Integrating Dell Networking W-AirWave 8.0 with Centralized NMS Event Correlation

Overview

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

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Adding NMS Event Correlation Servers to AirWave

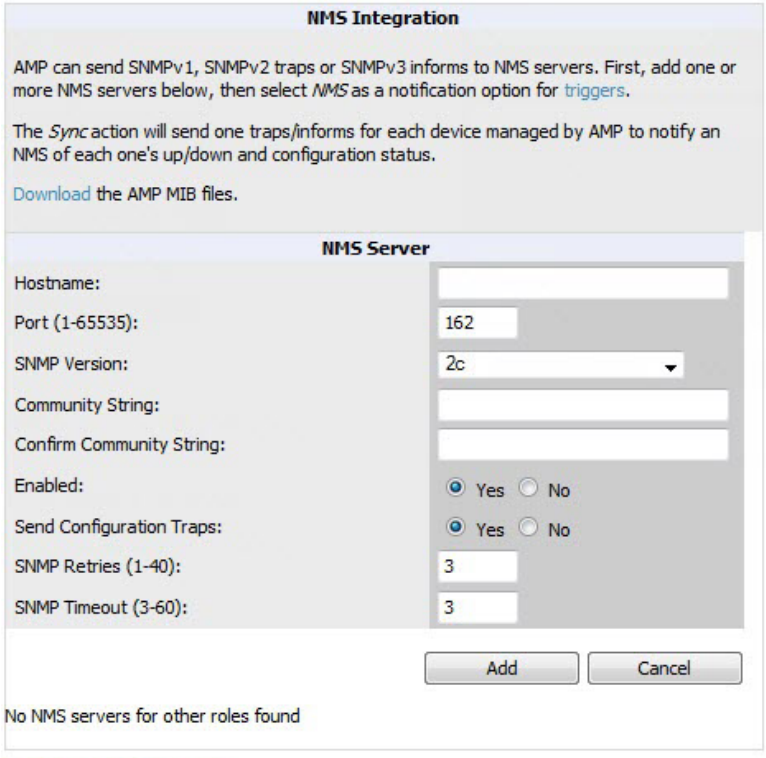
Perform the following steps to add an event correlation server to AirWave.

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

NOTE

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

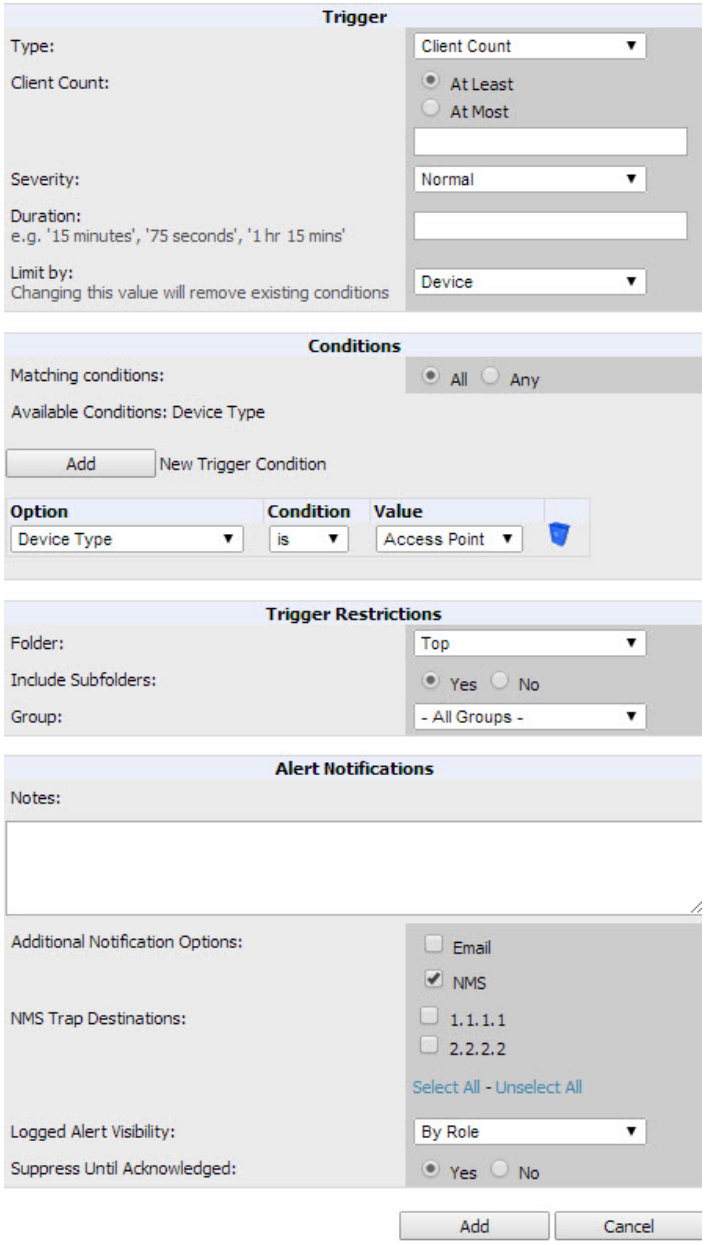
Figure 1: *AMP Setup > NMS > Add NMS Server Page Illustration*



Configuring Alerts/Traps in AirWave

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*



Viewing Alerts in Various Destinations

Figure 3 below shows the **System > Alerts** page of the AirWave console.

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

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.airwave.com.38979 > airwave-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.airwave.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.airwave.com.38934 > airwave-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.airwave.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, AirWave, 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 AirWave IP address.

Acknowledging Alerts

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

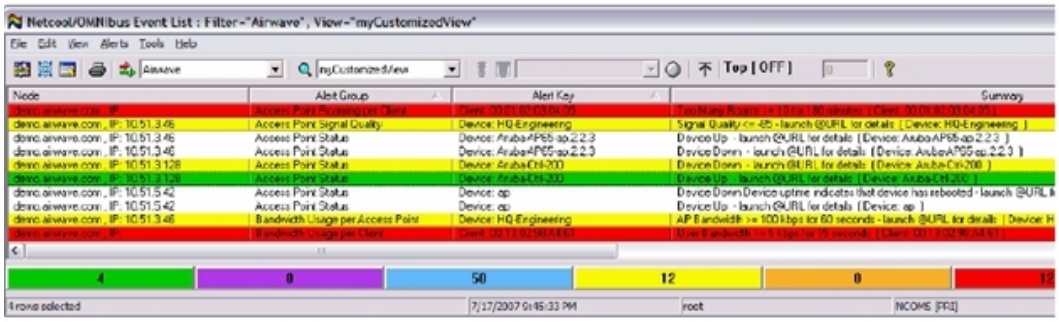
Compiling the AirWave MIB on NMS

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

Matching Severity in the NMS Event Correlation Servers

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 AirWave severity code.

Figure 5: *Color Code Example*



Enhanced Integration

AirWave 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** – navigate to https://www-304.ibm.com/software/brandcatalog/ismlibrary/details?catalog.label=1TW10NC16 to download the certified NetCool NIM
- **ProCurve Manager** – Navigate to **AMP Setup > NMS** and click on the **HP ProCurve Manager** section to obtain additional information.
- **HP OpenView NNM** – Refer to the HP web site for additional information.

MIB for SNMPv2c

You can download the MIB from the **Home > Documentation** page in Dell Networking W-AirWave 8.0.

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