

Resetting the LWAPP Configuration on a Lightweight AP (LAP)

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Introduction

This document explains how to manually set or reset the Lightweight Access Point Protocol (LWAPP) static configuration information on a Lightweight Access Point (LAP).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Basic knowledge of the configuration of LAPs and Cisco WLCs
- Basic knowledge of LWAPP/CAPWAP

Components Used

The information in this document is based on these software and hardware versions:

- Cisco 4400 WLC that runs firmware release 4.1.181.0
- Cisco 4400 WLC that runs firmware release 7.0.116.0
- Cisco Aironet 1240AG Series AP that runs version 12.3(7)JX5

The information in this document was 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.

Manually Configuring the LAP

In a new installation, when a LAP is unable to find a WLC using the discovery algorithms, you can statically configure the information necessary to join a controller via the console port and the AP's CLI. Refer to Lightweight AP (LAP) Registration to a Wireless LAN Controller (WLC) for more information on the WLC discovery algorithms and the LAP registration process.

In order to manually configure static information on a LAP using the AP CLI interface, you can use these EXEC mode CLI commands:

```
AP#capwap ap ip address <IP address> <subnet mask>

AP#capwap ap ip default-gateway <IP-address>

AP#capwap ap controller ip address <IP-address>

AP#capwap ap hostname <name>
      (optional)
```

Note: For LAPs that run LWAPP, replace *capwap* with *lwapp* in the previous commands.

You must issue these commands while in enable mode. The default enable password is Cisco.

The static information configured with the CLI commands is used by the AP to join a controller. After joining the controller, the user can configure new settings on the LAP via the controller.

Resetting the LWAPP Configuration on the LAP

When you move your AP to a different location in your network and the LAP cannot join the previous WLC, or if you want to manually reconfigure the AP to join another WLC, you have to enter the new controller information in order to allow your AP to associate with a different controller.

Behavior in WLC release prior to 6.0.188.0

In WLC releases prior to 6.0.188.0, once your LAP successfully registers with the WLC, the static LWAPP configuration commands (discussed in the previous section) are locked out and are no longer accessible.

If you enter the **clear lwapp private-config** command, you might see this error message:

```
AP0017.5922.f384#clear lwapp private-config
ERROR!!! Command is disabled.
```

This error message indicates that the static configuration commands are locked out because either:

- This command was entered while the LAP is registered to a controller.
- The LAP was previously registered to a WLC, but the username/password was not changed from the default.

In order to re-enable the commands, you must have set the username and password while the LAP was joined to the previous controller.

When the LAP is registered to a controller, use this controller CLI command to set the AP's username and password:

```
config ap username <username> password <password> <ALL / AP Name>
```

Once you are into enable mode by using the password previously configured, you can use this command from the LAP CLI to clear the LWAPP configuration on the LAP:

```
clear lwapp private-config
```

This allows you to use the AP LWAPP static configuration commands again.

Here is an example:

```
Enable
  (enter password)

AP1240#clear lwapp private-config
AP1240#lwapp ap hostname AP1240
AP1240#lwapp ap ip address 10.77.244.199 255.255.255.224
AP1240#lwapp ap ip default-gateway 10.77.244.220
AP1240#lwapp ap controller ip address 172.16.1.50
```

Behavior in WLC release 6.0.188.0 and later

In versions 6.0.188.0 and later, the manual configuration commands to configure the Lightweight Access Point is enabled regardless of feature set or join status, from a telnet/ssh session as well as from the console.

This means, the static configuration commands work even when the LAP is registered to a controller or even if the username/password was not changed from the default while the LAP was previously registered to a controller.

Reset LAP through WLC

In addition to the previous methods, you can also reset the configuration of the LAP from the WLC. When the LAP is registered to the controller, you can use these commands from the controller in order to reset the configuration on the LAP:

- Use the **clear ap-config <ap-name> keep-ip-config** command in order to clear all of the AP's configurations to default, except for the AP's static IP configuration.
- Use the **clear ap-config <ap-name>** command in order to clear all of the AP's configurations to default, which includes the AP's static IP configuration.

How to Disable the Reset Button on the AP Registered to the Controller

In order to disable the reset button on the AP registered to the controller, use this CLI command:

```
(Cisco Controller) >config ap rst-button disable <AP NAME>
```

Verify

You can use the **show capwap ip config** command in enable mode to view the CAPWAP configuration present on the LAP.

Here is an example:

```
AP1240#show capwap ip config

LWAPP Static IP Configuration
IP Address      10.77.244.199
IP netmask     255.255.255.224
Default Gateway 10.77.244.220
Primary Controller 172.16.1.50
```

Troubleshoot

You can use this **debug** command on the LAP with a console port to troubleshoot the static configuration:

- **debug ip udp**

Note: If the AP has no console port, it is necessary to take a wired sniffer trace of the port that the LAP is plugged into to see what packets are being received by and transmitted to the LAP.

You can use these debug commands in order to monitor the discovery process through the WLC CLI.

- debug capwap events enable
- debug capwap packet enable

Related Information

- **Cisco Wireless LAN Controller Configuration Guide, Release 7.0.116.0**
- **DHCP OPTION 43 for Lightweight Cisco Aironet Access Points Configuration Example**
- **Wireless LAN Controller and Lightweight Access Point Basic Configuration Example**
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