Device Dashboard

API calls for retrieving troubleshooting information about Viptela devices in the overlay network:

- Application-Aware Routing Aggregation
- Control Connections
- Device BFD State
- Device Counters
- Device Status Summary
- Device System Summary
- Events
- Events by Severity
- Flow Log
- Interface Aggregation
- Ping
- Synced Interface
- Top Applications for a Device
- Top Destinations for a Device
- Device Dashboard
- Traceroute

Application-Aware Routing Aggregation

Display loss, latency, and jitter information for a device's TLOCs and tunnels.

**URL**: https://vmanage-ip-address/dataservice/statistics/approute/aggregation

**Method**: POST

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>vManage sample query to filter by device identifier and time.</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

**Response Content Type**: application/json

**Response Object**: See Response Object, below.
Example

Display average loss, latency, and jitter for each local color on the device:

```json

{  
  "query": {  
    "condition": "AND",  
    "rules": [  
      {  
        "value": [  
          "24"  
        ],  
        "field": "entry_time",  
        "type": "date",  
        "operator": "last_n_hours"  
      },  
      {  
        "value": [  
          "100"  
        ],  
        "field": "loss_percentage",  
        "type": "number",  
        "operator": "less"  
      },  
      {  
        "value": [  
          "172.16.255.11"  
        ],  
        "field": "vdevice_name",  
        "type": "string",  
        "operator": "in"  
      }  
    ]  
  },  
  "aggregation": {  
    "field": [  
      {  
        "property": "local_color",  
        "order": "asc",  
        "sequence": 1  
      }  
    ],  
    "metrics": [  
      {  
        "property": "loss_percentage",  
        "type": "avg"  
      },  
      {  
        "property": "latency",  
        "type": "avg"  
      },  
      {  
        "property": "jitter",  
        "type": "avg"  
      }  
    ]  
  }  
}
```

Display average loss percentage in 30-minute intervals on each tunnel for the last 12 hours:

```json

{  
  "query": {  
    "condition": "AND",  
    "rules": [  
      {  
        "value": [  
          "12"  
        ],  
        "field": "entry_time",  
        "type": "date",  
        "operator": "last_n_hours"  
      },  
      {  
        "value": [  
          "1.1.28.1"  
        ],  
        "field": "vdevice_name",  
        "type": "string",  
        "operator": "in"  
      }  
    ]  
  }
```
Control Connections

Display status and statistics for a device’s control connections.

**URL**: https://vmanage-ip-address/dataservice/device/control/synced/connections?deviceId=deviceId

**Method**: POST

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Body</td>
<td>String</td>
</tr>
</tbody>
</table>

https://sdwan-docs.cisco.com/Product_Documentation/Command_Reference/vManage_REST_APIs/Troubleshooting_APIs/Devi

Created on: Tue, 21 May 2019 05:36:08 GMT
Generated by: Anonymous
Device BFD State

Display information about a device's BFD sessions.

URL: https://vmanage-ip-address/dataservice/device/bfd/state/device?deviceId=deviceId

Method: GET

Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Query</td>
<td>String</td>
</tr>
</tbody>
</table>

Response Content Type: application/json

Response Object: See Response Object, below.

Device Counters

Display device counters, including number of crashes, control connections, OMP peers up and down, reboots, and BFD sessions up and down.

URL: https://vmanage-ip-address/dataservice/device/counters?deviceId=deviceId

Method: GET

Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Query</td>
<td>String</td>
</tr>
</tbody>
</table>

Response Content Type: application/json

Response Object: See Response Object, below.

Device Status Summary

Display hardware information about the device, including fans, temperature sensors, USB ports, and power supply.

URL: https://vmanage-ip-address/dataservice/device/hardware/status/summary?deviceId=deviceId

Method: GET

Request Parameters
<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Query</td>
<td>String</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

**Response Object:** See Response Object, below.

---

**Device System Summary**

Display historical memory and CPU information about the device.

### Device System Summary Using GET Method

If the query size is less than 2048 characters, use the GET method.

**URL:** https://vmanage-ip-address/dataservice/statistics/system?query=query

**Method:** GET

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned</td>
<td>Query</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

### Device System Summary Using POST Method

If the query size is more than 2048 characters, use the POST method. This is the recommended method.

**URL:** https://vmanage-ip-address/dataservice/statistics/system

**Method:** POST

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

**Response Object:** See Response Object, below.

### Example

Display system statistics for the last 24 hours for a device:

```json
{
    "query":{
        "condition":"AND",
        "rules":[
            {
                "value":
                "24"
            }
        ]
    }
}
```
Display CPU information averaged over 5-minute increments for the device 172.16.255.11 for the last 24 hours:

```
{
    "query":{
        "condition":"AND",
        "rules": [
            {
                "value": ["24"],
                "field": "entry_time",
                "type": "date",
                "operator": "last_n_hours"
            },
            {
                "value": ["172.16.255.11"],
                "field": "vdevice_name",
                "type": "string",
                "operator": "in"
            }
        ]
    },
    "fields": [
        "entry_time",
        "count",
        "min5_avg"
    ],
    "sort": [
        {
            "field": "entry_time",
            "type": "date",
            "order": "asc"
        }
    ]
}
```

Events

Display information about events on the device. By default, the API call returns all events for the device.

**URL:** https://vmanage-ip-address/dataservice/event

**Method:** POST

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>vManage sample query to filter by device identifier and time</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>
Response Content Type: application/json

Response Object: See Response Object, below.

Example

Display events for the last 24 hours for a device:

```json
{
    "query": {
        "condition": "AND",
        "rules": [
            {
                "value": ["24"],
                "field": "entry_time",
                "type": "date",
                "operator": "last_n_hours"
            },
            {
                "field": "system_ip",
                "operator": "in",
                "type": "string",
                "value": ["172.16.255.11"
            ]
        ]
    },
    "size": 10000
}
```

Events by Severity

Display information about events by severity level.

URL: https://vmanage-ip-address/dataservice/event/severity/summary

Method: GET

Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>vManage sample query to filter by device identifier and time.</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

Response Content Type: application/json

Response Object: See Response Object, below.

Example

Display events by severity for the last 24 hours for a device:

```json
{
    "query": {
        "condition": "AND",
        "rules": [
            {
                "value": ["24"],
                "field": "entry_time",
                "type": "date",
                "operator": "last_n_hours"
            },
            {
                "field": "system_ip",
                "operator": "in",
                "type": "string",
                "value": ["172.16.255.11"
            ]
        ]
    }
}
```
Flow Log
Display flow log information.

**URL:** https://vmanage-ip-address/dataservice/statistics/flowlog

**Method:** POST

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>vManage sample query to filter by device identifier and time</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

**Response Object:** See Response Object, below.

**Example**
Display flow log information for the last 24 hours for a device:

```
{
  "query":{
    "condition":"AND",
    "rules":[
      {
        "field":"entry_time",
        "type":"date",
        "operator":"last_n_hours",
        "value":["24"
      },
      {
        "field":"vdevice_name",
        "type":"string",
        "operator":"in",
        "value":["1.1.200.7"
      }
    ]
  }
}
```

Interface Aggregation
Display aggregated interface information.

**URL:** https://vmanage-ip-address/dataservice/statistics/interface/aggregation
Method: POST

Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned. Possible values for transfer and receive rates are drop, error, kbps, octets, packets, and pps.</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

Example

Return the average transfer and receive rates in intervals of 30 minutes for each specified interface:

```json
{
  "query":{
    "condition":"AND",
    "rules": [
      {
        "value": [24],
        "field": "entry_time",
        "type": "date",
        "operator": "last_n_hours"
      },
      {
        "value": ["172.16.255.11"],
        "field": "vdevice_name",
        "type": "string",
        "operator": "in"
      },
      {
        "value": ["ge0/1", "ge0/2", "ge0/3", "ge0/4", "ge0/5", "ge0/6"],
        "field": "interface",
        "type": "string",
        "operator": "in"
      }
    ],
    "sort": [
      {
        "field": "entry_time",
        "type": "date",
        "order": "asc"
      }
    ],
    "aggregation": {
      "field": [
        {
          "property": "interface",
          "sequence": 1
        }
      ],
      "histogram": {
        "property": "entry_time",
        "type": "minute",
        "interval": 30,
        "order": "asc"
      },
      "metrics": [
        {
          "property": "rx_kbps",
          "type": "avg"
        }
      ]
    }
  }
}
```
Ping

Ping a device.

**URL:** https://vmanage-ip-address/dataservice/device/tools/ping/deviceId

**Method:** POST

### Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Path</td>
<td>String</td>
</tr>
<tr>
<td>inputJson</td>
<td>Yes</td>
<td>Ping parameters</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

### Request Body Schema

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceIp</td>
<td>IP address of the device to ping</td>
</tr>
<tr>
<td>host</td>
<td>IP address of host to ping</td>
</tr>
<tr>
<td>source</td>
<td>Interface or IP address from which to send ping packets</td>
</tr>
<tr>
<td>vpn</td>
<td>VPN in which to ping</td>
</tr>
</tbody>
</table>

**Example**

Ping a device whose IP address is 1.1.200.7:

```
{
    "deviceIp":"1.1.200.7",
    "host":"1.1.1.1",
    "vpn":0,
    "source":"ge0/0"
}
```

**Synced Interface**

Display information about the interfaces on a Viptela device (from vManage NMS only).

**URL:** https://vmanage-ip-address/dataservice/device/interface/synced?deviceId=deviceId

**Method:** GET
### Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Query</td>
<td>String</td>
</tr>
<tr>
<td>vpn-id</td>
<td>Optional</td>
<td>VPN ID</td>
<td>Query</td>
<td>Number</td>
</tr>
<tr>
<td>ifname</td>
<td>Optional</td>
<td>Interface name</td>
<td>Query</td>
<td>String</td>
</tr>
<tr>
<td>af-type</td>
<td>Optional</td>
<td>Address family type</td>
<td>Query</td>
<td>String</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

**Response Object:** See Response Object, below.

---

### Top Applications for a Device

Display applications with the highest utilization for a device.

### Top Applications Using GET Method

If the query size is less than 2048 characters, use the GET method.

**URL:** https://vmanage-ip-address/dataservice/statistics/dpi/aggregation?query=query

**Method:** GET

#### Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned</td>
<td>Query</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

---

### Top Applications Using POST Method

If the query size is more than 2048 characters, use the POST method. This is the recommended method.

**URL:** https://vmanage-ip-address/statistics/dpi/aggregation

**Method:** POST

#### Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

**Response Object:** See Response Object, below.
Example

Return the top applications for the last 24 hours:

```json
{
  "query": {
    "condition": "AND",
    "rules": [
      {
        "value": ["24"],
        "field": "entry_time",
        "type": "date",
        "operator": "last_n_hours"
      },
      {
        "value": ["172.16.255.11"],
        "field": "vdevice_name",
        "type": "string",
        "operator": "in"
      }
    ]
  },
  "aggregation": {
    "field": [
      {
        "property": "family",
        "size": 200,
        "sequence": 1
      }
    ],
    "metrics": [
      {
        "property": "octets",
        "type": "sum",
        "order": "desc"
      }
    ]
  }
}
```

Top Destinations for a Device

Display top flows for a given destination for a device.

Top Destinations Using GET Method

If the query size is less than 2048 characters, use the GET method.

**URL**: https://vmanage-ip-address/dataservice/statistics/cflowd/aggregation?query=query

**Method**: GET

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned</td>
<td>Query</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

Top Destinations Using POST Method

If the query size is more than 2048 characters, use the POST method. This is the recommended method.
**URL:** https://vmanage-ip-address/statistics/cflowd/aggregation

**Method:** POST

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Optional</td>
<td>Query to filter data returned</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

**Response Content Type:** application/json

**Response Object:** See Response Object, below.

---

**Example**

Return the top destinations for the last 24 hours:

```json
{
  "query":{
    "condition":"AND",
    "rules":[
      {
        "value": [
          "24"
        ],
        "field":"entry_time",
        "type":"date",
        "operator":"last_n_hours"
      },
      {
        "value": [
          "172.16.255.11"
        ],
        "field":"vdevice_name",
        "type":"string",
        "operator":"in"
      }
    ]
  },
  "aggregation":{
    "field":{
      "property":"dest_ip",
      "size":200,"sequence":1
    },
    "metrics":{
      "property":"total_bytes",
      "type":"sum",
      "order":"desc"
    }
  }
}
```

---

**Traceroute**

Display the path that packets take to reach a host or IP address on the network.

**URL:** https://vmanage-ip-address/dataservice/device/tools/traceroute/deviceId

**Method:** POST

**Request Parameters**
<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Parameter Type</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceId</td>
<td>Yes</td>
<td>IP address of device</td>
<td>Path</td>
<td>String</td>
</tr>
<tr>
<td>inputJson</td>
<td>Yes</td>
<td>Ping parameters</td>
<td>Body</td>
<td>String (JSON)</td>
</tr>
</tbody>
</table>

Response Content Type: application/json

Request Body Schema

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>deviceIp</td>
<td>IP address of the destination device</td>
</tr>
<tr>
<td>host</td>
<td>IP address of destination host</td>
</tr>
<tr>
<td>source</td>
<td>Interface or IP address through which the traceroute should send packets</td>
</tr>
<tr>
<td>vpn</td>
<td>VPN in which the host is located</td>
</tr>
</tbody>
</table>

Example

Run a traceroute to a device with IP address 1.1.200.7:

```
{
    "deviceIp": "1.1.200.7",
    "host": "1.1.1.1",
    "vpn": "0",
    "source": "ge0/0"
}
```

Response Object

Troubleshooting API call responses have the following format:

```
{
    "header": {
        "generatedOn": timestamp, milliseconds (UNIX time format),
        "viewKeys": {
            "uniqueKey": ["key"]
        },
        "fields": [
            properties and types
        ],
        "data": [
            array of objects
        ]
    }
}
```

Additional Information

Using the vManage REST API

https://sdwan-docs.cisco.com/Product_Documentation/Command_Reference/vManage_REST_APIs/Troubleshooting_APIs/Device_Dashboard

Created on: Tue, 21 May 2019 05:36:08 GMT
Generated by: Anonymous