



Cisco 5520 Wireless LAN Controller Deployment Guide

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Cisco 5520 Wireless LAN Controller Deployment Guide

Introduction

This document introduces the Cisco 5520 Wireless LAN Controller (WLC), and provides general guidelines for its deployment. The purpose of this document is to:

- Provide an overview of the Cisco 5520 WLC, and its deployment within the Cisco Unified Architecture.
- Highlight key service provider features.
- Provide design recommendations and considerations specific to the Cisco 5520 Controller.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document is created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to [Cisco Technical Tips Conventions](#) for more information on document conventions.

Product Overview



The existing Cisco 5500 series controller scales up to 500 APs, 7,000 clients, and 8 Gbps maximum throughput. The explosion of mobile clients in enterprise empowered by bring your own device (BYOD), the deployment of wireless in mission-critical applications,

and the adoption of Wi-Fi in service provider networks enabling new business models require wireless networks to provide larger AP scale, client scale, and higher throughput.

The Cisco Unified Wireless Network Software Release 8.1 addresses these key challenges. Release 8.1 delivers the new Cisco 5520 wireless controller with support for 20 Gbps throughput, 1500 APs, and 20,000 clients to ensure better performance and scale for business critical networks.

The following table captures some of the key hardware capabilities of this new platform.

Table 1: Hardware Capabilities of Cisco 5520 WLC

| Hardware Capabilities | 5520 |
|------------------------------|---------------------------|
| Chassis Height | 1 RU |
| Throughput | 20 Gbps |
| AP Support | 1500 |
| Client Support | 20,000 |
| Data Ports | 2 x SFP+ |
| Storage Temperature | -40°C – 65°C |
| Operating Temperature | 5 – 40°C |
| Operating Humidity | 10 – 90% (non-condensing) |
| Power Options | 770 W AC |

Cisco 5520 Controller Key Attributes

Some of the key attributes of the Cisco 5520 controller are:

- High AP scale (1500 APs in 1 RU)
- High client density (20,000 clients in 1 RU)
- High throughput of 20 Gbps with 1 RU
- Support for 1500 APs, 1500 AP groups, 1500 FlexConnect groups, and up to 100 APs per FlexConnect group
- Support for 4096 VLANs
- 512 Interface Groups
- PMK Cache size of 40,000
- Support for 25,000 RFIDs tracking, and the detection and containment of up to 24,000 rogue APs, and up to 32,000 rogue clients (over and above the RFIDs)
- 3,000 APs per RRM Group

- 3,20,000 AVC Flows
- High Availability with sub-second AP and client SSO
- TrustSec SXP Support
- Support of all AP modes of operation (Local, FlexConnect, Monitor, Rogue Detector, Sniffer, Bridge, and Flex+bridge)
- Right to Use (RTU) licensing for ease of license enablement and ongoing licensing operations

The following table shows the Cisco Enterprise Campus Controllers comparison at a glance:

Table 2: Cisco Enterprise Campus Controllers comparison

| Attributes | 5520 | 5508 | WiSM2 |
|---|---|---|---|
| Deployment type | Enterprise Campus and full service branch | Enterprise Campus and full service branch | Enterprise Campus |
| Operational Modes | All AP modes | All AP modes | All AP modes |
| Maximum Scale | 1500 APs 20,000 clients | 500 APs 7000 clients | 1000 APs 15,000 clients |
| AP Count Range | 1 – 1500 | 12 – 500 | 100 – 1000 |
| Licensing | Right to Use (with EULA) | CISL based | CISL based |
| Connectivity | 2 x 10 G ports | 8 x 1 G ports | Internal connections to the Catalyst Backplanes |
| Power | 770 W AC (optional redundant PSU) | AC (redundant PSU option) | AC/DC Catalyst chassis redundant PSU option |
| Maximum Number of FlexConnect Groups | 1500 | 100 | 100 |
| Maximum Number of APs per FlexConnect Group | 100 | 25 | 25 |
| Maximum Number of Rogue APs Management | 24,000 | 2,000 | 4,000 |
| Maximum Number of Rogue Clients Management | 32,000 | 2500 | 5,000 |
| Maximum Number of RFID | 25,000 | 5,000 | 10,000 |
| Maximum APs per RRM Group | 3,000 | 1,000 | 2,000 |
| Maximum AP Groups | 1500 | 500 | 500 |

| Attributes | 5520 | 5508 | WiSM2 |
|---|--------|--------|--------|
| Maximum Interface Groups | 512 | 64 | 64 |
| Maximum Interfaces per Interface Group | 64 | 64 | 64 |
| Maximum VLANs Supported | 4096 | 512 | 512 |
| Maximum WLANs Supported | 512 | 512 | 512 |
| Fast Secure Roaming Clients/Max PMK Cache | 40,000 | 14,000 | 30,000 |



Note Feature support unless otherwise specified will be the same as in 8510.

AP Platform Support

The Cisco 5520 supports the following access point models:

- 1260, 3500, 600
- 1600, 2600, 3600
- 1700, 2700, 3700
- OEAP 600
- 702I, 702W
- Cisco 891 series integrated services router and Cisco 881 series integrated services router
- 1530, 1552WU, 1550, 1570
- 1040, 1140, 1260 support extended to 8.1 with 8.0 parity

Platform Components

Cisco 5520 WLC Front Panel View



Cisco 5520 wireless LAN controller supports several buttons, LED indicators, and a KVM connector on the front panel. It also includes a power button and Locator LED button, along with the following LEDs: System status, PSU status, Fan status, Network LED, and Temperature LED.

Power On Switch and LED Indicator

A Power Button push switch with integrated LED is located on the front panel.

Table 3: Power On Switch and LED Indicator

| LED Indicator Color | Function | |
|-------------------------------------|--------------------------|----------------|
| Bi-color Yellow (Amber) Green | Card Power Status | |
| | State | Decode |
| | Off | Card Power Off |
| | Amber On | Soft Off |
| | Green On | Card Power On |

Locator Switch and LED Indicator

A Unit Identify push switch with integrated LED is available on the front panel and rear panel . Each press on the button toggles between active and non-active states.

System Status LED Indicator

The system status LED located on the front panel indicates the overall system health.

Table 4: System Status LED Indicator

| LED Indicator Color | Function | |
|-------------------------------------|----------------------|---|
| Bi-color Yellow (Amber) Green | System Status | |
| | State | Decode |
| | Off | Undefined |
| | Green On | Card is in normal operating condition |
| | Amber On | System is in a degraded operational state |
| | Amber Blinking | Critical fault state |

Fan Status LED Indicator

The Fan status LED located on front panel indicates the fan health.

Table 5: Fan Status LED Indicator

| LED Indicator Color | Function | |
|-------------------------------------|-------------------|--|
| Bi-color Yellow (Amber) Green | Fan Status | |
| | State | Decode |
| | Off | Undefined |
| | Green On | Fans are operating and no error condition has been detected |
| | Amber On | Fans are in a degraded operational state <ul style="list-style-type: none"> • One of N fans has a fault |
| | Amber Blinking | Critical fault state <ul style="list-style-type: none"> • Two or more fans has a fault |

Temperature Status LED Indicator

The temperature status LED is located on the front panel and indicates whether or not the system is operating within acceptable temperature limits.

Table 6: Temperature Status LED Indicator

| LED Indicator Color | Function | |
|-------------------------------------|---------------------------|---|
| Bi-color Yellow (Amber) Green | Temperature Status | |
| | State | Decode |
| | Off | Undefined |
| | Green On | System is operating at normal temperature |
| | Amber On | One or more temperature sensors reaches UCR threshold |
| | Amber Blinking | One or more temperature sensors reaches UNR threshold |

Power Supply Status LED Indicator

The power supply status LED is located on the front panel and indicates proper functioning of the power supply.

Table 7: Power Supply Status LED Indicator

| LED Indicator Color | Function | |
|-------------------------------------|-------------------------------|--|
| Bi-color Yellow (Amber) Green | AC Power Supply Status | |
| | State | Decode |
| | Off | Undefined |
| | Green On | AC power supplies are operating and no error condition has been detected |
| | Amber On | One or more power supplies are in a degraded operational state |
| | Amber Blinking | One or more power supplies are in a critical fault state |

Network Link LED Indicator

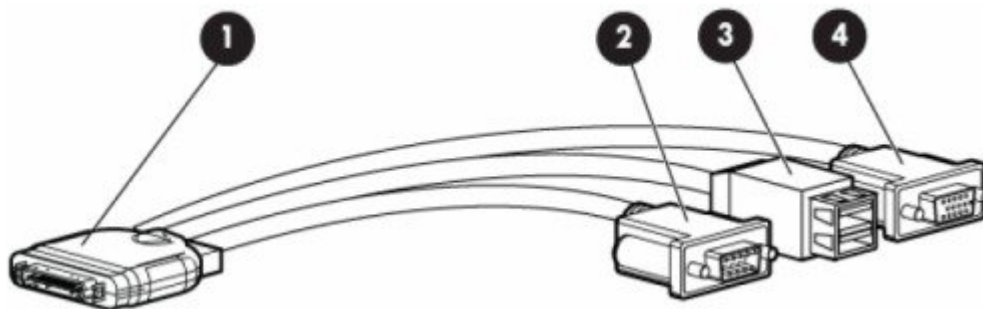
The network LED is located on the front panel and indicates if any of the on-board networking ports are connected and operating.

Table 8: Network Link LED Indicator

| LED Indicator Color | Function | |
|-----------------------|------------------------------|---|
| Single Color Green | Network Link Status | |
| | State | Decode |
| | Off | Undefined |
| | Green On | Link on any of the ports, but no activity |
| Green Blinking | Activity on any of the ports | |

Front Panel KVM Break-out Connector

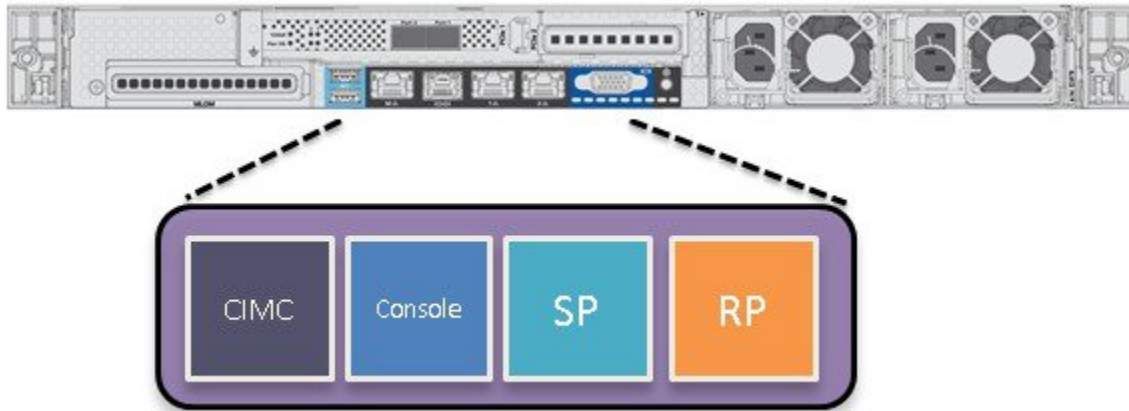
A single female connector provides access to video, two USB ports for keyboard and mouse, and an RS-232C console serial port. An external breakout connector to industry standard interfaces is required. The following figure shows an example cable.



The interfaces for the cable are:

- 1 Front panel KVM/Console connector
- 2 DB9 serial port connector
- 3 Dual Type-A USB 2.0 connectors
- 4 DB15 Video connector

Cisco 5520 WLC Rear Panel View



The rear panel has the following interfaces:

- 1 Two Type A 3.0 USB ports
- 2 IMC port 10/100/1000 Base-T

To setup the CIMC interface:

- Connect the CIMC cable.
- To enable DHCP to set the IP, use the command **imm dhcp enable**.
- If DHCP is not available, use the command **imm address <ip address> <net mask> <gateway ip>**.
- To view the IP and details, use the command **imm summary**.

(Cisco Controller) >imm ?

```
address      IMM Static IP configuration
dhcp         Enable | Disable | Fallback DHCP
restart      Saves settings and Restarts IMM Module
summary      Displays IMM Parameters
username     Configures Login Username for IMM
```

(Cisco Controller) >show imm chassis ?

```
bios         Fetch Chassis BIOS information
current      Fetch Chassis Current information
fan          Fetch Chassis FAN information
mac          Fetch Chassis MAC information
memory       Fetch Chassis Memory information
power-supply Fetch Chassis Power Supply information
sol-info     Fetch Serial Over Lan information
temperature  Fetch Chassis Temperature information
```

**Note**

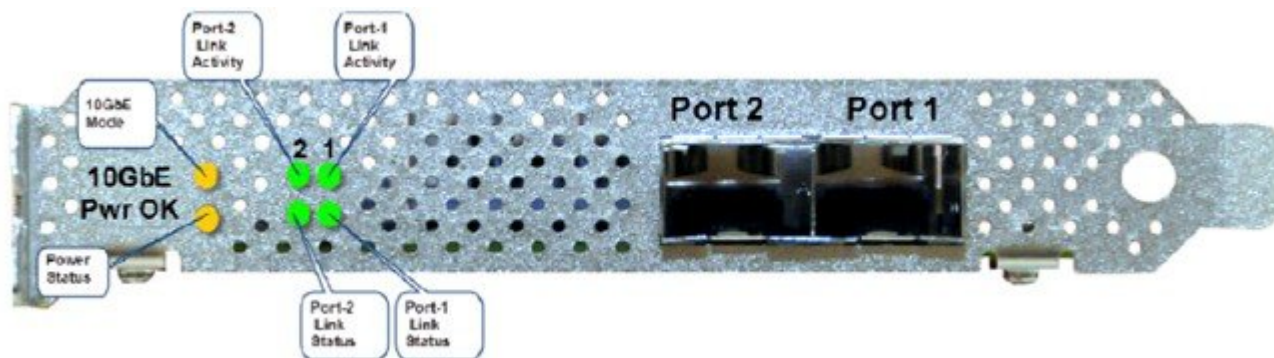
CIMC web interface is for advanced debugging for TAC and escalation use only. Changing of settings in the CIMC by customer can cause adverse impact on controller software and functionality.

- 3 SerialCOM connector — Standard RS-232 Serial COM port using RJ-45 connector
- 4 Ethernet service port (SP) — Management 10/100/1000 Base-T
- 5 Redundancy Port (RP)

| LED Indicator Color | Function | |
|-------------------------------------|--|-----------------------|
| Bi-color Yellow (Amber) Green | Management Interface Port Speed | |
| | State | Decode |
| | Off | Link Speed = 10 Mbps |
| | Amber On | Link Speed = 100 Mbps |
| | Green On | Link Speed = 1 Gbps |

| LED Indicator Color | Function | |
|-------------------------------------|---|-----------------|
| Bi-color Yellow (Amber) Green | Management Interface Port Status | |
| | State | Decode |
| | Off | No Link |
| | Green On | Link |
| | Blinking | Traffic Present |

- 6 VGA Connector — Rear panel has a standard VGA port using a female D-Sub-15 Connector
- 7 ID Switch and LED
- 8 Two 1/10 G Management and Network ports



| LED | Functional Definition |
|----------------------|--|
| Pwr OK | LED: (Amber) On indicates power is good |
| 10 G | LED: (Amber) On indicates 10 G mode LED: Off indicates 1 G mode |
| Port-n Link Status | LED: (Green) On indicates link up status |
| Port-n Link Activity | LED: (Green) blinking indicates link activity |

Switching Between 10 G and 1 G

- If there is nothing installed in port 1, the board will be configured for 10 G mode by default. Therefore, to switch to 1 G mode, an SFP module must be installed in port 1 and the system needs to be rebooted.
- Conversely, if an SFP module is installed and the user wants to switch to 4 x 10 G mode, then an SFP+ module must be installed in port 1 and the WLC rebooted.
- Thus, Online Insertion and Removal (OIR) of SFP and SFP+ between 10 G and 1 G is not possible.
- OIR of 10 G to 10 G and 1 G and 1 G is possible.



Note It is recommended to have all ports as either 10 G or 1 G. In case they are different, port 1 SFP determines the mode of operation and functionality on the other SFPs may not work.

SFP Support

Network ports for 5520 WLC support the following Cisco SFP/SFP+ modules:

- GLC-T
- SFP-10G-SR
- SFP-10G-LR

- SFP-10G-LRM
- SFP-H10GB-CU1M
- SFP-H10GB-CU2M
- SFP-H10GB-CU2-5M
- SFP-H10GB-CU3M
- SFP-H10GB-CU5M
- SFP-H10GB-ACU7M
- SFP-H10GB-ACU10M
- SFP-10G-AOC7M
- SFP-H10GB-CU1-5M
- SFP-10G-AOC3M
- SFP-10G-AOC1M
- SFP-10G-AOC2M
- SFP-10G-AOC5M
- SFP-10G-AOC10M

Image Specifications

Cisco 5520 WLC supports all the features of release 8.1.

Feature Not Supported on 5520 Controller Platform

The following features are not supported on the 5520 controller platform:

- Local Authentication (where the controller acts as the authentication server)
- Internal DHCP server
- Wired Guest

Fault Tolerance Capability

The Cisco 5520 supports the stateless N+1 redundancy model . The N+1 HA architecture provides redundancy for controllers across geographically separate data centers with low cost of deployment. A single backup controller can be used to provide backup for multiple primary WLCs.

For more information on this model of redundancy, refer to

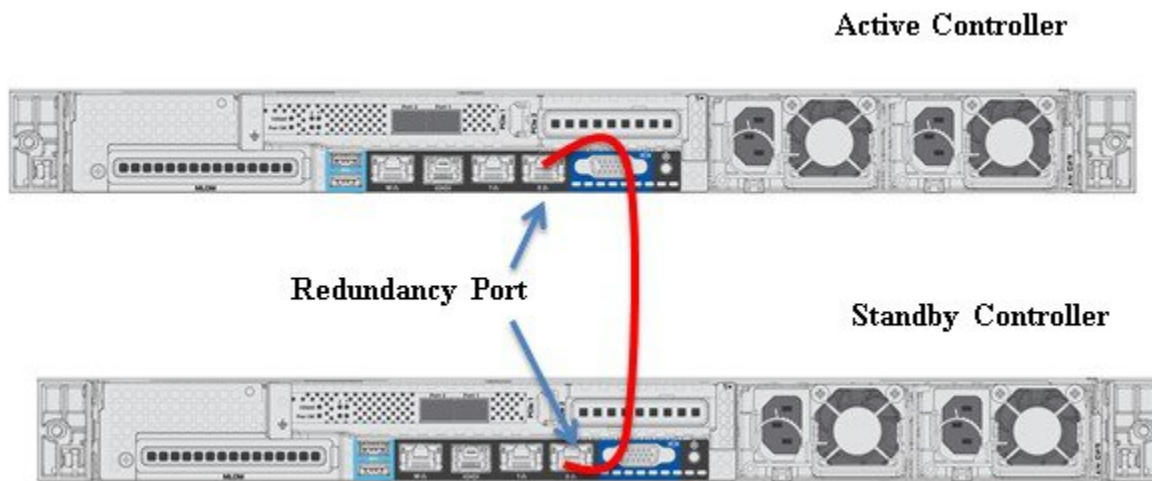
http://www.cisco.com/c/en/us/td/docs/wireless/technology/hi_avail/N1_High_Availability_Deployment_Guide/N1_HA_Overview.html.

AP and Client SSO

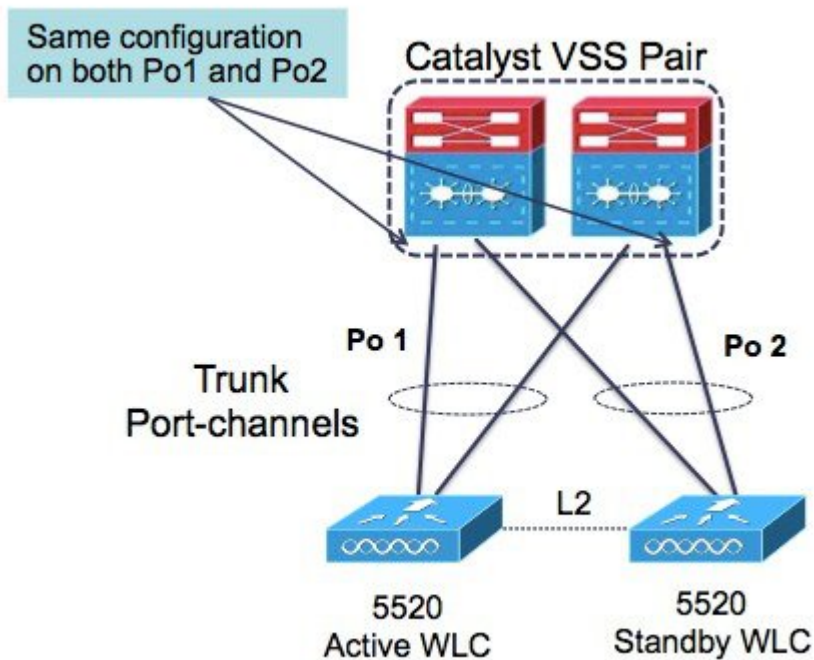
High Availability Stateful Switchover (SSO) model provides a Box-to-Box redundancy with one controller in active state and a second controller in hot standby state. The SSO model monitors the health of the active controller via a redundant (HA) port. Cisco 5520 wireless LAN controller has a failover RP Port.

The configuration on the active controller is synced to the standby controller via the redundant port. In HA, both controllers share the same set of configuration including the IP address of the management interface. The AP's CAPWAP state (for APs in RUN state) is also synced. As a result, APs do not go into Discovery state when the active controller fails. Furthermore, a client's information is synced to the standby WLC when the client associates to the WLC or the client's parameters change. Fully authenticated clients, that is, the ones in Run state, are synced to the standby. Thus, client re-association is avoided on switchover, making the failover seamless for the APs as well as for the clients, resulting in zero client service downtime and no SSID outage.

For more information on the SSO feature and the supported topologies, refer to the [High Availability deployment Guide](#).



Connecting Cisco 5520 SSO Pair to the Wired Network



It is recommended to connect to a VSS pair and spread the links in each port-channel between the two physical switches to prevent a WLC switchover upon a failure of one of the VSS switches.

Customer Replaceable Units

Cisco 5520 wireless LAN controller has a minimal amount of separate orderable items, including all of the following:

- Power supply
- SSD Hard Disk Drive (HDD)
- Option to add a redundant power supply on the Cisco 5520 WLC



Note The power supply units are field replaceable.

Link Aggregation (LAG)

A single LAG across the 2 x 10 G interfaces is supported in software versions 8.1 and later. LACP and PAgP are not supported on the controller.

Inter-Platform Mobility and Guest Anchor Support

Guest anchor capability with:

- Cisco WLC 5508 / 8510 / 7510 / WISM2 running as a foreign controller (EOIP Tunnel)
- Cisco 5520 / 8540 WLC running as a foreign controller (EOIP Tunnel)
- Cisco 5760 WLC running as a foreign controller with new mobility turned on (CAPWAP Tunnel)

Foreign controller to a guest anchor which is a:

- Cisco WLC 5508 / 8510 / 7510 / WISM2 (EOIP Tunnel)
- Cisco 5520 / 8540 WLC (EOIP Tunnel)
- Cisco 5760 WLC with new mobility turned on (CAPWAP Tunnel)

CAPWAP has native management plane encryption and optional data payload encryption.

Infrastructure Multicast

Multicast support is enabled in the Cisco 5520 controller with the following restrictions:

- If all APs on the 5520 controller are configured in Local mode, Multicast-Multicast will be the default mode and all features are supported (for example, VideoStream).

If the APs are configured as a mix of Local mode and FlexConnect mode:

- If IPv6 is required on the FlexConnect APs:
 - Disable Global Multicast Mode and change to Multicast-Unicast mode.
 - IPv6 / GARP will work on FlexConnect and Local mode APs, but Multicast data and the VideoStream feature will be disabled.
- IPv6 / GARP is not required on FlexConnect APs:
 - Change the mode to Multicast-Multicast and enable Global Multicast Mode and IGMP / MLD snooping.
 - IPv6, GARP, Multicast Data, and VideoStream are supported on local mode APs.

New Mobility and MC Support

Cisco 5520 supports the new mobility functionality to be compatible with inter-platform IRCM and guest anchor functionality. This platform will not function as an MC.

Look and Feel of the Cisco 5520 Wireless LAN Controller

The Cisco 5520 controller enables console redirect by default with baud rate 9600, simulating a VT100 terminal with no flow control. The 5520 Controller has the same boot sequence as existing controller platforms.

Boot Up and Initial Configuration

- Initial Boot Sequence
- Boot Options
- Loading the OS and Boot Loader
- Loading Controller Services

Initial Controller Configuration

Configuration Wizard — As with all other controller platforms, initial boot up requires configuration using the Wizard menu.

WLAN Express Setup — As with all other controller platforms, 5520 WLC also supports the Express WLAN Setup over wired Ethernet connection.

The screenshot shows a configuration wizard titled "1 Set Up Your Controller". The interface includes several input fields for system configuration:

- System Name:** A text box containing "xxx".
- Country:** A dropdown menu set to "United States (US)".
- Date & Time:** Two adjacent fields showing "01/22/2015" and "14:36:16".
- Timezone:** A dropdown menu set to "Eastern Time (US and Canada)".
- NTP Server:** A text box containing "0.0.0.0 (optional)".
- Management IP Address:** A text box containing "10.70.0.75".
- Subnet Mask:** A text box containing "255.255.255.0".
- Default Gateway:** A text box containing "10.70.0.1".
- Management VLAN ID:** A text box containing "0".

At the bottom of the form are two buttons: "Back" and "Next".

1 Set Up Your Controller

2 Create Your Wireless Networks

Employee Network

Network Name

Security

Pass Phrase


Confirm Pass Phrase

VLAN

DHCP Server Address

Guest Network

Back Next

 **Guest Network**

Network Name ?

Security ?

VLAN ?

VLAN IP Address

VLAN Subnet Mask

VLAN Default Gateway

VLAN ID ?

DHCP Server Address

3 Advanced Setting

1 Set Up Your Controller

2 Create Your Wireless Networks

3 Advanced Setting

RF Parameter Optimization

Client Density Low Typical High

Traffic Type

Virtual IP Address

Local Mobility Group

Service Port Interface

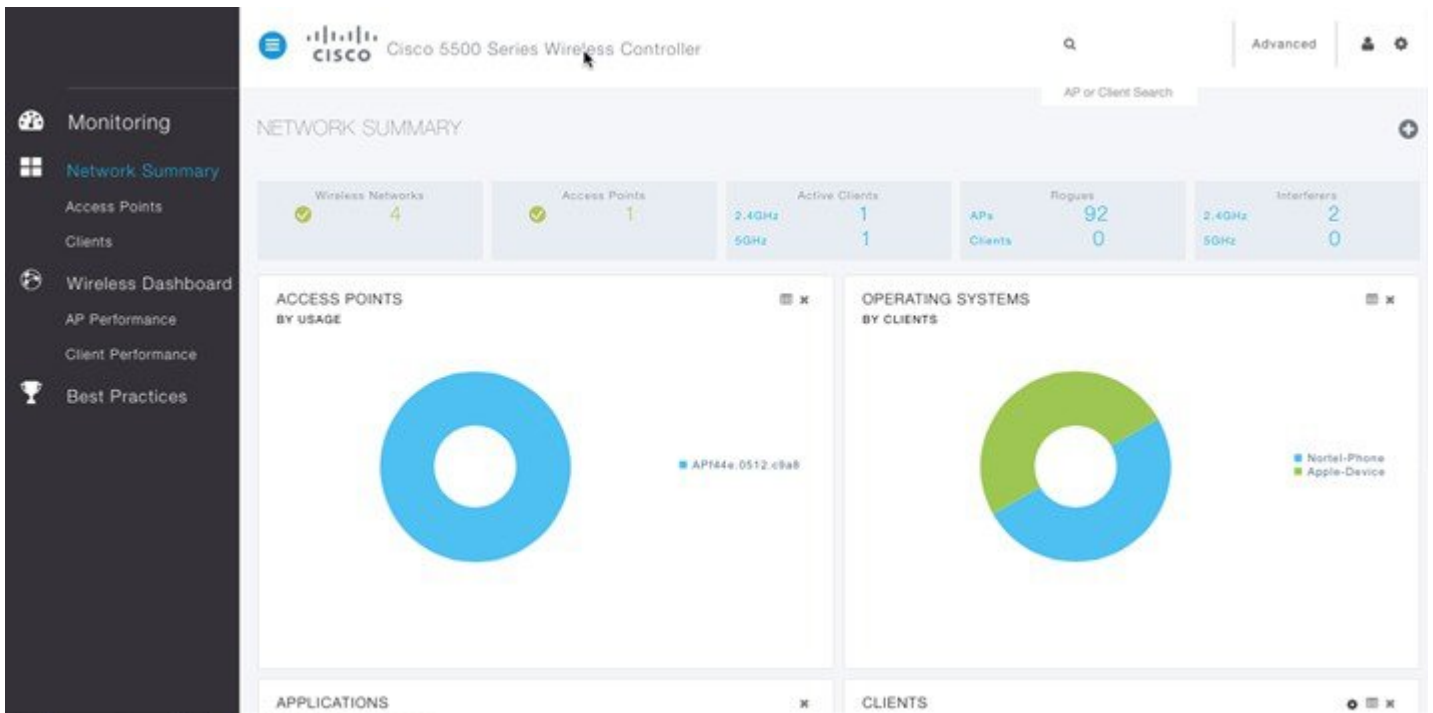
Service Port IP Address

Service Port Netmask

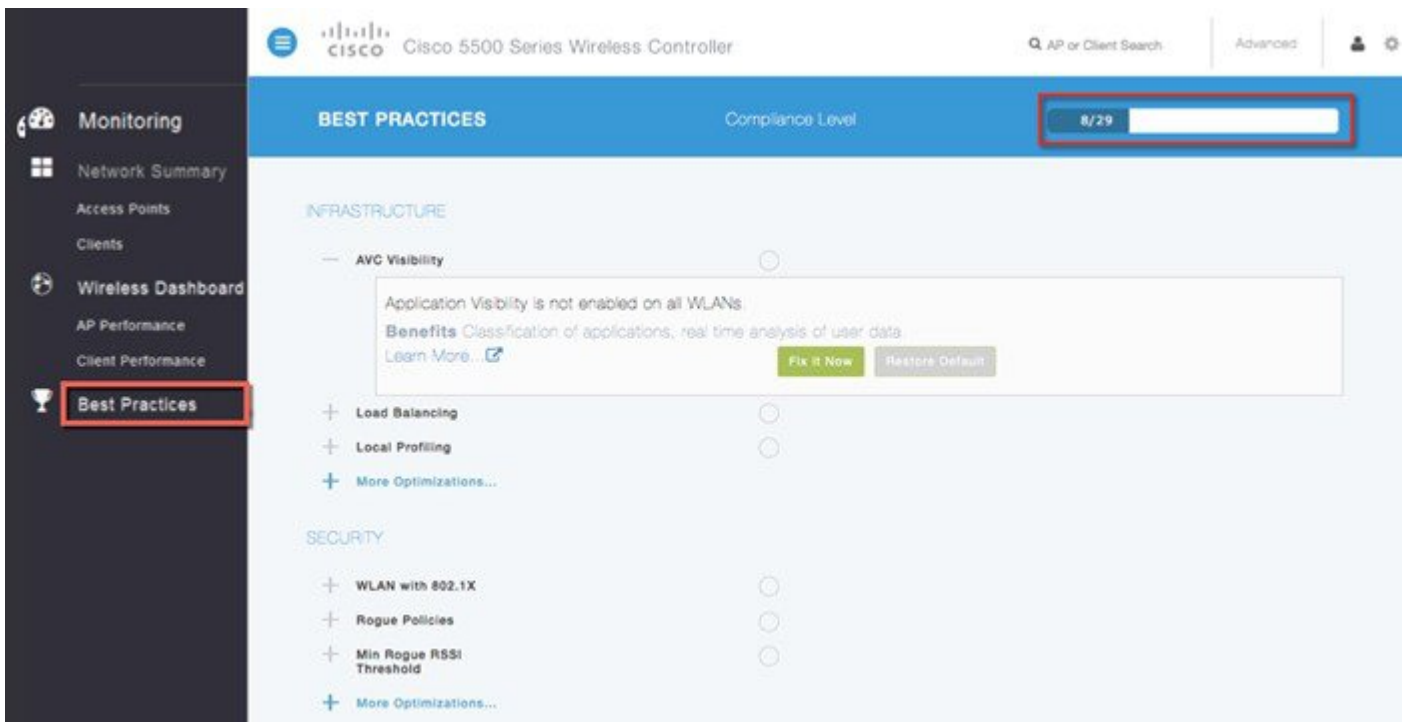
Back Next

Monitoring and Best Practices

This platform supports the Monitoring Dashboard and the Upgrade audit workflow view.



The following screenshot is the Best Practices Audit workflow page.



Management Web UI

The management web interface has the same look and feel as existing Cisco wireless LAN controllers.

Save Configuration | Eng | Logout | Refresh | Home

MONITOR | WLANs | CONTROLLER | WIRELESS | SECURITY | MANAGEMENT | COMMANDS | HELP | FEEDBACK

Monitor

- Summary
- Access Points
- Cisco CleanAir
- Statistics
- CDP
- Rogues
- Clients
- Sleeping Clients
- Multicast
- Applications
- Lync
- Local Profiling

Summary

1500 Access Points Supported

Cisco 5520 Wireless Controller

Controller Summary

| | |
|-------------------------|---|
| Management IP Address | 9.8.94.195 , 1/128 |
| Service Port IP Address | 10.104.171.128 , 1/128 |
| Software Version | 8.1.10.178 |
| Emergency Image Version | 8.1.10.72 |
| System Name | pata1-srlnv3 |
| Up Time | 0 days, 0 hours, 1 minutes |
| System Time | Thu Jan 14 01:53:02 2010 |
| Redundancy Mode | Disabled |
| Internal Temperature | +27 C |
| 802.11a Network State | Enabled |
| 802.11b/g Network State | Enabled |
| Local Mobility Group | srlnv3-vm |
| CPU(s) Usage | 0% |
| Individual CPU Usage | 0%/0%, 0%/0%, 0%/0%, 0%/0%, 0%/0%, 0%/1%, 0%/0% |
| Memory Usage | 7% |

Rogue Summary

| | | |
|-------------------------|---|------------------------|
| Active Rogue APs | 0 | Detail |
| Active Rogue Clients | 0 | Detail |
| Adhoc Rogues | 0 | Detail |
| Rogues on Wired Network | 0 | |

Top WLANs

| Profile Name | # of Clients |
|--------------|--------------|
| | |

Most Recent Traps

Interface: management IPv6 address status =REACHABLE, IPv6 Address =fe80::f64e:5ff:fe9f:1715
Cold Start:
Interface: service-port IPv6 address status =REACHABLE, IPv6 Address =fe80::f64e:5ff:fe9f:171a
Power Supply Status: Power supply 2 is OFF.
A RF group member has been added on 802.11a network on controller with IP 9.8.94.195/MAC f4:4e:05:9f:17:15
[View All](#)

Top Applications

| Application Name | Packet Count | Byte Count |
|------------------|--------------|------------|
| | | |

This page refreshes every 30 seconds.

Access Point Summary

| | Total | Up | Down | |
|---------------------|-------|----|------|------------------------|
| 802.11a/n/ac Radios | 0 | 0 | 0 | Detail |
| 802.11b/g/n Radios | 0 | 0 | 0 | Detail |
| Dual-Band Radios | 0 | 0 | 0 | Detail |
| All APs | 0 | 0 | 0 | Detail |

Client Summary

| | | |
|------------------|---|------------------------|
| Current Clients | 0 | Detail |
| Excluded Clients | 0 | Detail |
| Disabled Clients | 0 | Detail |

The screenshot shows the Cisco Prime Infrastructure web interface. The top navigation bar includes links for MONITOR, WLANs, CONTROLLER, WIRELESS, SECURITY, MANAGEMENT, COMMANDS, HELP, and FEEDBACK. The left sidebar lists various configuration categories under the 'Controller' heading, with 'Inventory' selected. The main content area displays the 'Inventory' page for a controller, showing a table of attributes:

| | |
|---------------------------------|------------------------------------|
| Model No. | AIR-CT5520-K9 |
| Burned-in MAC Address | F4:4E:05:9F:20:C7 |
| Maximum number of APs supported | 1500 |
| FIPS Prerequisite Mode | Disable |
| WLANCC Prerequisite Mode | Disable |
| UCAPL Prerequisite Mode | Disable |
| UDI : | |
| Product Identifier Description | AIR-CT5520-K9 |
| Version Identifier Description | V01 |
| Serial Number | FCH1839V2GQ |
| Entity Name | Chassis |
| Entity Description | Cisco 5520 Wireless LAN Controller |

Licensing

5520 wireless LAN controller supports Right to Use (RTU) licensing model similar to the Cisco Flex 7500 and Cisco 8500 series controllers. This is an Honor-based licensing scheme that allows AP licenses to be enabled on supported controllers with End User License Agreement (EULA) acceptance. The RTU license scheme simplifies addition, deletion, or the transfer of AP adder licenses in the field by eliminating the need for an additional step, additional tools, or access to Cisco.com for PAK license or return materials authorization (RMA) transfers.

Evaluation licenses are valid for 90 days. Notifications will be generated to inform you to buy a permanent license starting 15 days prior to the evaluation license expiration.

If you have more APs connected than those purchased, the licensing status for the controller tracked within the Cisco Prime Infrastructure will turn red.

For more information on the RTU License model, refer to the [Cisco Right to Use Licensing \(RTU\)](#) document.

License Types

These are the three license types:

- **Permanent licenses**—The AP count is programmed into NVM while manufacturing; this is also referred to as Base AP count licenses. These licenses are transferable.
- **Adder access point count licenses**—Can be activated through the acceptance of the EULA. These licenses are transferable.
- **Evaluation licenses**—Used for demo and/or trial periods, are valid for 90 days, and default to the full capacity of the controller. The evaluation license can be activated at any time using a CLI command.

Licensing Model Features

- Two Base Bundle SKUs: AIR-CT5520-K9 and AIR-CT5520-50-K9
- Portability of licenses between 5520 and 8540 wireless LAN controllers
- No separate HA-SKU UDI

Table 9: 5520 – Primary SKUs / PIDs

| SKU / PID | Description | Comments |
|------------------|---|------------------|
| AIR-CT5520-K9 | Cisco 5520 wireless controller w/rack mounting kit | Base and HA SKU |
| AIR-CT5520-50-K9 | Cisco 5520 wireless controller supporting 50 APs w/rack kit | 50 AP Bundle SKU |
| LIC-CT5520-UPG | Top level SKU for 5520 AP adder licenses | — |
| LIC-CT5520-1A | Cisco 5520 wireless controller 1 AP adder license | — |



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