

# Integrate Aerohive Wireless Access Point

## Abstract

This guide provides instructions to configure **Aerohive Wireless Access Point** to send the syslog events to EventTracker.

## Scope

The configurations detailed in this guide are consistent with **EventTracker** version 7.x and later, and **Aerohive Wireless Access Point 6.5r5**.

## Audience

Administrators, who are responsible for monitoring **Aerohive Wireless Access Point** using EventTracker.

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## Overview

The AP230 set a new performance standard for 802.11ac APs. By combining the latest in 3x3, 3-stream 802.11ac Gigabit Wi-Fi technology and advanced security and mobility management together into an economical package, it allows you to deploy 802.11ac into every part of the network infrastructure.

EventTracker collects the logs, helps administrator to analyze the events and generate the reports.

## Pre-requisites

- EventTracker v7.x or later should be installed.
- An exception should be added into windows firewall on EventTracker machine for syslog port 514.
- Aerohive Wireless Access Point version 6.5r5 and later must be installed and configured.

## Integration Method for Aerohive Wireless Access Point

1. Log into the Aerohive Networks HiveManager.
2. Go to **Configuration > Advanced Configuration > Management Services > Syslog Assignments**.

The screenshot shows the Aerohive Networks web interface. The top navigation bar includes Home, Dashboard, Monitor, Reports, Maps, Configuration (highlighted), and Tools. The left sidebar lists various configuration categories, with 'Advanced Configuration' and 'Management Services' highlighted. Under 'Management Services', 'Syslog Assignments' is selected and highlighted in yellow. The main content area displays the 'Syslog Assignments' page, which includes buttons for 'New', 'Clone', 'Painbrush', and 'Remove'. Below these buttons is a table with columns for 'Name', 'Facility Host', and 'Description'. The table is currently empty.

Figure 1

3. Click **New** and configure syslog streaming:
4. In **Syslog Server** – Select the IP address of the EventTracker manager from the dropdown.
5. In **Severity** – Select Info from the dropdown.
6. Click **Apply** and **Save**.

Syslog Assignments > New

Save Cancel

Name\* WebFilter\_FinanceDept (1-32 characters)

Facility Local6

Description (0-64 characters)

Syslog servers are on the same internal network as the reporting Aerohive devices (for PCI DSS compliance)

Apply Remove Cancel

Syslog Server	Severity	Description
192.168.0.1	Info	EventTracker Manager (0-64 characters)

Figure 2

7. Verify that the EventTracker is receiving the syslog data.

## EventTracker Knowledge Pack (KP)

Once logs are received in to EventTracker, Alerts and Reports can be configured into EventTracker. The following Knowledge Packs are applicable in EventTracker v7.x and later to support Aerohive.

### Categories

- **Aerohive WAP: User login success**  
This category provides information related to user login successfully into Aerohive WAP.
- **Aerohive WAP: Client activity**  
This category provides information related to client activity in the Aerohive WAP.
- **Aerohive WAP: DHCP activity**  
This category provides information related to DHCP activity in the Aerohive WAP.
- **Aerohive WAP: IP traffic details**  
This category provides information related to IP traffic details in the Aerohive WAP.
- **Aerohive WAP: Rogue AP detected**  
This category provides information related to rogue AP detected in the Aerohive WAP.

## Alerts

- **Aerohive WAP: Rogue AP detected**

This alert is generated when rogue AP has been detected in the Aerohive WAP.

## Flex Reports

- **Aerohive WAP-User login success**

This report provides the information related to user login successfully into Aerohive WAP.

**Sample Report:**

LogTime	Computer	User Name	Client MAC Address	SSID
11/02/2016 03:09:19 PM	AEROHIVE	generic-guest	f0d1:a964:ee94	wifi0.1
11/02/2016 03:09:19 PM	AEROHIVE	christphor	f0d1:w264:e294	wifi4.1
11/02/2016 03:09:19 PM	AEROHIVE	generic-guest	f0d1:a964:ee94	wifi0.1
11/02/2016 03:09:19 PM	AEROHIVE	michel	f0d1:a964:ww44	wifi2.1
11/02/2016 03:09:19 PM	AEROHIVE	donald	f0d1:a964:ew44	wifi3.1

Figure 3

**Logs Considered:**

LOG TIME	EVENT ID	SITE / COMPUTER	USER	DOMAIN	SOURCE
11/2/2016 3:09:19 PM	<a href="#">123</a>	PNPL-4-KP / <a href="#">aerohive</a>	N/A	N/A	syslog
<b>Event Type:</b> Information <b>Log Type:</b> Application <b>Category Id:</b> 0		<b>Description:</b> hq-ap02 ah_auth: [Auth]STA(f0d1:a964:ee94) login to SSID(wifi0.1) by user_name=generic-guest			

Figure 4

- **Aerohive WAP-Client activity**

This report provides the information related to client activities for which they are associated in Aerohive WAP.

**Sample Report:**

LogTime	Computer	SSID	Destination AP MAC	Client MAC Address	Reason
11/02/2016 03:09:21 PM	AEROHIVE	CF-Outside	08ea:4474:3814	f0d1:a964:ee94	the sta is associated with other interface
11/02/2016 03:09:21 PM	AEROHIVE	CF-Outside	08ea:4474:3814	400e:85fc:3891	the sta is associated with other AP

Figure 5

**Logs Considered:**

LOG TIME	EVENT ID	SITE / COMPUTER	USER	DOMAIN	SOURCE
11/2/2016 3:09:22 PM	123	PNPL-4-KP / <a href="#">aerohive</a>	N/A	N/A	syslog

**Event Type:** Information  
**Log Type:** Application  
**Category Id:** 0

**Description:**  
 Mar 30 14:52:25 hq-ap02 ah\_auth: Try to disassoc f0d1:a964:ee94 from 08ea:4474:3814 for ssid CF-Outside because the sta is associated with other interface

Figure 6

- Aerohive WAP: DHCP activity**

This report provides the information related to DHCP activities into Aerohive WAP.

**Sample Report:**

LogTime	Computer	User Name	Client Name	Client IP Address	Client MAC Address	Client Operating System
11/02/2016 03:09:23 PM	AEROHIVE	generic-guest	android-b2334fda24d3f7e7	10.86.0.121	400e:85fc:3891	Android
11/02/2016 03:09:23 PM	AEROHIVE	generic-guest	Alexs-iPhone-3	10.86.0.171	f0d1:a964:ee94	Apple iOS

Figure 7

**Logs Considered:**

LOG TIME	EVENT ID	SITE / COMPUTER	USER	DOMAIN	SOURCE
11/2/2016 3:09:23 PM	123	PNPL-4-KP / <a href="#">aerohive</a>	N/A	N/A	syslog

**Event Type:** Information  
**Log Type:** Application  
**Category Id:** 0

**Description:**  
 Mar 30 14:51:39 hq-ap02 ah\_auth: Station 400e:85fc:3891 ip 10.86.0.121 username generic-guest hostname android-b2334fda24d3f7e7 OS Android, flag = DHCP

Figure 8

- Aerohive WAP: IP traffic details**

This report provides the information related to IP traffic details into Aerohive WAP.

**Sample Report:**

LogTime	Computer	Source User Name	Source IP Address	Source Port	Source Host Name	Destination User Name	Destination IP Address	Destination Port	Destination Host Name	Protocol
11/02/2016 03:09:17 PM	AEROHIVE	generic-guest	10.86.0.121	33619	android-b2334fda24d3f7e7	N/A	8.8.8.8	53	N/A	17

Figure 9

**Logs Considered:**

LOG TIME	EVENT ID	SITE / COMPUTER	USER	DOMAIN	SOURCE
11/2/2016 3:09:17 PM	123	PNPL-4-KP / <a href="#">aerohive</a>	N/A	N/A	syslog

**Event Type:** Information  
**Log Type:** Application  
**Category Id:** 0

**Description:**  
 Mar 30 14:51:39 hq-ap02 kernel: [fe]: IP session (id 92) [10.86.0.121/45590 -> 216.58.217.142/80, 216.58.217.142/80 -> 10.86.0.121/45590] proto 6 is created, user-name generic-guest, hostname android-b2334fda24d3f7e7 -> user-name N/A, hostname N/A

Figure 10



- **Aerohive WAP: Rogue AP detected**

This report provides the information related to a rogue AP that has been detected into Aerohive WAP.

**Sample Report:**

LogTime	Computer	AP MAC address	Detector AP	Detector IP address	Rogue SSID	Channel
11/02/2016 03:09:20 PM	AEROHIVE	a063:9104:86f8	HQ-AP02	10.1.100.142	NETGEAR70	1

Figure 11

**Logs Considered:**

LOG TIME	EVENT ID	SITE / COMPUTER	USER	DOMAIN	SOURCE
<b>Event Type:</b> Information <b>Log Type:</b> Application <b>Category Id:</b> 0	<b>Description:</b> Mar 30 14:51:44 hq-ap02 ah_dcd: IDP: AP a063:9104:86f8 detected, Detector AP(HQ-AP02) 10.1.100.142, Type rogue, CH 1, RSSI -25, SSID NETGEAR70, ENC wpa, Reason ( oui ).				

Figure 12

## Import Aerohive Wireless Access Point knowledge pack into EventTracker

**NOTE:** Import knowledge pack items in the following sequence:

- Categories
- Alerts
- Parsing Rule
- Knowledge Objects
- Flex Reports

1. Launch **EventTracker Control Panel**.
2. Double click **Export Import Utility**.

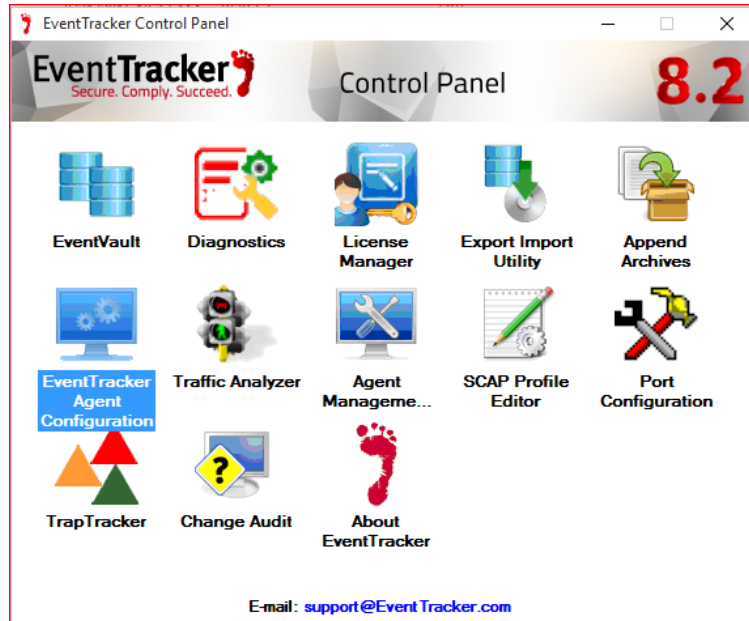



Figure 13

3. Click the **Import** tab.

## Category

1. Click **Category** option, and then click the browse  button.
2. Locate the **All Aerohive WAP group of categories.iscat** file, and then click **Open** button.

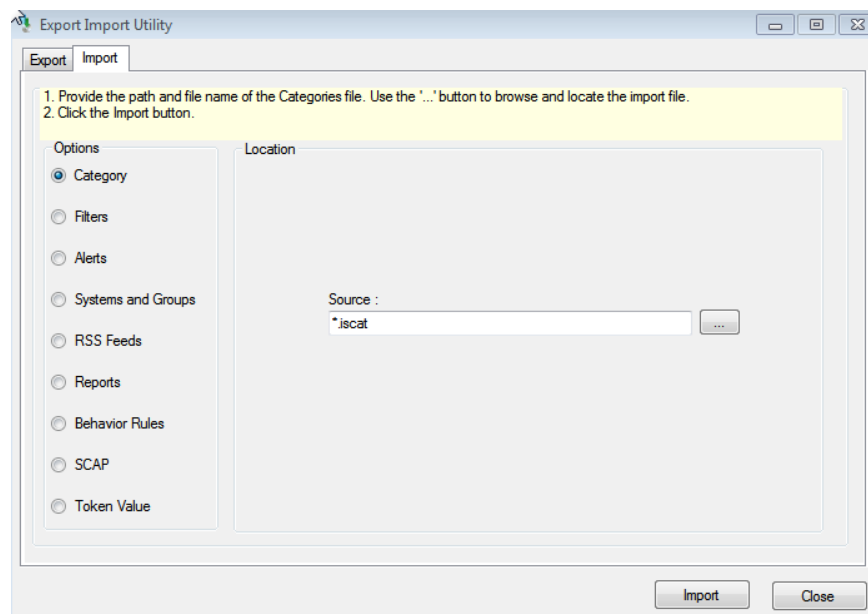


Figure 14


- To import categories, click the **Import** button. EventTracker displays success message.



Figure 15

- Click the **OK**, and then click the **Close** button.

## Alerts

- Click **Alerts** option, and then click the browse  button.
- Locate the **All Aerohive WAP group of alerts.isalt** file, and then click the **Open** button.

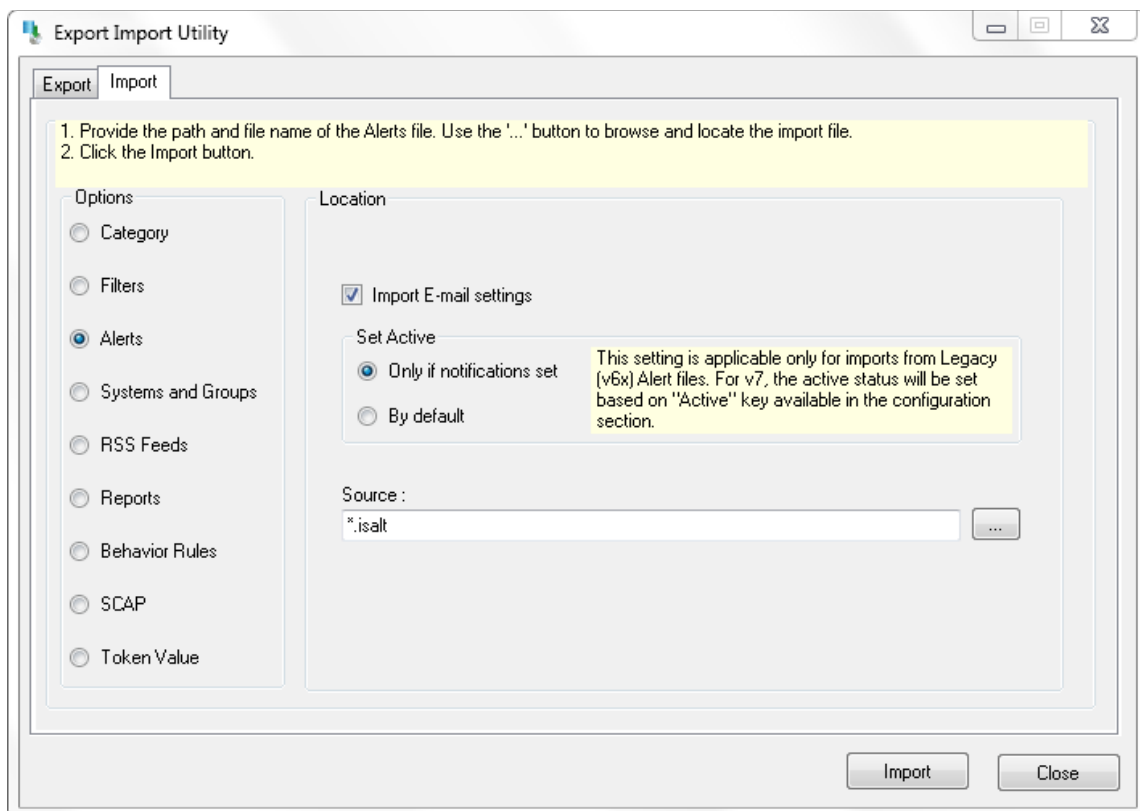


Figure 16

- To import alerts, click the **Import** button.


EventTracker displays success message.



Figure 17

- Click **OK**, and then click the **Close** button.

## Templates

- Click the **Admin** menu, and then click **Parsing rule**.
- Select **Template** tab, and then click on  **'Import'** option.

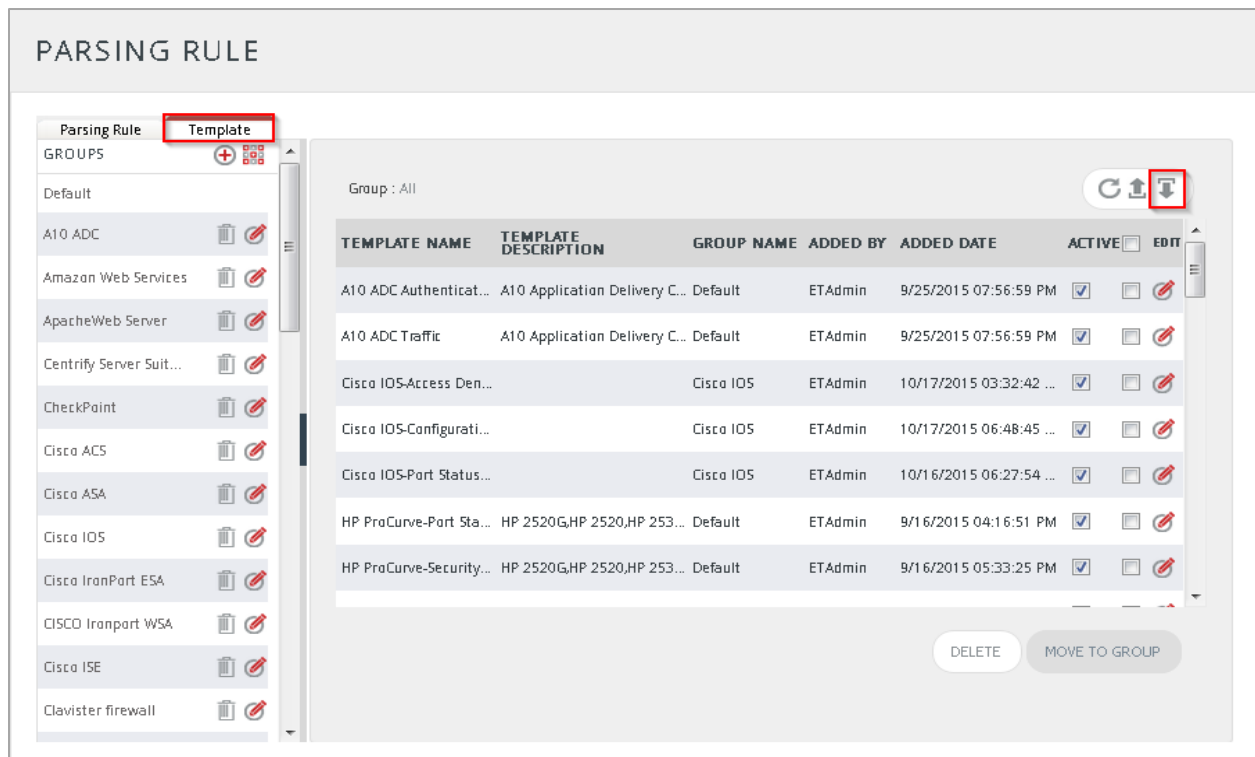


Figure 18

- Click on **Browse** button.

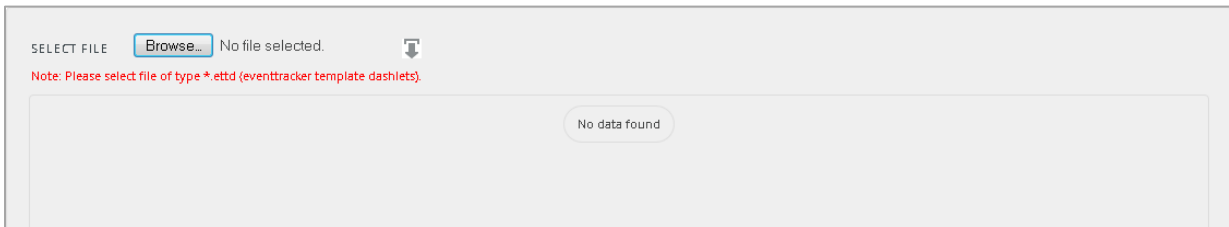


Figure 19

- Locate **All Aerohive WAP group of Template.ettd** file, and then click the **Open** button

SELECTED FILE IS: All Aerohive WAP Template.ettd

<input type="checkbox"/>	TEMPLATE NAME	SEPARATOR	TEMPLATE DESCRIPTION	ADDED DATE	ADDED BY	GROUP NAME
<input type="checkbox"/>	Aerohive WAP-Configuration change	\n	Mar 30 14:51:39 hq-ap02 kernel: [fe]: IP session (id 46) [10.86.0.121/33619 -> 8.8.8.8/53, 8.8.8.8/53 -> 10.86.0.121/33619] proto 17 is created, user-name generic-guest, hostname android-b2334fda24d3f7be7 -> user-name N/A, hostname N/A	10/20/2016 3:08:57 PM	ETAdmin	Aerohive WAP
<input type="checkbox"/>	Aerohive WAP-User login failed	\n	Mar 30 14:51:46 hq-ap02 ah_auth: wifi0.1: get sta 400e:85fc:3891 stats ioctl failed!	10/20/2016 2:51:59 PM	ETAdmin	Aerohive WAP
<input type="checkbox"/>	Aerohive WAP-User login success	\n	hq-ap02 ah_auth: [Auth]STA(f0d1:a964:ee94) login to SSID(wifi0.1) by user_name=generic-guest	10/20/2016 2:46:18 PM	ETAdmin	Aerohive WAP

Figure 20

- Now select the check box and then click on **Import** option. EventTracker displays success message.

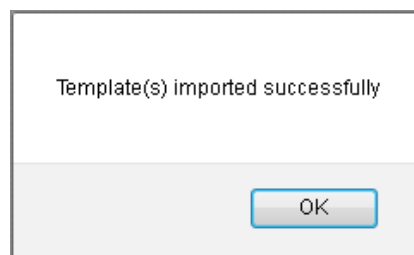



Figure 21

- Click on **OK** button.

## Flex Reports

1. Click **Reports** option, and then click the browse  button.
2. Locate the **All Aerohive WAP group of flex reports.issch** file, and then click the **Open** button.

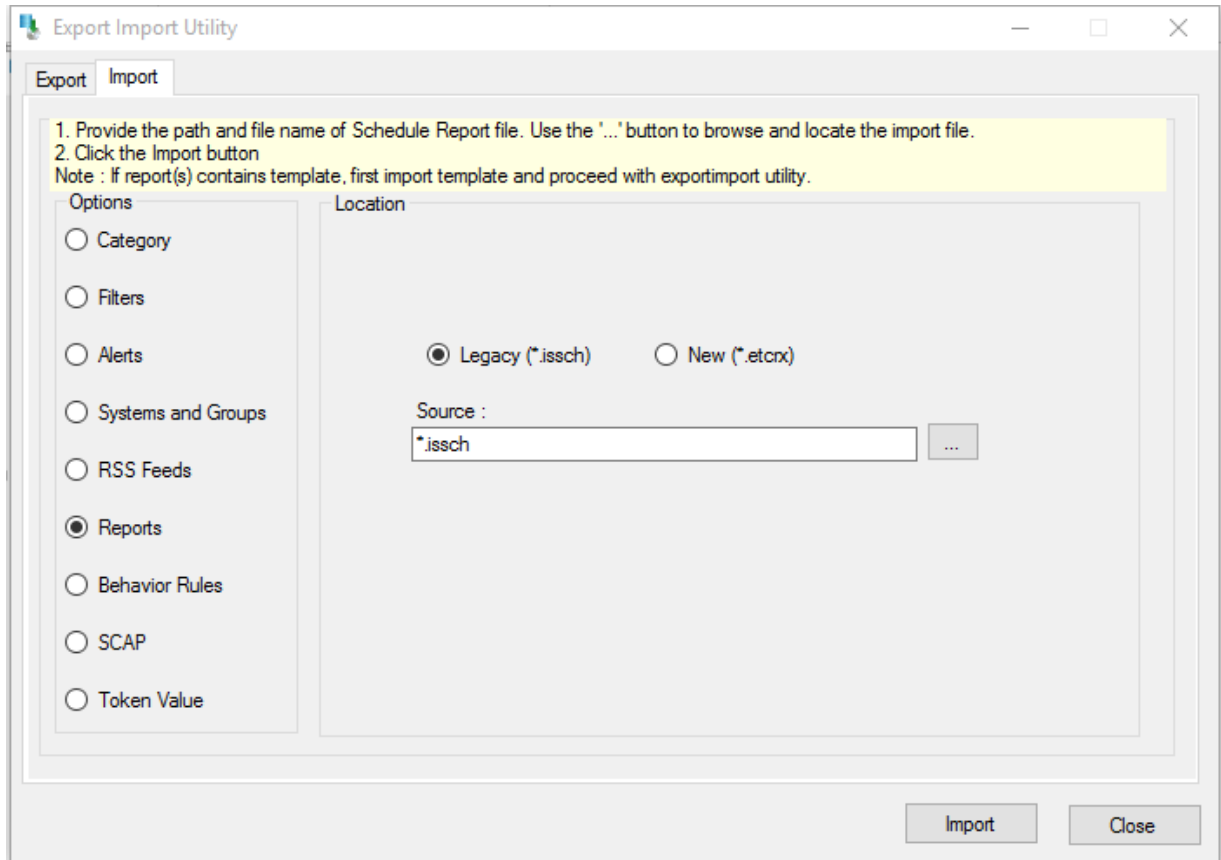


Figure 22

3. Click the **Import** button to import the **scheduled** reports. EventTracker displays success message.

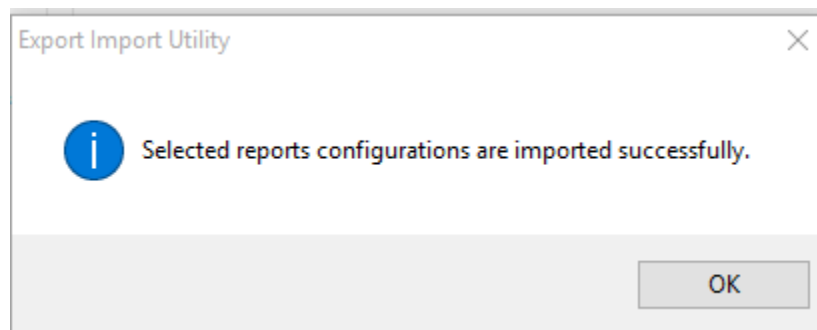


Figure 23

# Verify Aerohive Wireless Access Point knowledge pack in EventTracker

## Category

1. In the **EventTracker Enterprise** web interface, click the **Admin** dropdown, and then click **Categories**.
2. In the **Category Tree**, expand **Aerohive** group folder to see the imported categories.

The screenshot displays the 'CATEGORY MANAGEMENT' interface. On the left, the 'Category Tree' is expanded to show the 'Aerohive Wireless Access Point' folder, which contains several sub-categories: 'Aerohive WAP: Client activity', 'Aerohive WAP: DHCP activity', 'Aerohive WAP: IP traffic details', 'Aerohive WAP: Rogue AP detected', and 'Aerohive WAP: User login success'. On the right, a summary shows 'Total category groups: 359' and 'Total categories: 3,147'. Below this, a table lists the 'Last 10 modified categories'.

NAME	MODIFIED DATE	MODIFIED BY
Aerohive WAP: User login success	11/3/2016 12:32:17 PM	ETAdmin
Aerohive WAP: Rogue AP detected	11/3/2016 12:32:08 PM	ETAdmin
Aerohive WAP: IP traffic details	11/3/2016 12:32:02 PM	ETAdmin
Aerohive WAP: DHCP activity	11/3/2016 12:31:50 PM	ETAdmin
Aerohive WAP: Client activity	11/3/2016 12:31:43 PM	ETAdmin
Meraki WAP: Rogue SSID detected	11/2/2016 12:30:04 PM	ETAdmin
Meraki WAP: Client machine association	10/27/2016 4:32:07 PM	ETAdmin
Meraki WAP: Client machine authenticate/deauthenticate	10/27/2016 4:32:07 PM	ETAdmin
Meraki WAP: Client machine disassociation	10/27/2016 4:32:07 PM	ETAdmin
Meraki WAP: Device packet flood	10/27/2016 4:32:07 PM	ETAdmin

Figure 24

## Alerts

1. In the **EventTracker Enterprise** web interface, click the **Admin** dropdown, and then click **Alerts**.
2. In the **Search** field, type '**Aerohive**', and then click **Go** button.  
Alert Management page will display the imported **Aerohive** alert.

ALERT MANAGEMENT

Search by Alert name

ACTIVATE NOW Click 'Activate Now' after making all changes Total: 1 Page Size 25

<input type="checkbox"/>	ALERT NAME ^	THREAT	ACTIVE	E-MAIL	MESSAGE	RSS	FORWARD AS SNMP	FORWARD AS SYSLOG	REMEDIAL ACTION AT CONSOLE	REMEDIAL ACTION AT AGENT	APPLIES TO
<input type="checkbox"/>	Aerohive WAP: Rogue AP detected	High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.5r5 and later

DELETE

Figure 25

- To activate the imported alerts, select the respective checkbox in the **Active** column. EventTracker displays message box.

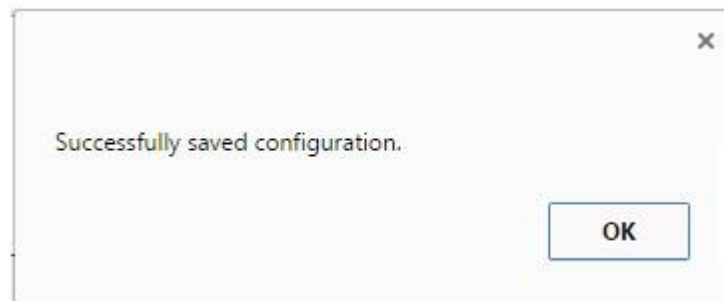


Figure 26

- Click the **OK** button, and then click the **Activate now** button.

**NOTE:**

You can select alert notification such as Beep, Email, and Message etc. For this, select the respective checkbox in the Alert management page, and then click the **Activate Now** button.



## Template

1. Logon to **EventTracker Enterprise** web interface.
2. Click the **Admin** menu, and then click **Parsing Rules** and click **Template**.

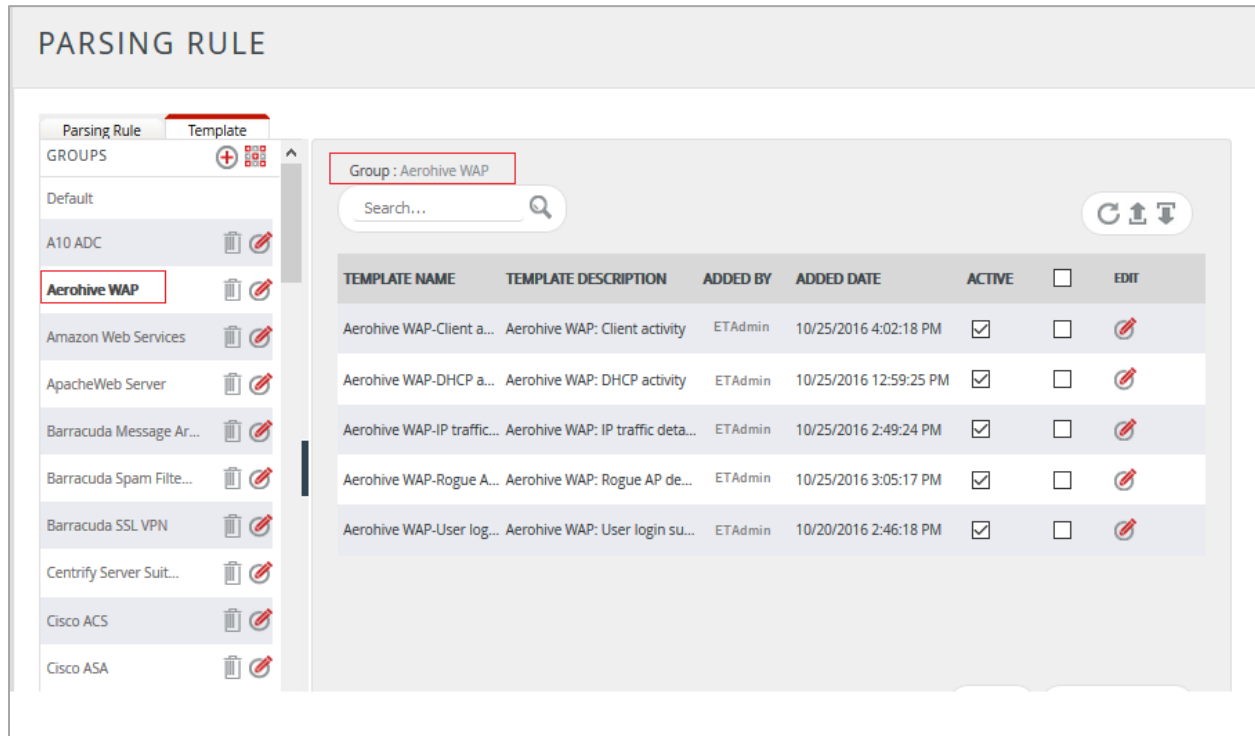


Figure 27

## Flex Reports

1. In the **EventTracker Enterprise** web interface, click the **Reports** menu, and then select **Configuration**.
2. In **Reports Configuration** pane, select **Defined** option.
3. In search box enter '**Aerohive**', and then click the **Search** button.  
EventTracker displays Flex reports of **Aerohive**.

REPORTS CONFIGURATION

Scheduled  Queued  Defined

Search

REPORT GROUPS

- Aerohive WAP
- Amazon Web Services
- Apache Web Server
- Barracuda Message Ar...
- Barracuda Spam Filte...
- Barracuda SSL VPN
- behaviour activity
- Centrify Server Suit...

REPORTS CONFIGURATION : AEROHIVE WAP

Total: 5

<input type="checkbox"/>	TITLE	CREATED ON	MODIFIED ON	
<input type="checkbox"/>	Aerohive WAP-Rogue AP detected	10/25/2016 4:35:14 PM	11/3/2016 12:26:25 PM	
<input type="checkbox"/>	Aerohive WAP-IP traffic details	10/25/2016 4:21:49 PM	11/3/2016 12:14:45 PM	
<input type="checkbox"/>	Aerohive WAP-DHCP activity	10/25/2016 4:18:42 PM	11/3/2016 11:45:29 AM	
<input type="checkbox"/>	Aerohive WAP-Client activity	10/25/2016 4:15:49 PM	11/3/2016 11:41:35 AM	
<input type="checkbox"/>	Aerohive WAP-User login success	10/20/2016 2:47:59 PM	10/20/2016 2:47:59 PM	

Figure 28

## Create Flex Dashboards in EventTracker

**NOTE:** To configure the flex dashboards, schedule and generate the reports. Flex dashboard feature is available from EventTracker Enterprise v8.0.

### Schedule Reports

1. Open **EventTracker** in browser and logon.

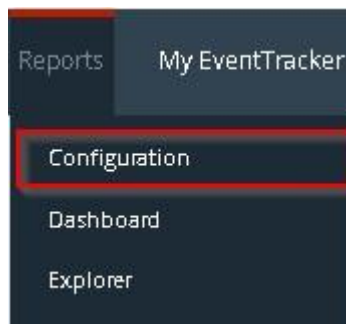


Figure 29

2. Navigate to **Reports>Configuration**.

3. Select **Aerohive** in report groups. Check **Defined** dialog box.

REPORTS CONFIGURATION

Scheduled  Queued  Defined

Search

REPORT GROUPS


- Aerohive WAP**
- Amazon Web Services
- Apache Web Server
- Barracuda Message Ar...
- Barracuda Spam Filte...
- Barracuda SSL VPN
- behaviour activity
- Centrify Server Suit...

REPORTS CONFIGURATION : AEROHIVE WAP

Total: 5

<input type="checkbox"/>	TITLE	CREATED ON	MODIFIED ON			
<input type="checkbox"/>	<b>Aerohive WAP-Rogue AP detected</b>	10/25/2016 4:35:14 PM	11/3/2016 12:26:25 PM	?	?	+
<input type="checkbox"/>	Aerohive WAP-IP traffic details	10/25/2016 4:21:49 PM	11/3/2016 12:14:45 PM	?	?	+
<input type="checkbox"/>	Aerohive WAP-DHCP activity	10/25/2016 4:18:42 PM	11/3/2016 11:45:29 AM	?	?	+
<input type="checkbox"/>	Aerohive WAP-Client activity	10/25/2016 4:15:49 PM	11/3/2016 11:41:35 AM	?	?	+
<input type="checkbox"/>	Aerohive WAP-User login success	10/20/2016 2:47:59 PM	10/20/2016 2:47:59 PM	?	?	+

Figure 30

4. Click on 'schedule'  to plan a report for later execution.
5. Click **Next** button to proceed.
6. In review page, check **Persist data in EventVault Explorer** option.

REPORT WIZARD

CANCEL < BACK NEXT >

TITLE: AEROHIVE WAP-ROGUE AP DETECTED

LOGS

Review cost details and configure the publishing options. Step 8 of 10

DISK COST ANALYSIS

Estimated time for completion: 00:01:02(HH:MM:SS)  
 Number of cab(s) to be processed: 16  
 Available disk space: 225 GB  
 Required disk space: 50 MB

Enable publishing option (Configure SMTP Server in manager configuration screen to use this option)  
 Deliver results via E-mail  
 Notify results via E-mail

To E-mail:  [Use comma(,) to separate multiple e-mail recipients]

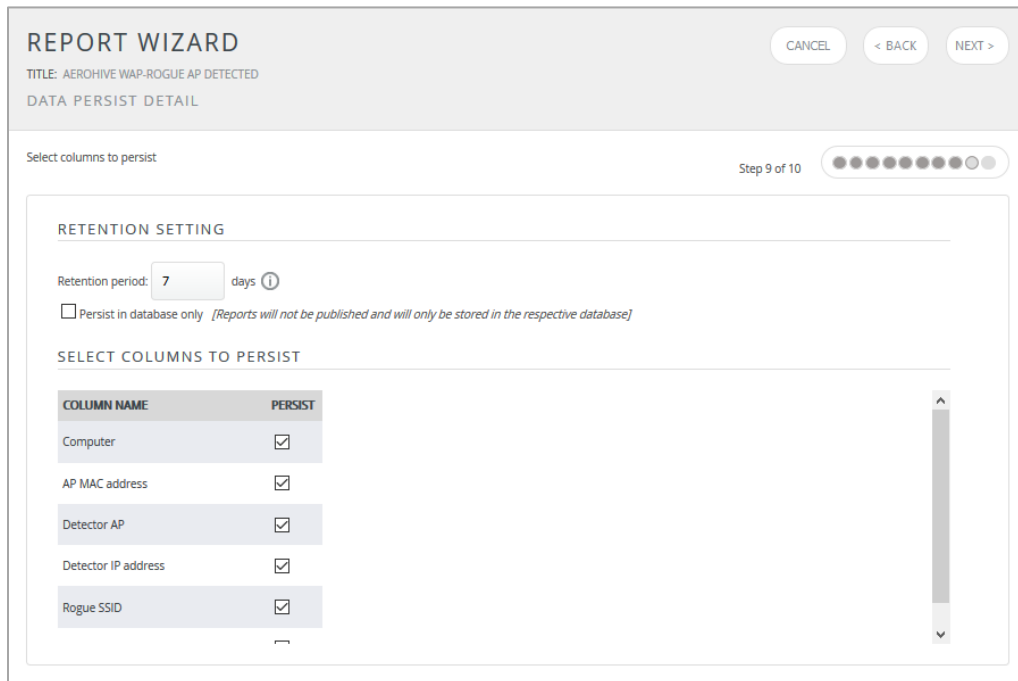
Update status via RSS: Select Feed

Show in: none

Persist data in Eventvault Explorer

Figure 31

- In next page, check column names to persist using **PERSIST** checkboxes beside them. Choose suitable **Retention period**.



**REPORT WIZARD**  
TITLE: AEROHIVE WAP-ROGUE AP DETECTED  
DATA PERSIST DETAIL

Select columns to persist Step 9 of 10

**RETENTION SETTING**

Retention period:  days ⓘ

Persist in database only [Reports will not be published and will only be stored in the respective database]

**SELECT COLUMNS TO PERSIST**

COLUMN NAME	PERSIST
Computer	<input checked="" type="checkbox"/>
AP MAC address	<input checked="" type="checkbox"/>
Detector AP	<input checked="" type="checkbox"/>
Detector IP address	<input checked="" type="checkbox"/>
Rogue SSID	<input checked="" type="checkbox"/>

Figure 32

- Proceed to next step and click **Schedule** button.
- Wait till the reports get generated.

## Create Dashlets

- Open **EventTracker Enterprise** in browser and logon.

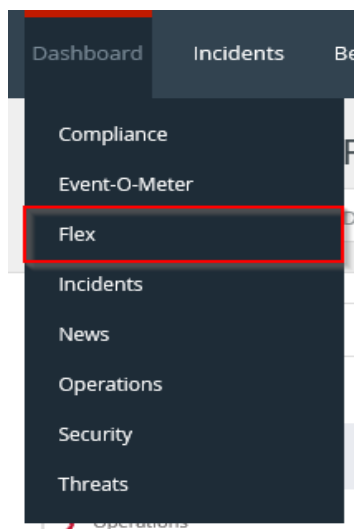


Figure 33

2. Navigate to **Dashboard>Flex**.  
Flex Dashboard pane is shown.

Figure 34


3. Fill suitable title and description and click **Save** button.
4. Click  to configure a new flex dashlet. Widget configuration pane is shown.

Figure 35

5. Locate earlier scheduled report in **Data Source** dropdown.
6. Select **Chart Type** from dropdown.
7. Select extent of data to be displayed in **Duration** dropdown.
8. Select computation type in **Value Field Setting** dropdown.
9. Select evaluation duration in **As Of** dropdown.
10. Select comparable values in **X Axis** with suitable label.
11. Select numeric values in **Y Axis** with suitable label.
12. Select comparable sequence in **Legend**.
13. Click **Test** button to evaluate. Evaluated chart is shown.



Figure 36

14. If satisfied, click **Configure** button.

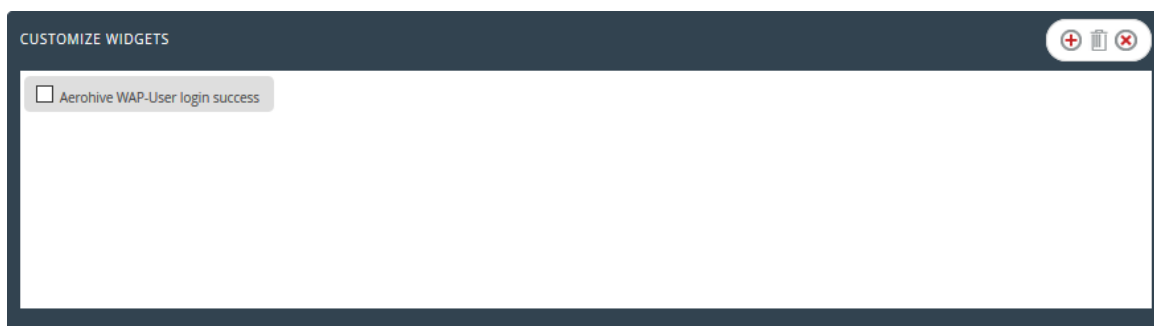




Figure 37

15. Click 'customize'  to locate and choose created dashlet.
16. Click  to add dashlet to earlier created dashboard.

## Sample Flex Dashboards

For below dashboard **DATA SOURCE: Aerohive WAP-User login success**

- Aerohive WAP-User login success**  
**WIDGET TITLE:** Aerohive WAP-User login success  
**CHART TYPE:** Donut  
**AXIS LABELS [X-AXIS]:** SSID  
**LEGEND [SERIES]:** Source MAC Address



Figure 38

- Aerohive WAP-Rogue AP detected**  
**WIDGET TITLE:** Aerohive WAP-Rogue AP detected  
**CHART TYPE:** Donut  
**AXIS LABELS [X-AXIS]:** Rogue SSID  
**LEGEND [SERIES]:** Detector AP



Figure 39