

# Data Center Commands

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## 1. VXLAN Commands

### 1 VXLAN Commands

#### 1.1 anycast-gateway

Use this command to configure the Overlay router anycast attribute.

**anycast-gateway**

Use the **no** form of this command to cancel the anycast attribute of the Overlay router interface.

**no anycast-gateway**

**Parameter  
Description**

Parameter	Description
N/A	N/A

**Defaults**

The Overlay router interface works in non-anycast mode by default.

**Command**

Overlay router interface mode

**Mode****Default Level** 14

**Usage Guide** After the anycast attribute is configured, the device will use the MAC address of the global virtual anycast gateway as the gateway MAC address.

The anycast gateway IP addresses in the same VXLAN instance on the network must be the same.

**Configuration Examples** The following example sets the Overlay router interface as an anycast gateway.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#interface OverlayRouter 1
Orion_B54Q(config-if-OverlayRouter 1)# anycast-gateway
```

**Verification** Run the **show run interface overlayrouter** command to display the anycast configuration of the Overlay router interface.

```
Orion_B54Q(config-if-OverlayRouter 1)# sho run int
overlayrouter 1
Building configuration...
Current configuration : 72 bytes

interface OverlayRouter 1
 vrf forwarding vrf-test1
 anycast-gateway
```

## 1.2 arp suppress enable

Use this command to enable ARP suppression globally.

**arp suppress enable**

Use the **no** form of this command to disable ARP suppression globally.

**no arp suppress enable**

**Parameter Description**

Parameter	Description
N/A	N/A

<b>Defaults</b>	ARP suppression is disabled by default.
<b>Command Mode</b>	VTEP configuration mode
<b>Default Level</b>	14
<b>Usage Guide</b>	After ARP suppression is enabled, the switch responds to the ARP request as a proxy.
<b>Configuration Examples</b>	<p>The following example enables ARP suppression.</p> <pre>Orion_B54Q#configure terminal Enter configuration commands, one per line. End with CNTL/Z. Orion_B54Q(config)#vtep Orion_B54Q(config-vtep)# arp suppress enable</pre>
<b>Verification</b>	<p>Run the <b>show vxlan arp suppress</b> command to display the ARP suppression status of the current device.</p> <pre>Orion_B54Q(config-vtep)#sho vxlan arp suppress ARP-SUPPRESS: ON SEQUENCE NUMBER: 9</pre>

## 1.3 extend-vlan

Use this command to specify the VLAN associated with a VXLAN instance. Packets of the associated VLAN will be encapsulated into the VXLAN format and forwarded. Multiple VLANs can associate with one VXLAN instance.

**extend-vlan** *vlan-id-list*

Use the **no** form of this command to delete all VLANs associated with the VXLAN instance.

**no extend-vlan** [*vlan-id-list*]

Parameter	Parameter	Description
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<b>Description</b>		
	<i>vlan-id-list</i>	ID of the VLAN associated with a VXLAN instance, ranging from 1 to 4,094.
<b>Defaults</b>	N/A	
<b>Command Mode</b>	VXLAN configuration mode	
<b>Default Level</b>	14	
<b>Usage Guide</b>	<p>One VLAN cannot be associated with different VXLAN instances.</p> <p>After a VLAN is associated with a VXLAN instance, all packets of the VLAN will be encapsulated into the VXLAN format. Therefore, an SVI cannot be used as the VLAN IP gateway on the device.</p>	
<b>Configuration Examples</b>	<p>The following example associates VXLAN 1 with VLAN 10.</p> <pre>Orion_B54Q#configure terminal Enter configuration commands, one per line. End with CNTL/Z. Orion_B54Q(config)#vxlan 1 Orion_B54Q(config-vxlan)#extend-vlan 10</pre>	
<b>Verification</b>	<p>Run the <b>show vxlan vni-number</b> command to display the <b>extend-vlan</b> value.</p> <pre>Orion_B54Q#show vxlan 1 VXLAN 1   Source Address      : -   Multicast Group     : -   Extend VLAN        : 10   VTEP Adjacency Count: 0</pre>	
<b>Common Errors</b>	Different VXLAN instances are associated with the same VLAN.	

## 1.4 fabric anycast-gateway-mac

Use this command to configure the virtual MAC address of the global anycast gateway.

**fabric anycast-gateway-mac** *mac-addr*

Use the **no** form of this command to delete the virtual MAC address of the global anycast gateway.

**no fabric anycast-gateway-mac** [*mac-addr*]

Parameter Description	Parameter	Description
	<i>mac-addr</i>	Virtual MAC address, in the format of xxxx.xxxx.xxxx

**Defaults** N/A

**Command Mode** VTEP configuration mode

**Default Level** 14

**Usage Guide** If the anycast gateway is required in a customer scenario, the virtual MAC address of the anycast gateway must be configured on the device first. The configured virtual MAC address must be unique on the whole network and cannot be 0000.0000.0000, a multicast MAC address, a local host MAC address, or MAC addresses of other VXLAN devices on the network.

**Configuration Examples** The following example sets the virtual MAC address of the anycast gateway to 0000.1111.2222.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vtep
Orion_B54Q(config-vtep)#fabric anycast-gateway-mac
0000.1111.2222
```

**Verification** Run the **show vxlan global** command to display virtual MAC address configuration on the current device.

```
Orion_B54Q#show vxlan global
Local switch vtep ip: 1.1.1.1, binds with interface loopback 1
Anycast mac: 0000.5555.5555 .
```

```
0 overlayrouters enable anycast
```

## 1.5 import-route

Use this command to enable the route import function for VXLAN instances in different VRF networks on a device.

**import-route enable**

Use the **no** form of this command to disable the route import function for VXLAN instances in different VRF networks on a device.

**no import-route enable**

Parameter Description	Parameter	Description
	N/A	N/A

**Defaults** The route import function of a VXLAN instance is disabled on a device by default.

**Command Mode** VTEP configuration mode

**Default Level** 14

**Usage Guide** You can run the **member add vni** command on a VXLAN instance on a device only after the route import function is globally enabled, so that the VXLAN route after VNI inter-import can correctly replace the VNI information of the next hop. This function is required only when VXLAN routes need to be imported in multiple-tenant environments.

**Configuration Examples** The following example enables the route import function for VXLAN instances in different VRF networks of a device.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vtep
Orion_B54Q(config-vtep)# import-route enable
```

**Verification** Run the **show run** command to display the configuration.

## 1.6 member add

Use this command to configure the VNI mapped by a symmetric VXLAN instance

route.

**member add** *vni-number*

Use the **no** form of this command to delete the VNI mapped by a symmetric VXLAN instance route.

**no member add** *vni-number*

Parameter Description	Parameter	Description
	<i>vni-number</i>	Specifies the VNI mapped to the VXLAN route. The value ranges from 1 to 16,777,215.

**Defaults** N/A

**Command Mode** VXLAN configuration mode

**Default Level** 14

**Usage Guide** In EVPN mode, if you import a VXLAN route across VRF networks through RD and RT of BGP, you need to run the **import-route enable** and **member add vni** commands to ensure that the imported VXLAN route can correctly replace the VNI required for forwarding.

**Configuration Examples** The following example sets VXLAN 1 instance to map VNI 100.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vxlan 1
Orion_B54Q(config-vxlan)# member add 100
```

**Verification** Run the **show run** command to display the configuration.

## 1.7 overlay mode

Use this command to configure the protocol mode of the overlay router or overlay tunnel interface.

**overlay mode** *protocol*

Use the **no** form of this command to delete the protocol mode of the overlay router or overlay tunnel interface.

**no overlay mode** *protocol*

Parameter Description	Parameter	Description
	<i>protocol</i>	Specifies the protocol mode of the overlay interface. Currently, only the VXLAN protocol is supported.

**Defaults** -

**Command Mode** Overlay router interface configuration mode or overlay tunnel interface configuration mode

**Default Level** 14

**Usage Guide** When the overlay router interface serves as the IP gateway for VXLAN users, the mode of the overlay router interface must be configured as the VXLAN mode. When the overlay tunnel interface serves as the VXLAN tunnel, the mode of the overlay tunnel interface must be configured as the VXLAN mode.

**Configuration Examples** The following example sets the protocol mode of the overlay router interface to the VXLAN mode.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#interface OverlayRouter 1
Orion_B54Q(config-if-OverlayRouter 1)#overlay mode vxlan
```

**Verification** Run the **show interface** command to display the protocol mode of the overlay interface.

```
Orion_B54Q#show interface OverlayRouter 1
Index(dec):8 (hex):8
OverlayRouter 1 is UP , line protocol is UP
Hardware is OverlayRouter, address is 00d0.f810.4589 (bia 00d0.f810.4589)
Interface address is: 1.1.1.100/24
ARP type: ARPA, ARP Timeout: 3600 seconds
Interface IPv6 address is:
No IPv6 address
MTU 1500 bytes, BW 1000000 Kbit
Encapsulation protocol is Ethernet-II, loopback not set
```



```

Keepalive interval is 10 sec , set
Carrier delay is 2 sec
Overlay attributes:
  Overlay mode is VXLAN
  Associate by VXLAN 1
Rxload is 0/255, Txload is 0/255

```

## 1.8 remote arp learn enable

Use this command to enable remote ARP packet learning globally.

**remote arp learn enable**

Use the **no** form of this command to disable remote ARP packet learning globally.

**no remote arp learn enable**

Parameter Description	Parameter	Description
	N/A	N/A

**Defaults** Remote ARP packet learning is disabled by default.

**Command Mode** VTEP configuration mode

**Default Level** 14

**Usage Guide** After remote ARP packet learning is enabled, the switch learns ARP entries from ARP packets encapsulated in the VXLAN format received from the VXLAN tunnel.

**▲** Remote ARP packet learning can be enabled only on gateways in a centralized VXLAN. It is recommended to disable this function in other scenarios.

**Configuration Examples** The following example enables remote ARP packet learning.

```
Orion_B54Q#configure terminal
```

```
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vtep
Orion_B54Q(config-vtep)# remote arp learn enable
```

**Verification** N/A

## 1.9 route-in-vni

Use this command to enable the intra-VXLAN routing function on an Overlay router interface.

**route-in-vni**

Use the **no** form of this command to disable the intra-VXLAN routing function on the Overlay router interface.

**no route-in-vni**

**Parameter  
Description**

Parameter	Description
N/A	N/A

**Defaults**

The intra-VXLAN routing function is disabled on the Overlay router interface by default.

**Command  
Mode**


Overlay router interface mode

**Default Level**

14

**Usage Guide**

After the intra-VXLAN routing function is enabled, the device serves as a proxy and uses the device MAC address to respond to all ARP requests from the VXLAN to which the local Overlay router interface belongs. In this case, packets between hosts in the same VXLAN are forwarded through the VXLAN route.

 To use the intra-VXLAN routing function, the ARP suppression function must be enabled at the same time.

**Configuration Examples**

The following example enables the intra-VXLAN routing function.

```
Orion_B54Q(config)#int overlayrouter 20
Orion_B54Q(config-if-OverlayRouter 20)#route-in-vni
```

**Verification**

Run the **show run interface overlayrouter** command to display intra-VXLAN routing configuration of the Overlay router interface.

```
Orion_B54Q(config-if-OverlayRouter 20)#sho run int
overlayrouter 20
Building configuration...
Current configuration : 118 bytes

interface OverlayRouter 20
 vrf forwarding vrf-10
 ip address 120.1.1.1 255.0.0.0
 anycast-gateway
 route-in-vni
```

## 1.10 router-interface

Use this command to set the VXLAN routing (gateway) interface.

**router-interface** *interface-name*

Use the **no** form of this command to delete the VXLAN routing (gateway) interface.

**no router-interface** [*interface-name*]

Parameter Description	Parameter	Description
	<i>interface-name</i>	VXLAN routing (gateway) interface. Only Overlay router interfaces are supported.

**Defaults** N/A

**Command Mode** VXLAN configuration mode

**Default Level** 14

**Usage Guide** In normal cases, the VXLAN routing interface is used as the IP gateway of VXLAN users, similar to the SVI interface of a VLAN. An Overlay router interface can associate with only one VXLAN.

**Configuration Examples** The following example sets the routing (gateway) interface of VXLAN 1 to an interface of Overlay router 1.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vxlان 1
Orion_B54Q(config-vxlان)#router-interface OverlayRouter 1
```

**Verification** Run the **show vxlan vni-number** command to display the VXLAN routing (gateway) interface.

```
Orion_B54Q#show vxlan 1
VXLAN 1
  Source Address      : 1.1.1.1
  Multicast Group     : 224.1.1.1
  Router Interface    : OverlayRouter 1
  VTEP Adjacency Count: 0
```

**Common Errors** One overlay router interface is associated with multiple VXLANs.

## 1.11 show vxlan

Use this command to display the VXLAN configuration and status.

**show vxlan [ vni-number ]**

Parameter Description	Parameter	Description
	<i>vni-number</i>	Displays the VXLAN instance quantity and configuration information of specified VXLANs. The quantity value ranges from 1 to 16,777,215.

**Command Mode** Privileged EXEC mode, global configuration mode, and interface configuration mode

**Default Level** 14

**Usage Guide** N/A

**Configuration Examples** 1. Run the **show vxlan** command to display the configuration and status of all VXLAN instances.

```

Orion_B54Q#show vxlan
VXLAN total count: 2
VXLAN capacity   : 4000

VXLAN 1
  Source Address      : 1.1.1.1
  Multicast Group     : 234.1.1.1
  Extend VLAN        : 100
  VTEP Adjacency Count: 2
  VTEP Adjacency List :
  Interface           Source IP       Destination IP
Type
-----
OverlayTunnel 4097   1.1.1.1       2.2.2.2
dynamic
OverlayTunnel 4098   1.1.1.1       3.3.3.3
dynamic

VXLAN 100
  Source Address      : 1.1.1.1
  Multicast Group     : 234.2.2.2
  Extend VLAN        : 200
  VTEP Adjacency Count: 2
  VTEP Adjacency List :
  Interface           Source IP       Destinaton IP
Type
-----
OverlayTunnel 4099   1.1.1.1       4.4.4.4
dynamic
OverlayTunnel 4100   1.1.1.1       5.5.5.5
dynamic

```

Field description:

Field	Description
VXLAN total count	Number of VXLAN instances
VXLAN capacity	Number of VXLAN instances that can be configured on the current device
source	Source address of a VXLAN instance
multicast	Multicast address of a VXLAN instance
destination	Destination VTEP address of a VXLAN instance
extend-vlan	Extended VLAN of a VXLAN instance

2. Run the **show vxlan vni-number** command to display the configuration and status of VXLAN 1.

```
Orion_B54Q#show vxlan 1
```

```
VXLAN 1
  Source Address      : 1.1.1.1
  Multicast Group     : 234.1.1.1
  Extend VLAN        : 100
  VTEP Adjacency Count: 2
  VTEP Adjacency List :
  Interface           Source IP       Destinaton IP
Type
-----
OverlayTunnel 4097   1.1.1.1        2.2.2.2
dynamic
OverlayTunnel 4098   1.1.1.1        3.3.3.3
dynamic
```

Field description:

Field	Description
source	Source address of the VXLAN instance
multicast	Multicast address of the VXLAN instance
destination	Destination VTEP address of the VXLAN instance
extend-vlan	Extended VLAN of the VXLAN instance

**Verification** N/A

## 1.12 show vxlan mac

Use this command to display MAC address information of a VXLAN.

**show vxlan mac** [ [ **address** *mac-address* ] [ **vni** *vni-number* ] [ **remote** | **local** ] ]

**Parameter Description**

Parameter	Description
<b>vni</b> <i>vni-number</i>	Displays the MAC address of a specified VXLAN. The value range of <i>vni-number</i> is 1 to 16,777,215.
<b>address</b> <i>mac-address</i>	Displays the specified MAC address.
<b>remote</b>	Displays the remote MAC address.
<b>local</b>	Displays the local MAC address.
<b>count</b>	Displays MAC address statistics of the current VXLAN.

**Command Mode**

Privileged EXEC mode, global configuration mode, and interface configuration mode

**Default Level**

14

**Usage Guide**

N/A

**Configuration Examples**

1. Run the **show vxlan mac** command to display the MAC addresses of all VXLAN instances.

```
Orion_B54Q(config)#show vxlan mac
VXLAN      MAC Address          Type      Location Interface
IP Address
-----
-----
      200      0011.2233.2016      dynamic  local      null
1.1.1.1
      300      0011.2233.2016      dynamic  local      null
1.1.1.1
```

Field description:

Field	Description
VXLAN	VXLAN instance
MAC Address	MAC address
IP Address	VTEP IP address to which the MAC address belongs
Location	Indicates whether an entry is a remote or local entry.
Interface	Layer-2 egress of a MAC address
Type	MAC address type

2. Run the **show vxlan mac address** *mac-address* command to display MAC

address information of a VXLAN whose address is 00d0.f801.010f.

```
Orion_B54Q# sho vxlan mac address 0000.0022.2266 vni 200
VXLAN      MAC Address      Type      Location      Interface
IP Address
-----  -----
200        0000.0022.2266    dynamic   local         Te0/5
2.2.2.2
```

Field description:

Field	Description
VXLAN	VXLAN instance
MAC Address	MAC address
IP Address	VTEP IP address to which the MAC address belongs
Location	Indicates whether an entry is a remote or local entry.
Interface	Layer-2 egress of a MAC address
Type	MAC address type

3. Run the **show vxlan mac count** command to display the MAC address statistics of the current VXLAN.

```
Orion_B54Q#show vxlan mac count
Total VXLAN Mac Addresses    : 20
VXLAN Mac Addresses Capacity: 65458
```

Field description:

Field	Description
Total VXLAN Mac Addresses	Number of MAC addresses of the current VXLAN
VXLAN Mac Addresses Capacity	Maximum number of VXLAN MAC addresses supported by the device

**Verification** N/A

## 1.13 show vxlan route

Use this command to display route information of a VXLAN.

```
show vxlan route [ remote | local ] [ vni vni-number ] [ vrf vrf-id ]
```

Parameter Description	Parameter	Description
	<b>remote   local</b>	Displays the entry of the specified location type:



	remote entry or local entry.
<b>vni</b> <i>vni-number</i>	Displays the route information of a specified VXLAN. The value of <i>vni-number</i> ranges from 1 to 16,777,215.
<b>vrf</b> <i>vrf-id</i>	Displays the route address information in a specified VRF network.

**Command Mode** Privileged EXEC mode, global configuration mode, and interface configuration mode

**Default Level** 14

**Usage Guide** N/A

**Configuration Examples** The following example runs the **show vxlan route** command to display all layer-3 VXLAN entries.

```
S62-1#show vxlan route
      VRF          VNI   Location      IP Address
Interface        MAC Address
-               300   local        200.1.1.2    -
0011.2233.2016
-               300   local        200.1.1.6    TE0/5
0011.2233.2266
-               300   local        7.8.9.5      -
0011.2233.2016
-               300   remote       200.1.1.1    OV6145
0011.2233.20df
```

Field description:

Field	Description
VXLAN	VXLAN instance
IP Address	Host IP address
Location	Indicates whether an entry is a remote or local entry.
Interface	Layer-2 egress of a MAC address
MAC Address	MAC address of the next hop

## 1.14 show vxlan prefix-route

Use this command to display prefix route information of a VXLAN.

**show vxlan prefix-route** [ remote | local ] [ vni *vni-number* ] [ vrf *vrf-id* ]

Parameter	Parameter	Description
-----------	-----------	-------------

Description	
<b>remote   local</b>	Displays the entry of the specified location type: remote entry or local entry.
<b>vni vni-number</b>	Displays the route information of a specified VXLAN. The value of <i>vni-number</i> ranges from 1 to 16,777,215.
<b>vrf vrf-id</b>	Displays the route address information in a specified VRF network.

**Command Mode** Privileged EXEC mode, global configuration mode, and interface configuration mode

**Default Level** 14

**Usage Guide** N/A

**Configuration Examples** The following example runs the **show vxlan prefix-route** command to display all VXLAN entries.

```
S62-1# sh vxlan prefix-route

VRF      VNI      Location  PREFIX Address  GATEWAY Address
Interface  MAC Address
-----  -
default  1        local    192.168.197.0/24  192.168.197.2
Fo0/52    00d0.f822.33df
default  1        local    192.168.21.0/24  192.168.21.24
Fo0/51    1414.4b75.802a

count: 2
```

Field description:

Field	Description
VRF	VRF network of the entry
VNI	VXLAN instance
Location	Indicates whether an entry is a remote or local entry.
PREFIX Address	Network IP address
GATEWAY Address	Destination IP address
Interface	Outbound interface
MAC Address	MAC address of the next hop

## 1.15 show vxlan arp table

Use this command to display learned VXLAN ARP entries.

**show vxlan arp table [ vni *vni-number* ] [ count ]**

<b>Parameter Description</b>	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><b>vni <i>vni-number</i></b></td> <td>Displays the ARP information of a specified VXLAN. The value of <i>vni-number</i> ranges from 1 to 16,777,215.</td> </tr> <tr> <td><b>count</b></td> <td>Displays the number of VXLAN ARP entries.</td> </tr> </tbody> </table>	Parameter	Description	<b>vni <i>vni-number</i></b>	Displays the ARP information of a specified VXLAN. The value of <i>vni-number</i> ranges from 1 to 16,777,215.	<b>count</b>	Displays the number of VXLAN ARP entries.
Parameter	Description						
<b>vni <i>vni-number</i></b>	Displays the ARP information of a specified VXLAN. The value of <i>vni-number</i> ranges from 1 to 16,777,215.						
<b>count</b>	Displays the number of VXLAN ARP entries.						
<b>Command Mode</b>	Privileged EXEC mode, global configuration mode, and interface configuration mode						
<b>Default Level</b>	14						
<b>Usage Guide</b>	N/A						
<b>Configuration Examples</b>	The following example runs the <b>show vxlan arp table</b> command to display all VXLAN ARP entries.						

```
S62-1#show vxlan arp table
VXLAN      IP Address      MAC Address      Aging      type      L2-
interface    L3-interface
-----
-----
200        200.1.1.2       0011.2233.2016  0          PORT      null
Ov200
200        200.1.1.6       0011.2233.2266  3          LOCAL     TE0/5
Ov200
300        7.8.9.5         0011.2233.2016  0          PORT      null
Ov300
counts: 2
```

Field description:

Field	Description
VXLAN	VXLAN instance
IP Address	Host IP address
Aging	Time interval from the previous update
L2-interface	Layer-2 egress of a MAC address
MAC Address	Host MAC address
Type	ARP entry type, which can be set to: <ul style="list-style-type: none"> <li>● PORT: entry generated by the local layer-3 interface</li> <li>● LOCAL: local host entry</li> <li>● REMOTE: remote host entry</li> </ul>

## 1.16 show vxlan arp suppress

Use this command to display the VXLAN ARP suppression status on a device.

**show vxlan arp suppress [ vni *vni-number* ]**

Parameter Description	Parameter	Description
	<b>vni <i>vni-number</i></b>	Displays the ARP information of a specified VXLAN. The value range of <i>vni-number</i> is 1 to 16,777,215.

**Command Mode** Privileged EXEC mode, global configuration mode, and interface configuration mode

**Default Level** 14

**Usage Guide** N/A

**Configuration Examples** Run the **show vxlan arp** command to display the VXLAN ARP suppression status on a device.

```
S62-1#sho vxlan arp suppress
ARP-SUPPRESS: OFF
SEQUENCE NUMBER: 1
```

**Verification** N/A

## 1.17 show vxlan global

**Parameter Description** Use this command to display global VXLAN information, including the VTEP IP address and virtual MAC address.

**show vxlan global**

**Defaults** N/A

**Command** Privileged EXEC mode, global configuration mode, and interface configuration mode

**Mode****Default Level** 14**Usage Guide** This command allows you to query the loopback port bound to the VTEP, the VTEP IP address, and virtual MAC address of the global anycast gateway on the current device.**Configuration Examples** Run the **show vxlan global** command to display global VXLAN information.

```
Orion_B54Q#show vxlan global
Local switch vtep ip: 1.1.1.1, binds with interface loopback
1.
Anycast mac: 0000.1111.2222 .
1 overlayrouters enable anycast
```

**Verification** N/A

## 1.18 show vxlan mode

Use this command to display the configured VXLAN mode.

**show vxlan mode****Parameter** N/A**Description****Command Mode** Privileged EXEC mode, global configuration mode, and interface configuration mode**Default Level** 14**Usage Guide** The VXLAN modes include Bridge and Router. You can run this command to display the VXLAN mode of the current device.**Configuration Examples** Run the **show vxlan mode** command to display the configured VXLAN mode.

```
Orion_B54Q#show vxlan mode
VXLAN Device Mode: Router
```

Field description:

Field	Description
VXLAN Device Mode	Current VXLAN mode of the device. The available mode is as follows: 1: Router(EVPN), which indicates the routing mode in EVPN environments and is the default mode.

**Verification** N/A

## 1.19 show vxlan udp-port

Use this command to display the VXLAN UDP destination port.

**show vxlan udp-port**

**Parameter** N/A

**Description**

**Command Mode** Privileged EXEC mode, global configuration mode, and interface configuration mode

**Default Level** 14

**Usage Guide** N/A

**Configuration Examples** Run the **show vxlan udp-port** command to display the VXLAN UDP destination port.

```
Orion_B54Q#show vxlan udp-port
VXLAN UDP Destination Port: 4789
```

Field description:

Field	Description
VXLAN UDP Destination Port	VXLAN UDP destination port ID

**Verification** N/A

## 1.20 source loopback

Use this command to bind a loopback port for a device. The IP address of this loopback port is used as the source IP address of the VXLAN and used to fill the source IP address field at the outer layer of VXLAN packets.

**source loopback** *loopback-port-id*

Use the **no** form of this command to delete the loopback port bound to the VXLAN instance.

**no source loopback** *loopback-port-id*

Parameter Description	Parameter	Description
	<i>loopback-port-id</i>	Loopback port ID

**Defaults** N/A

**Command Mode** VTEP configuration mode

**Default Level** 14

**Usage Guide** After the EVPN control plane starts, a loopback port needs to be bound for each VTEP. A VTEP IP address unique on the whole network needs to be configured for the loopback port, and is used as the source IP address of the VXLAN to fill the source IP address field at the outer layer of VXLAN packets.

**Configuration Examples** The following example binds loopback port 1.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vtep
Orion_B54Q(config-vtep)#source loopback 1
```

**Verification** Run the **show vxlan global** command to display VTEP information configured on the current device.

```
Orion_B54Q#show vxlan global
```

```
Local switch vtep ip: 1.1.1.1, binds with interface loopback 1
No anycast mac.
```

## 1.21 symmetric

Use this command to set the symmetric attribute of an instance.

**symmetric**

Use the **no** form of this command to cancel the symmetric attribute of the instance.

**no symmetric**

Parameter Description	Parameter	Description
	N/A	N/A

**Defaults** VXLAN instances are asymmetric by default.

**Command Mode** VXLAN configuration mode

**Default Level** 14

**Usage Guide** This command takes effect only in EVPN mode.  
 A maximum of one symmetric instance can be configured in one VRF network.  
 Different VXLAN instances can associate with VRF networks by binding overlay router interfaces. If you attempt to configure multiple symmetric instances in a VRF network, the configuration fails.

**Configuration Examples** The following example configures VXLAN 1 as a symmetric instance.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vxlan 1
Orion_B54Q(config-vxlan)#symmetric
```

**Verification** Run the **show vxlan vni-number** command to display the symmetric attribute.

```
Orion_B54Q#show vxlan 1
VXLAN 1
    Symmetric property      : TRUE
```



```

Source Address      : -
Multicast Group    : -
Router Interface   : -
Extend VLAN        : -
VTEP Adjacency Count: 0

```

## 1.22 vtep

Use this command to enter the VTEP configuration mode.

**vtep**

Use the **no** form of this command to delete all configurations in VTEP configuration mode.

**no vtep**

Parameter Description	Parameter	Description
	N/A	N/A
<b>Defaults</b>	N/A	
<b>Command Mode</b>	Global configuration mode	
<b>Default Level</b>	14	
<b>Usage Guide</b>	N/A	
<b>Configuration Examples</b>	<p>The following example enables a device to enter the VTEP configuration mode.</p> <pre> Orion_B54Q#configure terminal Enter configuration commands, one per line. End with CNTL/Z. Orion_B54Q(config)#vtep Orion_B54Q(config-vtep)# </pre>	
<b>Verification</b>	N/A	

## 1.23 vxlan

Use this command to create a VXLAN instance or enter the VXLAN instance configuration mode.

**vxlan** *vni-number*

Use the **no** form of this command to delete a VXLAN instance.

**no vxlan** *vni-number*

Parameter Description	Parameter	Description
	<i>vni-number</i>	Indicates the VNI. The value ranges from 1 to 16,777,215.

**Defaults** N/A

**Command Mode** Global configuration mode

**Default Level** 14

**Usage Guide** N/A

**Configuration Examples** The following example creates or enters VXLAN 1.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vxlan 1
Orion_B54Q(config-vxlan)#
```

**Verification** Run the **show vxlan** command to display information about all VXLAN instances.

```
Orion_B54Q#show vxlan
VXLAN total count: 2
VXLAN capacity   : 4000
VXLAN 1
  Source Address   : 1.1.1.1
  Multicast Group  : 234.1.1.1
  Extend VLAN     : 100
  VTEP Adjacency Count: 2
```

```

VTEP Adjacency List :
Interface          Source IP          Destination IP
Type
-----
OverlayTunnel 4097  1.1.1.1           2.2.2.2
dynamic
OverlayTunnel 4098  1.1.1.1           3.3.3.3
dynamic

VXLAN 100
Source Address      : 1.1.1.1
Multicast Group     : 234.2.2.2
Extend VLAN         : 200
VTEP Adjacency Count: 2
VTEP Adjacency List :
Interface          Source IP          Destination IP
Type
-----
OverlayTunnel 4099  1.1.1.1           4.4.4.4
dynamic
OverlayTunnel 4100  1.1.1.1           5.5.5.5
dynamic
    
```

## 1.24 vxlan ip route

Use this command to configure the static VXLAN network route.

**vxlan ip route** *network net-mask ip-address vni vni-number*

Use the **no** form of this command to delete the static VXLAN network route.

**no vxlan ip route** *network net-mask ip-address vni vni-number*

Parameter Description	Parameter	Description
	<i>network</i>	Address of the target network
	<i>net-mask</i>	Mask of the target network
	<i>ip-address</i>	Next hop address of the static route
	<i>vni-number</i>	VNI. The value ranges from 1 to 16,777,215.

**Defaults** N/A

**Command Mode** Global configuration mode

**Default Level** 14

**Usage Guide** Configure the static VXLAN network route in EVPN mode. To make the static VXLAN network route effective at the local end, the next hop must be the next hop of this VXLAN route. Only after the static routes become effective, the system advertises the static routes to the BGP EVPN, which accordingly releases the static routes to the remote end.

**Configuration Examples** The following example configures two static network route forwarding entries with VNI 1.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vxlan ip route 192.168.197.0 255.255.255.0
192.168.197.2 vni 1 evpn
Orion_B54Q(config)# vxlan ip route 192.168.21.0 255.255.255.0
192.168.21.24 vni 1
```

**Verification** Run the **show vxlan prefix-route** command to display whether the VXLAN routing and forwarding table exists.

```
Orion_B54Q# sh vxlan prefix-route

VRF      VNI      Location  PREFIX Address  GATEWAY Address
Interface MAC Address
-----
-----
default  1        local    192.168.197.0/24  192.168.197.2
Fo0/52   00d0.f822.33df
default  1        local    192.168.21.0/24  192.168.21.24
Fo0/51   1414.4b75.802a
count: 2
```

## 1.25 vxlan overlaytunnel rate-limit

Use this command to set the input/output rate limit of a tunnel.

**vxlan overlaytunnel dip ip-address rate-limit { output rate-num | input rate-num }**

Use the **no** form this command to cancel the input/output rate limit of a tunnel.

```
no vxlan overlaytunnel dip ip-address rate-limit { output [rate-num] | input [rate-num] }
```

Parameter Description	Parameter	Description
	<i>ip-address</i>	VTEP IP address of the peer end of the tunnel interface
	<i>rate-num</i>	Rate limit value

**Defaults** N/A

**Command Mode** VTEP configuration mode

**Default Level** 14

**Usage Guide** Configure the input/output rate limit on the tunnel interface if you need to limit the tunnel rate.

The **output** parameter indicates that the tunnel output rate is limited. The **input** parameter indicates that the tunnel input rate is limited.

If the product hardware does not support tunnel rate limiting, this command cannot be executed.

If the product does not support tunnel output rate limiting, the **output** parameter cannot be configured.

If the product does not support tunnel input rate limiting, the **input** parameter cannot be configured.

**Configuration Examples** The following example limits the output rate of a tunnel.

```
Orion_B54Q#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Orion_B54Q(config)#vtep
Orion_B54Q(config-vtep)# vxlan overlaytunnel dip 2.2.2.2 rate-limit output 5000
```

**Verification** N/A

## 1.26 vxlan udp-port

Use this command to set the VXLAN UDP destination port.

**vxlan udp-port** *port-number*

Use the **no** form of this command to delete the VXLAN UDP destination port. After the port is deleted, the default value is restored.

**no vxlan udp-port** [*port-number*]

Parameter Description	Parameter	Description
	<i>port-number</i>	VXLAN UDP destination port. The port ID ranges from 0 to 65,535.
<b>Defaults</b>	4789 (allocated by IANA)	
<b>Command Mode</b>	Global configuration mode	
<b>Default Level</b>	14	
<b>Usage Guide</b>	<p>Optional. As the VXLAN UDP destination port used by devices of earlier versions may not be Port 4789, you can run this command to achieve compatibility. In addition, you can also run this command to customize the VXLAN UDP destination port.</p> <p>Note: Modification of the UDP destination port takes effect after device restart. Therefore, save the configuration and restart the device.</p>	
<b>Configuration Examples</b>	<p>The following example sets the VXLAN UDP destination port to Port 5789.</p> <pre>Orion_B54Q#configure terminal Enter configuration commands, one per line. End with CNTL/Z. Orion_B54Q(config)#vxlan udp-port 5789</pre>	
<b>Verification</b>	<p>Run the <b>show vxlan udp-port</b> command to display the VXLAN UDP destination port.</p> <pre>Orion_B54Q#show vxlan udp-port VXLAN UDP Destination Port: 5789</pre>	