Vertiv™ Avocent® MP1000 Management Platform Virtual Appliance

Updating an Ethernet Interface Route Metric Technical Note

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Technical Note Section Outline

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1. Overview

NOTE: At this time, the former Vertiv™ Avocent® ADX platform is transitioning into the Vertiv™ Avocent® DSView™ solution. During this transition, there may temporarily still be references to "ADX" within product-related features and documentation.

This technical note provides instructions on how to update the route metric assigned to an ethernet interface in the Vertiv™ Avocent® MP1000VA Management Platform Virtual Appliance. This is useful when adding one or more ethernet interfaces to an existing management platform virtual appliance. By default, the route metric value assigned to an ethernet interface is 200. This default metric value is acceptable when all target devices can be reached from all ethernet interfaces. However, if there are target devices on a different network segment or are different routing rules for each ethernet interface, then the route metric value must be increased for the private or segmented networks via the Vertiv™ Avocent® DSView™ solution REST Application Programming Interface (API). This ensures that the primary network, which has the lowest route metric value, is used for clients and other services, such as SMTP or Active Directory.

IMPORTANT NOTE: This technical note assumes that you are already familiar with API operations within the Vertiv™ Avocent® DSView™ solution and have a basic knowledge of Python programming language. Additional information on the APIs within the Vertiv™ Avocent® DSView™ solution is available in the Vertiv™ Avocent® DSView™ Solution API Guide (see the Session Management section) available here: API Guide

Supported Platform Version Information

- Vertiv™ Avocent® MP1000VA Management Platform Virtual Appliance version 3.66.8 or higher

2. Updating an Ethernet Interface Route Metric

Vertiv™ Avocent® DSView™ solution REST API is a URL-based API that enables you to update the route metric value of an existing ethernet interface in the management platform virtual appliance using the following steps:

- Create a user login session with the management platform virtual appliance.
- Get the list of ethernet interfaces in the management platform virtual appliance.
- Select the correct ethernet interface to update route metric value.
- Update the route metric value for the selected ethernet interface.

Procedures for completing each of these steps are available in the following sections.

Creating a User Login Session

To create a user login session with the management platform virtual appliance:

1. Log into your Vertiv™ Avocent® DSView™ solution appliance REST API with the following address: **https://<**appliance.IP**>/api/v1/userSessions**

2. Use the details in the following table to create a user login session in the API. A sample API response is also provided for reference below the table.

   NOTE: The Response Values listed in the table are only a subset of the values available and relevant to updating the route metric value for an ethernet interface.

REST API METHOD	REST API CALL	BODY PARAMETERS	RESPONSE VALUES
POST	/api/v1/userSessions	**username:** The name of a user in the Vertiv™ Avocent® DSView™ solution with sufficient privileges to update the route metric for an ethernet interface.	The HTTP status code must be 201.
		password: The user password.	**user_session:** The user login session information (includes the user session name, user session ID and login username).
			jwt: The JWT token associated with the user login session. The JWT token is used in the Authorization header field for subsequent REST API calls.

Response Sample

```
{
    "user_session": {
        "name": "userSessions/484cd868-f0ca-4fa1-9faf-ccdd8ba11945",
        "id": "484cd868-f0ca-4fa1-9faf-ccdd8ba1194",
        "username": "admin"
    },
    jwt": "eyJhbGciOiJSUzI1NiIsImtpZCI6Ijc5ZWZlMTY3ZTIC
            Y3NGVlNDA5ZjMyYzk1MmVjNj…"
}
```

Getting the List of Ethernet Interfaces

To retrieve the list of ethernet interfaces associated with a management platform virtual appliance:

1. Get the list of managers in the management platform using the following REST API command: **https://<**appliance.IP**>/api/v1/managers**

2. Use the details in the following table to get the manager ID associated with the management platform virtual appliance. A sample API response is also provided for reference below the table.

   NOTE: The Response Values listed in the table are only a subset of the values available and relevant to updating the route metric value for an ethernet interface.

REST API METHOD	REST API CALL	HEADER FIELDS	RESPONSE VALUES
GET	/api/v1/managers	**Authorization:** This field must include the JWT token corresponding to an existing user login session in the Vertiv™ Avocent® DSView™ solution. The type of authorization must be a Bearer Token.	The HTTP status code must be 200.
			managers: This array list contains information on the managers within the management platform. You can search for the manager associated with the management platform virtual appliance in this array list. After the manager is found, you may retrieve the manager ID from the id field.
			name: The name of the manager in the management platform.
			id: The manager ID is a unique identifier that is associated with a manager in the management platform. This manager id is used as a parameter in the URL to find the list of ethernet interfaces associated with management platform virtual appliance.

Response Sample:

```
{
  "managers": [
  {
    "name": "/api/v1/managers/ADX_MP1000VA",
    "id": "ADX_MP1000VA",
  }, …
}
```

3. Use the manager ID to get the list of ethernet interfaces associated with the Management Platform Virtual Appliance. A sample API response is also provided for reference after the table.

NOTE: The Response Values listed in the table are only a subset of the values available and relevant to updating the route metric value for an ethernet interface.

REST API METHOD	REST API CALL	HEADER FIELDS	RESPONSE VALUES
GET	/api/v1/managers/<MANAGER_ID>/ethernetInterfaces where <MANAGER_ID> is a unique ID associated with a manager in the management platform.	**Authorization:** This field must include the JWT token corresponding to an existing user login session in the Vertiv™ Avocent® DSView™ solution. The type of authorization must be a Bearer Token.	The HTTP status code must be 200. **Ethernet interfaces:** This array list contains information on the ethernet interfaces associated with the management platform virtual appliance. You may retrieve a specific ethernet interface from the id field. **id:** The ID is a unique identifier that is associated with an ethernet interface in the management platform virtual appliance. For virtual appliances running in a VMWare environment, the value of the ethernet interface ID can be 'eth0', 'eth1', and so on. For virtual appliances running in a Hyper-V environment, the value of the ethernet interface ID (i.e., 'bond0', 'enp11s0') varies depending on the internet host adapter. **description:** A short description of the ethernet interface.

Response Sample:

```
{
  "ethernet_interfaces": [
  {
    "id": "eth0",
    "description": "Ethernet interface for eth0",
    …
  }
  {
    "id": "eth1",
    "description": " Ethernet interface for eth1",
    …
  },
  …
}
```

Selecting the Ethernet Interface to Update the Route Metric

1. Select an appropriate ethernet interface ID to update and verify that the information for the ethernet interface is correct. A sample API response is also provided for reference below the table.

NOTE: The Response Values listed in the table are only a subset of the values available and relevant to updating the route metric value for an ethernet interface.

REST API METHOD	REST API CALL	HEADER FIELDS	RESPONSE VALUES
GET	/api/v1/managers/<MANAGER_ID>/ethernetInterfaces/ <ETHERNET_INTERFACE_ID> where <MANAGER_ID> is a unique ID associated with a manager in the management platform and <ETHERNET_INTERFACE_ID> is the unique ID assigned to an ethernet interface in the management platform virtual appliance.	**Authorization:** This field must include the JWT token corresponding to an existing user login session in the Vertiv™ Avocent® DSView™ solution. The type of authorization must be a Bearer Token.	The HTTP status code must be 200. **Ethernet Interface Details:** The response contains information on the selected ethernet interface to update. **id:** The ID is a unique identifier that is associated with an ethernet interface in the management platform virtual appliance. For virtual appliances running in a VMWare environment, the value of the ethernet interface ID can be 'eth0', 'eth1', and so on. For virtual appliances running in a Hyper-V environment, the value of the ethernet interface ID (i.e., 'bond0', 'enp11s0') varies depending on the internet host adapter. **description:** A short description of the ethernet interface. **route_metric:** An integer value for the ethernet interface route metric. The default value is 200.

Response Sample:

```
{
   {
      "id": "eth0",
      "description": "Ethernet interface for eth0",
      "route_metric": "200",
      …
   }
}
```

Updating the Route Metric for the Selected Ethernet Interface

1. Update the selected ethernet interface and verify that the new information for the ethernet interface is correct. A sample API response is also provided for reference below the table.

NOTE: The Response Values listed in the table are only a subset of the values available and relevant to updating the route metric value for an ethernet interface.

REST API METHOD	REST API CALL	BODY PARAMETERS	RESPONSE VALUES
PATCH	/api/v1/managers/<MANAGER_ID>/ethernetInterfaces/ <ETHERNET_INTERFACE_ID> where <MANAGER_ID> is a unique ID associated with a manager in the management platform and <ETHERNET_INTERFACE_ID> is the unique ID assigned to an ethernet interface in the management platform virtual appliance.	route_metric: This field is an integer value (i.e., 500) that is usually higher than the default value of 200.	The HTTP status code must be 201. **Ethernet Interface Details:** The response contains information on the updated ethernet interface. **id:** The ID is a unique identifier that is associated with an ethernet interface in the management platform virtual appliance. For virtual appliances running in a VMWare environment, the value of the ethernet interface ID can be 'eth0', 'eth1', and so on. For virtual appliances running in a Hyper-V environment, the value of the ethernet interface ID (i.e., 'bond0', 'enp11s0') varies depending on the internet host adapter. **description:** A short description of the ethernet interface. **route metric:** The updated route metric value for the selected ethernet interface in the management platform virtual appliance.

Response Sample:

```
{
   {
     "id": "eth0",
     "description": "Ethernet interface for eth0",
     "route_metric": "500",
     …
   }
}
```