



# Enabling Syslog Messages in Access Points and Controller for Syslog Server

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## Information About Enabling Syslog Messages in Access Points and Embedded Wireless Controller for Syslog Server



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**Note** You will be able to view the Syslog server messages only after an AP join.

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The Syslog server on access points and embedded wireless controller has many levels and facilities.

The following are the Syslog levels:

- Emergencies
- Alerts
- Critical
- Errors
- Warnings
- Notifications
- Informational
- Debugging

The following options are available for the Syslog facility:

- auth—Authorization system.
- cron—Cron/ at facility.
- daemon—System daemons.
- kern—Kernel.
- local0—Local use.
- local1—Local use.
- local2—Local use.
- local3—Local use.
- local4—Local use.
- local5—Local use.
- local6—Local use.
- local7—Local use.
- lpr—Line printer system.
- mail—Mail system.
- news—USENET news.
- sys10—System use.
- sys11—System use.
- sys12—System use.
- sys13—System use.
- sys14—System use.
- sys9—System use.
- syslog—Syslog itself.
- user—User process.
- uucp—Unix-to-Unix copy system.

## Configuring Syslog Server for an AP Profile

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>configure terminal</b>  <b>Example:</b> Device# configure terminal	Enters global configuration mode.

	Command or Action	Purpose
<b>Step 2</b>	<b>ap profile</b> <i>ap-profile</i> <b>Example:</b> Device(config)# <b>ap profile xyz-ap-profile</b>	Configures an AP profile and enters the AP profile configuration mode.
<b>Step 3</b>	<b>syslog facility</b> <b>Example:</b> Device(config-ap-profile)# <b>syslog facility</b>	Configures the facility parameter for Syslog messages.
<b>Step 4</b>	<b>syslog host</b> <i>ip-address</i> <b>Example:</b> Device(config-ap-profile)# <b>syslog host 9.3.72.1</b>	Configures the Syslog server IP address and parameters.
<b>Step 5</b>	<b>syslog level</b> { <b>alerts</b>   <b>critical</b>   <b>debugging</b>   <b>emergencies</b>   <b>errors</b>   <b>informational</b>   <b>notifications</b>   <b>warnings</b> } <b>Example:</b> Device(config-ap-profile)# <b>syslog level</b>	Configures the Syslog server logging level. The following are the Syslog server logging levels: <ul style="list-style-type: none"> <li>• <b>emergencies</b>—Signifies severity 0. Implies that the system is not usable.</li> <li>• <b>alerts</b>—Signifies severity 1. Implies that an immediate action is required.</li> <li>• <b>critical</b>—Signifies severity 2. Implies critical conditions.</li> <li>• <b>errors</b>—Signifies severity 3. Implies error conditions.</li> <li>• <b>warnings</b>—Signifies severity 4. Implies warning conditions.</li> <li>• <b>notifications</b>—Signifies severity 5. Implies normal but significant conditions.</li> <li>• <b>informational</b>—Signifies severity 6. Implies informational messages.</li> <li>• <b>debugging</b>—Signifies severity 7. Implies debugging messages.</li> </ul>

	Command or Action	Purpose
		<p><b>Note</b> To know the number of Syslog levels supported, you need to select a Syslog level. Once a Syslog level is selected, all the levels below it are also enabled.</p> <p>If you enable <i>critical</i> Syslog level then all levels below it are also enabled. So, all three of them, namely, <i>critical</i>, <i>alerts</i>, and <i>emergencies</i> are enabled.</p>
<b>Step 6</b>	<p><b>end</b></p> <p><b>Example:</b></p> <pre>Device(config-ap-profile)# end</pre>	Returns to privileged EXEC mode. Alternatively, you can also press <b>Ctrl-Z</b> to exit global configuration mode.

## Configuring Syslog Server for the Controller (GUI)

### Procedure

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- Step 1** Choose **Troubleshooting > Logs**.
- Step 2** Click **Manage Syslog Servers** button.
- Step 3** In **Log Level Settings**, from the **Syslog** drop-down list, choose a security level.
- Step 4** From the **Message Console** drop-down list, choose a logging level.
- Step 5** In **Message Buffer Configuration**, from the **Level** drop-down list, choose a server logging level.
- Step 6** In **IP Configuration** settings, click **Add**.
- Step 7** Choose the **Server Type**, from the **IPv4 / IPv6** or **FQDN** option.
- Step 8** For Server Type **IPv4 / IPv6**, enter the **IPv4 / IPv6 Server Address**. For Server Type **FQDN**, enter the **Host Name**, choose the IP type and the appropriate **VRF Name** from the drop-down lists.
- To delete a syslog server, click 'x' next to the appropriate server entry, under the **Remove** column.
- Note** When creating a host name, spaces are not allowed.
- Step 9** Click **Apply to Device**.
- Note** When you click on **Apply to Device**, the changes are configured. If you click on **Cancel**, the configurations are discarded.
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# Configuring Syslog Server for the Embedded Wireless Controller

## Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>configure terminal</b> <b>Example:</b> Device# <code>configure terminal</code>	Enters global configuration mode.
<b>Step 2</b>	<b>logging host {hostname   ipv6}</b> <b>Example:</b> Device(config)# <code>logging host 124.3.52.62</code>	Enables Syslog server IP address and parameters.
<b>Step 3</b>	<b>logging facility {auth   cron   daemon   kern   local0   local1   local2   local3   local4   local5   local6   local7   lpr   mail   news   sys10   sys11   sys12   sys13   sys14   sys9   syslog   user   uucp}</b> <b>Example:</b> Device(config)# <code>logging facility syslog</code>	Enables facility parameter for the Syslog messages.  You can enable the following facility parameter for the Syslog messages: <ul style="list-style-type: none"> <li>• <b>auth</b>—Authorization system.</li> <li>• <b>cron</b>—Cron facility.</li> <li>• <b>daemon</b>—System daemons.</li> <li>• <b>kern</b>—Kernel.</li> <li>• <b>local0</b> to <b>local7</b>—Local use.</li> <li>• <b>lpr</b>—Line printer system.</li> <li>• <b>mail</b>—Mail system.</li> <li>• <b>news</b>—USENET news.</li> <li>• <b>sys10</b> to <b>sys14</b> and <b>sys9</b>—System use.</li> <li>• <b>syslog</b>—Syslog itself.</li> <li>• <b>user</b>—User process.</li> <li>• <b>uucp</b>—Unix-to-Unix copy system.</li> </ul>
<b>Step 4</b>	<b>logging trap {severity-level   alerts   critical   debugging   emergencies   errors   informational   notifications   warnings}</b> <b>Example:</b> Device(config)# <code>logging trap 2</code>	Enables Syslog server logging level.  <i>severity-level</i> - Refers to the logging severity level. The valid range is from 0 to 7.  The following are the Syslog server logging levels: <ul style="list-style-type: none"> <li>• <b>emergencies</b>—Signifies severity 0. Implies that the system is not usable.</li> </ul>

	Command or Action	Purpose
		<ul style="list-style-type: none"> <li>• <b>alerts</b>—Signifies severity 1. Implies that an immediate action is required.</li> <li>• <b>critical</b>—Signifies severity 2. Implies critical conditions.</li> <li>• <b>errors</b>—Signifies severity 3. Implies error conditions.</li> <li>• <b>warnings</b>—Signifies severity 4. Implies warning conditions.</li> <li>• <b>notifications</b>—Signifies severity 5. Implies normal but significant conditions.</li> <li>• <b>informational</b>—Signifies severity 6. Implies informational messages.</li> <li>• <b>debugging</b>—Signifies severity 7. Implies debugging messages.</li> </ul> <p><b>Note</b> To know the number of Syslog levels supported, you need to select a Syslog level. Once a Syslog level is selected, all the levels below it are also enabled.</p> <p>If you enable <i>critical</i> Syslog level then all levels below it are also enabled. So, all three of them, namely, <i>critical</i>, <i>alerts</i>, and <i>emergencies</i> are enabled.</p>
<b>Step 5</b>	<b>end</b>  <b>Example:</b> Device(config)# <b>end</b>	Returns to privileged EXEC mode. Alternatively, you can also press <b>Ctrl-Z</b> to exit global configuration mode.

## Verifying Syslog Server Configurations

### Verifying Global Syslog Server Settings for all Access Points

To view the global Syslog server settings for all access points that joins the controller, use the following command:

```
Device# show ap config general
Cisco AP Name : APA0F8.4984.5E48
=====

Cisco AP Identifier : a0f8.4985.d360
Country Code : IN
Regulatory Domain Allowed by Country : 802.11bg:-A 802.11a:-DN
```

```
AP Country Code : IN - India
AP Regulatory Domain
Slot 0 : -A
Slot 1 : -D
MAC Address : a0f8.4984.5e48
IP Address Configuration : DHCP
IP Address : 9.4.172.111
IP Netmask : 255.255.255.0
Gateway IP Address : 9.4.172.1
Fallback IP Address Being Used :
Domain :
Name Server :
CAPWAP Path MTU : 1485
Telnet State : Disabled
SSH State : Disabled
Jumbo MTU Status : Disabled
Cisco AP Location : default location
Site Tag Name : ST1
RF Tag Name : default-rf-tag
Policy Tag Name : PT3
AP join Profile : default-ap-profile
Primary Cisco Controller Name : WLC2
Primary Cisco Controller IP Address : 9.4.172.31
Secondary Cisco Controller Name : Not Configured
Secondary Cisco Controller IP Address : 0.0.0.0
Tertiary Cisco Controller Name : Not Configured
Tertiary Cisco Controller IP Address : 0.0.0.0
Administrative State : Enabled
Operation State : Registered
AP Certificate type : Manufacturer Installed Certificate
AP Mode : Local
AP VLAN tagging state : Disabled
AP VLAN tag : 0
CAPWAP Preferred mode : Not Configured
AP Submode : Not Configured
Office Extend Mode : Disabled
Remote AP Debug : Disabled
Logging Trap Severity Level : notification
Software Version : 16.10.1.24
Boot Version : 1.1.2.4
Mini IOS Version : 0.0.0.0
Stats Reporting Period : 180
LED State : Enabled
PoE Pre-Standard Switch : Disabled
PoE Power Injector MAC Address : Disabled
Power Type/Mode : PoE/Full Power (normal mode)
Number of Slots : 3
AP Model : AIR-AP1852I-D-K9
IOS Version : 16.10.1.24
Reset Button : Disabled
AP Serial Number : KWC212904UB
Management Frame Protection Validation : Disabled
AP User Mode : Automatic
AP User Name : Not Configured
AP 802.1X User Mode : Global
AP 802.1X User Name : Not Configured
Cisco AP System Logging Host : 9.4.172.116
AP Up Time : 11 days 1 hour 15 minutes 52 seconds
AP CAPWAP Up Time : 6 days 3 hours 11 minutes 6 seconds
Join Date and Time : 09/05/2018 04:18:52
Join Taken Time : 3 minutes 1 second
Join Priority : 1
Ethernet Port Duplex : Auto
Ethernet Port Speed : Auto
```

```

AP Link Latency : Disable
AP Lag Configuration Status : Disabled
AP Lag Operational Status : Disabled
Lag Support for AP : Yes
Rogue Detection : Enabled
Rogue Containment auto-rate : Disabled
Rogue Containment of standalone flexconnect APs : Disabled
Rogue Detection Report Interval : 10
Rogue AP minimum RSSI : -90
Rogue AP minimum transient time : 0
AP TCP MSS Adjust : Enabled
AP TCP MSS Size : 1250
AP IPv6 TCP MSS Adjust : Enabled
AP IPv6 TCP MSS Size : 1250
Hyperlocation Admin Status : Disabled
Retransmit count : 5
Retransmit interval : 3
Fabric status : Disabled
FIPS status : Disabled
WLANCC status : Disabled
USB Module Type : USB Module
USB Module State : Enabled
USB Operational State : Disabled
USB Override : Disabled
Lawful-Interception Admin status : Disabled
Lawful-Interception Oper status : Disabled

```

### Verifying Syslog Server Settings for a Specific Access Point

To view the Syslog server settings for a specific access point, use the following command:

```

Device# show ap name <ap-name> config general
show ap name APA0F8.4984.5E48 config general
Cisco AP Name : APA0F8.4984.5E48
=====

Cisco AP Identifier : a0f8.4985.d360
Country Code : IN
Regulatory Domain Allowed by Country : 802.11bg:-A 802.11a:-DN
AP Country Code : IN - India
AP Regulatory Domain
Slot 0 : -A
Slot 1 : -D
MAC Address : a0f8.4984.5e48
IP Address Configuration : DHCP
IP Address : 9.4.172.111
IP Netmask : 255.255.255.0
Gateway IP Address : 9.4.172.1
Fallback IP Address Being Used :
Domain :
Name Server :
CAPWAP Path MTU : 1485
Telnet State : Disabled
SSH State : Disabled
Jumbo MTU Status : Disabled
Cisco AP Location : default location
Site Tag Name : ST1
RF Tag Name : default-rf-tag
Policy Tag Name : PT3
AP join Profile : default-ap-profile
Primary Cisco Controller Name : WLC2
Primary Cisco Controller IP Address : 9.4.172.31
Secondary Cisco Controller Name : Not Configured
Secondary Cisco Controller IP Address : 0.0.0.0

```



```
Tertiary Cisco Controller Name : Not Configured
Tertiary Cisco Controller IP Address : 0.0.0.0
Administrative State : Enabled
Operation State : Registered
AP Certificate type : Manufacturer Installed Certificate
AP Mode : Local
AP VLAN tagging state : Disabled
AP VLAN tag : 0
CAPWAP Preferred mode : Not Configured
AP Submode : Not Configured
Office Extend Mode : Disabled
Remote AP Debug : Disabled
Logging Trap Severity Level : notification
Software Version : 16.10.1.24
Boot Version : 1.1.2.4
Mini IOS Version : 0.0.0.0
Stats Reporting Period : 180
LED State : Enabled
PoE Pre-Standard Switch : Disabled
PoE Power Injector MAC Address : Disabled
Power Type/Mode : PoE/Full Power (normal mode)
Number of Slots : 3
AP Model : AIR-AP1852I-D-K9
IOS Version : 16.10.1.24
Reset Button : Disabled
AP Serial Number : KWC212904UB
Management Frame Protection Validation : Disabled
AP User Mode : Automatic
AP User Name : Not Configured
AP 802.1X User Mode : Global
AP 802.1X User Name : Not Configured
Cisco AP System Logging Host : 9.4.172.116
AP Up Time : 11 days 1 hour 15 minutes 52 seconds
AP CAPWAP Up Time : 6 days 3 hours 11 minutes 6 seconds
Join Date and Time : 09/05/2018 04:18:52
Join Taken Time : 3 minutes 1 second
Join Priority : 1
Ethernet Port Duplex : Auto
Ethernet Port Speed : Auto
AP Link Latency : Disable
AP Lag Configuration Status : Disabled
AP Lag Operational Status : Disabled
Lag Support for AP : Yes
Rogue Detection : Enabled
Rogue Containment auto-rate : Disabled
Rogue Containment of standalone flexconnect APs : Disabled
Rogue Detection Report Interval : 10
Rogue AP minimum RSSI : -90
Rogue AP minimum transient time : 0
AP TCP MSS Adjust : Enabled
AP TCP MSS Size : 1250
AP IPv6 TCP MSS Adjust : Enabled
AP IPv6 TCP MSS Size : 1250
Hyperlocation Admin Status : Disabled
Retransmit count : 5
Retransmit interval : 3
Fabric status : Disabled
FIPS status : Disabled
WLANCC status : Disabled
USB Module Type : USB Module
USB Module State : Enabled
USB Operational State : Disabled
USB Override : Disabled
```

```
Lawful-Interception Admin status : Disabled  
Lawful-Interception Oper status : Disabled
```