

## Overview

This document describes the OV3600 alert/trap workflow when integrating with a centralized NMS Event Correlation System. This document includes the following topics:

- [Adding NMS Event Correlation Servers to OV3600 on page 1](#)
- [Configuring Alerts/Traps in OV3600 on page 2](#)
- [Viewing Alerts in Various Destinations on page 3](#)
- [Acknowledging Alerts on page 5](#)
- [Compiling the OV3600 MIB on NMS on page 5](#)
- [Matching Severity in the NMS Event Correlation Servers on page 5](#)
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Perform the following steps to add an event correlation server to OV3600.

1. Navigate to **OV3600 Setup > NMS** and click **Add**.
2. Configure server settings. The configuration options can vary depending on the SNMP version that you select.



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If you select SNMPv3, then you must also configure the application that will receive the traps/informs) for SNMPv3. You will need to set up the engineID, authentication, and privacy parameters and then restart your application before you can receive the SNMPv3 informs.

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**Figure 1** OV3600 Setup > NMS > Add NMS Server Page Illustration

**NMS Integration**

AMP can send SNMPv1, SNMPv2 traps or SNMPv3 in forms to NMS servers. First, add one or more NMS servers below, then select NMS as a notification option for [triggers](#).

The Sync action will send one traps/informs for each device managed by AMP to notify an NMS of each one's up/down and configuration status.

[Download](#) the AMP MIB files.

**NMS Server**

Hostname:

Port (1-65535):

SNMP Version:

Community String:

Confirm Community String:

Enabled:  Yes  No

Send Configuration Traps:  Yes  No

SNMP Retries (1-40):

SNMP Timeout (3-60):

1. Navigate to **System > Triggers** (see [Figure 2](#)).
2. Select Alerts/Traps.
3. Click **Add**.
4. Configure properties for the Alert/Trap.
  - Thresholds for the alert (quantity and time)
  - Severity of alert
  - Distribution options
  - Notification Method
    - Sender
    - Recipient
    - NMS – sends SNMP traps
  - Alert Suppression

**Figure 2** *Configuring a Client Count Trigger*

Trigger

Type: Client Count ▼

Client Count:  At Least  At Most

Severity: Normal ▼

Duration:   
e.g. '15 minutes', '75 seconds', '1 hr 15 mins'

Limit by: Device ▼  
Changing this value will remove existing conditions

Conditions

Matching conditions:  All  Any

Available Conditions: Device Type

Add New Trigger Condition

OPTION	CONDITION	VALUE
<span style="border: 1px solid #ccc; padding: 2px;">Device Type</span> ▼	<span style="border: 1px solid #ccc; padding: 2px;">is</span> ▼	<span style="border: 1px solid #ccc; padding: 2px;">Access Point</span> ▼ <span style="float: right; color: #0056b3;">✕</span>

Trigger Restrictions

Folder: Top ▼

Include Subfolders:  Yes  No

Group: - All Groups - ▼

Alert Notifications

Notes:

Additional Notification Options:

- Email
- NMS

NMS Trap Destinations:  NMS\_Server\_1 Select All - Unselect All

Logged Alert Visibility: By Role ▼

Suppress Until Acknowledged:  Yes  No

Add
Cancel

[Figure 3](#) below shows the **System > Alerts** page of the OV3600 console.

**Figure 3** *System > Alerts Page Illustration*

[Help](#)

1-4 of 66 Alerts Page 1 of 17 >> | [Choose columns](#) [Export CSV](#)

Alerts							
	TRIGGER TYPE	TRIGGER SUMMARY	TRIGGERING AGENT	TIME ▼	SEVERITY	DETAILS	NOTES
<input type="checkbox"/>	Device Down	Device Type is Access Point	ssahoo-155	1/20/2016 11:18 AM PST	Normal	-	-
<input type="checkbox"/>	Device Down	Device Type is Access Point	ssahoo-155	1/20/2016 11:18 AM PST	Normal	-	-
<input type="checkbox"/>	Device Down	Device Type is Access Point, Device Type is Access Point, <a href="#">(more...)</a>	ssahoo-155	1/20/2016 11:18 AM PST	Normal	-	-
<input type="checkbox"/>	Device Down	Device Type is Access Point	SH-GF-2	1/19/2016 4:03 PM PST	Normal	-	-

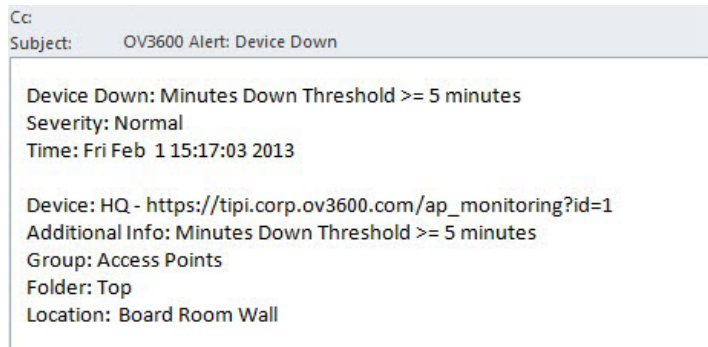
1-4 of 66 Alerts Page 1 of 17 >> | [Select All - Unselect All](#)

Acknowledge
Delete

[View Acknowledged Alerts](#)

[Figure 4](#) below shows an email from the recipient's perspective.

**Figure 4** *Email Recipient of an Alert*



Below shows the actual alerts output as seen by the NMS server.

## Client Count

```
10:32:52.964243 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto 17, length: 284)
tipi.corp.ov3600.com.38979 > ov3600-openvie.snmptrap: [bad udp cksum ebf4!] { SNMPv2c
C=foo { V2Trap(242) R=47680 system.sysUpTime.0=10 S:1.1.4.1.0=E:12028.4.15.0.3
E:12028.4.15.1.101=2 E:12028.4.15.1.102=4 E:12028.4.15.1.103="Device: HQ-Engineering -
```

```
https://demo.ov3600.com/ap_monitoringid=11277: AP User Count >= 2 users for 15 minutes"
E:12028.4.104=10.2.26.164 } }
```

## Device Down

```
10:32:23.055999 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto 17, length: 261)
tipi.corp.ov3600.com.38934 > ov3600-openvie.snmptrap: [bad udp cksum e740!] { SNMPv2c
C=foo { V2Trap(219) R=47676 system.sysUpTime.0=10 S:1.1.4.1.0=E:12028.4.15.0.13
E:12028.4.15.1.101=2 E:12028.4.15.1.102=4 E:12028.4.15.1.103="Device: Aruba-AP65-ap.2.2.3 -
https://demo.ov3600.com/ap_monitoringid=1: Device Down " E:12028.4.104=10.51.3.46 } }
```

## OID Breakdown

12028.4.15.1.102 contains Severity Code

- 1 = Normal
- 2 = Warning
- 3 = Minor
- 4 = Major
- 5 = Critical

12028.4.15.1.103 contains several fields separated by colons

- Object Type {Client, OV3600, Device/AP, Group}
- Object Name and URL (the URL is optional, if it exist then it will be separated by a dash (-))
- Trap Description and Evaluation Elements

12028.4.15.1.104 contains device IP Address

- Group Traps will contain the OV3600 IP address.

OV3600 alerts must be manually acknowledged from the **System > Alert** page. OV3600 does not currently provide an external interface to acknowledge alerts from an NMS server.

1. Navigate to **OV3600 Setup > NMS**.
2. Click **Download**.
3. Transfer to NMS server.
4. Compile on NMS server.

Most NMS Event Correlation systems have the ability to color code and escalate based on information received in the trap, as shown in [Figure 5](#). The OID **12028.4.15.1.102** contains the OV3600 severity code.

**Figure 5** Color Code Example

Node	Alert Group	Alert Key	Summary
dnrc.airwave.com, IP: 10.51.3.46	Access Point Signal Quality	Device: HQ-Engineering	Signal Quality <= 45 - launch @URL for details: [ Device: HQ-Engineering ]
dnrc.airwave.com, IP: 10.51.3.46	Access Point Status	Device: Aruba-AP55-ap-2.2.3	Device Up - launch @URL for details: [ Device: Aruba-AP55-ap-2.2.3 ]
dnrc.airwave.com, IP: 10.51.3.46	Access Point Status	Device: Aruba-AP55-ap-2.2.3	Device Down - launch @URL for details: [ Device: Aruba-AP55-ap-2.2.3 ]
dnrc.airwave.com, IP: 10.51.3.128	Access Point Status	Device: Aruba-C16-700	Device Down - launch @URL for details: [ Device: Aruba-C16-700 ]
dnrc.airwave.com, IP: 10.51.3.128	Access Point Status	Device: Aruba-C16-700	Device Up - launch @URL for details: [ Device: Aruba-C16-700 ]
dnrc.airwave.com, IP: 10.51.3.42	Access Point Status	Device: ap	Device Down/Device uptime indicates that device has rebooted - launch @URL for details: [ Device: ap ]
dnrc.airwave.com, IP: 10.51.3.42	Access Point Status	Device: ap	Device Up - launch @URL for details: [ Device: ap ]
dnrc.airwave.com, IP: 10.51.3.46	Bandwidth Usage per Access Point	Device: HQ-Engineering	AP Bandwidth >= 100 kbps for 60 seconds - launch @URL for details: [ Device: HQ-Engineering ]
dnrc.airwave.com, IP: 10.51.3.46	Bandwidth Usage per Client	Client: 02:13:87:9A:8A:61	Client Bandwidth >= 5 Mbps for 60 seconds - launch @URL for details: [ Client: 02:13:87:9A:8A:61 ]

Items selected: 4 (green), 0 (purple), 50 (blue), 12 (yellow), 0 (orange), 18 (red)

7/17/2007 5:45:33 PM root INCOME\_FITQ

OV3600 has enhanced integration modules with several NMS Event Correlation Systems. These integrations provide enhanced functionality like quicklink problem diagnostics, configuration, and WLAN topology views.

- **IBM Netcool**—Go to [Netcool/OMNIBus V7.4 Documentation](#) to download the software or product documentation.
- **ProCurve Manager**—Navigate to **OV3600 Setup > NMS** and click on the **HP ProCurve Manager** section to obtain additional information.

You can download the MIB from the **Home > Documentation** page in OmniVista 3600 Air Manager 8.2.14.0.