



# TippingPoint™ Security Management System (SMS)

## Web API Guide

## Privacy and Personal Data Collection Disclosure

Certain features available in Trend Micro products collect and send feedback regarding product usage and detection information to Trend Micro. Some of this data is considered personal in certain jurisdictions and under certain regulations. If you do not want Trend Micro to collect personal data, you must ensure that you disable the related features.

The following link outlines the types of data that the Security Management System collects and provides detailed instructions on how to disable the specific features that feedback the information.

<https://success.trendmicro.com/data-collection-disclosure>

Data collected by Trend Micro is subject to the conditions stated in the Trend Micro Privacy Policy:

[https://www.trendmicro.com/en\\_us/about/legal/privacy-policy-product.html](https://www.trendmicro.com/en_us/about/legal/privacy-policy-product.html)

## Legal Notice

© Copyright 2018 Trend Micro Incorporated. All rights reserved.

Trend Micro, the Trend Micro t-ball logo, TippingPoint, and Digital Vaccine are trademarks or registered trademarks of Trend Micro Incorporated. All other product or company names may be trademarks or registered trademarks of their owners.

Publication: December 2018

# SMS Web API

The SMS Web API provides access to the following set of SMS features:

- *Profile management*
- *Device administration*
- *SMS administration*
- *Virtual segment management*
- *Reputation database management*
- *Packet trace*
- *Responder*
- *Enterprise Vulnerability Remediation (eVR)*
- *STIX/TAXII*
- *Database access*
- *External database*
- *MIB files for the SMS*
- *Event Taxonomy*

## Authentication

Access to the SMS Web API requires that you authenticate by using HTTP authentication or the API key.

- HTTP authentication: `-u {username}:{password}`

```
curl -k -u {username}:{password} "https://<sms_server>/ipsProfileMgmt/exportProfile?profileName=MyProfile"
```

- API key: authentication mechanism that does not require a username and password. Use the API key as part of the header for HTTP requests. `X-SMS-API-KEY: <string>`

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/exportProfile?profileName=MyProfile"
```



### Note

HTTP authentication is supported; however this authentication mechanism is deprecated and not recommended. We recommend that you authenticate by using the API key.

---

Keep in mind the following considerations:

- To view the API key on the SMS, go to **Admin > Authentication and Authorization > Users > Edit > Authentication > API Key**.
- To customize or replace the default SMS SSL X509 certificate on the SMS, go to **Admin > Certificate Management**.
- Only superusers should have web access for full authorization. On the SMS, go to **Admin > Authentication and Authorization > Roles**.

- HTTPS service is required to send API requests to the SMS. On the SMS, go to **Admin > Server Properties > Services**.

## Errors

The SMS web API returns one of the following HTTP status codes if the request is unsuccessful.

| CODE | DESCRIPTION                                                                                                                                                                                                                                                                                                          |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400  | Bad request – malformed parameter or request.                                                                                                                                                                                                                                                                        |
| 401  | Unauthorized – missing or incorrect credentials.                                                                                                                                                                                                                                                                     |
| 403  | No web access capability.<br>If you receive this message, check the user role capabilities, and enable the <code>Access SMS Web Services</code> capability.<br>On the SMS, go to <b>Admin &gt; Authentication and Authorization &gt; Roles &gt; Edit &gt; Capabilities &gt; Admin &gt; Access SMS Web Services</b> . |
| 404  | Not found – invalid or nonexistent requested source.                                                                                                                                                                                                                                                                 |
| 412  | Preconditioned fail – unexpected error. Check the SMS System Log.<br>On the SMS, go to <b>Admin &gt; General &gt; SMS System Log</b> .                                                                                                                                                                               |
| 500  | Internal server error – server-side exception. Check the SMS System Log.<br>On the SMS, go to <b>Admin &gt; General &gt; SMS System Log</b> .                                                                                                                                                                        |

## Profile management

Use this API to export, import, and distribute an SMS profile, and to create and update filters. In addition, you can retrieve profile distribution status and data about the Digital Vaccine (DV) on the SMS.

This API includes:

- [\*Export a profile\*](#)
- [\*Import a profile\*](#)
- [\*Distribute a profile\*](#)
- [\*Get distribution status\*](#)
- [\*Create a traffic management filter\*](#)
- [\*Delete a traffic management filter\*](#)
- [\*Get current filter settings\*](#)
- [\*Update filter settings\*](#)
- [\*Get DV information\*](#)

## Export a profile

Get and export a profile package from the SMS.

- Profile packages typically remain unchanged.

- If you want to change the files within a profile package, update the md5sum in the sms-security-manifest file before you import the profile back to the SMS.

## Definition

```
ipsProfileMgmt/exportProfile
```

## Parameters

| PARAMETER                    | VALUE  | DESCRIPTION                                                                                                                                |
|------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
| exportMethod                 | string | Optional. Export destination. <ul style="list-style-type: none"> <li>• SMS HTTPS server (default)</li> <li>• SMB</li> <li>• NFS</li> </ul> |
| profileName                  | string | Required. Profile name to export.                                                                                                          |
| profileVersion               | string | Optional. Profile version to export. The latest version of the profile is used if this parameter is not specified.                         |
| remoteDirectory              | string | Required. <ul style="list-style-type: none"> <li>• SMB</li> <li>• NFS</li> </ul>                                                           |
| remoteDirectory/SMB/userid   | string | SMB user ID.                                                                                                                               |
| remoteDirectory/SMB/password | string | SMB password.                                                                                                                              |
| remoteDirectory/SMB/domain   | string | SMB domain.                                                                                                                                |
| remoteFilename               | string | Optional. Remote filename (default: "profile_name.pkg")                                                                                    |
| remoteServer                 | string | SMB or NFS server.                                                                                                                         |

## Example

```
curl -k --header "X-SMS-API-KEY: <string>"
"https://<sms_server>/ipsProfileMgmt/exportProfile?
exportMethod=SMB&profileName=Default&remoteDirectory=MyExportDirectory
&remoteServer=MyRemoteServer&userid=guest&password=guestpass&domain=Domain"
```

## Import a profile

Post and import an exported profile package to the SMS. Profiles include shared settings such as action sets, notification contacts, and services.

- If the imported profile includes policies or category settings that use a particular action set, the action set is added to the SMS. The SMS does not overwrite an existing action set with the same name. Instead, the SMS renames the new action set by appending a number to the end of the file name, for example, "My Quarantine\_2".
- A notification contact that is used by an action set is also imported and renamed, if necessary.
- Existing port definitions for services on the SMS remain the same. If an imported profile includes a service with a port definition that differs from the existing service on the SMS, the service is added to the SMS service list. Review services any time a profile is imported from a different user or from a different environment.

## Definition

```
ipsProfileMgmt/importProfile
```

## Parameters

| PARAMETER           | VALUE  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| importAction        | string | Required. <ul style="list-style-type: none"> <li>add: Adds a completely new profile; must have an unused name or import fails.</li> <li>combine_add: Adds new settings and merges non-conflicting changes into an existing profile.</li> <li>combine_change: Adds new settings to and overwrites existing settings of an existing profile with settings of the new profile.</li> <li>replace: Overwrites contents of SMS profile with those of the profile being imported; name and UUID remain the same; snapshot of replaced profile occurs and updated profile gets new version.</li> </ul> |
| targetProfileName   | string | Name of the existing profile on the SMS. Required for all replace and combine actions. <ul style="list-style-type: none"> <li>The profile must exist on the SMS.</li> <li>If the specified profile does not exist or is not specified in the request, the operation fails and updates the audit log.</li> </ul>                                                                                                                                                                                                                                                                                |
| replacedProfileName | string | Name of the imported profile that will have its contents applied to the existing profile on the SMS. <ul style="list-style-type: none"> <li>Required for all replace and combine actions.</li> <li>The profile must be specified in the request.</li> <li>If the specified profile does not exist or is not specified in the request, the operation fails and updates the audit log.</li> </ul>                                                                                                                                                                                                |

## Example

```
curl -k --header "X-SMS-API-KEY: <string>" -F "file=@</path/to/import.pkg>"
"https://<sms_server>/ipsProfileMgmt/importProfile?importAction=replace&
targetProfileName=<name>&replacedProfileName=<name>"
```

## Distribute a profile

Get and initiate a profile distribution to a single segment target or to a segment group.

## Definition

```
ipsProfileMgmt/distributeProfile
```

## Parameters

| ELEMENT | VALUE | DEFINITION                                                                          |
|---------|-------|-------------------------------------------------------------------------------------|
| profile |       | <ul style="list-style-type: none"> <li>id</li> <li>name</li> <li>version</li> </ul> |

| ELEMENT               | VALUE   | DEFINITION                                                                                    |
|-----------------------|---------|-----------------------------------------------------------------------------------------------|
| priority              | string  | Distribution priority.<br><ul style="list-style-type: none"> <li>high</li> <li>low</li> </ul> |
| segmentGroup          | string  | Segment group.                                                                                |
| virtualSegment        | string  | Virtual segment.                                                                              |
| device/id             | string  | Internal ID assigned to the device.                                                           |
| device/shortID        | integer | Internal number assigned to the device.                                                       |
| device/name           | string  | Device name.                                                                                  |
| device/ipAddress      | string  | Device IP address.                                                                            |
| device/virtualSegment | string  | Virtual segment on the device.                                                                |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>"
"https://<sms_server>/ipsProfileMgmt/distributeProfile?"
```

### Response

```
<?xml version="1.0" encoding="utf-8"?>
  <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
    <xs:simpleType name="uuid">
      <xs:restriction base="xs:string">
        <xs:pattern value="[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}"/>
      </xs:restriction>
    </xs:simpleType>

    <xs:complexType name="idname">
      <xs:choice>
        <xs:element name="id" type="uuid"/>
        <xs:element name="name" type="xs:string"/>
      </xs:choice>
    </xs:complexType>

    <xs:element name="distribution">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="profile" minOccurs="1"maxOccurs="1">
            <xs:complexType>
              <xs:attribute name="id" type="uuid"/>
              <xs:attribute name="name" type="xs:string"/>
              <xs:attribute name="version" type="xs:string" use="required"/>
            </xs:complexType>
          </xs:element>

          <xs:element name="priority" minOccurs="0">
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="high"/>
                <xs:enumeration value="low"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:schema>
```

```

</xs:element>

<xs:element name="segmentGroup" type="idname" minOccurs="0"
  maxOccurs="unbounded"/>
<xs:element name="virtualSegment" minOccurs="0"
  maxOccurs="unbounded">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="id" type="uuid"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="device" minOccurs="0" maxOccurs="unbounded">
  <xs:complexType>
    <xs:sequence>
      <xs:choice>
        <xs:element name="id" type="uuid"/>
        <xs:element name="shortID" type="xs:positiveInteger"/>
        <xs:element name="name" type="xs:string"/>
        <xs:element name="ipAddress" type="xs:string"/>
      </xs:choice>
      <xs:element name="virtualSegment" type="idname"
        maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

## Get distribution status

Get distribution status. Actual percent-complete progress and predicted end-time are not available.

### Definition

```
ipsProfileMgmt/distributionStatus
```

### Parameters

| ELEMENT          | VALUE   | DEFINITION                                        |
|------------------|---------|---------------------------------------------------|
| distribution/id  | string  | Internal ID assigned to the distribution session. |
| device/id        | string  | Internal ID assigned to the device.               |
| device/shortID   | integer | Internal number assigned to the device.           |
| device/name      | string  | Device name.                                      |
| device/ipAddress | string  | Device IP address.                                |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/distributionStatus?"
```



## Response

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:simpleType name="uuid">
  <xs:restriction base="xs:string">
    <xs:pattern value="[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}"/>
  </xs:restriction>
</xs:simpleType>
<xs:element name="distributions">
<xs:complexType>
  <xs:sequence>
    <xs:element name="distribution" minOccurs="1"
      maxOccurs="unbounded">
<xs:complexType>
  <xs:sequence>
    <xs:element name="device" minOccurs="0" maxOccurs="unbounded">
      <xs:complexType>
        <xs:choice>
          <xs:element name="name" type="xs:string"/>
          <xs:element name="id" type="uuid"/>
          <xs:element name="shortID" type="xs:positiveInteger"/>
          <xs:element name="ipAddress" type="xs:string"/>
        </xs:choice>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:attribute name="id" type="uuid"/>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```

## Create a traffic management filter

Create a traffic management filter.

### Definition

```
ipsProfileMgmt/createTrafficMgmt
```

### Parameters

| PARAMETER | VALUE      | DESCRIPTION                                                                                                           |
|-----------|------------|-----------------------------------------------------------------------------------------------------------------------|
| name      | string     | Required. Name of the traffic management filter; must be unique for each profile.                                     |
| profile   | string     | Required. Name of the profile that contains the traffic management filter; the profile must already exist on the SMS. |
| srcAddr   | IP address | Required. Source address for the filter. Valid values: any or IP address.                                             |
| destAddr  | IP address | Required. Destination address for the filter. Valid values: any or an IP address.                                     |

| PARAMETER                    | VALUE   | DESCRIPTION                                                                                                                                                                                   |
|------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| direction                    | string  | Optional. Filter direction. If a parameter is not specified, the default value is used. <ul style="list-style-type: none"> <li>AtoB (default)</li> <li>BtoA</li> <li>both</li> </ul>          |
| action                       | string  | Optional. Filter action set. For rate limiting, use the rate-limit parameter. <ul style="list-style-type: none"> <li>block (default)</li> <li>allow</li> <li>trust</li> </ul>                 |
| rate-limit                   | string  | Optional. Filter rate-limit action set; the action set must already be defined and set to rate-limit.                                                                                         |
| protocol                     | string  | Optional. Filter protocol. <ul style="list-style-type: none"> <li>ip (default)</li> <li>ipv6</li> <li>tcp</li> <li>tcpv6</li> <li>udp</li> <li>udpv6</li> <li>icmp</li> <li>icmpv6</li> </ul> |
| protocol/ip/ipFragments      | boolean | Optional. Applies only to IP fragments; valid only when protocol is IP. <ul style="list-style-type: none"> <li>false (default)</li> <li>true</li> </ul>                                       |
| protocol/icmp/icmptype       | integer | Optional. ICMP type; valid only when protocol is ICMP. <ul style="list-style-type: none"> <li>0-255 (default is 0)</li> </ul>                                                                 |
| protocol/icmp/icmpcode       | integer | Optional. ICMP code; valid only when protocol is ICMP. <ul style="list-style-type: none"> <li>0-255 (0 is default)</li> </ul>                                                                 |
| protocol/tcp or udp/srcPort  | integer | Optional. Source port; valid only when protocol is TCP or UDP. <ul style="list-style-type: none"> <li>any</li> <li>0-65535 (default is 0, and all ports)</li> </ul>                           |
| protocol/tcp or udp/destPort | integer | Optional. Destination port; valid only when protocol is TCP or UDP. <ul style="list-style-type: none"> <li>any</li> <li>0-65535 (default is 0, and all ports)</li> </ul>                      |
| position                     | integer | Optional. Filter precedence. <ul style="list-style-type: none"> <li>0-200 (default is 0, which uses the lowest unused value)</li> </ul>                                                       |
| comment                      | string  | Optional. Filter comments.                                                                                                                                                                    |

| PARAMETER | VALUE   | DESCRIPTION                                                                                                 |
|-----------|---------|-------------------------------------------------------------------------------------------------------------|
| state     | boolean | Optional. Filter state. <ul style="list-style-type: none"> <li>enable (default)</li> <li>disable</li> </ul> |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/createTrafficMgmt?name=<name>&profile=<p_name>&srcAddr=<ip_address>&destAddr=<ip_address>"
```

## Delete a traffic management filter

Delete a traffic management filter.

### Definition

```
ipsProfileMgmt/deleteTrafficMgmt
```

### Parameters

| PARAMETER | VALUE  | DESCRIPTION                                                                                                           |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------|
| name      | string | Required. Name of the traffic management filter to be deleted; must be unique for each profile.                       |
| profile   | string | Required. Name of the profile that contains the traffic management filter; the profile must already exist on the SMS. |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/deleteTrafficMgmt?name=<name_1>,<name_2>,<name_3>&profile=<p_name>"
```

## Get current filter settings

Retrieve current filter settings for a profile. When the SMS receives a current filter settings service request, it:

- Validates the filter ID using the DV metadata.
- Finds the category the filter ID belongs to.
- Finds the setting of the category from the profile specified by the Profile ID and version.
- Sets the filter ID in the response XML.

The setting of a given filter might be changed by IPS administrators. The changes are defined in the POLICY response XML defined by the existing service interface.

### Definition

```
ipsProfileMgmt/getFilters
```

## Parameters

| ELEMENT      | VALUE   | DEFINITION                                                                                                                                                                                                                                                             |
|--------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| profile      | string  | Empty element with these attributes: <ul style="list-style-type: none"> <li>id</li> <li>name</li> <li>version</li> </ul>                                                                                                                                               |
| number       | integer | Unique filter number.                                                                                                                                                                                                                                                  |
| name         | string  | Filter name.                                                                                                                                                                                                                                                           |
| signature-id | string  | Internally assigned filter ID.                                                                                                                                                                                                                                         |
| policy-id    | string  | Internally assigned policy ID.                                                                                                                                                                                                                                         |
| version      | integer | IPS TOS version for the filter.                                                                                                                                                                                                                                        |
| locked       | boolean | Indicates whether the filter is locked.<br>You cannot remotely change a locked filter.                                                                                                                                                                                 |
| useParent    | boolean | Indicates whether the action set on the filter is inherited from a parent profile.                                                                                                                                                                                     |
| comment      | string  | User comments.                                                                                                                                                                                                                                                         |
| description  | string  | Filter description.                                                                                                                                                                                                                                                    |
| severity     | string  | Filter severity. <ul style="list-style-type: none"> <li>Low</li> <li>Minor</li> <li>Major</li> <li>Critical</li> </ul>                                                                                                                                                 |
| enabled      | boolean | <ul style="list-style-type: none"> <li>enabled</li> <li>disabled</li> </ul>                                                                                                                                                                                            |
| actionset    | string  | <ul style="list-style-type: none"> <li>refid</li> <li>name</li> </ul>                                                                                                                                                                                                  |
| control      | string  | Controlling element of the filter <code>actionset</code> setting. <ul style="list-style-type: none"> <li>category: controlled by the category action set.</li> <li>filter: controlled by the overriding default action set.</li> </ul>                                 |
| afc          | boolean | Indicates whether the filter is managed by the Adaptive Filter Configuration (AFC). If a filter is managed by AFC, then the filter is automatically disabled when the IPS device is under heavy load and the given filter is triggered without an actual filter match. |
| policyGroup  |         | Profile group identified by a <code>refid</code> , expressed in UUID format. This parameter is never used by a filter.                                                                                                                                                 |

| ELEMENT    | VALUE | DEFINITION                                                                                                                                                                                                                                                                                                      |
|------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trigger    |       | <p>Trigger frequency detection parameter for the filter. Used only for scan/sweep filters.</p> <ul style="list-style-type: none"> <li>threshold: specify the number of filter triggers.</li> <li>timeout: specify the time period under which the number of triggers are being counted (in seconds).</li> </ul> |
| capability |       | <p>Element with a device name attribute having these child elements:</p> <ul style="list-style-type: none"> <li>enabled</li> <li>actionset: specifies the filter setting.</li> <li>refid: maps to the action set ID for the capability.</li> </ul>                                                              |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/getFilters?"
```

### Response

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:simpleType name="uuid">
    <xs:restriction base="xs:string">
      <xs:pattern
value="[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}" />
    <xs:restriction>
  </xs:restriction>
</xs:simpleType>
<xs:element name="filters">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="profile">
        <xs:complexType>
          <xs:attribute name="name" type="xs:string"/>
          <xs:attribute name="id" type="xs:string"/>
          <xs:attribute name="version" type="xs:string"/>
        </xs:complexType>
      </xs:element>
      <xs:element name="filter" maxOccurs="unbounded">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="name" type="xs:string"/>
            <xs:element name="policy-id" type="uuid"/>
            <xs:element name="version" type="xs:string"/>
            <xs:element name="locked" type="xs:boolean"/>
            <xs:element name="useParent" type="xs:boolean"/>
            <xs:element name="comment" type="xs:string" minOccurs="0"/>
            <xs:element name="description" type="xs:string" minOccurs="0"/>
            <xs:element name="severity" minOccurs="0"/>
          </xs:sequence>
          <xs:simpleType>
            <xs:restriction base="xs:string">
              <xs:enumeration value="Low"/>
              <xs:enumeration value="Minor"/>
              <xs:enumeration value="Major"/>
              <xs:enumeration value="Critical"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:complexType>
      </xs:element>
      <xs:element name="enabled" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:schema>
```

```
<xs:element name="actionset" minOccurs="0">
  <xs:complexType>
    <xs:attribute name="refid" type="uuid"/>
    <xs:attribute name="name" type="xs:string"/>
  </xs:complexType>
</xs:element>
<xs:element name="control">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="Category"/>
      <xs:enumeration value="Filter"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="afc" type="xs:boolean"/>
<xs:element name="policyGroup" minOccurs="0">
  <xs:complexType>
    <xs:attribute name="refid" type="uuid"/>
  </xs:complexType>
</xs:element>
<xs:element name="trigger" minOccurs="0">
  <xs:complexType>
    <xs:attribute name="threshold">
      <xs:simpleType>
        <xs:restriction base="xs:integer">
          <xs:minInclusive value="2"/>
          <xs:maxInclusive value="10000"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="timeout">
      <xs:simpleType>
        <xs:restriction base="xs:long">
          <xs:minInclusive value="0"/>
          <xs:maxInclusive value="999999"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:attribute>
  </xs:complexType>
</xs:element>
<xs:element name="capability" minOccurs="0" maxOccurs="unbounded">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="enabled" type="xs:boolean"/>
      <xs:element name="actionset" minOccurs="0">
        <xs:complexType>
          <xs:attribute name="refid" type="uuid"/>
          <xs:attribute name="name" type="xs:string"/>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="name" type="xs:string"/>
  </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
```

```
</xs:element>
</xs:schema>
```

## Update filter settings

Apply policy changes, such as profile and filter details, to a profile.

### Definition

```
ipsProfileMgmt/setFilters
```

### Parameters

| ELEMENT      | VALUE   | DEFINITION                                                                                                                                                                                                                                                                                                      |
|--------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| actionset    | string  | <ul style="list-style-type: none"> <li>refid</li> <li>name</li> </ul>                                                                                                                                                                                                                                           |
| afc          | boolean | <p>Indicates whether the filter is managed by the IPS Adaptive Filter Configuration (AFC)</p> <p>If a filter is managed by AFC, then the filter will be automatically disabled when the device is under heavy load and the given filter is being triggered without actual filter match.</p>                     |
| comment      | string  | Filter comments.                                                                                                                                                                                                                                                                                                |
| control      | string  | <ul style="list-style-type: none"> <li>category: action set is controlled by the category action set.</li> <li>filter: action set is controlled by overriding the default action set.</li> </ul>                                                                                                                |
| enabled      | boolean | <ul style="list-style-type: none"> <li>enabled</li> <li>disabled</li> </ul>                                                                                                                                                                                                                                     |
| filter       |         | Read-only parent element.                                                                                                                                                                                                                                                                                       |
| locked       | boolean | Boolean variable indicating if the filter is locked. Locked filters cannot be remotely changed.                                                                                                                                                                                                                 |
| number       | integer | Read-only internal assigned number for the filter.                                                                                                                                                                                                                                                              |
| name         | string  | Read-only filter name.                                                                                                                                                                                                                                                                                          |
| policy-id    | string  | Read-only internal ID assigned to the policy, expressed in UUID format.                                                                                                                                                                                                                                         |
| profile      | string  | <ul style="list-style-type: none"> <li>id</li> <li>name</li> </ul>                                                                                                                                                                                                                                              |
| signature-id | string  | Read-only internal ID assigned to the filter, expressed in UUID format.                                                                                                                                                                                                                                         |
| trigger      |         | <p>Trigger frequency detection parameter for the filter. Used only for scan/sweep filters.</p> <ul style="list-style-type: none"> <li>threshold: specify the number of filter triggers.</li> <li>timeout: specify the time period under which the number of triggers are being counted (in seconds).</li> </ul> |

| ELEMENT   | VALUE   | DEFINITION                                                                                  |
|-----------|---------|---------------------------------------------------------------------------------------------|
| useParent | boolean | Indicates whether the action set setting for the filter is inherited from a parent profile. |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/setFilters?"
```

### Response

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:simpleType name="uuid">
    <xs:restriction base="xs:string">
<xs:pattern value="[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="setFilters">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="profile">
          <xs:complexType>
            <xs:attribute name="name" type="xs:string"/>
            <xs:attribute name="id" type="uuid"/>
          </xs:complexType>
        </xs:element>
        <xs:element name="filter" maxOccurs="unbounded">
          <xs:complexType>
            <xs:sequence>
              <xs:choice>
                <xs:element name="policy-id" type="uuid"/>
                <xs:element name="signature-id" type="uuid"/>
                <xs:element name="number" type="xs:positiveInteger"/>
                <xs:element name="name" type="xs:string"/>
              </xs:choice>
              <xs:element name="locked" type="xs:boolean" minOccurs="0"/>
              <xs:element name="comment" type="xs:string" minOccurs="0"/>
              <xs:element name="control" minOccurs="0">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:enumeration value="Category"/>
                    <xs:enumeration value="Filter"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element name="actionset" minOccurs="0">
                <xs:complexType>
                  <xs:attribute name="refid" type="uuid"/>
                  <xs:attribute name="name" type="xs:string"/>
                </xs:complexType>
              </xs:element>
              <xs:element name="enabled" type="xs:boolean" minOccurs="0"/>
              <xs:element name="afc" type="xs:boolean" minOccurs="0"/>
              <xs:element name="useParent" type="xs:boolean" minOccurs="0"/>
              <xs:element name="trigger" minOccurs="0">
                <xs:complexType>
                  <xs:attribute name="threshold">
                    <xs:simpleType>
                      <xs:restriction base="xs:integer">
```



```

        <xs:minInclusive value="2"/>
        <xs:maxInclusive value="10000"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="timeout">
    <xs:simpleType>
      <xs:restriction base="xs:long">
        <xs:minInclusive value="0"/>
        <xs:maxInclusive value="999999"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

## Get DV information

Get the active Digital Vaccine (DV) and all DVs on the SMS.

### Definition

```
ipsProfileMgmt/dvInfo
```

### Parameters

| PARAMETER | VALUE  | DESCRIPTION                                                                     |
|-----------|--------|---------------------------------------------------------------------------------|
| request   | string | Required. <ul style="list-style-type: none"> <li>active</li> <li>all</li> </ul> |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/ipsProfileMgmt/dvInfo?"
```

## Device administration

Use this API to retrieve the Layer-2 Fallback status, and to place a device or device group into or out of Layer-2 Fallback.

This API includes:

- [Get fallback status](#)
- [Set fallback status](#)

## Get fallback status

Retrieve the Layer-2 Fallback status for any current device or device group on the SMS.

### Definition

```
deviceAdmin/getFallback
```

### Parameters

| PARAMETER       | VALUE  | DESCRIPTION                                                                                                                                     |
|-----------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| deviceName      | string | Required. Device that will return the Layer-2 Fallback status.                                                                                  |
| deviceGroupName | string | Optional. Device group name that will return a comma-delimited list that shows the Layer-2 Fallback status for each device in the device group. |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/deviceAdmin/getFallback?deviceGroupName=exampleDeviceGroupName"
```

## Set fallback status

Place a device or device group into or out of Layer-2 Fallback.

### Definition

```
deviceAdmin/setFallback
```

### Parameters

| PARAMETER       | VALUE   | DESCRIPTION                                                                                                                                                         |
|-----------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| deviceName      | string  | Required. Name of the device that will be put into or out of Layer-2 Fallback status.                                                                               |
| deviceGroupName | string  | Optional. Comma-delimited list that contains the names of the devices within the device group that will be put into or out of Layer-2 Fallback.                     |
| L2FB            | boolean | Required. Represents the Layer-2 Fallback status that the device or device group will be set to. <ul style="list-style-type: none"><li>true</li><li>false</li></ul> |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/deviceAdmin/setFallback?deviceName=exampleTpsDevice&L2FB=true"
```

## SMS administration

Use this API to create a backup the SMS database, and to retrieve SMS software version information.

This API includes:

- [Backup SMS database](#)
- [SMS software version](#)
- [Restore backup file](#)

## Backup SMS database

Create a backup of the SMS database.

### Definition

```
smsAdmin/backup
```

### Parameters

| PARAMETER      | VALUE   | DESCRIPTION                                                                                                                                                                                            |
|----------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type           | string  | Destination type. <ul style="list-style-type: none"> <li>• smb</li> <li>• nfs</li> <li>• scp</li> <li>• sftp</li> <li>• sms (Stored locally on the SMS. Only one backup allowed at a time.)</li> </ul> |
| location       | string  | Destination path for backup file. Does not apply for <code>type/sms</code> .                                                                                                                           |
| username       | string  | Type-specific username. Required for <code>type/smb</code> , <code>scp</code> , or <code>sftp</code> .                                                                                                 |
| password       | string  | Type-specific password. Required for <code>type/smb</code> , <code>scp</code> , or <code>sftp</code> .                                                                                                 |
| domain         | string  | Type-specific domain; only used for destination type <code>smb</code>                                                                                                                                  |
| tos            | integer | Number of most recent TOS packages to include. Default is 0.                                                                                                                                           |
| dv             | integer | Number of most recent DV packages to include. Default is 1.                                                                                                                                            |
| events         | boolean | Whether to include events data. <ul style="list-style-type: none"> <li>• true</li> <li>• false (default)</li> </ul>                                                                                    |
| sslPrivateKeys | boolean | Whether to include SSL private key. <ul style="list-style-type: none"> <li>• true</li> <li>• false (default)</li> </ul>                                                                                |
| notify         | boolean | Whether to send email notifications when a backup has completed or failed. <ul style="list-style-type: none"> <li>• true (default)</li> <li>• false</li> </ul>                                         |
| timestamp      | boolean | Whether to include the timestamp. <ul style="list-style-type: none"> <li>• true (default)</li> <li>• false</li> </ul>                                                                                  |

| PARAMETER      | VALUE  | DESCRIPTION                                                                            |
|----------------|--------|----------------------------------------------------------------------------------------|
| encryptionPass | string | Encrypt backup using supplied password. Default is <code>null</code> , do not encrypt. |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/smsAdmin/backup?
type=<smb>&location=//198.51.100.100/backups/sms.bak&username=<smb_user>&
password=<smb_pwd>&domain=<dom00>&tos=<1>&dv=<1>&events=<false>&notify=<false>&
timestampName=<true>"
```

## SMS software version

Retrieve the SMS software version.

### Definition

```
smsAdmin/info
```

### Parameters

| PARAMETER | VALUE  | DESCRIPTION               |
|-----------|--------|---------------------------|
| request   | string | Returns a version number. |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/smsAdmin/info?request=version"
```

## Restore backup file

Restore the backup file.

### Definition

```
smsAdmin/restore
```

### Parameters

| PARAMETER           | VALUE   | DESCRIPTION                                                                                                                                    |
|---------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------|
| encryptionPassword  | string  | Password. Default is <code>null</code> .                                                                                                       |
| restoreAdminSetting | boolean | Whether to restore the backup file. <ul style="list-style-type: none"><li>• <code>true</code></li><li>• <code>false</code> (default)</li></ul> |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/smsAdmin/restore?
encryptionPassword=<password>&restoreAdminSetting=true"
```

## Virtual segment management

Use this API to create, update, and delete virtual segments. You can retrieve a list of virtual segments from a device.

- You can create a virtual segment that does not initially contain a physical segment.
- IPS devices with virtual segments that were configured locally on an IPS device and then added to the SMS are merged to the global virtual segment listing.
- A virtual segment must include at least one VLAN ID, source IP address, or destination IP address.
- Named resources must already exist on the SMS.

This API includes:

- [Create a virtual segment](#)
- [Update a virtual segment](#)
- [Delete a virtual segment](#)
- [Get list of virtual segments](#)

### Response codes

The API captures a response code for virtual segment operations.

| WEB API RESPONSE CODE | HTTP RESPONSE CODE | DESCRIPTION               |
|-----------------------|--------------------|---------------------------|
| 0                     | 200                | Successful completion.    |
| 100                   | 401                | Authentication error.     |
| 200                   | 400                | Missing parameter error.  |
| 205                   | 400                | Operation error.          |
| 300                   | 400                | Input XML file error.     |
| 305                   | 500                | Output result file error. |
| 310                   | 400                | Validation error.         |
| 320                   | 400                | Resource error.           |
| 500                   | 500                | Unexpected error.         |

## Create a virtual segment

Add a virtual segment to the SMS database by using a file.

### Definition

```
virtualSegment/create
```

### Parameters

| PARAMETER | VALUE | DESCRIPTION                                             |
|-----------|-------|---------------------------------------------------------|
| file      |       | Name of the file that contains the virtual segment XML. |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>" -F "file=@Name.xml"
"https://<sms_server>/virtualSegment/create?"
```

## Update a virtual segment

Update a virtual segment on the SMS by using a file.

### Definition

```
virtualSegment/update
```

### Parameters

| PARAMETER | VALUE  | DESCRIPTION                                             |
|-----------|--------|---------------------------------------------------------|
| file      |        | Name of the file that contains the virtual segment XML. |
| vs        | string | Virtual segment name.                                   |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>" -F "file=@update.xml"
"https://<sms_server>/virtualSegment/update?&vs=<name>"
```

## Delete a virtual segment

Delete a virtual segment.

### Definition

```
virtualSegment/delete
```

### Parameters

| PARAMETER | DESCRIPTION                                                                 |
|-----------|-----------------------------------------------------------------------------|
| vs        | Name of the virtual segment to be deleted from the device and from the SMS. |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/virtualsegment/delete?
&vs="NamedResourceExample"
```

## Get list of virtual segments

Retrieve a list of all of the virtual segments on the SMS in XML format. The request also returns the device NAME from the DEVICE table. See [DEVICE table](#).



### Note

Use the following links to download the XML schema from the SMS: [https://<sms\\_ip\\_or\\_hostname>/xsds/VirtualSegment.xsd](https://<sms_ip_or_hostname>/xsds/VirtualSegment.xsd) or [https://<sms\\_ip\\_or\\_hostname>/xsds/sms/response/xsd](https://<sms_ip_or_hostname>/xsds/sms/response/xsd).

## Definition

```
virtalsegment/get
```

## Parameters

| ELEMENT                                         | VALUE                         | DEFINITION                                                                                                                                                                                                                                                                  |
|-------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name                                            | String                        | Name of the virtual segment                                                                                                                                                                                                                                                 |
| description (optional)                          | String                        | Description for the virtual segment                                                                                                                                                                                                                                         |
| virtualSegPosition                              |                               | Indicates where in the list virtual segment is placed. You define the priority order for a virtual segment so that any overlapping definitions are resolved. Attempting to define an overlapping virtual segment on a device which does not allow it will produce an error. |
| virtualSegPosition/positionType                 | ORDINAL_POSITION, FIRST, LAST | Attribute; must be one of the three values                                                                                                                                                                                                                                  |
| virtualSegPosition/ordinalPosition              | Positive Integer              | Must be provided when positionType is ORDINAL_POSITION                                                                                                                                                                                                                      |
| vlanIdList (optional)                           |                               | Used to assign a list of VLAN IDs, and/or VLAN ranges or a named object referencing a named VLAN group                                                                                                                                                                      |
| vlanIdList/vlanList                             |                               | Used when assigning a list of VLAN IDs and/or VLAN ranges to the virtual segment                                                                                                                                                                                            |
| vlanIdList/vlanList/vlan                        |                               | Single element for either a VLAN ID or VLAN range                                                                                                                                                                                                                           |
| vlanIdList/vlanList/vlan/vlanID                 | Integer (1 to 4094)           | VLAN ID                                                                                                                                                                                                                                                                     |
| vlanIdList/vlanList/vlan/vlanID/vlanRange       |                               | Element containing a VLAN range                                                                                                                                                                                                                                             |
| vlanIdList/vlanList/vlan/vlanID/vlanRange/start | Integer (1 to 4094)           | VLAN ID start of the range                                                                                                                                                                                                                                                  |
| vlanIdList/vlanList/vlan/vlanID/vlanRange/end   | Integer (1 to 4094)           | VLAN ID end of the range                                                                                                                                                                                                                                                    |
| vlanIdList/namedVlanGroup                       | String                        | Named VLAN group identifier                                                                                                                                                                                                                                                 |
| sourceAddressList (optional)                    |                               | Used to assign a list of IP addresses and/or IP address blocks or a named object referencing a named address group for the source address                                                                                                                                   |
| sourceAddressList/cidrList                      |                               | Used when providing a list of IP addresses and/or IP address blocks                                                                                                                                                                                                         |
| sourceAddressList/cidrList/cidr                 |                               | IP address or IP address block                                                                                                                                                                                                                                              |
| sourceAddressList/namedAddrGroup                | String                        | Named address group identifier                                                                                                                                                                                                                                              |
| destinationAddressList (optional)               |                               | Used to assign a list of IP addresses, and/or IP address blocks or a named object referencing a named address group for the destination address                                                                                                                             |

| ELEMENT                                                       | VALUE            | DEFINITION                                                                            |
|---------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------|
| destinationAddressList/cidrList                               |                  | Used when providing a list of IP addresses and/or IP address blocks                   |
| destinationAddressList/cidrList/cidr                          |                  | IP address or IP address block                                                        |
| destinationAddressList/namedAddrGroup                         | String           | Named address group identifier                                                        |
| segmentGroup                                                  |                  | Used when assigning a virtual segment to a segment group                              |
| segmentGroup/segmentGroupID                                   |                  | Identifier element for the segment group                                              |
| segmentGroup/segmentGroupID/name                              | String           | Name of the segment group                                                             |
| segmentGroup/segmentGroupID/id                                | String           | ID of the segment group                                                               |
| physicalSegments (optional)                                   |                  | Used for assigning the virtual segment to one or more segments on one or more devices |
| physicalSegments/physicalSegment                              |                  | Identifies the device and the segments to assign the virtual segment to               |
| physicalSegments/physicalSegment/device                       |                  | Identifies the device                                                                 |
| physicalSegments/physicalSegment/device/uuid                  | String           | UUID of the device                                                                    |
| physicalSegments/physicalSegment/device/shortID               | Positive integer | Short ID of the device                                                                |
| physicalSegments/physicalSegment/device/name                  | String           | Name of the device                                                                    |
| physicalSegments/physicalSegment/device/ipAddress             | String           | IP Address of the device                                                              |
| physicalSegments/physicalSegment/segmentNameList              |                  | Element containing a list of the segment names                                        |
| physicalSegments/physicalSegment/segmentNameList/segmentNames | String           | Name of the segment                                                                   |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/virtualsegment/get?"
```

### Response

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema" >

<xs:simpleType name="uuid">
  <xs:restriction base="xs:string">
    <xs:pattern value="[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="vs_name">
```



```

    <xs:restriction base="xs:string">
      <xs:maxLength value="127"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="vlan_Constraint">
    <xs:restriction base="xs:int">
      <xs:minInclusive value="0"/>
      <xs:maxInclusive value="4095"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="vs_description">
    <xs:restriction base="xs:string">
      <xs:maxLength value="250"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="positionType">
    <xs:restriction base="xs:string">
      <xs:annotation>
        <xs:documentation>Placement of the object in the list, first, last,
          or somewhere in between</xs:documentation>
      </xs:annotation>
      <xs:enumeration value="FIRST" />
      <xs:enumeration value="LAST" />
      <xs:enumeration value="ORDINAL_POSITION" />
    </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="messageList">
    <xs:sequence>
      <xs:element type="xs:string" name="message"
        minOccurs="1"
        maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="deviceResult">
    <xs:all>
      <xs:element name="device" type="deviceType"/>
      <xs:element name="success" type="xs:boolean"/>
      <xs:element name="messages" type="messageList"
        minOccurs="0" maxOccurs="1"/>
    </xs:all>
  </xs:complexType>

  <xs:complexType name="deviceResultList">
    <xs:sequence>
      <xs:element type="deviceResult" name="deviceResult"
        minOccurs="1" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="rangeType">
    <xs:all>
      <xs:annotation>
        <xs:documentation>Range (i.e. 5 - 90)</xs:documentation>
      </xs:annotation>
    </xs:all>
  </xs:complexType>

```

```

    </xs:annotation>
    <xs:element type="vlan_Constraint" name="start"/>
    <xs:element type="vlan_Constraint" name="end"/>
  </xs:all>
</xs:complexType>

<xs:complexType name="idName">
  <xs:choice>
    <xs:element name="id" type="xs:string"/>
    <xs:element name="name" type="xs:string"/>
  </xs:choice>
</xs:complexType>

<xs:complexType name="cidrListType">
  <xs:sequence>
    <xs:element type="xs:string" name="cidr" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>1 or more repetitions:1
                           or more repetitions:</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:element name="virtualSegment" type="virtualSegmentType"
  nillable="false" />
  <xs:element name="virtualSegmentList" type="virtualSegmentListType"
    nillable="false"/>

<xs:complexType name="segmentGroupType">
  <xs:sequence>
    <xs:element type="segmentGroupIDType" name="segmentGroupID"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="sourceAddressListType">
  <xs:choice>
    <xs:annotation>
      <xs:documentation>You have a CHOICE of the next
                        2 items at this level</xs:documentation>
    </xs:annotation>
    <xs:element type="cidrListType" name="cidrList">
      </xs:element>
    <xs:element type="xs:string" name="namedAddrGroup">
      </xs:element>
    </xs:choice>
  </xs:complexType>

<xs:complexType name="vlanIdListType">
  <xs:sequence>
    <xs:annotation>
      <xs:documentation>VLAN can either be a 1 named resource
                        or a list of integer/ranges</xs:documentation>
    </xs:annotation>
    <xs:choice>
      <xs:element type="vlanListType" name="vlanList" >
        </xs:element>
      <xs:element type="xs:string" name="namedVlanGroup">
        </xs:element>
    </xs:choice>
  </xs:sequence>
</xs:complexType>

```

```

    </xs:choice>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="virtualSegmentType" >
  <xs:annotation>
    <xs:documentation>Definition of the virtual segment</xs:documentation>
    <xs:documentation>Any optional fields should be omitted,
      no empty elements</xs:documentation>
    <xs:documentation>Required: Name, segmentGroup, one,
      two or all of: [vlanIdList,sourceAddressList,
      destinationAddressList]</xs:documentation>
    <xs:documentation>Optional: description, and physicalSegments.
      If physicalSegments is not provided no devices will be updated with the
      virtual segment</xs:documentation>
  </xs:annotation>

  <xs:all>
    <xs:element type="vs_name" name="name" />
    <xs:element type="vs_description" name="description"
      nillable="false" minOccurs="0"/>
    <xs:element type="virtualSegPositionType" name="virtualSegPosition"/>
    <xs:element type="vlanIdListType" name="vlanIdList"
      nillable="false" minOccurs="0">
  </xs:element>
    <xs:element type="sourceAddressListType" name="sourceAddressList"
      nillable="false" minOccurs="0">
  </xs:element>
    <xs:element type="destinationAddressListType" name="destinationAddressList"
      nillable="false" minOccurs="0">
  </xs:element>
    <xs:element type="segmentGroupType" name="segmentGroup" />
    <xs:element type="physicalSegmentsType" name="physicalSegments"
      nillable="false" minOccurs="0">
  </xs:element>
  </xs:all>
</xs:complexType>

<xs:complexType name="virtualSegmentListType">
  <xs:sequence>
    <xs:element type="virtualSegmentType" name="virtualSegment"
      nillable="false" minOccurs="1" maxOccurs="unbounded">
  </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="destinationAddressListType">
  <xs:choice>
    <xs:annotation>
      <xs:documentation>You have a CHOICE of the next
        2 items at this level</xs:documentation>
    </xs:annotation>
    <xs:element type="cidrListType" name="cidrList">
  </xs:element>
    <xs:element type="xs:string" name="namedAddrGroup">
  </xs:element>
  </xs:choice>
</xs:complexType>

<xs:complexType name="segmentGroupIDType">

```

```

    <xs:choice>
      <xs:annotation>
        <xs:documentation>You have a CHOICE of the next
          2 items at this level</xs:documentation>
      </xs:annotation>
      <xs:element type="xs:string" name="id">
      </xs:element>
      <xs:element type="xs:string" name="name"/>
    </xs:choice>
  </xs:complexType>

  <xs:complexType name="virtualSegPositionType">
    <xs:sequence>
      <xs:element nillable="true" type="xs:positiveInteger"
        minOccurs="0" name="ordinalPosition">
      </xs:element>
    </xs:sequence>
    <xs:attribute type="positionType" name="positionType"/>
  </xs:complexType>

  <xs:complexType name="deviceType">
    <xs:choice>
      <xs:annotation>
        <xs:documentation>You have a CHOICE of the next
          4 items at this level</xs:documentation>
      </xs:annotation>
      <xs:element type="uuid" name="id"/>
      <xs:element type="xs:positiveInteger" name="shortID"/>
      <xs:element type="xs:string" name="name"/>
      <xs:element type="xs:string" name="ipAddress"/>
    </xs:choice>
  </xs:complexType>

  <xs:complexType name="segmentNameListType">
    <xs:sequence>
      <xs:element type="xs:string" name="segmentNames"
        minOccurs="1" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>1 or more device segment names</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>

  <xs:complexType name="vlanIdRangeType" >
    <xs:choice>
      <xs:element name="vlanID" type="vlan_Constraint"/>
      <xs:element name="vlanRange" type="rangeType"/>
    </xs:choice>
  </xs:complexType>

  <xs:complexType name="vlanListType" >
    <xs:sequence>
      <xs:element name="vlan" type="vlanIdRangeType"
        minOccurs="1" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>

```

```

<xs:complexType name="physicalSegmentsType">
  <xs:sequence>
    <xs:annotation>
      <xs:documentation>1 or more repetitions:</xs:documentation>
    </xs:annotation>
    <xs:element type="deviceSegmentsType" name="physicalSegment"
      maxOccurs="unbounded">
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="deviceSegmentsType">
  <xs:sequence>
    <xs:element type="deviceType" name="device"/>
    <xs:element type="segmentNameListType" name="segmentNameList"/>
  </xs:sequence>
</xs:complexType>
</xs:schema>

```

## Reputation database management

Use this API to manage the SMS Reputation database. The following factors can affect performance levels:

- Method used for the Reputation entries submission – `import` or `add`. Use `import` with a large number of entries to reduce the number of distributions.
- Number of files to be imported into the Reputation database and the number of entries in each file.
- Number of entries on the SMS. A bigger reputation database takes longer to copy and distribute, resulting in less frequent distributions. For improved performance, limit the entries in the Reputation database to 6,000,000.
- Number and type of devices that the SMS manages. Newer models load the entries faster. If you have a large number of devices, increase the interval of entry submission so that the SMS is not overloaded with frequent distributions.



### Note

Monitor the device distribution queue to identify the appropriate time interval for submitting the Reputation Management API requests in your environment.

This API includes:

- [\*Import a Reputation entry\*](#)
- [\*Add a Reputation entry\*](#)
- [\*Delete a Reputation entry\*](#)
- [\*Query the Reputation database\*](#)

## Import a Reputation entry

Post and upload a file with one or more Reputation entries.

- **IP and DNS entries** — Import file must be in a comma-separated value (CSV) format with each line representing a Reputation entry without any blank lines. Each line is made up of one or more fields separated by commas. The SMS can upload one file at a time, and each file can contain multiple entries.

- **URL entries** — Import file must be delimited by a pipe (|) instead of a comma with each entry representing *URLs only* or *URLs associated with one or more tags*. Each line is made up of one or more fields separated by pipes. For more information about the URL import guidelines, see the *URL Reputation Filtering Deployment and Best Practices Guide*.
- Comment lines are discarded during import.
- Each request results in a distribution and a sync time to the managed devices.
- For improved performance, limit the number of entries in a file to between 1,000 and 10,000.

## Definition

```
repEntries/import
```

## Parameters

| PARAMETER | VALUE  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | string | Optional. Address type of the Reputation entry. Only one type is allowed within a file. <ul style="list-style-type: none"><li>• ipv4 (default)</li><li>• ipv6</li><li>• dns</li><li>• url</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Address   | string | Required. <ul style="list-style-type: none"><li>• The first field on each line must be the IPv4 address, IPv6 address, DNS name, or URL for that entry. The remaining fields on a line are optional. If present, remaining fields are processed as tag category/tag value pairs.</li><li>• Only one type of address (IPv4, IPv6, DNS name, or URL) can be contained in a file.</li><li>• A DNS entry matches any lookups that contain the specified string. For example, <code>foo.com</code> matches <code>foo.com</code>, <code>www.foo.com</code>, and <code>images.foo.com</code>. To specify an exact DNS entry match, enclose the DNS name in square brackets. For example, <code>[foo.com]</code>.</li><li>• CIDR values are normalized. Any bits outside the portion of the address specified by the prefix length are changed to zero. For example, <code>192.168.66.127/24</code> is stored as <code>192.168.66.0/24</code>.</li></ul> |

| PARAMETER                    | VALUE  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tag category/tag value pairs | string | <p>Optional. If the Reputation entry within the file does not have tags, the imported entry merges with the values of the existing entry. If the Reputation entry within the file does have tags, the imported entry merges and overwrites the values of the existing entry.</p> <ul style="list-style-type: none"> <li>Any tag categories in the file must exist on the SMS prior to import.</li> <li>Tag category/value pairs do not have to be listed in the same order on each line. The entries in the file do not have to list all the tag categories or specify the ones shared with other entries in the file.</li> <li>Empty pairs of fields are ignored. If a tag category field is empty, an error occurs and the entry is not imported. If a tag value field is empty, the corresponding tag category is discarded and the next field of the entry is processed; the net result is equivalent to the tag category not appearing on that line at all.</li> <li>Except for yes/no tag categories, character case is significant in all tag category names and tag values.</li> <li>For yes/no tag categories, <code>yes</code>, <code>true</code>, <code>t</code>, and <code>y</code>, regardless of case, denote a yes (true) value. Other text is considered a no (false) value.</li> <li>For list categories, the list values must be separated by <code>~~~</code>.</li> <li>A field can be enclosed in double-quotes; this is mandatory when a value contains a comma that should not be treated as a field separator.</li> <li>To represent a double-quote character within a quoted value, use two double-quotes.</li> </ul> |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <String>"
-F "file=@/path/to/file.csv" "https://<sms_server>/repEntries/import?&type=ipv4"
```



#### Note

When you request back-to-back imports with files that have 10 or less Reputation entries, the SMS groups those entries to use the add method instead to reduce the number of distributions.

## Add a Reputation entry

Create a Reputation entry.

- Each request can result in a distribution and a sync time to the managed devices.
- For improved performance, send requests in bursts up to 1,000 entries in time intervals that allow distributions to complete in a timely manner.

### Definition

```
repEntries/add
```

### Parameters

Only one of the following parameters can be used in the request.

| PARAMETER | VALUE      | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip        | IP address | IPv4 or IPv6 address of the Reputation entry.                                                                                                                                                                                                                                                                                                                                                                      |
| dns       | string     | DNS address of the Reputation entry.                                                                                                                                                                                                                                                                                                                                                                               |
| url       | url        | Reputation URL entry.                                                                                                                                                                                                                                                                                                                                                                                              |
| TagData   | string     | <p>Optional. One or more tag categories and their values. Must be UTF-8 encoded and separated by a comma (,).</p> <p>Reputation entries with a list tag category can include multiple values only when the <b>Allow Multiple Values?</b> check box is selected from the <b>Edit Tag Category</b> box on the SMS.</p> <p>The list values must be separated by ~~~.</p> <p>MalwareIpType,malwareSource~~~cncHost</p> |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>"
"https://<sms_server>/repEntries/add?&ip=1.1.1.1&TagData=MalwareIpType,
infectedHost,CreateDate,%22Jan%2022,%202014%22"
```

## Query the Reputation database

Search the Reputation database for one or more user Reputation entries.

- Specify up to 10,000 entries in a single request.
- The SMS returns all matching entries in the query in UTF-8 encoding.
- Returned entries are ordered from lowest to highest address, regardless of the order in which they are specified in the query.
- Each entry is terminated by a newline character.

### Definition

```
repEntries/query
```

### Parameters

Only one parameter can be used in a request.

| PARAMETER | VALUE      | DESCRIPTION                                   |
|-----------|------------|-----------------------------------------------|
| ip        | IP address | IPv4 or IPv6 address of the Reputation entry. |
| dns       | string     | DNS address of the Reputation entry.          |
| url       | url        | Reputation URL entry.                         |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/repEntries/
query?&ip=1.1.1.1&ip=1.1.1.2"
```



## Response

```
1.1.1.1,AtaHost,myata.device.com,MalwareIpType,infectedHost
1.1.1.2,AtaHost,myata.device.com,ThreatScore,28,MalwareIpType,cncHost~~~infectedHost
```

## Delete a Reputation entry

Get and delete a Reputation entry.

- Each request can result in a distribution and a sync time to the managed devices.
- For optimal performance, delete Reputation entries with a file.

### Definition

```
repEntries/delete
```

### Parameters

| PARAMETER | VALUE      | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip        | IP address | IPv4 or IPv6 address of the Reputation entry.                                                                                                                                                                                                                                                                                                                                                                                       |
| dns       | string     | DNS address of the Reputation entry.                                                                                                                                                                                                                                                                                                                                                                                                |
| url       | url        | Reputation URL entry.                                                                                                                                                                                                                                                                                                                                                                                                               |
| criteria  | integer    | Required. <ul style="list-style-type: none"> <li>• <code>all</code>: deletes all Reputation entries, including user-defined, RepDV, and the ThreatDV URL feed.</li> <li>• <code>user</code>: deletes all user-defined entries.</li> <li>• <code>repdv</code>: deletes all RepDV entries.</li> <li>• <code>entry</code>: deletes specified entries.</li> <li>• <code>threat-url</code>: deletes the ThreatDV URL package.</li> </ul> |
| type      |            | Import a file with Reputation entries to delete on this SMS. This is required to delete a large number of Reputation entries by using a file.<br>Address type of the Reputation entry. Only one type is allowed within a file. <ul style="list-style-type: none"> <li>• <code>ipv4</code> (default)</li> <li>• <code>ipv6</code></li> <li>• <code>dns</code></li> <li>• <code>url</code></li> </ul>                                 |

### Example

```
curl -v -k --header "X-SMS-API-KEY: <string>"
"https://<sms_server>/repEntries/delete?&ip=1.1.1.1&ip=1.1.1.2&
dns=malware.source1.com&dns=malware.source2.com&criteria=entry"
```

## Packet trace

The SMS Packet Trace feature compiles information about packets that have triggered a filter. Packet trace encapsulates the information according to requirements set for the filter in the SMS.

Packet trace options are configured for an action set, and an action set is specified for each filter. Filters are distributed to devices according to profiles. If a filter uses an action set for which packet trace logging is enabled, then you can view the compiled and stored packet trace information for events that triggered the filter.

The SMS saves packet trace information to a PCAP file. Two retrieval options are available for a packet trace:

- [Device-based packet trace](#)
- [Events-based packet trace](#)

### Device-based packet trace

Device-based packet trace compiles PCAP information for a particular device from the SMS database. For more information, see [DEVICE table](#).

#### Definition

```
pcaps/getByDevice
```

#### Parameters

| ELEMENT   | VALUE  | DEFINITION                                                               |
|-----------|--------|--------------------------------------------------------------------------|
| device/id | string | Internal ID assigned to the device. This is the SHORT_ID for the device. |

#### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/pcaps/getByDevice?deviceId=<SHORT_ID>"
```

### Events-based packet trace

To obtain all the PCAP information from the SMS for a group of events, you must know the event IDs.

Event IDs are included in data sent to a remote syslog server. For information about configuring and using Remote Syslog, see the *SMS User Guide*, and refer to the current SMS Deployment Note available from the TMC.

#### Definition

```
pcaps/getByEventIds
```

#### Set up event-based packet trace

1. Set up a remote syslog server.
2. Add all the event IDs to a file as a comma separated list. New line breaks are allowed. The result outputs to STDOUT and can be redirected to a file with a '>' operator.

#### Example

```
curl -k --header "X-SMS-API-KEY: <string>" -F "file=@<path/to/file.txt>" "https://<sms_server>/pcaps/getByEventIds?"
```

## Responder

Responder is a policy-based service in SMS that reacts to inputs to perform a set of actions. Its reactions, and the set of actions it takes, are based on the Responder policies that have been configured.

By default, no policies can be externally triggered. To enable external triggering, configure the active response policy to allow an SNMP trap or web service to invoke the policy. For more information, see the *SMS User Guide*.

This API includes the following:

- [Quarantine](#)
- [Unquarantine](#)

## Quarantine

Quarantine an IP address and create a response.

### Definition

```
quarantine/quarantine
```

### Parameters

| PARAMETER | VALUE      | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip        | ip address | IP address for the target host. Required to create or close a response.                                                                                                                                                                                                                                                                                                                                                      |
| id        | integer    | Response History ID that is displayed in the Response History table on the SMS. <ul style="list-style-type: none"> <li>To close a response, either IP or ID must be specified.</li> </ul>                                                                                                                                                                                                                                    |
| policy    | string     | Specific Active Response Policy to implement. <ul style="list-style-type: none"> <li>The policy name is case sensitive and must match an existing SMS Active Response policy name.</li> <li>The <b>Allow an SNMP Trap or Web Service call to invoke this Policy</b> initiation setting must be enabled for this policy.</li> <li>This argument is not necessary to close a response and, if provided, is ignored.</li> </ul> |
| timeout   | long       | Optional argument to specify the duration of response. <ul style="list-style-type: none"> <li>The specified value overrides the default already in the policy.</li> <li>If no parameter is specified, the timeout value from the policy is used.</li> <li>This argument is not necessary to close a response and, if provided, is ignored.</li> </ul>                                                                        |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/quarantine/quarantine?ip=<target_ip>&policy=<policy_name>&timeout=<minutes_to_quarantine>"
```

## Unquarantine

Unquarantine an IP address and close a response.

## Definition

quarantine/unquarantine

## Parameters

| PARAMETER | VALUE      | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ip        | ip address | IP address for the target host. Required to create or close a response.                                                                                                                                                                                                                                                                                                                                                         |
| id        | integer    | Response History ID that is displayed in the Response History table on the SMS.<br><ul style="list-style-type: none"> <li>To close a response, either IP or ID must be specified.</li> </ul>                                                                                                                                                                                                                                    |
| policy    | string     | Specific Active Response Policy to implement.<br><ul style="list-style-type: none"> <li>The policy name is case sensitive and must match an existing SMS Active Response policy name.</li> <li>The <b>Allow an SNMP Trap or Web Service call to invoke this Policy</b> initiation setting must be enabled for this policy.</li> <li>This argument is not necessary to close a response and, if provided, is ignored.</li> </ul> |
| timeout   | long       | Optional argument to specify the duration of response.<br><ul style="list-style-type: none"> <li>The specified value overrides the default already in the policy.</li> <li>If no parameter is specified, the timeout value from the policy is used.</li> <li>This argument is not necessary to close a response and, if provided, is ignored.</li> </ul>                                                                        |

## Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/quarantine/unquarantine?ip=<target_ip>"
```

# Enterprise Vulnerability Remediation (eVR)

Use this API to import vulnerability scan (eVR) files to the SMS. After you import a vulnerability scan, you review the following on the SMS:

- Vulnerabilities (listed by CVE) that have been discovered in your network.
- Which assets impacted by those vulnerabilities.
- Which DV filters can defend those assets from the discovered vulnerabilities.

This API includes:

- [Import a vulnerability scan](#)
- [Convert a vulnerability scan](#)

## eVR specifications

The minimum data required for a native SMS-standard vulnerability scan is:

- IP Address** - (host IP addresses) The maximum number of host IP address and vulnerability combinations that you can import on the SMS is 10 million. When the SMS reaches the maximum limit, it displays an error message, and you must delete vulnerability scans on the SMS before you can import a new scan using this API.

- **CVE IDs** - CVE must be in the format CVE-YYYY-NNNN where YYYY is a 4 digit year and NNNN is a sequence number.
- **Severity** - Vulnerabilities are assigned a severity levels to define the urgency associated with remediating each vulnerability. Rankings are based on a variety of industry standards including CVE.

### CSV file specifications

Vulnerability scans must be in a native, comma-separated value (CSV) format before they can be used on the SMS. If you use a supported vulnerability management product, custom converters are available for Qualys®, Nexpose®, and Nessus®.

- The first line in the CSV file must be the column headers for each of the columns.
- Each row after the header must contain the same number of columns that are in the header.
- Each column must be delimited with a comma.
- The value within each column must be wrapped in double quotes; however, embedded double quotes are not permitted ("This is "invalid" data").
- Each row in a CSV file must be less than 65536 bytes.

## Import a vulnerability scan

Import a vulnerability scan (eVR) file that is in native SMS-standard format.

### Definition

```
vulnscanner/import
```

### Parameters

| PARAMETER | VALUE  | DESCRIPTION                                                                                                                                                                                                                                                                                                             |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vendor    | string | Required. Name of the vulnerability management vendor. <ul style="list-style-type: none"> <li>• Native SMS-standard format: Use <code>SMS-Standard</code>.</li> <li>• For other values, see <a href="#">Convert a vulnerability scan</a>.</li> </ul>                                                                    |
| product   | string | Required. Product name associated with the vulnerability scanner, and can be any value.                                                                                                                                                                                                                                 |
| version   | string | Required. Version of the vulnerability scanning file format, and can be any value.                                                                                                                                                                                                                                      |
| runtime   | date   | Required. <ul style="list-style-type: none"> <li>• Scan start time and end time, and can be a single date or a date range.</li> <li>• When entering a date range, you must use a forward slash (/) to separate the scan start and scan end dates.</li> <li>• Date format must be yyyy-MM-dd'T'HH:mm:ss.SSS'Z</li> </ul> |

### Examples

```
curl -k --header "X-SMS-API-KEY: <string>" -F "file=@ScanSample.csv"
"https://<sms_server>/vulnscanner/import?&vendor=Example&product=VulnScanner&version=2.2
&runtime=2018-12-15T13:01:15.255Z/"
```

## Convert a vulnerability scan

Convert a vulnerability scan (eVR) file that is not in native SMS-standard format to import to the SMS.

## Definition

```
vulnscanner/convert
```

## Parameters

| PARAMETER | VALUE  | DESCRIPTION                                                                                                                                                                                                                                                                                                           |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vendor    | string | Required. Name of the vulnerability management vendor. <ul style="list-style-type: none"> <li>Nexpose</li> <li>Qualys-CSV</li> <li>Nessus</li> </ul>                                                                                                                                                                  |
| product   | string | Required. Product name associated with the vulnerability scanner, and can be any value.                                                                                                                                                                                                                               |
| version   | string | Required. Version of the vulnerability scanning file format, and can be any value.                                                                                                                                                                                                                                    |
| runtime   | date   | Required. <ul style="list-style-type: none"> <li>Scan start time and end time, and can be a single date or a date range.</li> <li>When entering a date range, you must use a forward slash (/) to separate the scan start and scan end dates.</li> <li>The date format must be yyyy-MM-dd'T'HH:mm:ss.SSS'Z</li> </ul> |

## Examples

Import a vulnerability scan (eVR) in the Nexpose format:

```
curl -v -k --header "X-SMS-API-KEY: <string>" -F "file=@vulnScanSampleNexpose.xml"
"https://<sms_server>/vulnscanner/convert?&vendor=Nexpose&product=Nexpose&version=1.0
&runtime=2014-01-20T13:01:15.255Z/2014-01-20T13:22:14.333Z"
```

Import a vulnerability scan (eVR) in the Qualys-CSV format:

```
curl -v -k --header "X-SMS-API-KEY: <string>" -F "file=@vulnScanSampleQualys.csv"
"https://<sms_server>/vulnscanner/convert?&vendor=Qualys-CSV&product=Qualys&version=1.0
&runtime=2014-01-20T13:01:15.255Z/2014-01-20T13:22:14.333Z"
```

Import a vulnerability scan (eVR) in the Nessus format:

```
curl -v -k --header "X-SMS-API-KEY: <string>" -F "file=@vulnScanSampleNessus.nessus"
"https://<sms_server>/vulnscanner/convert?&vendor=Nessus&product=Nessus-Sample&version=1.0
&runtime=2014-01-20T13:01:15.255Z/2014-01-20T13:22:14.333Z"
```

## STIX/TAXII

The SMS incorporates external threat intelligence. Structured Threat Information eXpression (STIX™) 2.0 data provides open source cyber threat intelligence, which can be transferred to the SMS using a Trusted Automated eXchange of Indicator Information (TAXII) service. The advanced threat intelligence provided in tag categories keeps the Reputation Database updated, and enables robust reputation filters for enhanced protection of your system. You can use STIX/TAXII for IPS enforcement of IP, DNS, and URL Indicators of Compromise (IoCs).

## Reputation database

The SMS automatically includes the following predefined tag categories for STIX/TAXII data. Use the following table to map STIX objects with user-provided Reputation tag categories.

| REPUTATION TAG         | STIX OBJECT PROPERTY | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STIX - ID              | id                   | <p>Identifies the STIX <b>Indicator</b> object, which is the only STIX 2.0 Domain Object the SMS imports.</p> <p>Indicators contain a pattern that can be used to detect suspicious or malicious cyber activity. For example, an indicator may be used to represent a set of malicious IP addresses, domains, or URLs.</p> <p>To be imported to the Reputation database, an indicator STIX object must:</p> <ul style="list-style-type: none"> <li>• Only contain a single comparison expression.</li> <li>• Object path pattern must be domain, URL, IPv4, or IPv6.</li> </ul> |
| STIX - Severity        | labels               | Identifies the severity for the discovered threat, based on rules that match severity. This is not a standard property for STIX 2.0.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| STIX - Confidence      | labels               | Identifies the confidence for the discovered threat, based on rules that match a confidence score. This is not a standard property for STIX 2.0.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Reputation Entries TTL | valid_until          | Identifies the date SMS will remove the entry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| -                      | revoked              | The SMS deletes the entry when it is tagged <code>true</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Versions

This feature implements STIX/TAXII 2.

## Import rules

- To automatically send STIX data to the SMS, enable the TAXII service. The TAXII service is enabled by default. For more information, see "Enable SMS Services" in the *SMS User Guide*.
- Only STIX Indicator objects can be added to the Reputation database.
- STIX Indicator objects must only contain a single comparison expression.
- You cannot export STIX objects from the SMS.

## Data format

### Bundle

Collection of STIX objects grouped together in a single container.

## Properties

| PROPERTY NAME | DESCRIPTION                                                             |
|---------------|-------------------------------------------------------------------------|
| type          | Bundle type.                                                            |
| id            | Bundle identifier.                                                      |
| spec_version  | STIX specification version used to represent the content in the bundle. |
| objects       | (Optional). Specifies a set of one or more STIX Objects.                |

## Example

```
{
  "id": "bundle--eac5fcf6-e5a4-40d9-8721-f0e79efdadf6",
  "objects": [
    {
      "created": "2016-02-26T18:24:18.396Z",
      "id": "indicator--a6f43caf-be25-4335-bfa1-badfc13b0bae",
      "labels": [
        "malicious-activity",
        "sms-severity-high",
        "sms-confidence-75"
      ],
      "modified": "2016-02-26T18:24:18.396Z",
      "pattern": "[domain-name:value = 'example.com']",
      "type": "indicator",
      "valid_from": "2016-02-26T18:24:18.396Z"
    }
  ],
  "spec_version": "2.0",
  "type": "bundle"
}
```

## Indicators

Pattern that can be used to detect suspicious or malicious cyber activity.

### Properties

| NAME       | DESCRIPTION                                                | EXPECTED VALUE                  | REQUIRED |
|------------|------------------------------------------------------------|---------------------------------|----------|
| type       | Value, must be indicator.                                  | "indicator"                     | V        |
| id         | Object ID.                                                 | <type>--<UUIDv4>                | V        |
| created    | The time that the first version of the object was created. | timestamp                       | V        |
| modified   | The time that this particular version was created.         | timestamp                       | V        |
| labels     | Values that comes from the indicator-label-ov vocabulary.  | One or multiple open vocabulary |          |
| pattern    | Detection pattern.                                         | valid pattern string            | V        |
| valid_from | The time when the indicator will not be valid.             | timestamp                       | V        |



| NAME        | DESCRIPTION                                    | EXPECTED VALUE | REQUIRED |
|-------------|------------------------------------------------|----------------|----------|
| valid_until | The time when the indicator will not be valid. | timestamp      |          |
| revoked     | Indicates whether the object has been revoked. | boolean        |          |

### Example

```
{
  "id": "bundle--eac5fcf6-e5a4-40d9-8721-f0e79efdadf6",
  "objects": [
    {
      "created": "2016-02-26T18:24:18.396Z",
      "id": "indicator--a6f43caf-be25-4335-bfa1-badfc13b0bae",
      "labels": [
        "malicious-activity",
        "sms-severity-high",
        "sms-confidence-75"
      ],
      "modified": "2016-02-26T18:24:18.396Z",
      "pattern": "[domain-name:value = 'example.com']",
      "type": "indicator",
      "valid_from": "2016-02-26T18:24:18.396Z"
    }
  ],
  "spec_version": "2.0",
  "type": "bundle"
}
```

## Pattern

STIX Patterns are composed of multiple building blocks, ranging from simple key-value comparisons to more complex, context-sensitive expressions. The SMS only supports a pattern with a single comparison expression.

```
"pattern": "[domain-name:value='example.com']"
```

## Comparison expression

### Object path

SMS only receives the following paths:

- domain-name:value
- ipv6-addr:value
- ipv4-addr:value
- url:value

### Comparison operator

The SMS Web API only supports the "=" comparison operator.

## Labels

Labels come from the indicator-label-ov vocabulary.

## Indicator label vocabulary

If an object contains a "benign" label, it is not added into the Reputation database.

- anomalous-activity
- anonymization
- benign
- compromised
- malicious-activity
- attribution

## STIX - Severity

If any label matches the rule below, the SMS tags the severity level as either low, medium, or high.

```
(?i) ^ ([a-z0-9]+) *severity- ([a-z0-9]+) ? (high|low|medium) $
```

The following table includes examples of how the SMS tags STIX - Severity labels.

| LABEL                           | SEVERITY |
|---------------------------------|----------|
| -severity-high                  | -        |
| a-b-severity-low                | low      |
| severity-low                    | low      |
| severity-LOW                    | low      |
| severity-low-aaa                | -        |
| threatstream-severity-high      | high     |
| threatstream-severity-highba    | -        |
| threatstream-severity-very-high | high     |

## STIX - Confidence

If any label matches the rule below, the SMS tags the confidence score (0-100).

```
(?i) ^ ([a-z0-9]+) *confidence- (\d| [1-9] \d|100) $
```

The following table includes examples of how the SMS tags STIX - Confidence labels.

| LABEL             | CONFIDENCE |
|-------------------|------------|
| confidence-99     | 99         |
| aaa-confidence-99 | 99         |
| confidence-50     | 50         |
| confidence-101    | -          |
| -confidence-99    | -          |

## Server discovery

Provides general information about the TAXII server.

- Common entry point for TAXII clients into the data and services provided by a TAXII server.
- API Roots are logical groupings of TAXII channels, collections, and related functionality.

### Definition

```
taxii
```

### Parameters

| ELEMENT   | DEFINITION                                  |
|-----------|---------------------------------------------|
| title     | Server name.                                |
| api_roots | List of URLs that identify known API roots. |
| default   | Default API root.                           |

### Example

```
{
  "title": "TippingPoint Security Management System",
  "default": "https://1.2.3.4/taxii/feeds/",
  "api_roots": [
    "https://1.2.3.4/taxii/feeds/"
  ]
}
```

## Get API root information

Provides general information about the API Root.

### Definition

```
taxii/feeds
```

### Parameters

| ELEMENT            | DEFINITION                                                |
|--------------------|-----------------------------------------------------------|
| title              | Name.                                                     |
| versions           | List of compatible TAXII versions.                        |
| max_content_length | Maximum size of the request body in octets (8-bit bytes). |

### Example

```
{
  "title": "TAXII feeds",
  "versions": ["taxii-2.0"],
  "max_content_length": 2097152
}
```

## Get collections

Provides information about the collections.

### Request

```
taxii/feeds/collections
```

### Parameters

| ELEMENT   | DEFINITION                                                   |
|-----------|--------------------------------------------------------------|
| id        | Collection ID.                                               |
| title     | Name used to identify the collection.                        |
| can_read  | Indicates if you can read (GET) objects from the collection. |
| can_write | Indicates if you can write (POST) objects to the collection. |

### Response

```
{
  "collections": [
    {
      "id": "00000000-0000-0000-0000-000000000001",
      "title": "User Reputation Entries",
      "can_read": true,
      "can_write": false
    }
  ]
}
```

## Get objects

Retrieves objects from a collection.

### Request

```
taxii/feeds/collections
```

## Add objects

Adds objects to a collection.

### Definition

```
taxii/feeds/collections/
```

### Example

```
{
  "id": "bundle--eac5fcf6-e5a4-40d9-8721-f0e79efdadf6",
  "objects": [
    {
      "created": "2016-02-26T18:24:18.396Z",
      "id": "indicator--a6f43caf-be25-4335-bfa1-badfc13b0bae",
      "labels": [
```

```

        "malicious-activity",
        "sms-severity-high",
        "sms-confidence-75"
    ],
    "modified": "2016-02-26T18:24:18.396Z",
    "pattern": "[domain-name:value = 'example.com']",
    "type": "indicator",
    "valid_from": "2016-02-26T18:24:18.396Z"
  }
],
"spec_version": "2.0",
"type": "bundle"
}

```

## Get status

Provides information about the status of a previous request. In TAXII 2.0, the only request that can be monitored is one to add objects to a Collection.

### Definition

```
taxii/feeds/status
```

### Parameters

| ELEMENT       | DEFINITION                                                                                                       |
|---------------|------------------------------------------------------------------------------------------------------------------|
| id            | ID                                                                                                               |
| status        | Status of a previous POST request; the value of this property is <code>complete</code> or <code>pending</code> . |
| total_count   | Total number of objects in the request.                                                                          |
| success_count | Number of objects that were successfully created.                                                                |
| successes     | List of object IDs that were successfully processed.                                                             |
| failure_count | Number of objects that failed to be created.                                                                     |
| failures      | List of status failures including object ID and message.                                                         |
| pending_count | Number of objects that have not been processed.                                                                  |
| pendings      | List of objects that have not been processed.                                                                    |

### Response

```

{
  "id": "2d086da7-4bdc-4f91-900e-d77486753710",
  "status": "pending",
  "total_count": 3,
  "success_count": 1,
  "successes": [
    "indicator--c410e480-e42b-47d1-9476-85307c12bcbf"
  ],
  "failure_count": 1,
  "failures": [
    {
      "id": "malware--664fa29d-bf65-4f28-a667-bdb76f29ec98",
      "message": "Malware is an unsupported type"
    }
  ]
}

```

```
],
"pending_count": 1,
"pendings": [
  "indicator--252c7c11-daf2-42bd-843b-be65edca9f61"
]
}
```

## Get an object

Gets an object from a Collection according to the ID.

### Definition

```
taxii/feeds/collections/objects/<object-id>/
```

## Get object manifests

Retrieves a manifest about objects from a collection.

### Definition

```
taxii/feeds/collections/manifest
```

## Database access

Used to access the SMS Web API.

### Definition

```
dbAccess/tptDBServlet
```

### Parameters

| PARAMETER | DESCRIPTION                                                                                                                                                                                                                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| method    | Required. <ul style="list-style-type: none"><li><a href="#">DataDictionary</a></li><li><a href="#">Events data - GetData</a></li><li><a href="#">GetNewestRecord</a></li><li><a href="#">GetOldestRecord</a></li><li><a href="#">Schema</a></li><li><a href="#">Status</a></li><li><a href="#">Version</a></li></ul> |

## Usage sequence

Follow this sequence when accessing the SMS database:

1. Use the [schema method](#) to retrieve the schema definition. Apply the returned data to user-defined database.
2. Use the [DataDictionary method](#) to retrieve supporting data. Apply the returned data to database, and repeat as needed to create profiles or activate Digital Vaccines.

When the SMS receives a valid request using this method, it can return an XML response. Specific response content depends on data you specify in the request.

3. Use the [GetData method](#) to receive event data that you can then import into the database.

## DataDictionary

Obtain SMS data dictionary information related to profiles, devices, segments, and virtual segments.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary
```

### Parameters

| PARAMETER | DESCRIPTION                                                                                                                                              |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| format    | Optional. <ul style="list-style-type: none"><li>• sql (default)</li><li>• csv</li><li>• xml</li></ul>                                                    |
| mode      | Optional. <ul style="list-style-type: none"><li>• insert (default) – use with sql format.</li><li>• update</li><li>• replace – use with MySQL.</li></ul> |

| PARAMETER | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| table     | <p>Optional. If you do not specify a table, all tables are included.</p> <ul style="list-style-type: none"> <li>• <a href="#"><i>ACTIONSET table</i></a></li> <li>• <a href="#"><i>ALERT_TYPE table</i></a></li> <li>• <a href="#"><i>CATEGORY table</i></a></li> <li>• <a href="#"><i>DEVICE table</i></a></li> <li>• <a href="#"><i>NOTICE_ACTION table</i></a></li> <li>• <a href="#"><i>POLICY table</i></a></li> <li>• <a href="#"><i>POLICY_GROUP_LOOKUP table</i></a></li> <li>• <a href="#"><i>PRODUCT_CATEGORY table</i></a></li> <li>• <a href="#"><i>PROFILE table</i></a></li> <li>• <a href="#"><i>PROFILE_INSTALL_INVENTORY table</i></a></li> <li>• <a href="#"><i>QUARANTINE_NETWORK_DEVICES table</i></a></li> <li>• <a href="#"><i>SEGMENT table</i></a></li> <li>• <a href="#"><i>SEGMENT_GROUP table</i></a></li> <li>• <a href="#"><i>SEVERITY table</i></a></li> <li>• <a href="#"><i>SIGNATURE table</i></a></li> <li>• <a href="#"><i>TAXONOMY_MAJOR table</i></a></li> <li>• <a href="#"><i>TAXONOMY_MINOR table</i></a></li> <li>• <a href="#"><i>TAXONOMY_PLATFORM table</i></a></li> <li>• <a href="#"><i>TAXONOMY_PROTOCOL table</i></a></li> <li>• <a href="#"><i>THRESHOLD_UNITS table</i></a></li> <li>• <a href="#"><i>TPT_DEVICE table</i></a></li> <li>• <a href="#"><i>TPT_PORT table</i></a></li> <li>• <a href="#"><i>TPT_SEGMENT table</i></a></li> <li>• <a href="#"><i>VIRTUAL_SEGMENT table</i></a></li> </ul> |

## ACTIONSET table

Record defined by the user and applied to a POLICY. Used to determine the action that is taken when a POLICY is triggered.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=ACTIONSET
```

### Parameters

| COLUMN | DESCRIPTION                                                   |
|--------|---------------------------------------------------------------|
| ID     | Unique identifier. use this column to join from other tables. |
| NAME   | Descriptive name.                                             |



| COLUMN       | DESCRIPTION                                                                                                                |
|--------------|----------------------------------------------------------------------------------------------------------------------------|
| RATE         | Rate limit value applied to the action set. Has a value specifying the RATE to be applied for rate limit action sets.      |
| FLOW_CONTROL | Traffic flow indicator. <ul style="list-style-type: none"> <li>ALLOW</li> <li>DENY</li> <li>TRUST</li> <li>RATE</li> </ul> |

## ALERT\_TYPE table

Descriptive name for alerts.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=ALERT_TYPE
```

### Parameters

| COLUMN | DESCRIPTION        |
|--------|--------------------|
| ID     | Unique identifier. |
| NAME   | Descriptive name.  |

## CATEGORY table

Maintains the names used for SIGNATURE categories.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=CATEGORY
```

### Parameters

| COLUMN | DESCRIPTION                                                   |
|--------|---------------------------------------------------------------|
| ID     | Unique identifier. Use this column to join from other tables. |
| NAME   | Descriptive name.                                             |

## DEVICE table

Record for each of the IPS devices managed on the SMS.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=DEVICE
```

## Parameters

| COLUMN        | DESCRIPTION                                                                                                             |
|---------------|-------------------------------------------------------------------------------------------------------------------------|
| ID            | Unique identifier.                                                                                                      |
| SHORT_ID      | Lookup identifier.                                                                                                      |
| NAME          | Descriptive name of the device provided during device installation.                                                     |
| MODEL         | String that represents the model of the device.                                                                         |
| SERIAL_NUMBER | Alpha-numeric TippingPoint serial number.                                                                               |
| IP_ADDRESS    | IP address for the management port for the device.                                                                      |
| LOCATION      | Descriptive location text entered during device installation.                                                           |
| DV_VERSION    | Current version of the Digital Vaccine installed on the device; if the device is a Core Controller, this field is null. |
| OS_VERSION    | Current version of the TOS installed on the device.                                                                     |
| DEVICE_GROUP  | Name of the group to which the device belongs.                                                                          |
| MANAGED       | Boolean to show if the device is currently managed on the SMS.                                                          |

## NOTICE\_ACTION table

Descriptive names for ALERTS.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=NOTICE_ACTION
```

### Parameters

| COLUMN | DESCRIPTION                                                   |
|--------|---------------------------------------------------------------|
| ID     | Unique identifier. Use this column to join from other tables. |
| NAME   | Descriptive name for the entry.                               |

## POLICY table

Holds objects that determine what actions to take for a SIGNATURE.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=POLICY
```

### Parameters

| COLUMN       | DESCRIPTION                                                      |
|--------------|------------------------------------------------------------------|
| ID           | Unique identifier.                                               |
| PROFILE_ID   | Identifier of the PROFILE object that contained this POLICY.     |
| SIGNATURE_ID | Identifier of the SIGNATURE this object is defining in a POLICY. |

| COLUMN             | DESCRIPTION                                                                                                                                               |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACTIONSET_ID       | Identifier for the ACTIONSET applied to this object.                                                                                                      |
| DISPLAYNAME        | Descriptive name for the POLICY, which is usually the same as the SIGNATURE referenced by SIGNATURE_ID; however, THRESHOLDS allow you to name the POLICY. |
| MULTIPART_GROUP_ID | Identifier for SMS policy group.                                                                                                                          |

## POLICY\_GROUP\_LOOKUP table

Holds the mapping information for policy group information on the SMS and device. Used to find the policy information from events from the device.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=POLICY_GROUP_LOOKUP
```

### Parameters

| COLUMN       | DESCRIPTION                                    |
|--------------|------------------------------------------------|
| DEV_GROUP_ID | Identifier for the POLICY group on the device. |
| SMS_GROUP_ID | Identifier of the PROFILE group on the SMS.    |

## PRODUCT\_CATEGORY table

Maintains the names used for SIGNATURE categories. The SIGNATURE table contains a number that is joined to the ID field in this PRODUCT\_CATEGORY table.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=PRODUCT_CATEGORY
```

### Parameters

| COLUMN | DESCRIPTION                                                   |
|--------|---------------------------------------------------------------|
| ID     | Unique identifier. Use this column to join from other tables. |
| NAME   | Descriptive name.                                             |

## PROFILE table

Container for your POLICY entries. Name the PROFILE, make changes to the POLICY objects, and then distribute to a segment group.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=PROFILE
```

### Parameters

| COLUMN      | DESCRIPTION              |
|-------------|--------------------------|
| ID          | Unique identifier.       |
| VERSION     | Current profile version. |
| NAME        | Profile name.            |
| DESCRIPTION | Profile description.     |

## PROFILE\_INSTALL\_INVENTORY table

Container for items associated with PROFILE entries.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=PROFILE_INSTALL_INVENTORY
```

### Parameters

| COLUMN             | DESCRIPTION                                                                                                                                       |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| VIRTUAL_SEGMENT_ID | Lookup identifier for the virtual segment where the profile was distributed.                                                                      |
| PROFILE_ID         | Lookup identifier for the profile details.                                                                                                        |
| PROFILE_VERSION    | Profile version.                                                                                                                                  |
| DISTRIBUTE_ID      | Lookup identifier for the distribution details.                                                                                                   |
| COMPLETE_TIME      | Time the profile distribution completed. <ul style="list-style-type: none"><li>Value is in milliseconds since Jan. 1, 1970 00:00:00 GMT</li></ul> |

## QUARANTINE\_NETWORK\_DEVICES table

Contains the defined quarantine switches.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=QUARANTINE_NETWORK_DEVICES
```

### Parameters

| COLUMN     | DESCRIPTION                                          |
|------------|------------------------------------------------------|
| NAME       | Descriptive name for the network device switch type. |
| IP_ADDRESS | IP address for the switch.                           |

## SEGMENT table

Represents a physical segment on a device.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=SEGMENT
```

## Parameters

| COLUMN        | DESCRIPTION                                                                                                                       |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------|
| ID            | Unique identifier.                                                                                                                |
| DEVICE_ID     | Device to which this segment belongs.                                                                                             |
| NAME          | Descriptive name.                                                                                                                 |
| IP_ADDRESS    | OBSOLETE IP Address that may be given to the segment.                                                                             |
| SLOT_INDEX    | Internal chassis slot number. <ul style="list-style-type: none"> <li>Physical segments: 3</li> <li>Virtual segments: 0</li> </ul> |
| SEGMENT_INDEX | <ul style="list-style-type: none"> <li>Physical segments: Physical segment number</li> <li>Virtual segments: 0</li> </ul>         |

## SEGMENT\_GROUP table

Represents a group of physical segments.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=SEGMENT_GROUP
```

## Parameters

| COLUMN | DESCRIPTION                                                 |
|--------|-------------------------------------------------------------|
| ID     | Unique identifier.                                          |
| NAME   | Descriptive name for the segment group when it was created. |

## SEVERITY table

Provides descriptive text for SEVERITY fields.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=SEVERITY
```

## Parameters

| COLUMN | DESCRIPTION        |
|--------|--------------------|
| ID     | Unique identifier. |
| NAME   | Severity name.     |

## SIGNATURE table

Details the currently active Digital Vaccine package on the SMS for use with devices. The table grows as new Digital Vaccines are released, downloaded, and activated.

## Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=SIGNATURE
```

## Parameters

| COLUMN              | DESCRIPTION                                                                                                                                                       |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID                  | Unique identifier.                                                                                                                                                |
| NUMBER              | Integer used to reference the signature, which is assigned by TippingPoint.                                                                                       |
| SEVERITY_ID         | Identifier for the SEVERITY of the SIGNATURE. <ul style="list-style-type: none"> <li>Join to SEVERITY.ID to obtain a descriptive name of the SEVERITY.</li> </ul> |
| NAME                | Signature name.                                                                                                                                                   |
| CLASS               | Descriptive classification for the SIGNATURE.                                                                                                                     |
| PRODUCT_CATEGORY_ID | Category ID from PRODUCT_CATEGORY table, provided by TippingPoint.                                                                                                |
| PROTOCOL            | Signature protocol.                                                                                                                                               |
| TAXONOMY_ID         | Taxonomy classification.                                                                                                                                          |
| CVE_ID              | Comma-separated list of CVE IDs that can be used to link to the CVE database.                                                                                     |
| BUGTRAQ_ID          | Comma-separated list of BugTraq IDs that can be used to link to the BugTraq database.                                                                             |
| DESCRIPTION         | Signature description, which is provided by TippingPoint.                                                                                                         |
| MESSAGE             | Message that can be filled in with ALERTS. <ul style="list-style-type: none"> <li>MESSAGE_PARMS values to create a dynamic message for this SIGNATURE.</li> </ul> |

## TAXONOMY\_MAJOR table

Details the TippingPoint signature taxonomy major classifications.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=TAXONOMY_MAJOR
```

## Parameters

| COLUMN      | DESCRIPTION        |
|-------------|--------------------|
| ID          | Unique identifier. |
| NAME        | Short name.        |
| DESCRIPTION | Description.       |

## TAXONOMY\_MINOR table

Details the TippingPoint signature taxonomy minor classifications.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=TAXONOMY_MINOR
```

**Parameters**

| COLUMN      | DESCRIPTION                                                                           |
|-------------|---------------------------------------------------------------------------------------|
| ID          | Unique identifier.                                                                    |
| MAJOR_ID    | Identifier of the major classification ID to which this minor classification relates. |
| DESCRIPTION | Description.                                                                          |

**TAXONOMY\_PLATFORM table**

Details the TippingPoint signature platforms.

**Definition**

```
dbAccess/tptDBServlet?method=DataDictionary&table=TAXONOMY_PLATFORM
```

**Parameters**

| COLUMN      | DESCRIPTION        |
|-------------|--------------------|
| ID          | Unique identifier. |
| DESCRIPTION | Description.       |

**TAXONOMY\_PROTOCOL table**

Details the TippingPoint signature protocols.

**Definition**

```
dbAccess/tptDBServlet?method=DataDictionary&table=TAXONOMY_PROTOCOL
```

**Parameters**

| COLUMN      | DESCRIPTION        |
|-------------|--------------------|
| ID          | Unique identifier. |
| DESCRIPTION | Description.       |

**THRESHOLD\_UNITS table**

Defines the units in which thresholds can be specified.

**Definition**

```
dbAccess/tptDBServlet?method=DataDictionary&table=THRESHOLD_UNITS
```

**Parameters**

| COLUMN | DESCRIPTION                          |
|--------|--------------------------------------|
| ID     | Unique identifier.                   |
| NAME   | Descriptive name for the unit entry. |

## TPT\_DEVICE table

Contains a record for each managed IPS.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=TPT_DEVICE
```

### Parameters

| COLUMN       | DESCRIPTION                                                           |
|--------------|-----------------------------------------------------------------------|
| ID           | Unique identifier.                                                    |
| SHORT_ID     | Unique identifier for the table entry.                                |
| DISPLAY_NAME | Device name that was provided by the user during device installation. |
| DEVICE_MODEL | IPS device model.                                                     |
| IP_ADDRESS   | IP address for the management port on the IPS.                        |
| LOCATION     | Location that was provided by the user during device installation.    |

## TPT\_PORT table

Represents a physical port on a device.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=TPT_PORT
```

### Parameters

| COLUMN       | DESCRIPTION                    |
|--------------|--------------------------------|
| ID           | Unique identifier.             |
| DISPLAY_NAME | Descriptive name for the port. |

## TPT\_SEGMENT table

Represents a physical segment on a device.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=TPT_SEGMENT
```

### Parameters

| COLUMN          | DESCRIPTION                                                           |
|-----------------|-----------------------------------------------------------------------|
| ID              | Unique identifier.                                                    |
| DEVICE_ID       | Device to which the segment belongs to.                               |
| DEVICE_SHORT_ID | Device short ID.                                                      |
| DISPLAY_NAME    | Device name that was provided by the user during device installation. |



| COLUMN        | DESCRIPTION                                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| IP_ADDRESS    | OBSOLETE IP Address that may be given to this segment. This value was used in Discovery services which have been removed from the product. |
| SEGMENT_SLOT  | Internal chassis slot number. <ul style="list-style-type: none"> <li>Physical segments: 3</li> <li>Virtual segments: 0</li> </ul>          |
| SEGMENT_INDEX | <ul style="list-style-type: none"> <li>Physical segments: Physical segment number</li> <li>Virtual segments: 0</li> </ul>                  |

## VIRTUAL\_SEGMENT table

Represents a virtual physical segment on a device.

### Definition

```
dbAccess/tptDBServlet?method=DataDictionary&table=VIRTUAL_SEGMENT
```

### Parameters

| COLUMN           | DESCRIPTION                                  |
|------------------|----------------------------------------------|
| ID               | Unique identifier.                           |
| DEVICE_ID        | Device to which this segment belongs.        |
| SEGMENT_GROUP_ID | Segment group to which this segment belongs. |
| NAME             | Descriptive name.                            |

## Events data - GetData

Request data from specified tables.

### Definition

```
dbAccess/tptDBServlet?method=GetData
```

### Parameters

| PARAMETER  | VALUE   | DESCRIPTION                                                                                                                       |
|------------|---------|-----------------------------------------------------------------------------------------------------------------------------------|
| begin_time | integer | Required. <ul style="list-style-type: none"> <li>Expressed as the number of milliseconds since 01-01-1970 00:00:00 GMT</li> </ul> |
| end_time   | integer | Required. <ul style="list-style-type: none"> <li>Expressed as the number of milliseconds since 01-01-1970 00:00:00 GMT</li> </ul> |

| PARAMETER | VALUE   | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| format    |         | Optional. <ul style="list-style-type: none"> <li>• csv (default)</li> <li>• sql</li> <li>• xml</li> </ul>                                                                                                                                                                                                                                                                                                            |
| limit     | integer | Optional. <ul style="list-style-type: none"> <li>• Maximum number of values returned.</li> <li>• All values are returned by default.</li> </ul>                                                                                                                                                                                                                                                                      |
| table     |         | Required. Events data: <ul style="list-style-type: none"> <li>• <a href="#">ALERTS table</a></li> <li>• <a href="#">DDOS_STATS table</a></li> <li>• <a href="#">FIREWALL_BLOCK_LOG table</a></li> <li>• <a href="#">FIREWALL_TRAFFIC_LOG table</a></li> <li>• <a href="#">PORT_TRAFFIC_STATS table</a></li> <li>• <a href="#">QUARANTINE_HOSTS table</a></li> <li>• <a href="#">RATELIMIT_STATS table</a></li> </ul> |

## ALERTS table

Contains information pertaining to the event that caused a POLICY to trigger.

- When an ACTIONSET is applied to a POLICY and it has a **Management Console** notification selected, it is put in the ALERTS table.
- The primary key, a unique key, is a four column index, DEVICE\_ID, ALERT\_TYPE\_ID, SEQUENCE\_NUM, and END\_TIME.
- The table is expected to have a continuous growth pattern and contain millions of records.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=ALERTS
```

### Parameters

| COLUMN       | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SEQUENCE_NUM | Reference to a particular logs row entry counter. <ul style="list-style-type: none"> <li>• The ALERT_TYPE column defines the log being referenced.</li> <li>• This sequence number is not reliable as far as counting on it behaving as an ever increasing sequential number. It can be reset on the device and repeated for new events.</li> </ul>                                |
| DEVICE_ID    | Identifier for the DEVICE entry that sent the notification. <ul style="list-style-type: none"> <li>• Second part of the ALERTS table unique index.</li> <li>• A foreign key to the DEVICE table was left off for the purpose of performance and due to the possibility that a DEVICE entry may not have been yet stored in the DEVICE table for this external database.</li> </ul> |

| COLUMN                 | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALERT_TYPE_ID          | The TYPE column is the third and final primary key constraint on the ALERTS table. <ul style="list-style-type: none"> <li>This field can be joined to the ALERT_TYPE table for a descriptive name for this column.</li> </ul>                                                                                                                                                                                                                                                                                                                                   |
| POLICY_ID              | Identifier used to map this alert to a POLICY table entry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SIGNATURE_ID           | Identifier used to map this alert to a SIGNATURE table entry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| BEGIN_TIME             | Time at which the event was first started or previously logged. <ul style="list-style-type: none"> <li>Value is in milliseconds elapsed since Jan. 1, 1970 00:00:00 GMT</li> <li>When using notification aggregation, this value and the END_TIME typically are off by the number of minutes specified in the aggregation setting.</li> <li>The difference between BEGIN_TIME and END_TIME may be larger if a lot of time passes between attack events.</li> <li>When aggregation is turned off, the BEGIN_TIME usually is the same as the END_TIME.</li> </ul> |
| END_TIME               | Time at which the notification was logged and sent to the Management Console. <ul style="list-style-type: none"> <li>Value is in milliseconds elapsed since Jan. 1, 1970 00:00:00 GMT</li> <li>Subtract BEGIN_TIME from END_TIME to determine the length of an attack, if aggregation is being used.</li> <li>Difference between BEGIN_TIME and END_TIME might be unexpectedly large if a lot of time passes between attack events.</li> </ul>                                                                                                                  |
| HIT_COUNT              | Counter displaying the number of times the event triggered before the notification was sent to the Management Console.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SRC_IP_ADDR            | Source IP of the packet causing the notification. Numeric value of an IPv4 address, or the low-order 64 bits for an IPv6 address if SRC_IP_ADDR_HIGH is not NULL.                                                                                                                                                                                                                                                                                                                                                                                               |
| SRC_IP_ADDR_HIGH       | Source IP of the packet causing the notification. Numeric value of high-order 64 bits for an IPv6 address.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SRC_PORT               | Source port of the packet causing the notification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DST_IP_ADDR            | Destination IP of the packet causing the notification. Numeric value of an IPv4 address, or the low-order 64 bits for an IPv6 address if DST_IP_ADDR_HIGH is not NULL.                                                                                                                                                                                                                                                                                                                                                                                          |
| DST_IP_ADDR_HIGH       | Destination IP of the packet causing the notification. Numeric value of high-order 64 bits for an IPv6 address.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DST_PORT               | Destination port of the packet causing the notification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| VIRTUAL_SEGMENT_INDEX  | Identifier for which device segment this alert was seen on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| PHYSICAL_PORT_IN       | Device port on which the event was detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| VLAN_TAG               | VLAN identifier contained in the event.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| SEVERITY               | SEVERITY of the event. Usually corresponds to the SIGNATURE.SEVERITY column, joined by the SIGNATURE_ID column. A foreign key constraint to the SEVERITY table has been applied here.                                                                                                                                                                                                                                                                                                                                                                           |
| PACKET_TRACE           | Indicates if a packet trace is available on the device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DEVICE_TRACE_BUCKET    | Part of the device packet trace identifier.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DEVICE_TRACE_BEGIN_SEQ | Part of the device packet trace identifier.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| COLUMN               | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEVICE_TRACE_END_SEQ | Part of the device packet trace identifier.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MESSAGE_PARMS        | <p>Variable list of message parameters.</p> <ul style="list-style-type: none"> <li>Value can be tokenized and combined with the SIGNATURE.MESSAGE data to display a dynamic ALERT message.</li> <li>Join SIGNATURE_ID with SIGNATURE.ID to retrieve the SIGNATURE.MESSAGE data. The MESSAGE_PARMS string is a delimited string, the delimiter is the " " character.</li> <li>The SIGNATURE.MESSAGE string contains place holders for these strings, the place holders are %1, %2, ..., %n.</li> <li>The tokenized MESSAGE_PARMS replaces the %n values based on their location in the string.</li> </ul> <p><b>Example</b></p> <p>MESSAGE_PARMS=Austin Texas SIGNATURE.MESSAGE=%1 is in %2.</p> <p>The preceding parameters and message generates the following message:</p> <p>Austin is in Texas.</p> |
| QUARANTINE_ACTION    | Quarantine action taken, either Added or Removed; used only in quarantine logs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| FLOW_CONTROL         | Action taken by the action set: Permit, Rate Limit, or Trust.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ACTION_SET_UUID      | Action set UUID; used only in rate limit logs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ACTION_SET_NAME      | Rate limit action; used only in rate limit logs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| RATE_LIMIT_RATE      | Rate for rate limit logs; a numerical value followed by a unit. The unit can be Kbps or Mbps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CLIENT_IP_ADDR       | Long value of the Client IP address ( <b>Capture Additional Event Information</b> must be enabled).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CLIENT_IP_ADDR_HIGH  | Long value of the Client IP address ( <b>Capture Additional Event Information</b> must be enabled). For IPV6 only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| XFF_IP_ADDR          | Long value of the X-Forwarded-For IP address ( <b>Capture Additional Event Information</b> must be enabled).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| XFF_IP_ADDR_HIGH     | Long value of the X-Forwarded-For IP address ( <b>Capture Additional Event Information</b> must be enabled). For IPV6 only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| TCIP_IP_ADDR         | Long value of the True-Client-IP address ( <b>Capture Additional Event Information</b> must be enabled).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| TCIP_IP_ADDR_HIGH    | Long value of the True-Client-IP address ( <b>Capture Additional Event Information</b> must be enabled). For IPV6 only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| URI_METHOD           | Method of the URI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| URI_HOST             | Host of the URI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| URI_STRING           | URI string.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SRC_USER_NAME        | <p>User name on the source machine.</p> <ul style="list-style-type: none"> <li>User ID IP Correlation must be configured on the SMS to retrieve this information.</li> <li>User ID IP Correlation is a feature that enables the SMS to collect user authentication data directly and continuously from an Identity Agent device.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SRC_DOMAIN           | Name of the source domain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| COLUMN        | DESCRIPTION                           |
|---------------|---------------------------------------|
| SRC_MACHINE   | Name of the source machine.           |
| DST_USER_NAME | User name on the destination machine. |
| DST_DOMAIN    | Name of the destination domain        |
| DST_MACHINE   | Name of the destination machine.      |

## DDOS\_STATS table

Data accumulated from the device for Advanced DDoS policies.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=DDOS_STATS
```

### Parameters

| COLUMN              | DESCRIPTION                                                                                      |
|---------------------|--------------------------------------------------------------------------------------------------|
| POLICY_ID           | POLICY ID.                                                                                       |
| STAT_TIME           | Time the data was collected.<br>• Time is stored in milliseconds since Jan. 1, 1970 00:00:00 GMT |
| REJECT_SYNS         | Number of rejected SYN requests for the stat period.                                             |
| PROXIED_CXNS        | Number of proxied connections for the stat period.                                               |
| CPS_CXNS            | Number of Connections Per Second over stat period.                                               |
| BLOCKED_CPS_CXNS    | Number of blocked CPS in stat period.                                                            |
| CFLOOD_CXNS         | Number of Connection Flood connections in stat period.                                           |
| BLOCKED_CFLOOD_CXNS | Number of blocked Connection Flood connections in stat period.                                   |

## FIREWALL\_BLOCK\_LOG table

Contains information pertaining to logs where traffic has been permitted by firewall rules that have logging enabled, including packets that were permitted by the content filtering configuration.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=FIREWALL_BLOCK_LOG
```

### Parameters

| COLUMN              | DESCRIPTION                                                 |
|---------------------|-------------------------------------------------------------|
| SEQUENCE_NUM        | Reference to a particular logs row entry counter.           |
| TPT_DEVICE_SHORT_ID | Identifier for the DEVICE entry that sent the notification. |

| COLUMN           | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TIME             | Time in which the event was first started. <ul style="list-style-type: none"> <li>When using notification aggregation, this value and the TIME_END typically are off by the number of minutes specified in the aggregation setting.</li> <li>When aggregation is turned off, the BEGIN_TIME usually is the same as the TIME_END. This value is in milliseconds since Jan. 1, 1970 00:00:00 GMT.</li> </ul> |
| TIME_END         | Time in which the notification was sent to the Management Console. <ul style="list-style-type: none"> <li>Subtracting BEGIN_TIME from TIME_END can determine the length of an attack if aggregation is being used.</li> <li>This value is in milliseconds since Jan. 1, 1970 00:00:00 GMT</li> </ul>                                                                                                       |
| HIT_COUNT        | Number of times the firewall rule was applied.                                                                                                                                                                                                                                                                                                                                                             |
| SRC_IP_ADDR      | Source IP of the packet causing the notification.                                                                                                                                                                                                                                                                                                                                                          |
| SRC_PORT         | Source port of the packet causing the notification.                                                                                                                                                                                                                                                                                                                                                        |
| DST_IP_ADDR      | Destination IP of the packet causing the notification.                                                                                                                                                                                                                                                                                                                                                     |
| DST_PORT         | Destination port of the packet causing the notification.                                                                                                                                                                                                                                                                                                                                                   |
| RULE_ID          | Unique identifier for rule to monitor traffic between security zones.                                                                                                                                                                                                                                                                                                                                      |
| PROTOCOL_NAME    | Packet type.                                                                                                                                                                                                                                                                                                                                                                                               |
| PROTOCOL_NUMBER  | Number associated with the protocol in the filter.                                                                                                                                                                                                                                                                                                                                                         |
| PROTOCOL_TYPE    | Protocol that was used to respond to the event.                                                                                                                                                                                                                                                                                                                                                            |
| IN_ZONE_UUID     | Security zone from which the attack originated.                                                                                                                                                                                                                                                                                                                                                            |
| OUT_ZONE_UUID    | Security zone from which the attack was targeted.                                                                                                                                                                                                                                                                                                                                                          |
| PHYSICAL_PORT_IN | Device port on which the attack was detected.                                                                                                                                                                                                                                                                                                                                                              |
| VLAN             | Local VLAN that was targeted.                                                                                                                                                                                                                                                                                                                                                                              |
| CATEGORY         | Type of traffic filter that was activated.                                                                                                                                                                                                                                                                                                                                                                 |
| SESSION_DURATION | Duration of the attack.                                                                                                                                                                                                                                                                                                                                                                                    |
| URL              | URL associated with the attack.                                                                                                                                                                                                                                                                                                                                                                            |
| URLINFO          | Additional information relevant to the URL.                                                                                                                                                                                                                                                                                                                                                                |
| SEVERITY         | Severity of the attack.                                                                                                                                                                                                                                                                                                                                                                                    |

## FIREWALL\_TRAFFIC\_LOG table

Contains information pertaining to logs where traffic has been permitted by firewall rules that have logging enabled, including packets that were permitted by the content filtering configuration.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=FIREWALL_TRAFFIC_LOG
```

## Parameters

| COLUMN              | DESCRIPTION                                                                                                                                                                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SEQUENCE_NUM        | Reference to a particular logs row entry counter.                                                                                                                                                                                                                                              |
| TPT_DEVICE_SHORT_ID | Identifier for the DEVICE entry that sent the notification.                                                                                                                                                                                                                                    |
| TIME_END            | Time in which the notification was sent to the Management Console. <ul style="list-style-type: none"> <li>Value is in milliseconds (since Jan. 1, 1970 00:00:00 GMT)</li> <li>Subtract BEGIN_TIME from TIME_END to determine the length of an attack, if aggregation is being used.</li> </ul> |
| SRC_IP_ADDR         | Packet source IP address.                                                                                                                                                                                                                                                                      |
| SRC_PORT            | Packet source port.                                                                                                                                                                                                                                                                            |
| DST_IP_ADDR         | Packet destination IP address.                                                                                                                                                                                                                                                                 |
| DST_PORT            | Packet destination port.                                                                                                                                                                                                                                                                       |
| RULE_ID             | Unique identifier to monitor traffic between security zones.                                                                                                                                                                                                                                   |
| PROTOCOL_NAME       | Packet type.                                                                                                                                                                                                                                                                                   |
| PROTOCOL_NUMBER     | Protocol number in the filter.                                                                                                                                                                                                                                                                 |
| IN_ZONE_UUID        | Security zone from which the attack originated.                                                                                                                                                                                                                                                |
| OUT_ZONE_UUID       | Security zone from which the attack was targeted.                                                                                                                                                                                                                                              |
| CATEGORY            | Type of traffic filter that was activated.                                                                                                                                                                                                                                                     |
| SESSION_DURATION    | Duration of the attack.                                                                                                                                                                                                                                                                        |
| URL                 | URL that was associated with the attack.                                                                                                                                                                                                                                                       |
| XFER_BYTES          | Number of bytes transferred for the event.                                                                                                                                                                                                                                                     |
| MESSAGE             | Dynamic ALERT message.                                                                                                                                                                                                                                                                         |

## PORT\_TRAFFIC\_STATS table

Contains information of traffic going through each IPS port.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=PORT_TRAFFIC_STATS
```

### Parameters

| COLUMN      | DESCRIPTION                                                      |
|-------------|------------------------------------------------------------------|
| DEVICE_ID   | Identifier for the DEVICE entry that sent the notification.      |
| PORT_ID     | Identifier for the PORT entry that the traffic is going through. |
| SMS_TIME    | SMS time in which the statistics get captured.                   |
| DEVICE_TIME | Device SMS time in which the statistics get captured.            |
| IN_OCTETS   | Device SMS time in which the statistics get captured.            |

| COLUMN     | DESCRIPTION                       |
|------------|-----------------------------------|
| OUT_OCTETS | Total traffic going out the port. |

## QUARANTINE\_HOSTS table

Contains device and SMS quarantine actions.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=QUARANTINE_HOSTS
```

### Parameters

| COLUMN          | DESCRIPTION                                                                                                                                     |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| ID              | Unique identifier for the table entry.                                                                                                          |
| QUARANTINED_IP  | IP address of the quarantined host.                                                                                                             |
| QUARANTINED_MAC | MAC address of the quarantined host.                                                                                                            |
| POLICY_NAME     | Descriptive name for the policy that triggered the host quarantine.                                                                             |
| STATE           | Current state of the host. <ul style="list-style-type: none"> <li>UNQUARANTINED</li> <li>QUARANTINED</li> <li>INITIAL</li> <li>ERROR</li> </ul> |
| AUTHORITY       | Source of the quarantine state for the host.                                                                                                    |
| CREATE_TIME     | Time the initial quarantine state was set.                                                                                                      |
| LAST_UPDATE     | Time of the last quarantine state change.                                                                                                       |

## RATELIMIT\_STATS table

When using RATELIMIT ACTIONSETs, this data is accumulated from the DEVICE.

If you are using RATELIMIT ACTIONSETs, this table is expected to have a continuous growth pattern and contain millions of records.

### Definition

```
dbAccess/tptDBServlet?method=GetData&table=RATELIMIT_STATS
```

### Parameters

| COLUMN       | DESCRIPTION                                                                                                                         |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| ACTIONSET_ID | Identifier of the ACTIONSET table entry for this record.                                                                            |
| STAT_TIME    | Time this stat was recorded. <ul style="list-style-type: none"> <li>Time is milliseconds since Jan. 1, 1970 00:00:00 GMT</li> </ul> |
| DEVICE_ID    | Identifier for the DEVICE.                                                                                                          |



| COLUMN | DESCRIPTION      |
|--------|------------------|
| RATE   | RATE in kbps.    |
| VALUE  | Number of Bytes. |

## GetNewestRecord

Retrieve the newest record of a specific table.

### Definition

```
/dbAccess/tptDBServlet?method=GetNewestRecord
```

### Parameters

| PARAMETER | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| table     | <ul style="list-style-type: none"> <li><a href="#">ALERTS table</a></li> <li><a href="#">DDOS_STATS table</a></li> <li><a href="#">FIREWALL_BLOCK_LOG table</a></li> <li><a href="#">FIREWALL_TRAFFIC_LOG table</a></li> <li><a href="#">PORT_TRAFFIC_STATS table</a></li> <li><a href="#">QUARANTINE_HOSTS table</a></li> <li><a href="#">RATELIMIT_STATS table</a></li> </ul> |

## GetOldestRecord

Retrieve the oldest record of a specific table.

### Definition

```
/dbAccess/tptDBServlet?method=GetOldestRecord
```

### Parameters

| PARAMETER | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| table     | <ul style="list-style-type: none"> <li><a href="#">ALERTS table</a></li> <li><a href="#">DDOS_STATS table</a></li> <li><a href="#">FIREWALL_BLOCK_LOG table</a></li> <li><a href="#">FIREWALL_TRAFFIC_LOG table</a></li> <li><a href="#">PORT_TRAFFIC_STATS table</a></li> <li><a href="#">QUARANTINE_HOSTS table</a></li> <li><a href="#">RATELIMIT_STATS table</a></li> </ul> |

## Schema

Obtain SMS database schema information. The SMS returns the schema information in Oracle 8i or MySQL 4.0 compliant data definition language (DDL) statements.

### Definition

```
dbAccess/tptDBServlet?method=Schema
```

### Parameters

| PARAMETER | DESCRIPTION                                                                                               |
|-----------|-----------------------------------------------------------------------------------------------------------|
| database  | Only valid for sql format. <ul style="list-style-type: none"><li>MySQL (default)</li><li>Oracle</li></ul> |

### Example

```
curl -k --header "X-SMS-API-KEY: <string>" "https://<sms_server>/dbAccess/tptDBServlet?method=Schema"
```

## Status

Returns the status of the SMS web API support.

### Definition

```
dbAccess/tptDBServlet?method=Status
```

### Response

- OK: SMS web API support is enabled and running.
- Not Found: SMS web API support is not enabled.

## Version

Returns the version number of the SMS.

### Definition

```
dbAccess/tptDBServlet?method=Version
```

## External database

The external database can be used for customized reporting. For custom reports, you can access the SMS database directly or replicate the SMS to your external server. If you require data that the SMS reports do not routinely provide, you can set up an SMS External Database with a reporting tool of your choice.

The SMS supports the following database options:

- External access - direct access to the database.
- External replication - remote replication of the database, which provides a copy of the database that can be edited, backed up, or used for offloading report functions. Data that you access remotely is read-only and cannot be changed.

## External access

- [Set up the access service](#) to allow an external database tool to access data on the SMS. Do this before you configure the external application.
- Reboot the SMS to enable or disable this service.

## External replication

- [Set up the replication service](#) to allow an external database server to replicate data from the SMS.
- Reboot the SMS to enable or disable this service.

## Configure the SMS for external access

Open a MariaDB read-only database for any third-party access or reporting tool. The read-only database is named **ExternalAccess**.

### Procedure

1. On the SMS, go to **Admin > Database > External Database Settings > Edit**.
2. Select **External Access Settings > Enable external database access**.
3. Enter the following:
  - **Username** – Provide the user name for an account with sufficient rights to read all the desired data from the SMS database.
  - **Password** – Enter and confirm the password.
4. If you changed the external access settings, click **Reboot** to restart the SMS server and initialize the service.



### Note

Follow your company's server downtime policies, including notification to SMS clients of a pending reboot. Before you reboot the SMS, gracefully stop other client connections to the server.

5. Click **OK**.

If verification fails:

- Verify that the username/password on the database matches the SMS.
- Reboot the SMS before you try to access the database.
- Running a complex report against SMS server may slow down the SMS response time significantly.

## ALERTS table – ExternalAccess

The database name is **ExternalAccess**.

### Parameters

| COLUMN       | DESCRIPTION                                       |
|--------------|---------------------------------------------------|
| SEQUENCE_NUM | Reference to a particular logs row entry counter. |

| COLUMN                 | DESCRIPTION                                                                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEVICE_ID              | Identifier for the DEVICE entry that sent the notification.                                                                                                                           |
| ALERT_TYPE_ID          | This field can be joined to the ALERT_TYPE table for a descriptive name for this column.                                                                                              |
| POLICY_ID              | Identifier used to map this alert to a POLICY table entry.                                                                                                                            |
| SIGNATURE_ID           | Identifier used to map this alert to a SIGNATURE table entry.                                                                                                                         |
| BEGIN_TIME             | Time at which the event was first started or previously logged.                                                                                                                       |
| END_TIME               | Time at which the notification was logged and sent to the Management Console.                                                                                                         |
| HIT_COUNT              | Counter displaying the number of times the event triggered before the notification was sent to the Management Console.                                                                |
| SRC_IP_ADDR            | Source IP of the packet causing the notification.                                                                                                                                     |
| SRC_IP_ADDR_2          | Represents the higher 64 bit for the IPv6 source addresses. For IPv4 address, this field has a NULL value.                                                                            |
| SRC_PORT               | Source port of the packet causing the notification.                                                                                                                                   |
| DST_IP_ADDR            | Destination IP of the packet causing the notification.                                                                                                                                |
| DST_IP_ADDR_2          | Represents the higher 64 bit for the IPv6 destination addresses. For IPv4 address, this field has a NULL value.                                                                       |
| DST_PORT               | Destination port of the packet causing the notification.                                                                                                                              |
| VIRTUAL_SEGMENT_INDEX  | Identifier for which device segment this alert was seen on.                                                                                                                           |
| PHYSICAL_PORT_IN       | Device port on which the event was detected.                                                                                                                                          |
| VLAN_TAG               | VLAN identifier contained in the event.                                                                                                                                               |
| SEVERITY               | SEVERITY of the event. Usually corresponds to the SIGNATURE.SEVERITY column, joined by the SIGNATURE_ID column. A foreign key constraint to the SEVERITY table has been applied here. |
| PACKET_TRACE           | Indicates if a packet trace is available on the device.                                                                                                                               |
| DEVICE_TRACE_BUCKET    | Part of the device packet trace identifier.                                                                                                                                           |
| DEVICE_TRACE_BEGIN_SEQ | Part of the device packet trace identifier.                                                                                                                                           |
| DEVICE_TRACE_END_SEQ   | Part of the device packet trace identifier.                                                                                                                                           |
| MESSAGE_PARMS          | Variable list of message parameters.                                                                                                                                                  |
| QUARANTINE_ACTION      | Quarantine action taken, either Added or Removed; used only in quarantine logs.                                                                                                       |
| FLOW_CONTROL           | Action taken by the action set: Permit, Rate Limit, or Trust.                                                                                                                         |
| ACTION_SET_UUID        | Action set UUID; used only in rate limit logs.                                                                                                                                        |
| ACTION_SET_NAME        | Rate limit action; used only in rate limit logs.                                                                                                                                      |
| RATE_LIMIT_RATE        | Rate for rate limit logs; a numerical value followed by a unit. The unit can be Kbps or Mbps.                                                                                         |
| CLIENT_IP_ADDR         | Long value of the Client IP address ( <b>Capture Additional Event Information</b> must be enabled).                                                                                   |

| COLUMN              | DESCRIPTION                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------|
| CLIENT_IP_ADDR_HIGH | Long value of the Client IP address ( <b>Capture Additional Event Information</b> must be enabled). For IPV6 only.          |
| XFF_IP_ADDR         | Long value of the X-Forwarded-For IP address ( <b>Capture Additional Event Information</b> must be enabled).                |
| XFF_IP_ADDR_HIGH    | Long value of the X-Forwarded-For IP address ( <b>Capture Additional Event Information</b> must be enabled). For IPV6 only. |
| TCIP_IP_ADDR        | Long value of the True-Client-IP address ( <b>Capture Additional Event Information</b> must be enabled).                    |
| TCIP_IP_ADDR_HIGH   | Long value of the True-Client-IP address ( <b>Capture Additional Event Information</b> must be enabled). For IPV6 only.     |
| URI_METHOD          | URI method.                                                                                                                 |
| URI_HOST            | URI host.                                                                                                                   |
| URI_STRING          | URI string.                                                                                                                 |
| SRC_USER_NAME       | Source machine user name.                                                                                                   |
| SRC_DOMAIN          | Source domain name.                                                                                                         |
| SRC_MACHINE         | Source machine name.                                                                                                        |
| DST_USER_NAME       | Destination machine user name.                                                                                              |
| DST_DOMAIN          | Destination domain name.                                                                                                    |
| DST_MACHINE         | Destination machine name.                                                                                                   |

## Configure the SMS for replication

This service allows an external database server to replicate data from the SMS. Using an external database for data replication allows you to offload report processing to an external server which can provide performance gains to your existing system. Reboot the SMS to completely enable or disable this service.

Before you begin, make sure that your replication system has sufficient disk space to accommodate the database and any increase in size due to additional data or reporting.

### Procedure

1. In the SMS, go to **Admin > Database**.
2. On the External Database Settings panel, click **Edit**.
3. In the Edit External Database Settings wizard, select **External Replication Settings**.



#### Note

To configure external database replication, you must create an SMS database snapshot, and then copy the snapshot to the target replication system and import it into a MariaDB database before the SMS server can replicate its data to the target system.

4. Select **Enable external database replication** to enable the service. (To disable the service, clear the check box.)
5. Provide the following:

- **Username** – Provide the user name for an account with sufficient rights to read all the desired data from the SMS database.
  - **Password** – Provide the password for the user account. Retype the password in the Confirm Password field.
6. If you changed the replication settings, click **Reboot** to restart the SMS server and initialize the service.

**Note**

Follow your company's server downtime policies, including notification to SMS clients of a pending reboot. Before you reboot the SMS, gracefully stop other client connections to the server.

---

7. Click **Create Snapshot**, and select **Include Events in Snapshot** if you want the snapshot to include event data.

**Note**

The snapshot is saved locally on the SMS server. You must copy the snapshot to the target replication system and import it into a new or existing MariaDB database before the SMS server can replicate its data to the target system.

---

8. Click **OK**.

**Note**

External database replication and the SMS High Availability (HA) features both leverage the same functionality in the underlying MariaDB database. The SMS database does not support replication to multiple destinations; therefore, we do not recommend using SMS HA and external database replication at the same time.

---

## Replication – database schema

Includes the following tables created when you dump the snapshot file to the replicated database server.

Some of the tables are for internal use only. The rest of tables are divided into two categories: [DataDictionary](#) and [Events Data](#).

## Configure the SMS to enable restricted access

This service allows access to the external database to be restricted to a set of IP addresses.

---

### Procedure

1. In the SMS, go to **Admin > Database**.
  2. On the External Database Settings panel, click **Edit**.
  3. In the Edit External Database Settings wizard, select **Access Restrictions**.
  4. Select **Enable restricted access** to enable the service. (To disable the service, clear the check box.)
  5. Provide the following:
    - **Named IP Address Group** – To restrict a set of IP addresses, click the arrow, and either select a Named IP Address Group or create a new one.
  6. Click **OK**.
-

## MIB files for the SMS

A management information base (MIB) is a type of database that is used to manage devices in a communications network. Database entries are addressed through object identifiers (OIDs). MIB files are descriptions of network objects that can be managed using the Simple Network Management Protocol (SNMP). The format of the MIB is defined as part of the SNMP.

This information includes the following topics:

*SMS MIBs*

*Public MIB files*

*Health monitoring*

## SMS MIBs

You can download TippingPoint SMS MIB files from the TMC at <https://tmc.tippingpoint.com>. On the TMC website, navigate to the Documentation area for this product release, and then select **SMS MIBS**.

The compressed file contains two MIB files:

- **TPT-SMSMIBS** defines monitoring functions
- **TPT-SMS-TRAP-MIB** defines the SMS traps

For more information about these MIBs, refer to the *TippingPoint Operating System MIB Guide*, available on the TMC.

## Public MIB files

Publicly available UCD-SNMP-MIB and UCD-DISKIO-MIB definitions can be used to query SMS health values. These files can be downloaded from the following locations:

- <http://net-snmp.sourceforge.net/docs/mibs/>
- <http://net-snmp.sourceforge.net/docs/mibs/UCD-SNMP-MIB.txt>
- <http://net-snmp.sourceforge.net/docs/mibs/UCD-DISKIO-MIB.txt>

Note that only the SMS Health Section OIDs listed in *Health monitoring* are supported.

## Health monitoring

The following table lists the OIDs that are used to graph and display values in the SMS Health section of the SMS client.

| SECTION | DESCRIPTION | OID                      |
|---------|-------------|--------------------------|
| CPU     | CPU_USER    | 1.3.6.1.4.1.2021.11.50.0 |
|         | CPU_SYS     | 1.3.6.1.4.1.2021.11.52.0 |
|         | CPU_IDLE    | 1.3.6.1.4.1.2021.11.53.0 |

| SECTION           | DESCRIPTION   | OID                         |
|-------------------|---------------|-----------------------------|
| Filesystem        | FS_DSKPATH    | 1.3.6.1.4.1.2021.9.1.2      |
|                   | FS_DEVPATH    | 1.3.6.1.4.1.2021.9.1.3      |
|                   | FS_TOTAL      | 1.3.6.1.4.1.2021.9.1.6      |
|                   | FS_AVAIL      | 1.3.6.1.4.1.2021.9.1.7      |
|                   | FS_USED       | 1.3.6.1.4.1.2021.9.1.8      |
|                   | FS_PERCENT    | 1.3.6.1.4.1.2021.9.1.9      |
|                   | FS_IPERCENT   | 1.3.6.1.4.1.2021.9.1.10     |
| High Availability | HA            | 1.3.6.1.4.1.2021.8.1.101.34 |
| Memory            | SWAP_TOTAL    | 1.3.6.1.4.1.2021.4.3.0      |
|                   | SWAP_AVAIL    | 1.3.6.1.4.1.2021.4.4.0      |
|                   | REALMEM_TOTAL | 1.3.6.1.4.1.2021.4.5.0      |
|                   | REALMEM_AVAIL | 1.3.6.1.4.1.2021.4.6.0      |



| SECTION         | DESCRIPTION            | OID                         |
|-----------------|------------------------|-----------------------------|
| Network Traffic | ETHO_RX_BYTES          | 1.3.6.1.4.1.2021.8.1.101.1  |
|                 | ETHO_RX_PACKETS        | 1.3.6.1.4.1.2021.8.1.101.2  |
|                 | ETHO_RX_ERRORS         | 1.3.6.1.4.1.2021.8.1.101.3  |
|                 | ETHO_RX_DROPPED        | 1.3.6.1.4.1.2021.8.1.101.4  |
|                 | ETHO_RX_FIFO_ERRORS    | 1.3.6.1.4.1.2021.8.1.101.5  |
|                 | ETHO_RX_FRAME_ERRORS   | 1.3.6.1.4.1.2021.8.1.101.6  |
|                 | ETHO_RX_COMPRESSED     | 1.3.6.1.4.1.2021.8.1.101.7  |
|                 | ETHO_TX_BYTES          | 1.3.6.1.4.1.2021.8.1.101.8  |
|                 | ETHO_TX_PACKETS        | 1.3.6.1.4.1.2021.8.1.101.9  |
|                 | ETHO_TX_ERRORS         | 1.3.6.1.4.1.2021.8.1.101.10 |
|                 | ETHO_TX_DROPPED        | 1.3.6.1.4.1.2021.8.1.101.11 |
|                 | ETHO_TX_FIFO_ERRORS    | 1.3.6.1.4.1.2021.8.1.101.12 |
|                 | ETHO_TX_CARRIER_ERRORS | 1.3.6.1.4.1.2021.8.1.101.13 |
|                 | ETHO_TX_COMPRESSED     | 1.3.6.1.4.1.2021.8.1.101.14 |
|                 | ETHO_MULTICAST         | 1.3.6.1.4.1.2021.8.1.101.15 |
|                 | ETHO_COLLISIONS        | 1.3.6.1.4.1.2021.8.1.101.16 |
|                 | ETH1_RX_BYTES          | 1.3.6.1.4.1.2021.8.1.101.17 |
|                 | ETH1_RX_PACKETS        | 1.3.6.1.4.1.2021.8.1.101.18 |
|                 | ETH1_RX_ERRORS         | 1.3.6.1.4.1.2021.8.1.101.19 |
|                 | ETH1_RX_DROPPED        | 1.3.6.1.4.1.2021.8.1.101.20 |
|                 | ETH1_RX_FIFO_ERRORS    | 1.3.6.1.4.1.2021.8.1.101.21 |
|                 | ETH1_RX_FRAME_ERRORS   | 1.3.6.1.4.1.2021.8.1.101.22 |
|                 | ETH1_RX_COMPRESSED     | 1.3.6.1.4.1.2021.8.1.101.23 |
|                 | ETH1_TX_BYTES          | 1.3.6.1.4.1.2021.8.1.101.24 |
|                 | ETH1_TX_PACKETS        | 1.3.6.1.4.1.2021.8.1.101.25 |
|                 | ETH1_TX_ERRORS         | 1.3.6.1.4.1.2021.8.1.101.26 |
|                 | ETH1_TX_DROPPED        | 1.3.6.1.4.1.2021.8.1.101.27 |
|                 | ETH1_TX_FIFO_ERRORS    | 1.3.6.1.4.1.2021.8.1.101.28 |
|                 | ETH1_TX_CARRIER_ERRORS | 1.3.6.1.4.1.2021.8.1.101.29 |
|                 | ETH1_TX_COMPRESSED     | 1.3.6.1.4.1.2021.8.1.101.30 |
|                 | ETH1_MULTICAST         | 1.3.6.1.4.1.2021.8.1.101.31 |
|                 | ETH1_COLLISIONS        | 1.3.6.1.4.1.2021.8.1.101.32 |

| SECTION     | DESCRIPTION | OID                         |
|-------------|-------------|-----------------------------|
| Temperature | TEMPERATURE | 1.3.6.1.4.1.2021.8.1.101.33 |

## Event Taxonomy

The following sections help you get started with the Event Taxonomy:

- [Taxonomy Event ID](#)
- [Major categories](#)
- [Minor categories](#)
- [Protocol type](#)
- [Platform type](#)

## Event Taxonomy

This information provides details about the Trend Micro TippingPoint event taxonomy for use with the SMS Web Services API with SMS version 4.1 and later.

The event taxonomy provides further information for use with following taxonomy tables:

- TAXONOMY\_MAJOR
- TAXONOMY\_MINOR
- TAXONOMY\_PROTOCOL
- TAXONOMY\_PLATFORM

## Taxonomy Event ID

The Taxonomy Event ID for a particular event is a 10-digit number constructed with the following components:

- Major Category (0-127)
- Minor Category (0-255)
- [Protocol Type optional] (0-255)
- [Platform Type optional] (0-255)

The number is then calculated much like a decimal IP address conversion: (Major \* 16777216) + (Minor \* 65536) + (Protocol \* 256) + (Platform octet).



### Note

The maximum value for a Taxonomy Event ID is 2,147,483,647.

---

## Data detail examples

The following are data detail examples.

**Example 1****TP ID - 17107965****Filter 2813:** HTTP: HP Web Jetadmin Remote Command Injection Vulnerability

**001** (Vulnerability) + **005** (Command Injection) + **011** (http protocol) + **253** (Multi-platform Server Application or Service) =  $1*16777216 + 5*65536 + 11*256 + 253 = 17107965$

**Example 2****TP ID - 67214080****Filter 1511:** Kazaa: File Download/Upload

**004** (Security Policy) + **001** (P2P) + **155** (FastTrack) + **001** (Windows Client Application) =  $3*16777216 + 0*65536 + 112*256 + 252 = 4*16777216 + 1*65536 + 155*256 + 1 = 67214080$

**Example 3****TP ID - 84151551****Filter 164:** ICMP: Echo Request (Ping)

**005** (Reconnaissance/ Suspicious Access) + **004** (Host Scan) + **012** (ICMP) + **255** (Other) =  $5*16777216 + 4*65536 + 12*256 + 255 = 84151551$

**Example 4****TP ID - 33693185****Filter 2785:** POP/IMAP: Netsky-P Virus Propagation

**002** (Malicious Code) + **002** (virus) + **030** (pop/imap) + **001** (Windows Client Application) =  $2*16777216 + 2*65536 + 30*256 + 1 = 33693185$

**Example 5****TP ID - 100750333****Filter 2824:** SIP: From Field Anomaly

**006** (Application/ Protocol Anomaly) + **001** (Protocol Anomaly) + **083** (sip) + **253** (Multi-platform Server Application or Service) =  $6*16777216 + 1*65536 + 83*256 + 253 = 100750333$

**Major categories**

The following table gives the codes and descriptions for major categories.

| CATEGORY CODE | CATEGORY                             | DESCRIPTION                                                                                                                                          |
|---------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 001           | Vulnerability                        | This category includes events triggered by an attempt to exploit a vulnerability in any application, operating system, or networked hardware device. |
| 002           | Malicious Code                       | This includes events triggered by viruses, worms, Trojans, backdoors, and all manner of blended malware threats.                                     |
| 003           | Distributed Denial of Service (DDoS) | This category includes events triggered by traffic thresholds that indicate an attempt to make a resource unavailable.                               |

| CATEGORY CODE | CATEGORY                            | DESCRIPTION                                                                                                                                                                            |
|---------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 004           | Security Policy                     | This category includes events that indicate an attempt to violate an organization's security policy. It covers P2P, IM, email attachments, IRC, and other network communication types. |
| 005           | Reconnaissance or Suspicious Access | This category includes events that indicate network activity usually associated with common information gathering techniques used by attackers to launch more sophisticated attacks.   |
| 006           | Application or Protocol Anomaly     | This category includes events that indicate a violation of a protocol or application's RFC.                                                                                            |
| 007           | Traffic Thresholds                  | This category includes events triggered by predefined thresholds for specific applications or ports.                                                                                   |
| 008           | IP Filters                          | This category includes events triggered by predefined IP access control lists.                                                                                                         |

## Minor categories

The following table gives the codes and descriptions for minor categories.

| CATEGORY CODE | CATEGORY        | DESCRIPTION                                                                  |
|---------------|-----------------|------------------------------------------------------------------------------|
| 001           | Vulnerability   | Buffer/Heap Overflow                                                         |
| 002           | Vulnerability   | Denial of Service (Crash/Reboot)                                             |
| 003           | Vulnerability   | Configuration Error                                                          |
| 004           | Vulnerability   | Race Condition                                                               |
| 005           | Vulnerability   | Invalid Input (Command Injection, Cross-Site Scripting, SQL Injection, etc.) |
| 006           | Vulnerability   | Access Validation                                                            |
| 255           | Vulnerability   | Other                                                                        |
| 001           | Malicious Code  | Worm                                                                         |
| 002           | Malicious Code  | Virus                                                                        |
| 003           | Malicious Code  | Trojan/Backdoor                                                              |
| 004           | Malicious Code  | IRC Botnet/Blended Threat                                                    |
| 005           | Malicious Code  | Phishing                                                                     |
| 255           | Malicious Code  | Other                                                                        |
| 001           | DDoS            | SYN Flood Attack                                                             |
| 002           | DDoS            | Other Flood Attack (e.g., ACK, CPS, etc.)                                    |
| 003           | DDoS            | Iterative Application Attack (Hammer)                                        |
| 255           | DDoS            | Other                                                                        |
| 001           | Security Policy | P2P                                                                          |
| 002           | Security Policy | Chat and Instant Messaging                                                   |

| CATEGORY CODE | CATEGORY                            | DESCRIPTION                                                                      |
|---------------|-------------------------------------|----------------------------------------------------------------------------------|
| 003           | Security Policy                     | Streaming Media                                                                  |
| 004           | Security Policy                     | Email Attachments                                                                |
| 005           | Security Policy                     | Forbidden Application Access or Service Request (Telnet, SMB Null Session, etc.) |
| 006           | Security Policy                     | Authentication Failure (Telnet login failed, brute force, etc.)                  |
| 007           | Security Policy                     | Spyware                                                                          |
| 255           | Security Policy                     | Other                                                                            |
| 001           | Reconnaissance or Suspicious Access | Port Scan                                                                        |
| 002           | Reconnaissance or Suspicious Access | Suspicious Application Access                                                    |
| 003           | Reconnaissance or Suspicious Access | Suspicious Service Request                                                       |
| 004           | Reconnaissance or Suspicious Access | Host Scan                                                                        |
| 255           | Reconnaissance or Suspicious Access | Other                                                                            |
| 001           | Application or Protocol Anomaly     | Protocol Anomaly                                                                 |
| 002           | Application or Protocol Anomaly     | Evasion Technique                                                                |
| 003           | Application or Protocol Anomaly     | Application Anomaly                                                              |
| 255           | Application or Protocol Anomaly     | Other Anomaly                                                                    |
| 001           | Traffic Thresholds                  | Traffic Threshold                                                                |
| 002           | Traffic Thresholds                  | Application Threshold                                                            |
| 255           | Traffic Thresholds                  | Other                                                                            |
| 001           | IP Filters                          | Deny                                                                             |
| 002           | IP Filters                          | Accept                                                                           |
| 255           | IP Filters                          | Other                                                                            |

## Protocol type

The following table lists the type codes for protocols.

| TYPE CODE | PROTOCOL  |
|-----------|-----------|
| 001       | appletalk |
| 002       | auth      |

| TYPE CODE | PROTOCOL              |
|-----------|-----------------------|
| 003       | bgp                   |
| 004       | cdp                   |
| 005       | clns                  |
| 006       | dhcp                  |
| 007       | dns                   |
| 008       | finger                |
| 009       | ftp                   |
| 010       | hsrp                  |
| 011       | http                  |
| 012       | icmp                  |
| 013       | igmp                  |
| 014       | igrp/eigrp            |
| 015       | ipv6                  |
| 016       | ipx                   |
| 017       | irc                   |
| 018       | is-is                 |
| 019       | isakmp/ike            |
| 020       | ldap                  |
| 021       | mpls                  |
| 022       | ms-rpc                |
| 023       | ms-sql                |
| 024       | nat                   |
| 025       | netbios               |
| 026       | nntp                  |
| 027       | ntp                   |
| 028       | oracle (sqlnet, etc.) |
| 029       | ospf                  |
| 030       | pop/imap              |
| 031       | portmapper            |
| 032       | qos                   |
| 033       | rip                   |
| 034       | rpc services          |
| 035       | smb                   |

| TYPE CODE | PROTOCOL                |
|-----------|-------------------------|
| 036       | smtp                    |
| 037       | snmp                    |
| 038       | sql                     |
| 039       | ssh                     |
| 040       | ssl/tls                 |
| 041       | tacacs                  |
| 042       | tcp (generic)           |
| 043       | telnet                  |
| 045       | udp (generic)           |
| 046       | uucp                    |
| 048       | x-window                |
| 049       | tftp                    |
| 050       | IP                      |
| 051       | nfs                     |
| 052       | wins                    |
| 080       | h.323 (voip)            |
| 081       | megaco (voip)           |
| 082       | mgcp (voip)             |
| 083       | sip (voip)              |
| 084       | rtp/rtcp (voip)         |
| 099       | voip (other)            |
| 100       | aim (IM)                |
| 101       | msn (IM)                |
| 102       | yahoo! (IM)             |
| 103       | icq (IM)                |
| 119       | IM (other)              |
| 120       | musicMatch              |
| 121       | winamp                  |
| 122       | shoutcast               |
| 123       | windows media           |
| 124       | quicktime               |
| 125       | rtsp                    |
| 149       | streaming media (other) |

| TYPE CODE | PROTOCOL                       |
|-----------|--------------------------------|
| 150       | bittorrent                     |
| 151       | blubster/piolet/rockitnet      |
| 152       | directconnect                  |
| 153       | earthstation5                  |
| 154       | edonkey/overnet/emule/mldonkey |
| 155       | fasttrack                      |
| 156       | gnutella                       |
| 157       | twister                        |
| 158       | winmx                          |
| 180       | p2p (other)                    |
| 190       | DNP3 (SCADA)                   |
| 191       | ICCP (SCADA)                   |
| 192       | IEC (SCADA)                    |
| 193       | MODBUS (SCADA)                 |
| 194       | OPC (SCADA)                    |
| 199       | SCADA (other)                  |
| 254       | Multi-protocol                 |
| 255       | Other Protocol                 |

## Platform type

The following table lists the codes and descriptions for platforms.

| CATEGORY CODE | DESCRIPTION                                                                      |
|---------------|----------------------------------------------------------------------------------|
| 001           | Windows Client Application                                                       |
| 002           | Mac OS Client Application                                                        |
| 003           | UNIX/Linux Client Application                                                    |
| 004           | Novell Client Application                                                        |
| 075           | Windows Server Application or Service                                            |
| 076           | Mac OS Server Application or Service                                             |
| 077           | UNIX/Linux Server Application or Service                                         |
| 078           | Novell Server Application or Service                                             |
| 150           | Networked Hardware Device (router, switch, printer, etc.) Application or Service |
| 252           | Multi-Platform Client Application                                                |
| 253           | Multi-Platform Server Application or Service                                     |



| CATEGORY CODE | DESCRIPTION                         |
|---------------|-------------------------------------|
| 254           | Other Client Application            |
| 255           | Other Service or Server Application |