

# FortiSIEM — Integration API Guide

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Revision 4

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# Overview

FortiSIEM provides integrations that allows you to query and make changes to the CMDB, Dashboard, query events, and send incident notifications. Most of these integrations are via REST API.

This document provides integration specifications and example usage.

- [CMDB Integration](#)
- [Events and Report Integration](#)
- [Incident Notification Integration](#)
- [Dashboard Integration](#)
- [External Help desk/CMDB Integration](#)
- [External Threat Intelligence Integration](#)
- [Example Usage](#)

# CMDB Integration

These APIs are available for interacting with the FortiSIEM CMDB.

- [Add or Update an Organization](#)
- [Create or Update Device Credentials](#)
- [Discover Devices](#)
- [Get CMDB Device Info](#)
- [Get the List of Monitored Devices and Attributes](#)
- [Get the List of Monitored Organizations](#)
- [Update Device Monitoring](#)
- [Add, Update or Delete Device Maintenance Schedule](#)

## Add or Update an Organization

This API enables you to add or update an Organization in Service Provider deployments.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML containing the organization information using organization name as key.
<b>Request URL</b>	<ul style="list-style-type: none"><li>• <b>Add an organization:</b> <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/organization/add</code></li><li>• <b>Update an organization:</b> <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/organization/update</code></li></ul>
<b>Input Parameters</b>	User name and password of Super account or Organization specific account, Organization definition file
<b>Input XML</b>	Contains organization details - the key is the organization name, which means that entries with the same name will be merged.
<b>Output</b>	None

Refer to [Example Usage](#) for adding or updating an Organization.

## Create or Update Device Credentials

This API enables you to create or update device credentials in Enterprise and Service Provider deployments.

### API Specifications

The key is the credential name in the input XML. If a credential with the same name exists, then the credential in the database will be updated with the new content.

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML.
<b>Request URL</b>	<code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceMon/updateCredential</code>
<b>Input Parameters</b>	<ul style="list-style-type: none"><li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account that has the appropriate access.</li><li>• <b>Service Provider deployments:</b> User name and password of Super Global account or Organization specific account and name. Make sure that the account has the appropriate access.</li></ul>
<b>Input XML</b>	An XML file containing credentials and IP to credential mappings.
<b>Output</b>	An HTTP status code.

Refer to [Example Usage](#) creating or updating device credentials.

## Discover Devices

This API enables you to discover devices in Enterprise and Service Provider deployments.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML containing the devices to be discovered. An output XML containing the task Id is returned. The task Id can then be used to get the status of the discovery results.
<b>Request URL</b>	<ul style="list-style-type: none"> <li>• <b>Send Discovery request:</b> https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceMon/discover</li> <li>• <b>Get Discovery result:</b> https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceMon/status?taskId=XXX</li> </ul>
<b>Input Parameters</b>	<ul style="list-style-type: none"> <li>• <b>Service Provider deployments:</b> User name and password of Super Global account or Organization specific account, and name. Make sure that the account has the appropriate access.</li> <li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account that has the appropriate access.</li> </ul>
<b>Output</b>	<ul style="list-style-type: none"> <li>• Discovery request: XML containing task Id.</li> <li>• Discovery result: XML containing discovered devices and attributes.</li> </ul>

Refer to [Example Usage](#) for discovering devices.

## Get CMDB Device Info

This API enables you to get CMDB information in Enterprise and Service Provider deployments. The APIs for Service Provider deployments differ from the Enterprise deployments in that you must specify an organization for the input URL and credentials.

- [Get Short Description of All Devices](#)
- [Get Short Description of All Devices in an Address Range](#)
- [Get Full Information about One Device](#)
- [Get a Section of Information \(Applications, Interfaces, Processors, Storage\) about One Device](#)

### Get Short Description of All Devices

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML. An output XML is returned.
<b>Input URL</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b>  <code>https://&lt;&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/devices</code></li> <li>• <b>Service Provider deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/devices&amp;organization=ACME</code></li> </ul>
<b>Input Credentials</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account. Make sure that the account has the appropriate access.</li> <li>• <b>Service Provider deployments:</b> User name and password of any FortiSIEM account for the ACME organization. Make sure that the account has the appropriate access.</li> </ul>
<b>Output</b>	<p>An XML that contains a short set of attributes for each device, including:</p> <ul style="list-style-type: none"> <li>• Host Name</li> <li>• Access IP</li> <li>• Creation Method</li> <li>• Description</li> <li>• Vendor, Model, version</li> <li>• Contact info</li> <li>• Location</li> <li>• Uptime</li> <li>• Hardware Model</li> <li>• Serial Number</li> <li>• Business Service Groups to which the device belongs</li> </ul>

## Get Short Description of All Devices in an Address Range

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML. An output XML is returned.
<b>Input URL</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/devices?includeIps=&lt;includeIpSet&gt;&amp;excludeIps=&lt;excludeIpSet&gt;</code></li> <li>• <b>Service Provider deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/devices?includeIps=&lt;includeIpSet&gt;&amp;excludeIps=&lt;excludeIpSet&gt;&amp;organization=ACME</code></li> </ul>
<b>Input Credentials</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account. Make sure that the account has the appropriate access.</li> <li>• <b>Service Provider deployments:</b> User name and password of any FortiSIEM account for the ACME organization. Make sure that the account has the appropriate access.</li> </ul>
<b>Output</b>	An XML that contains short description of devices with access IPs in the specified address range.

### Formatting for the <IncludeIPset> and <ExcludeIPset> Attributes

Both <includeIpSet> and <excludeIpSet> can take any of these forms:

- IPAddress
- IPAddress1,IPAddress2
- IPAddress1-IPAddress2
- IPAddress1,IPAddress2-IPAddress3,IPAddress4,IPAddress5-IPAddress6

### Examples

- If you want all devices in the range 192.168.20.1-192.168.20.100, then issue the API:  
`https://<FortiSIEM_Supervisor_IP>/phoenix/rest/cmdbDeviceInfo/devices?includeIps=192.168.20.1-192.168.20.100`
- If you want all devices in the range 192.168.20.1-192.168.20.100, but want to exclude 192.168.20.20, 192.168.20.25, then issue the API:  
`https://<FortiSIEM_Supervisor_IP>/phoenix/rest/cmdbDeviceInfo/devices?includeIps=192.168.20.1-192.168.20.100&excludeIps=192.168.20.20,192.168.20.25`
- If you want all devices in the range 192.168.20.1-192.168.20.100, but want to exclude 192.168.20.20-192.168.20.25, then issue the API:  
`https://<FortiSIEM_Supervisor_IP>/phoenix/rest/cmdbDeviceInfo/devices?includeIps=192.168.20.1-192.168.20.100&excludeIps=192.168.20.20-192.168.20.25`

## Get Full Information about One Device

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML (optional). An output XML is returned.
<b>Input URL</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/device?ip=&lt;deviceIp&gt;&amp;loadDepend=true</code></li> <li>• <b>Service Provider deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/device?ip=&lt;deviceIp&gt;&amp;loadDepend=true&amp;organization=ACME</code></li> </ul>
<b>Input Credentials</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account. Make sure that the account has the appropriate access.</li> <li>• <b>Service Provider deployments:</b> User name and password of any FortiSIEM account for the ACME organization. Make sure that the account has the appropriate access.</li> </ul>
<b>Output</b>	An XML that contains full information FortiSIEM has discovered about a device.

## Get a Section of Information (Applications, Interfaces, Processors, Storage) about One Device

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML (optional). An output XML is returned.
<b>Input URL</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/device?ip=&lt;deviceIp&gt;&amp;loadDepend=true&amp;fields=&lt;sectionName&gt;</code></li> <li>• <b>Service Provider deployments:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/cmdbDeviceInfo/device?ip=&lt;deviceIp&gt;&amp;loadDepend=true&amp;fields=&lt;sectionName&gt;&amp;organization=ACME</code></li> </ul>
<b>Input Credentials</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account. Make sure that the account has the appropriate access.</li> <li>• <b>Service Provider deployments:</b> User name and password of any FortiSIEM account for the ACME organization. Make sure that the account has the appropriate access.</li> </ul>
<b>Output</b>	An XML that contains the specified section discovered for the device.

**Options for <sectionName>:** applications, interfaces, processors or storages

Refer to [Example Usage](#) to get CMDB device info.

## Get the List of Monitored Devices and Attributes

This API enables to get the list of monitored devices and attributes in Enterprise and Service Provider deployments.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML (optional). An output XML is returned.
<b>Input URL</b>	<code>https://&lt;&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceInfo/monitoredDevices</code>
<b>Input Credentials</b>	<ul style="list-style-type: none"><li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account.</li><li>• <b>Service Provider deployments:</b> User name and password of Super account or Organization specific account, Organization name</li></ul>
<b>Output</b>	An XML that contains device name, device type, organization name and list of monitored attributes.

Refer to [Example Usage](#) to get the list of monitored devices and attributes.

## Get the List of Monitored Organizations

This API enables you to get the list of monitored organizations in Service Provider deployments.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML (optional). An output XML is returned.
<b>Input URL</b>	<code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/config/Domain</code>
<b>Input Credentials</b>	User name and password of Super account.
<b>Output</b>	An XML that contains Organization id, Organization name, Status, Included and Excluded IP range.

Refer to [Example Usage](#) to get the list of monitored organizations.

## Update Device Monitoring

This API enables you to update device monitoring in Enterprise and Service Provider deployments.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML (optional).
<b>Input URL</b>	<code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceMon/updateMonitor</code>
<b>Input Credentials</b>	<ul style="list-style-type: none"><li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account.</li><li>• <b>Service Provider deployments:</b> User name and password of Super account or Organization specific account, Organization name, input XML containing the updates to device monitoring configuration.</li></ul>
<b>Input Parameters</b>	User name and password of Super Global account or Organization specific account, Organization name, input XML containing the updates to device monitoring configuration.
<b>Output</b>	HTTP Status Code

Refer to [Example Usage](#) for updating device monitoring.

## Add, Update or Delete Device Maintenance Schedule

This API enables you to add, update or delete device maintenance schedule in Enterprise deployments and Service Provider deployments.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML (optional).
<b>Input URL</b>	<ul style="list-style-type: none"> <li>• <b>For adding or updating:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceMaint/update</code></li> <li>• <b>For deleting:</b>  <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/deviceMaint/delete</code></li> </ul>
<b>Input Parameters</b>	An XML file Containing devices and maintenance calendar updates.
<b>Input Credentials</b>	User name and password of any FortiSIEM account with appropriate access control.
<b>Output</b>	An HTTP status code.

Refer to [Example Usage](#) for adding or updating device maintenance schedule and for deleting device maintenance schedule.

## Events and Report Integration

This REST API based caller makes an HTTP(S) request with an input XML that defines the query. Since a query can take some time and the number of returned results can be large, the query works as follows:

1. Caller submits the query and gets a Query Id back from FortiSIEM. This is done via Request API.
2. Caller polls for query progress and waits until the query is completed. This is done via Polling API.
3. When the query is completed, Caller gets the results via Results API.
  - a. Caller gets the total number of query results and the query result fields.
  - b. Caller gets the results - one chunk at a time.

This API provides a way to programmatically run any query on the event data. Following are the specifications for:

- [Request API](#)
- [Polling API](#)
- [Results API](#)

## Request API Specifications

<b>Input URL</b>	<code>https://&lt;Accelops_IP&gt;/phoenix/rest/query/eventQuery</code>
<b>Input Parameters</b>	XML file containing the query parameters.
<b>Input Credentials</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b> User name and password of any FortiSIEM account</li> <li>• <b>Service Provider deployments:</b> User name and password of Super account for getting incidents for all organizations. If incidents for a specific organization are needed, then an organization-specific account and an organization name is needed.</li> </ul>
<b>Output</b>	<code>queryId</code> or an error code if there is a problem in handling the query or the query format.

## Polling API Specifications

The request will poll until the server completes the query.

<b>Input URL</b>	<code>https://&lt;Accelops_IP&gt;/phoenix/rest/query/progress/&lt;queryId&gt;</code>
<b>Output</b>	<p>progress (pct)</p> <p>Until progress reaches 100 (completed), caller needs to continue polling FortiSIEM. This is because the server may need to aggregate the results or insert meta-information before sending the results.</p>

## Results API Specifications

<b>Input URL</b>	<code>https://&lt;Accelops_IP&gt;/phoenix/rest/query/events/&lt;queryId&gt;/&lt;begin&gt;/&lt;end&gt;</code>
<b>Output</b>	<p>totalCount (first time) and an XML containing the incident attributes.</p> <p>For the first call, <b>begin</b> = 0 and <b>end</b> can be 1000. You need to continuously query the server by using the same URL, but increasing the <code>begin</code> and <code>end</code> until the <code>totalCount</code> is reached.</p>

Refer to [Example Usage](#) for a sample query.

# Incident Notification Integration

FortiSIEM can send notifications via email/SMS, HTTPS, SNMP traps, and over the FortiSIEM API.

These topics describe the notification types via:

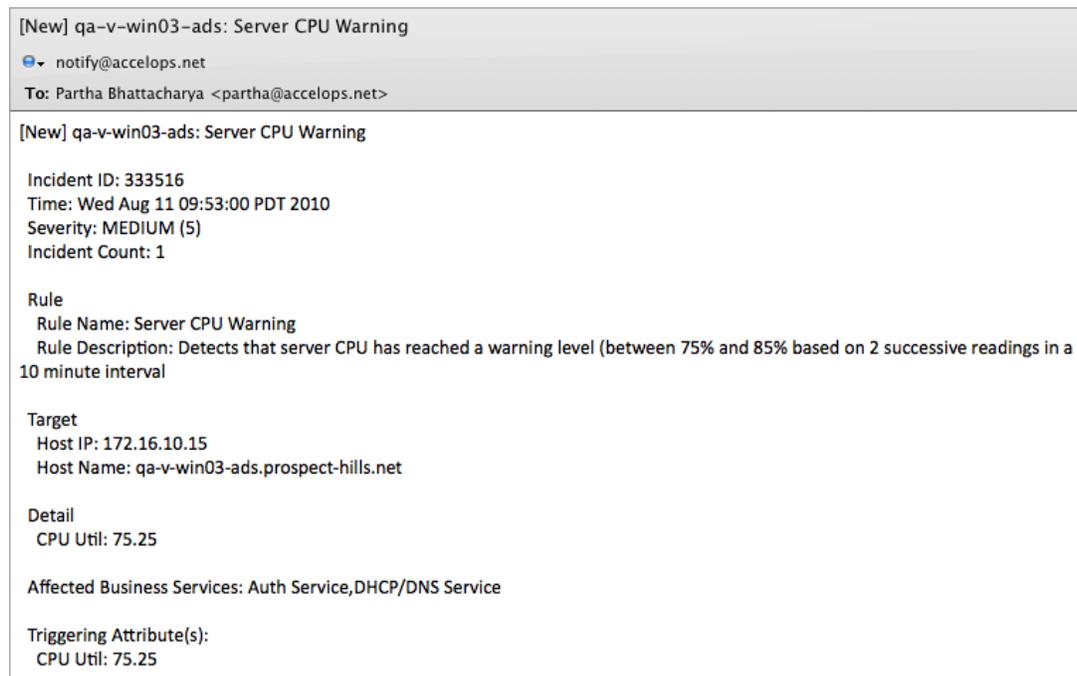
- Email/SMS
- HTTPS
- SNMP Trap
- API

## Notification via Email

Email is the most common form of incident notification. While FortiSIEM has a default email format, users can also create their own email templates from the FortiSIEM GUI.

The screenshots show three types of email that can be sent depending on whether an incident is NEW, UPDATED or CLEARed.

### NEW



## UPDATE

[Update] ACCELOPS-A804CE: Server Memory Warning

notify@accelops.net  
 To: Partha Bhattacharya <partha@accelops.net>

[Update] ACCELOPS-A804CE: Server Memory Warning

Incident ID: 362034  
 First Seen Time: Wed Aug 11 13:11:00 PDT 2010  
 Last Seen Time: Wed Aug 11 16:45:00 PDT 2010  
 Severity: MEDIUM (5)  
 Incident Count: 34

Rule  
 Rule Name: Server Memory Warning  
 Rule Description: Detects that server Memory has reached a warning level (between 75% and 85% based on 2 successive readings in a 10 minute interval)

Target  
 Host IP: 172.16.10.139  
 Host Name: ACCELOPS-A804CE

Detail  
 Memory Util: 78.55

Triggering Attribute(s):  
 Memory Util: 78.55

## CLEAR

[Clear] qa-v-win03-ads: Server CPU Critical

notify@accelops.net  
 To: Partha Bhattacharya <partha@accelops.net>

[Clear] qa-v-win03-ads: Server CPU Critical

Incident ID: 382113  
 Time: Wed Aug 11 16:14:10 PDT 2010  
 First Seen Time: Wed Aug 11 15:48:00 PDT 2010  
 Last Seen Time: Wed Aug 11 15:54:00 PDT 2010  
 Severity: HIGH (9)  
 Incident Count: 2

Rule  
 Rule Name: Server CPU Critical  
 Rule Description: Detects that server CPU has reached a critical level (greater than 85% based on 2 successive readings in a 10 minute interval)

Target  
 Host IP: 172.16.10.15  
 Host Name: qa-v-win03-ads.prospect-hills.net

Detail  
 CPU Util: 89.00

Affected Business Services: Auth Service,DHCP/DNS Service

Identity And Location  
 IP Details  
 IP Address: 172.16.10.15  
 Domain: PROSPECT-HILLS  
 Host Name: QA-V-WIN03-ADS  
 First Seen Time: Wed Aug 11 14:58:35 PDT 2010  
 Last Seen Time: Wed Aug 11 16:12:13 PDT 2010

## Subject Line Format

[New|Update|Clear] <HostName>: <Rule Name>

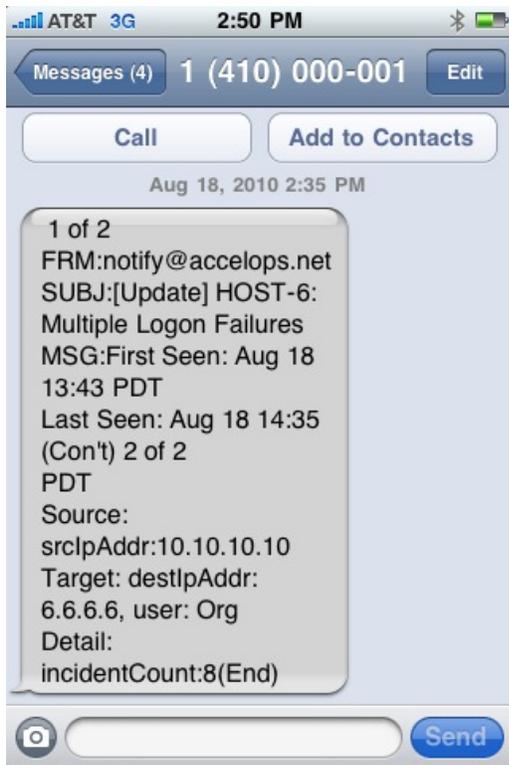
## Body Format

Section	Field	Description
<b>Affected Business Services</b> (optional)		
<b>Generic</b>		
<b>Identity and Location</b>		<ul style="list-style-type: none"> <li>- Contains additional information for IP addresses in incident source or target. This information is present only if such information is discovered by FortiSIEM and shown in the Identity and Location tab.</li> <li>- Host name</li> <li>- User</li> <li>- Domain</li> <li>- Nearest switch name/port or VPN gateway or Wireless Controller</li> <li>- First and last seen times for this IP address to identity/location binding</li> </ul>
<b>Incident Details</b>		Rule-specific details that caused the incident to trigger
<b>Incident Source</b>		For security-related incidents, where the incident originated
<b>Incident Target</b>		Where the incident occurred, or the target of an IPS alert
<b>Rule</b>	Rule Name	Name of the rule, repeated in the subject line
	Incident Id	Unique ID of the incident in FortiSIEM. An incident can be searched in FortiSIEM by this ID.
	Time	Time when this incident occurred
	Severity	Incident severity: HIGH MEDIUM LOW and a numeric severity in the range 0-10 (0-4 LOW, 5-8 MEDIUM and 9-10 HIGH)
	Incident Count	How many times this incident has occurred. For NEW incidents, the count is 1.

Section	Field	Description
	Rule Description	
	Host Name (optional)	
	Host IP (optional)	
	Other attributes as defined in rule	
	Host Name (optional)	
	Host IP (optional)	

## Notification via SMS

SMS notification is a shortened version of email notification.



## Notifications via HTTPS

When an incident trigger, FortiSIEM can push an XML file containing Incident details via HTTP(S) POST.

The FortiSIEM `AONotification.xsd` file shows the XML schema for incident notifications.

```

<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="incident">
<xs:complexType>
<xs:sequence>
<xs:element type="xs:string" name="name"/>
<xs:element type="xs:string" name="description"/>
<xs:element type="xs:string" name="displayTime"/>
<xs:element type="xs:string" name="incidentSource"/>
<xs:element name="incidentTarget">
<xs:complexType>
<xs:sequence>
<xs:element name="entry">
<xs:complexType>
<xs:simpleContent>
<xs:extension base="xs:string">
<xs:attribute type="xs:string" name="attribute"/>
<xs:attribute type="xs:string" name="name"/>
</xs:extension>
</xs:simpleContent>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="incidentDetails">
<xs:complexType>
<xs:sequence>
<xs:element name="entry">
<xs:complexType>
<xs:simpleContent>
<xs:extension base="xs:float">
<xs:attribute type="xs:string" name="name"/>
</xs:extension>
</xs:simpleContent>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element type="xs:string" name="affectedBizSrcv"/>
<xs:element type="xs:string" name="identityLocation"/>
</xs:sequence>
<xs:attribute type="xs:short" name="incidentId"/>
<xs:attribute type="xs:string" name="ruleType"/>
<xs:attribute type="xs:byte" name="severity"/>
<xs:attribute type="xs:byte" name="repeatCount"/>
<xs:attribute type="xs:string" name="organization"/>
<xs:attribute type="xs:string" name="status"/>
</xs:complexType>
</xs:element>
</xs:schema>

```

The description of each field is as follows:

Section	Field	Description
<b>Generic</b>		
	incidentId	Unique ID of the incident in FortiSIEM. An incident can be searched in FortiSIEM by this ID.
	ruleId	Unique id of the rule in FortiSIEM
	vendor	FortiSIEM
	severity	Incident severity: HIGH   MEDIUM   LOW
	organization	The name of the organization for which this incident occurred
	status	New, Update or Clear
	repeatCout	how many times this incident has occurred
	name	Name of the rule that triggered the incident
	description	Description of the rule including conditions under which the rule is written to trigger
	displayTime	Time when this incident occurred
incidentTarget		Where the incident occurred, or the target of an IPS alert. It consists of attribute, name and value pairs.
	attribute	Parsed event attribute id
	name	Display name of the attribute. Common examples of attributes are srcIpAddr, destIpAddr, hostIpAddr etc.
	value	The attribute's value
incidentSource		For security-related incidents, where the incident originated
	attribute	Parsed event attribute id
	name	Display name of the attribute. Common examples of attributes are srcIpAddr, destIpAddr, hostIpAddr etc.
	value	The attribute's value

Section	Field	Description
incidentDetails		Rule-specific details that caused the incident to trigger shown as an attribute with name and value pairs.
	attribute	Parsed event attribute id
	name	Display name of the attribute Common examples of attributes are srcIpAddr, destIpAddr, hostIpAddr etc.
	value	The attribute's value
affectedBizSrvc		A comma-separated list of business service names
deviceDetails		Contains additional information for IP addresses in incident source or target. This information is present only if such information is discovered by FortiSIEM and shown in the Identity and Location tab. <ul style="list-style-type: none"> <li>ipAddr</li> <li>hostName</li> <li>vendor</li> <li>model</li> <li>version</li> <li>users - Logged on users using this IP info obtained from Active Directory <ul style="list-style-type: none"> <li>userName - Active Directory login name</li> <li>fullName - Full name of this user in Active Directory or defined manually</li> <li>email - email address of the user in Active Directory or defined manually</li> <li>jobTitle - jobTitle of the user in Active Directory or defined manually</li> <li>First and last seen times for this IP address to user binding</li> </ul> </li> </ul>

## Notification via SNMP Trap

FortiSIEM can also send out SNMP traps when an incident triggers. Use the **MIB** file to configure your device to handle SNMP traps sent from FortiSIEM.

## Notification via API

You can also query for incidents via a REST API.

- [Request API Specifications](#)
- [Polling API Specifications](#)

- [Results API Specifications](#)
- [Incident Attribute List](#)
- [Incident XML Schema](#)

This REST API based caller makes an HTTP(S) request with an input XML. An output XML is returned. Since the number of returned results can be large, the requester has to first get the total number of results, and then get the results one chunk at a time.

This REST API based caller makes an HTTP(S) request with an input XML that defines the query. Since a query can take some time and the number of returned results can be large, the query works as follows

1. Caller submits the query and gets a Query Id back from FortiSIEM. This is done via Request API.
2. Caller polls for query progress and waits until the query is completed. This is done via Polling API
3. When the query is completed, Caller gets the results via Results API.
  - a. Caller gets the total number of query results and the query result fields.
  - b. Caller gets the results - one chunk at a time.

## Request API Specifications

<b>Input URL</b>	<code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/query/eventQuery</code>
<b>Input Parameters</b>	XML file containing the query parameters
<b>Input Credentials</b>	<ul style="list-style-type: none"> <li>• <b>Enterprise deployments:</b> Username and password of any FortiSIEM account</li> <li>• <b>Service Provider deployments:</b> Username and password of Super account for getting incidents for all organizations. If incidents for a specific organization are needed, then an organization-specific account and an organization name is needed.</li> </ul>
<b>Output</b>	<code>queryId</code> or an error code if there is a problem in handling the query or the query format.

## Polling API Specifications

The request will poll until the server completes the query.

<b>Input URL</b>	<code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/query/progress/&lt;queryId&gt;</code>
<b>Output</b>	<p>progress (pct)</p> <p>Until progress reaches 100, at which point the server completes the query, you need to continue polling the server. This is because the server may need to aggregate the results or insert meta-information before sending the results.</p>

## Results API Specifications

<b>Input URL</b>	<code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/query/events/&lt;queryId&gt;/&lt;begin&gt;/&lt;end&gt;</code>
<b>Output</b>	totalCount (first time) and an XML containing the incident attributes. For the first call, <b>begin</b> = 0 and <b>end</b> can be 1000. You need to continuously query the server by using the same URL, but increasing the <b>begin</b> and <b>end</b> until the totalCount is reached

## Incident Attribute List

bizService, eventType, phCustId, incidentClearedReason, incidentTicketStatus, incidentLastSeen, eventSeverity, incidentTicketUser, hostIpAddr, eventName, phEventCategory, incidentTicketId, count, incidentDetail, incidentSrc, eventSeverityCat, incidentFirstSeen, incidentViewUsers, incidentComments, incidentClearedUser, incidentNotiRecipients, incidentId, phRecvTime, incidentStatus, incidentViewStatus, incidentTarget, incidentRptIp

## Incident Notification XML Schema

The following is the schema for incident notification output file:

```

<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="incident">
    <xs:complexType>
      <xs:sequence>
        <xs:element type="xs:string" name="name"/>
        <xs:element type="xs:string" name="description"/>
        <xs:element type="xs:string" name="displayTime"/>
        <xs:element type="xs:string" name="incidentSource"/>
        <xs:element name="incidentTarget">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="entry">
                <xs:complexType>
                  <xs:simpleContent>
                    <xs:extension base="xs:string">
                      <xs:attribute type="xs:string" name="attribute"/>
                      <xs:attribute type="xs:string" name="name"/>
                    </xs:extension>
                  </xs:simpleContent>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="incidentDetails">
  
```

```
<xs:complexType>
<xs:sequence>
<xs:element name="entry"> <xs:complexType>
    <xs:simpleContent>
        <xs:extension base="xs:float">
            <xs:attribute type="xs:string" name="attribute"/>
            <xs:attribute type="xs:string" name="name"/>
        </xs:extension>
        </xs:simpleContent>
    </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
    <xs:element type="xs:string" name="affectedBizSrcv"/>
    <xs:element type="xs:string" name="identityLocation"/>
</xs:sequence>
<xs:attribute type="xs:short" name="incidentId"/>
<xs:attribute type="xs:string" name="ruleType"/>
<xs:attribute type="xs:byte" name="severity"/>
<xs:attribute type="xs:byte" name="repeatCount"/>
<xs:attribute type="xs:string" name="organization"/>
<xs:attribute type="xs:string" name="status"/>
</xs:complexType>
</xs:element>
</xs:schema>
```

Refer to [Example Usage](#) for incident notification via API.

# Dashboard Integration

This API enables you to interact with FortiSIEM Dashboard. You can perform the following operation:

- [Add a Dashboard Folder](#)

## Add a Dashboard Folder

This API enables you to add Dashboard folders to an Organization.

### API Specifications

<b>Methodology</b>	REST API based: Caller makes an HTTP(S) request with an input XML.
<b>Request URL</b>	<b>Add a Dashboard folder to an Organization:</b> <code>https://&lt;FortiSIEM_Supervisor_IP&gt;/phoenix/rest/dashboard/html/add</code>
<b>Input Parameters</b>	User name and password of Super account or Organization specific account and Dashboard folder definition file.
<b>Input XML</b>	Contains dashboard details to be included in this folder: <ul style="list-style-type: none"> <li>- Dashboard folder name</li> <li>- Organization name</li> <li>- Time range</li> <li>- Dashboard type</li> </ul>
<b>Output</b>	An HTTP status code.

Refer to [Example Usage](#) for adding a Dashboard folder.

## External Help Desk/CMDB Inbound Integration

FortiSIEM has inbuilt support for ServiceNow and ConnectWise for CMDB and two-way incident integration. Other systems can be supported by creating a new Java plug-in following instructions in the [FortiSIEM Service API](#) section.

# External Threat Intelligence Integration

New external threat intelligence sources can be supported by creating a new Java plug-in following instructions in the [FortiSIEM Service API](#) section.

## Example Usage

The sample codes provided are for instructional use only. Please adapt it to your environment. Download the zip file containing the samples from the following URL:

<https://filestore.fortinet.com/docs.fortinet.com/v2/resources/FortiSIEM-RestAPI-521.zip>

### **Python Support**

Scripts are tested using version 2.7.16. You must install `httplib2` and `ssl` manually, if they are not already installed.