- Application visibility – NBAR, ART, Perfmon
- WAAS Performance Monitoring with NAM
- QoS performance and trending
- Perfmon based troubleshooting

Step 1: Start IWAN Workflow

Cisco Prime Infrastructure

Virtual Domain ROOT-DOMAIN | prime | Search Menu/Prime Data

Dashboard | Monitor | Configuration | Inventory | Maps | Services | Reports

iWAN

Before You Begin → Choose Configuration → Select Devices → Confirmation

Before You Begin

This wizard helps you to provision IWAN services. IWAN delivers an uncompromised user experience over any connection. The following

- * DMVPN
- * AVC
- * QoS
- * PFR

Configurations

- Hub Master Controller
- Hub Border Router
- Branch Master Controller
- Branch Border Router

More Details

The workflow helps you to provision IWAN services. IWAN delivers an uncompromised user experience over any connection. Following features can be configured on the selected sites, based on the configuration option chosen.

Hub Master Controller

Internet

MPLS

Branch Router

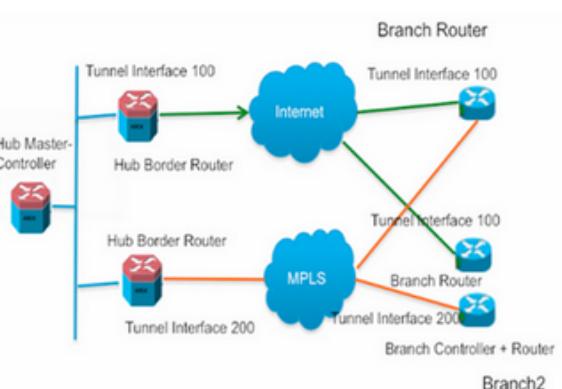
Branch2

Hub Border Router

Branch Controller + Router

Tunnel Interface 100

Tunnel Interface 200



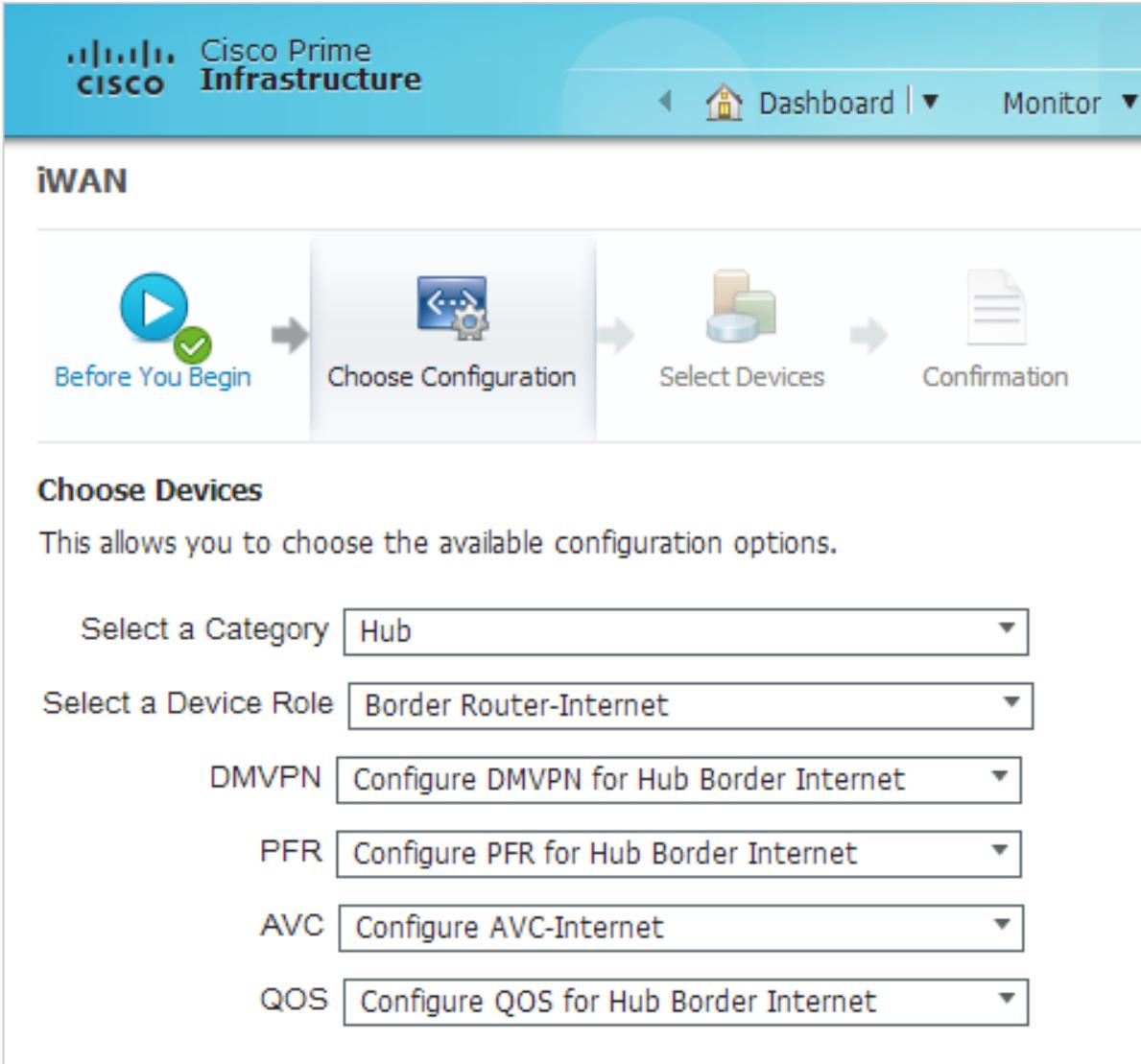
Before You Continue

The workflow will guide the user in designing and deploying the IWAN service for an enterprise both to green field and brown field deployments. In the design flow, it allows a network administrator to plan on which branches the IWAN needs to be enabled or reconfigured based on the organization policy and in the deploy view, a network administrator or operator is allowed to deploy this service without making much change to the planned design. During designing or deploy, the configurations need to be decided for any of the above options presented in the table. Note: Any user defined templates needs to be tagged appropriately as per pre-defined tags to use in the workflow. Please refer help for more details.

Quit | Next

Guided Workflow to help design and deploy IWAN on your branch or hub

Step 2: Role Selection



The screenshot shows the Cisco Prime Infrastructure interface for iWAN configuration. The top navigation bar includes the Cisco logo, 'Cisco Prime Infrastructure', 'Dashboard', and 'Monitor'. The main area is titled 'iWAN' and shows a workflow: 'Before You Begin' (play icon with checkmark), 'Choose Configuration' (gear icon), 'Select Devices' (server icon), and 'Confirmation' (document icon). Below this, a section titled 'Choose Devices' contains the following configuration options:

- Select a Category: Hub
- Select a Device Role: Border Router-Internet
- DMVPN: Configure DMVPN for Hub Border Internet
- PFR: Configure PFR for Hub Border Internet
- AVC: Configure AVC-Internet
- QOS: Configure QOS for Hub Border Internet

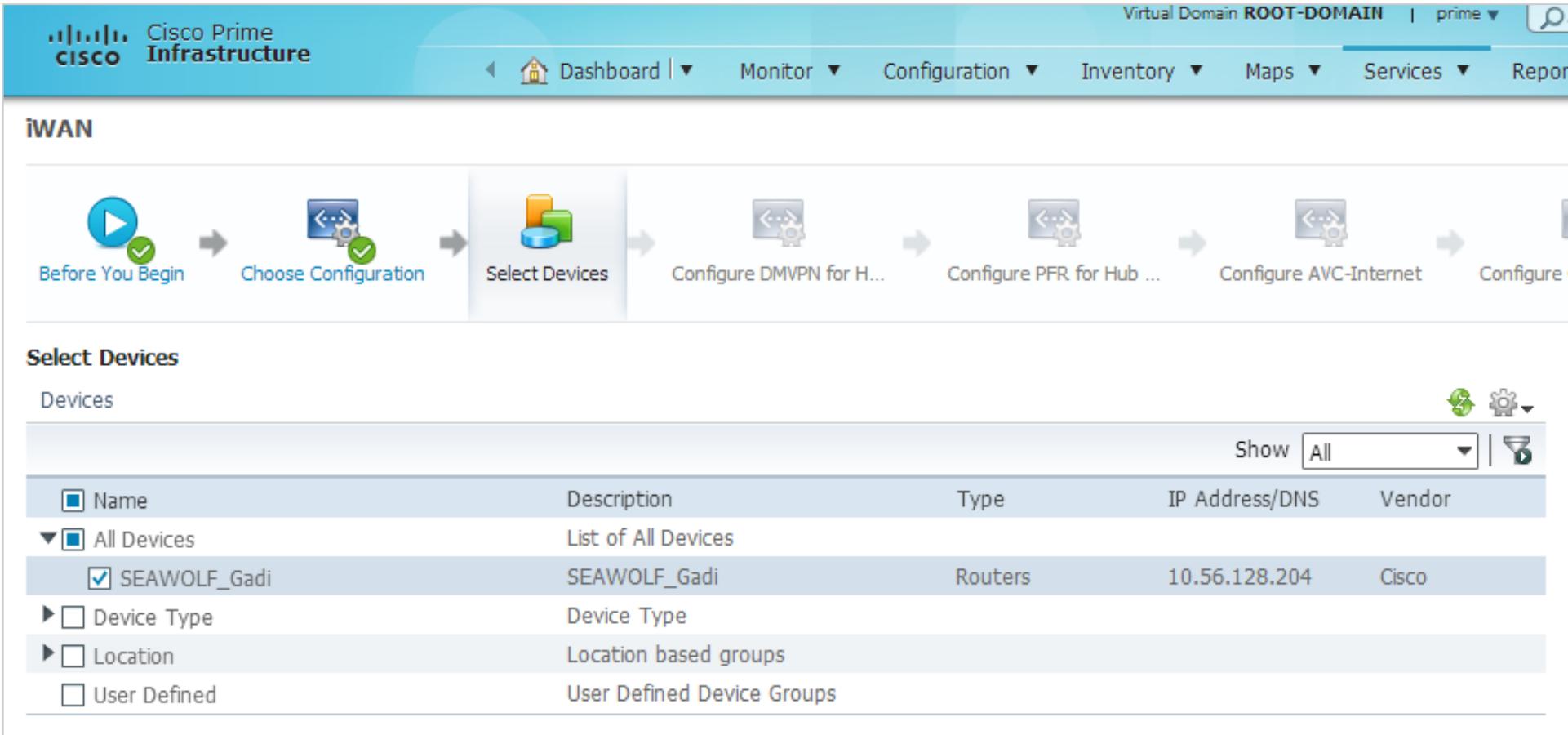
Select the PIN (hub or branch)

Identify the device role

Select the iWAN features to be configured:

- DMVPN
- PFR
- AVC
- QOS

Step 3: Device Selection



The screenshot shows the Cisco Prime Infrastructure interface for iWAN configuration. The top navigation bar includes links for Dashboard, Monitor, Configuration, Inventory, Maps, Services, and Reports. The current step in the workflow is 'Select Devices', which is highlighted in the breadcrumb trail: **Before You Begin** → **Choose Configuration** → **Select Devices** → **Configure DMVPN for H...** → **Configure PFR for Hub ...** → **Configure AVC-Internet** → **Configure**. The main content area is titled 'Select Devices' and displays a table of devices. The table has columns for Name, Description, Type, IP Address/DNS, and Vendor. A checkbox 'All Devices' is selected, showing the entry 'SEAWOLF_Gadi' with details: SEAWOLF_Gadi, Routers, 10.56.128.204, Cisco. Other filter options include Device Type, Location, and User Defined.

Name	Description	Type	IP Address/DNS	Vendor
<input checked="" type="checkbox"/> All Devices	List of All Devices			
<input checked="" type="checkbox"/> SEAWOLF_Gadi	SEAWOLF_Gadi	Routers	10.56.128.204	Cisco
<input type="checkbox"/> Device Type	Device Type			
<input type="checkbox"/> Location	Location based groups			
<input type="checkbox"/> User Defined	User Defined Device Groups			

Select the devices

- Hub device
- Branch devices by location
- Enables configuration of more than one branch

Step 4: DMVPN Configuration

The screenshot shows the Cisco Prime Infrastructure interface for configuring a DMVPN. The top navigation bar includes 'Cisco Prime Infrastructure', 'Dashboard', 'Monitor', 'Configuration', 'Inventory', 'Maps', and 'Search'. The 'Configuration' dropdown is expanded to show 'Virtual Domain ROOT-DOMAIN'. The main content area is titled 'iWAN' and shows a step-by-step process: 'Before You Begin' (green checkmark), 'Choose Configuration' (green checkmark), 'Select Devices' (green checkmark), 'Configure DMVPN for Hub...' (highlighted in light blue), 'Configure PFR for Hub ...', and 'Configure AVC-Inter...'. The 'Devices' table on the left shows 'Name' columns with radio buttons for 'All Selected Devices' and 'SEAWOLF_Gadi' (selected). The 'Feature' tab is active in the configuration pane, showing the following configuration parameters:

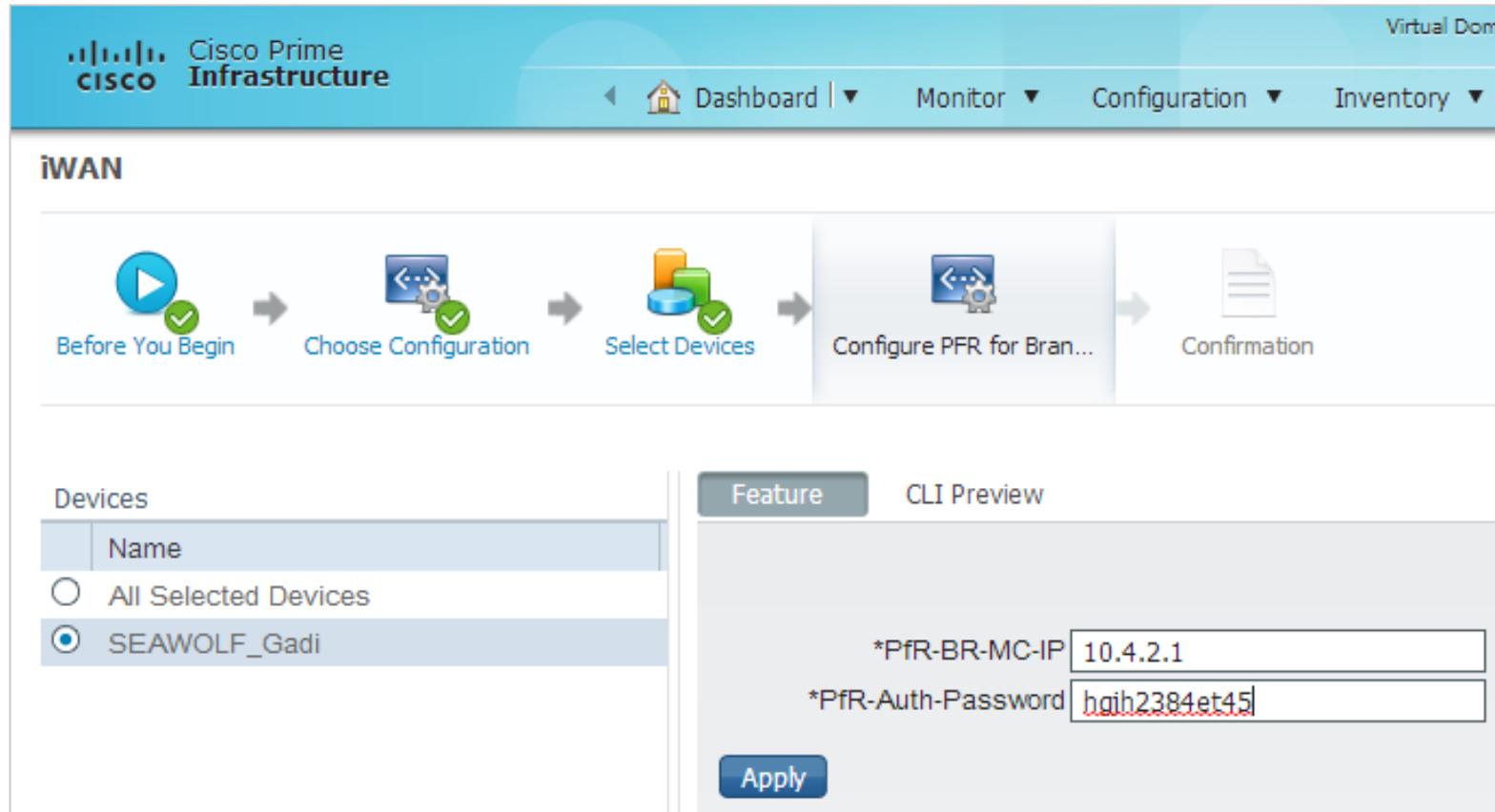
*DMVPN-Preshared-Key	3842fdfd
*DMVPN-GRE-Tunnel-IP	10.3.4.1
*DMVPN-GRE-Tunnel-Subnet-Mask	255.255.255.0
*DMVPN-Physical-Interface	GigabitEthernet0/0/1
*EIGRP_AS-Number	24
*DMVPN-GRE-Tunnel-Subnet	10.3.4.4
*Internet-WAN-Bandwidth-Kbps	1000
*Loopback_IP	10.35.30.1
*Loopback_Mask	255.255.255.0

Apply button is at the bottom of the configuration pane.

DMVPN Configuration

- Can be part of Hub or Spoke configuration

Step 5: PfR Configuration

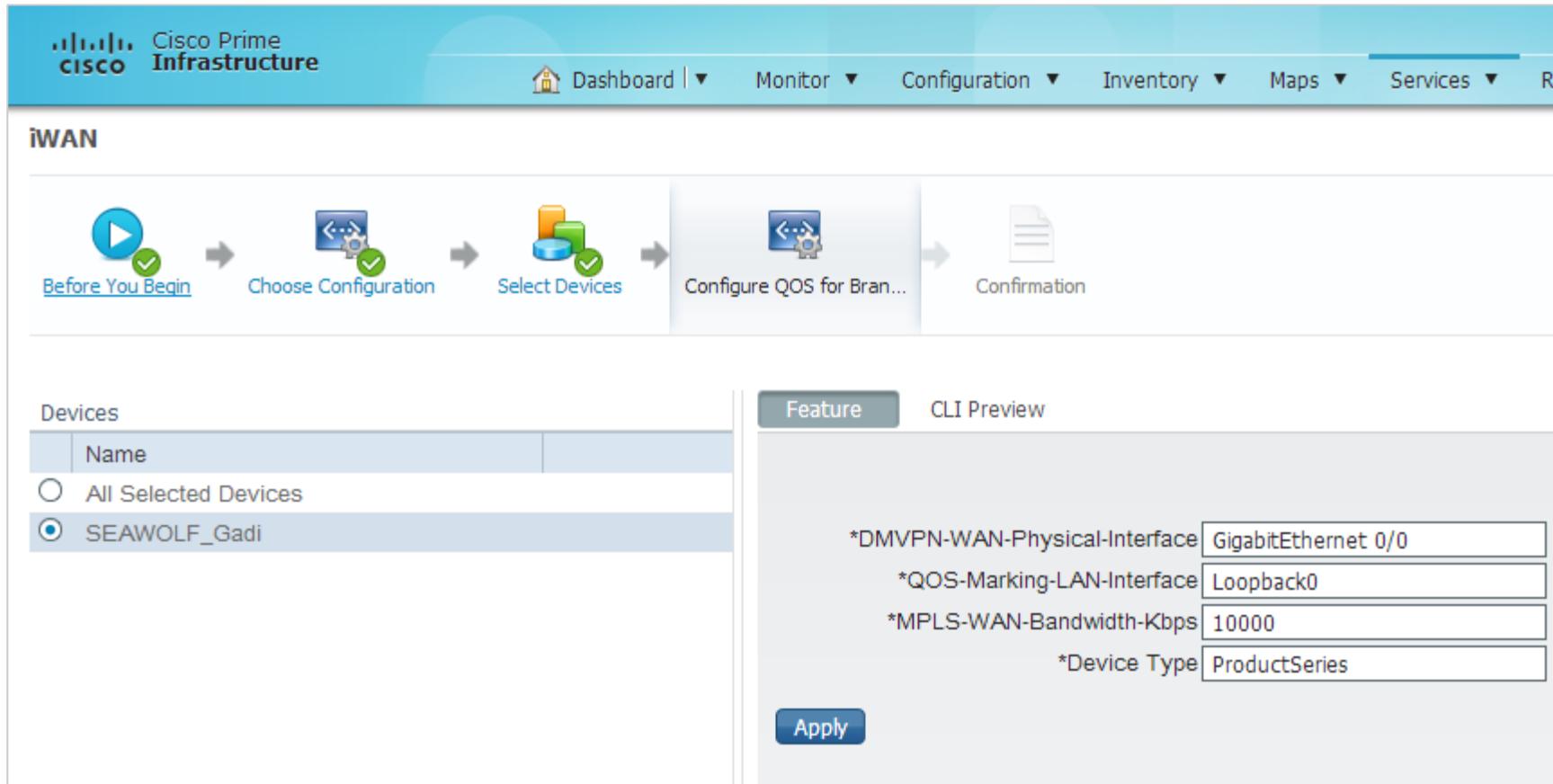


The screenshot shows the Cisco Prime Infrastructure interface for iWAN configuration. The top navigation bar includes 'Cisco Prime Infrastructure', 'Virtual Domain', 'Dashboard', 'Monitor', 'Configuration', and 'Inventory'. The main area is titled 'iWAN' and shows a workflow: 'Before You Begin' (play icon), 'Choose Configuration' (gear icon), 'Select Devices' (server icon), 'Configure PfR for Bran...' (gear icon), and 'Confirmation' (document icon). Below this, a 'Devices' section lists 'Name' with 'All Selected Devices' and 'SEAWOLF_Gadi' (selected). A 'Feature' tab is active, showing configuration fields: '*PfR-BR-MC-IP' (10.4.2.1) and '*PfR-Auth-Password' (hgjh2384et45). An 'Apply' button is at the bottom.

PfR Configuration

- PfR Policy on Hub
- PfR at the spoke with reference to MC
- Out of the Box 3 class model

Step 6: Quality of Service Configuration



The screenshot shows the Cisco Prime Infrastructure interface for configuring Quality of Service (QoS) on an iWAN. The top navigation bar includes links for Dashboard, Monitor, Configuration, Inventory, Maps, Services, and Reports. The main title is 'iWAN'.

The configuration flow is as follows:

- Before You Begin
- Choose Configuration
- Select Devices
- Configure QoS for Bran...
- Confirmation

The 'Configure QoS for Bran...' step is currently active. On the left, a 'Devices' list shows 'All Selected Devices' and 'SEAWOLF_Gadi' (selected). On the right, the 'Feature' tab is selected, showing configuration details for a 'DMVPN-WAN-Physical-Interface' (GigabitEthernet 0/0), 'QOS-Marking-LAN-Interface' (Loopback0), 'MPLS-WAN-Bandwidth-Kbps' (10000), and 'Device Type' (ProductSeries). An 'Apply' button is at the bottom.

QoS Configuration

- On the hub (8 class model)
- On the spoke (8 class model)
- NBAR based classification and shaping

Prime Infrastructure – Nihau Release Plan

Prime Infrastructure – PI Niihau Release*



Platform	Wireless	Wired	Datacenter
Topology - Logical	CUWN - 8.1 – ATE, MS Lync	Complete IWAN support with APIC EM Integration	UCS Service Profiles
Alarm Flexibility	Rogue and Client Management	PfR Monitoring	Nexus - VXLAN
New User Interface	AVC for Flex, Policy based AVC	Converged Access deployment Workflows	UCS-C, UCS-E Performance
Configuration Compliance		Multi-NAM /vNAM deployment	