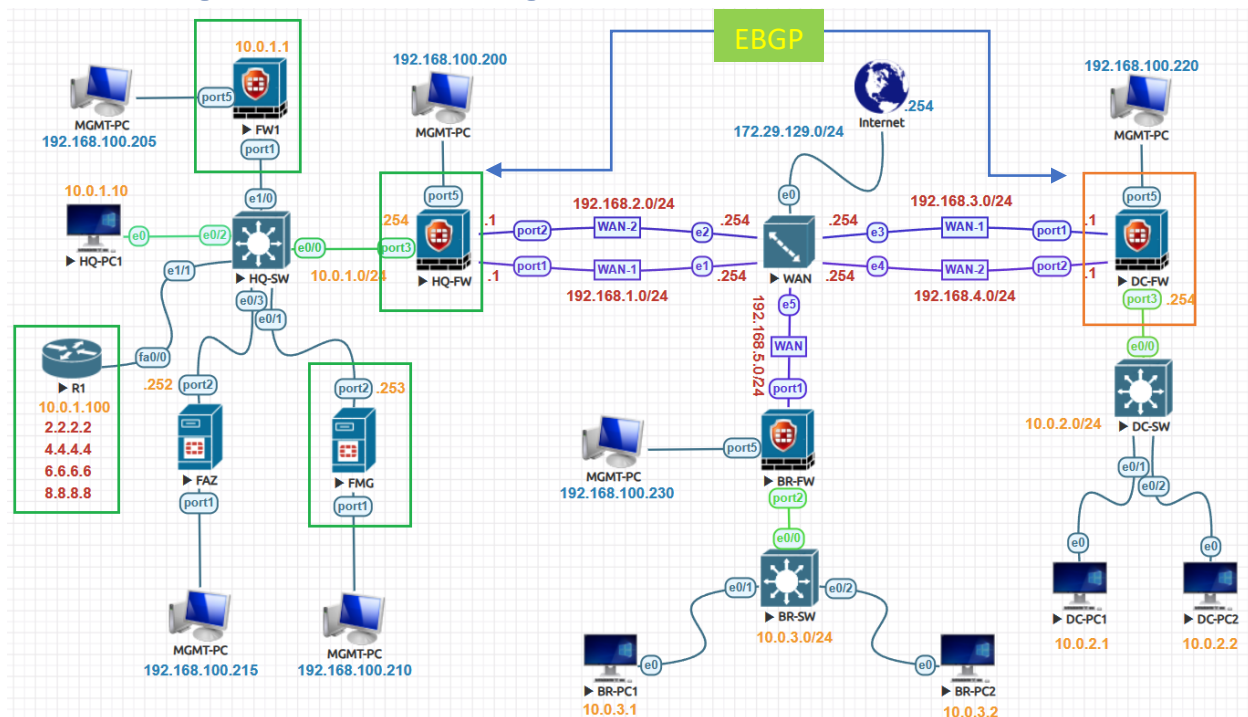


eBGP Configuration FortiManager:



R1 Basic Configuration

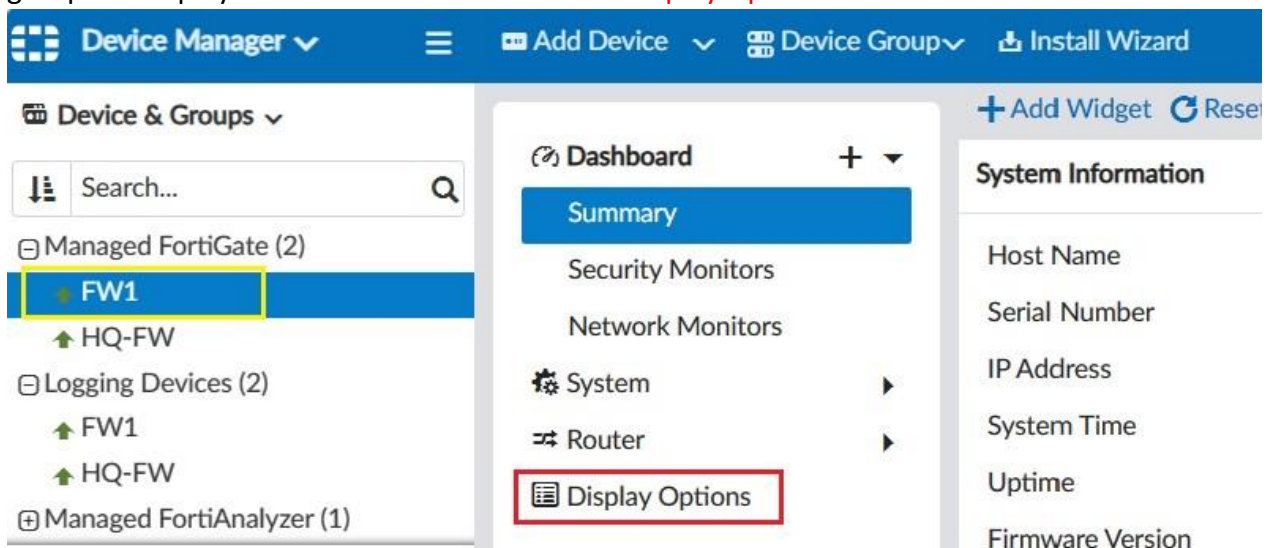
```

Router(config)#hostname R1
R1(config)#interface fastEthernet0/0
R1(config-if)#ip address 10.0.1.100 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#interface Loopback2
R1(config-if)#ip address 2.2.2.2 255.255.255.255
R1(config-if)#exit
R1(config)#interface Loopback4
R1(config-if)#ip address 4.4.4.4 255.255.255.255
R1(config-if)#exit
R1(config)#interface Loopback6
R1(config-if)#ip address 6.6.6.6 255.255.255.255
R1(config-if)#exit
R1(config)#interface Loopback8
R1(config-if)#ip address 8.8.8.8 255.255.255.255
R1(config-if)#exit
    
```

R1 BGP Configuration

```
R1(config)#router bgp 123
R1(config-router)#neighbor 10.0.1.1 remote-as 123
R1(config-router)#neighbor 10.0.1.254 remote-as 123
R1(config-router)#network 2.2.2.2 mask 255.255.255.255
R1(config-router)#network 4.4.4.4 mask 255.255.255.255
R1(config-router)#network 6.6.6.6 mask 255.255.255.255
R1(config-router)#network 8.8.8.8 mask 255.255.255.255
R1(config-router)#exit
```

Navigate to **Device Manager > Device & Group > Managed FortiGate** The list of devices in the group are displayed. Click on **FW1 Dashboard > Display Options**

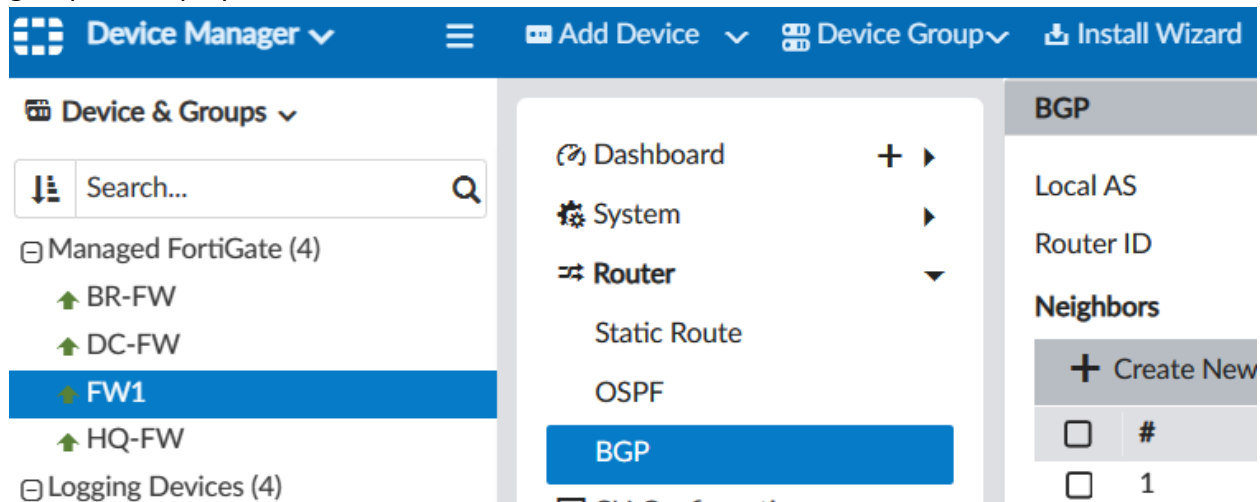


In the **Router** section tick **BGP** click **OK**.

Display Options

<input type="checkbox"/> Global Resources	<input checked="" type="checkbox"/> SD-WAN
<input type="checkbox"/> DHCP Server	<input type="checkbox"/> Modem
<input type="checkbox"/> Sniffer Interface Policy	<input checked="" type="checkbox"/> SNMP
<input type="checkbox"/> DNS	<input type="checkbox"/> DNS Database
<input type="checkbox"/> DNS Service on Interface	<input type="checkbox"/> Explicit Proxy
<input type="checkbox"/> Management	<input type="checkbox"/> Admin Settings
<input type="checkbox"/> Administrators	<input type="checkbox"/> Admin Profile
<input type="checkbox"/> Local Host ID	<input type="checkbox"/> Certificates
<input checked="" type="checkbox"/> Replacement Message	<input type="checkbox"/> Replacement Message Group
<input type="checkbox"/> FortiGuard	<input type="checkbox"/> Security Fabric
<input type="checkbox"/> Automation Stitch	<input type="checkbox"/> Log Setting
<input type="checkbox"/> Alert Email	<input type="checkbox"/> Threat Weight
<input type="checkbox"/> NAT64 Prefix	<input type="checkbox"/> FortiSandbox
<input checked="" type="checkbox"/> Router	<input type="checkbox"/> Policy Route
<input checked="" type="checkbox"/> Static Route	<input checked="" type="checkbox"/> OSPF
<input type="checkbox"/> Gateway Detection	<input type="checkbox"/> BGP
<input type="checkbox"/> RIP	

Navigate to **Device Manager > Device & Group > Managed FortiGate** The list of devices in the group are displayed. Click on **FW1 Dashboard > Router > BGP**



Type the Router ID in this case 2.2.2.2 and Local AS in this case 123

BGP	
Local AS	123
Router ID	2.2.2.2

In the Neighbors click on **Create New** Type the IP Address of HQ-FW and remote AS 123

Neighbors		
#	Neighbor	Remote AS
+ Create New Edit Delete Column Settings		
Edit Neighbor		
IP	10.0.1.254	
Remote AS	123	
Password		
Interface	port1 (WAN-1)	
Update Source	any	
Graceful Restart Time	0	
Activate IPv4	ON	

Repeat or clone the neighbor for Cisco Router R1 IP 10.0.1.100 and Remote AS 123.

Neighbors

[+ Create New](#) [Edit](#) [Delete](#) [Column Settings](#)

Clone Neighbor

IP	10.0.1.100
Remote AS	123
Password	
Interface	port1 (WAN-1)
Update Source	any
Graceful Restart Time	0
Activate IPv4	<input checked="" type="checkbox"/>

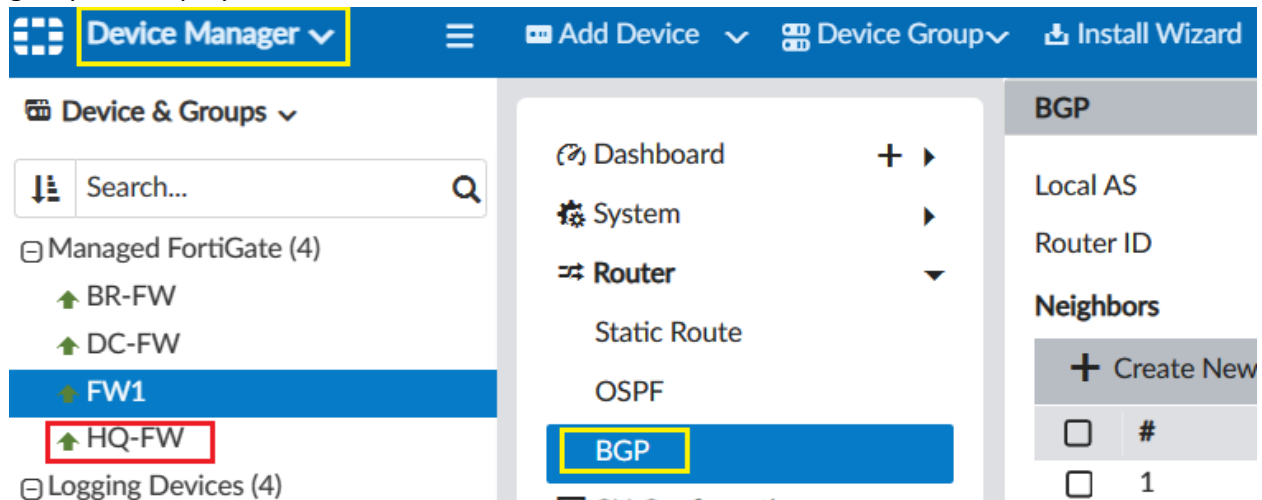
Finally, both neighbors are created for the same Remote AS 123.

Neighbors

[+ Create New](#) [Edit](#) [Delete](#) [Column Settings](#)

<input type="checkbox"/>	#	Neighbor	Remote AS
<input type="checkbox"/>	1	10.0.1.254	123
<input type="checkbox"/>	2	10.0.1.100	123

Navigate to **Device Manager > Device & Group > Managed FortiGate** The list of devices in the group are displayed. Click on **HQ-FW Dashboard > Router > BGP**



Type the Router ID in this case 3.3.3.3 and Local AS is 123

The screenshot shows the BGP configuration page. The 'Local AS' field is set to 123 and the 'Router ID' field is set to 3.3.3.3. Both fields are highlighted with red boxes.

In the Neighbors click on **Create New** Type the IP Address of FW1 and remote AS 123

The screenshot shows the 'Create New Neighbor' dialog box. The 'IP' field is set to 10.0.1.1 and the 'Remote AS' field is set to 123. Both fields are highlighted with red boxes. The 'Interface' field is set to port3 (LAN).

Repeat or clone the neighbor for Cisco Router R1 IP **10.0.1.100** and Remote AS 123.

Neighbors

+ Create New Edit Delete Column Settings

Create New Neighbor

IP: **10.0.1.100**

Remote AS: **123**

Password:

Interface: **port3 (LAN)**

Update Source:

Graceful Restart Time:

Activate IPv4: ☒

Finally, both neighbors are created for the same Remote AS 123.

Neighbors

+ Create New Edit Delete Column Settings

	#	Neighbor	Remote AS
<input type="checkbox"/>	1	10.0.1.1	123
<input type="checkbox"/>	2	10.0.1.100	123

In the Networks click **Create New** type IP/Netmask click **OK**. Finally, three networks are advertised in the BGP.

Networks

+ Create New Edit Delete Column Settings

	#	IP	Netmask
<input type="checkbox"/>	1	192.168.1.0	255.255.255.0
<input type="checkbox"/>	2	192.168.2.0	255.255.255.0
<input type="checkbox"/>	3	10.0.1.0	255.255.255.0

In the Neighbors click **Create New** IP 192.168.3.1 and Remote AS 4.

Neighbors

Create New

Edit

Delete

Column Settings ▾

Edit Neighbor

IP

192.168.3.1

Remote AS

4

Password

Interface

Update Source

Graceful Restart Time

0

Activate IPv4

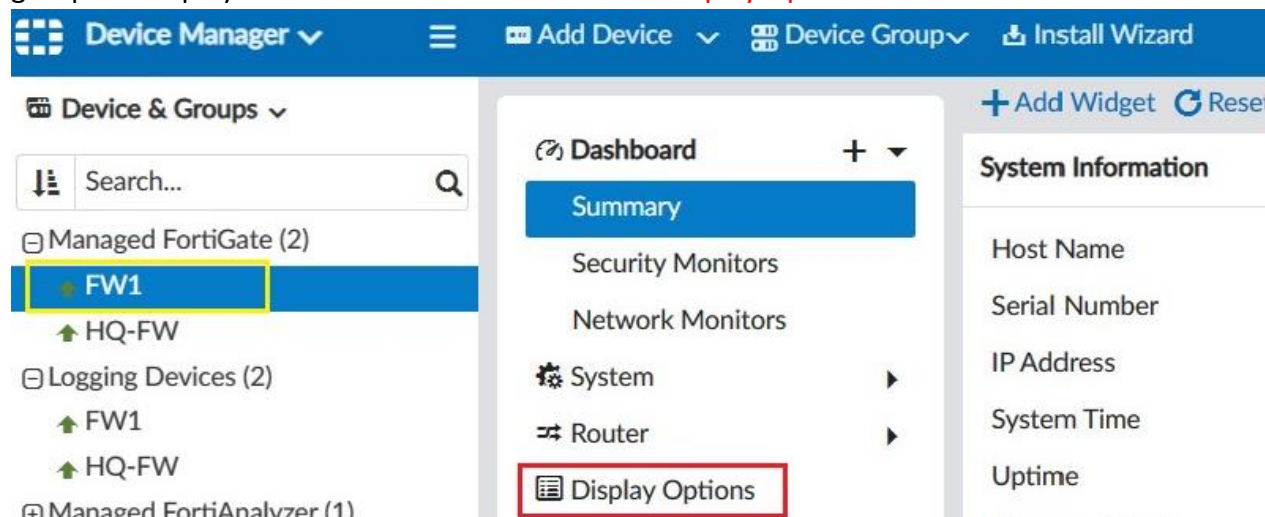
ON

Finally, create a new EBGp neighbor with remote AS 4 while local AS is 123.

Neighbors

<div><div><div><div><div></div><div></div></div><div>Create New</div></div><div><div><div></div><div></div></div><div>Edit</div></div><div><div><div></div><div></div></div><div>Delete</div></div><div><div><div></div><div></div></div><div>Column Settings ▾</div></div></div></div>			
<input type="checkbox"/>	#	Neighbor	Remote AS
<input type="checkbox"/>	1	10.0.1.1	123
<input type="checkbox"/>	2	10.0.1.100	123
<input checked="" type="checkbox"/>	3	192.168.3.1	4

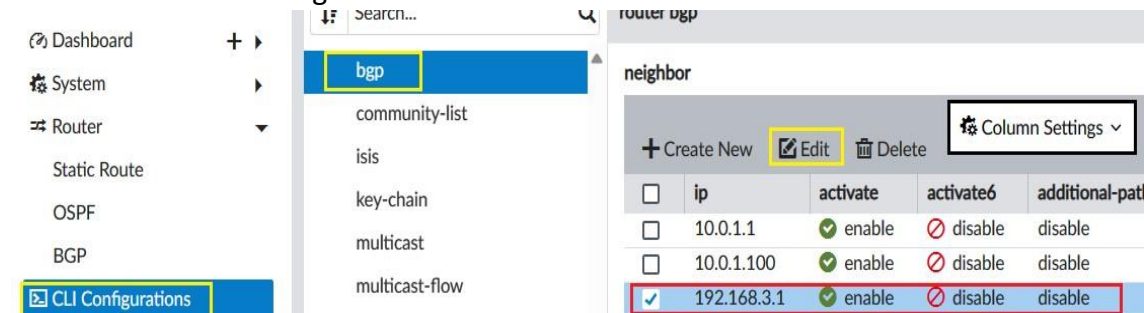
Navigate to **Device Manager >Device & Group>Managed FortiGate** The list of devices in the group are displayed. Click on **HQ-FW Dashboard > Display Options**



In the CLI Configuration tick **CLI Configuration** option and click **OK**.



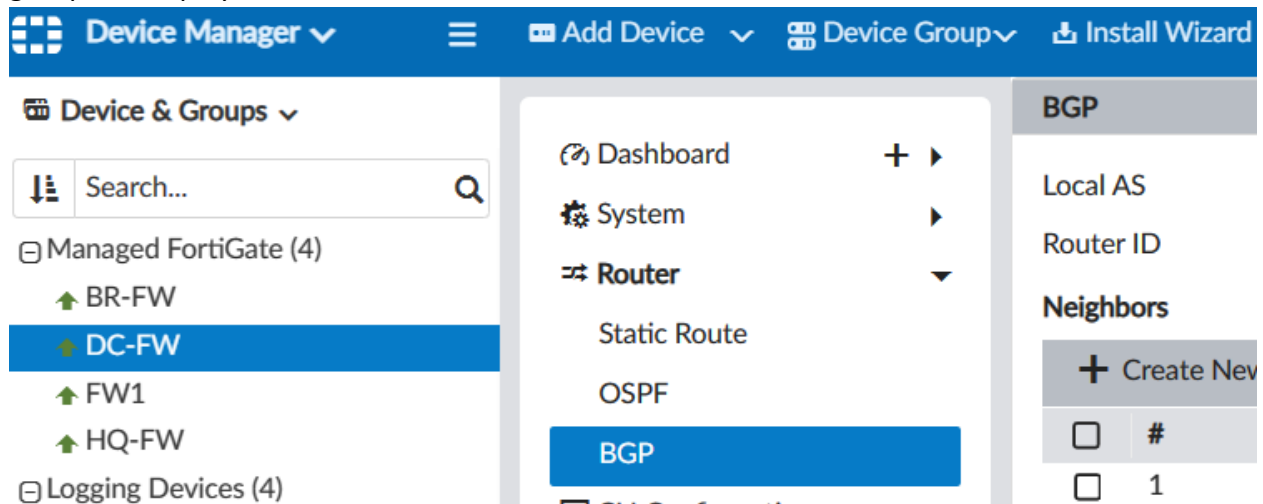
Navigate to **Device Manager >Device & Group>Managed FortiGate** The list of devices in the group are displayed. Click on **HQ-FW Dashboard > CLI Configuration>Router>bgp** after that choose **192.168.3.1** neighbor click **Edit**.



Enable **ebgp-enforce-multihop** feature, make sure **ebgp-multihop-ttl** is 255 and click **OK**.



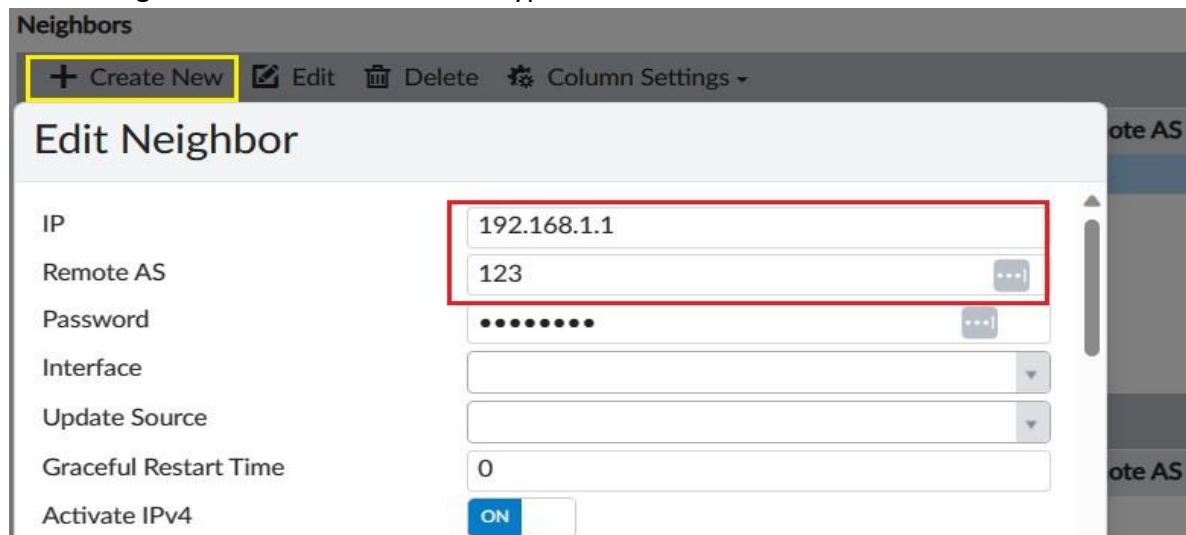
Navigate to **Device Manager > Device & Group > Managed FortiGate** The list of devices in the group are displayed. Click on **DC-FW Dashboard > Router > BGP**



Type the Router ID in this case 4.4.4.4 and Local AS is 4



In the Neighbors click on **Create New** Type the IP Address of HQ-FW and remote AS 123



In the Networks click **Create New** type IP/Netmask click **OK**. Finally, one networks are advertised in the EBGp.

Networks

Create New **Edit** **Delete** **Column Settings**

Edit Network

IP/Netmask

Advanced Options >

Navigate to **Device Manager > Device & Group > Managed FortiGate**. The list of devices in the group are displayed. Click on **DC-FW Dashboard > CLI Configuration > Router > bgp** after that choose **192.168.1.1** neighbor click **Edit**.

Dashboard **Summary** **Security Monitors** **Network Monitors** **System** **Router** **CLI Configurations**

bgp

- community-list
- isis
- key-chain
- multicast
- multicast-flow

neighbor

Create New **Edit** **Delete** **Column Settings**

<input type="checkbox"/>	ip	activate	activate6	additional-path
<input type="checkbox"/>	192.168.1.1	<input checked="" type="checkbox"/> enable	<input type="checkbox"/> disable	<input type="checkbox"/> disable

neighbor-group

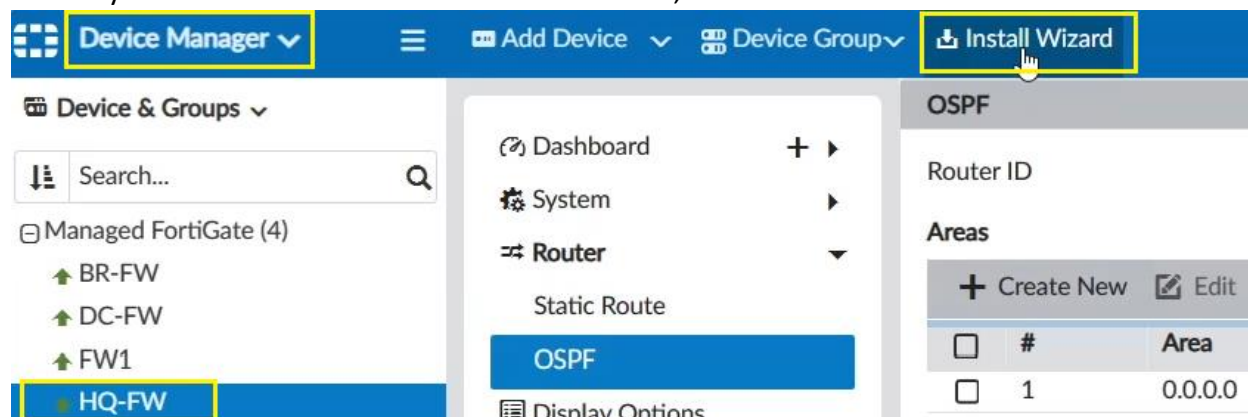
Enable **ebgp-enforce-multihop** feature, make sure **ebgp-multihop-ttl** is 255 and click **OK**.

ebgp-enforce-multihop ☒

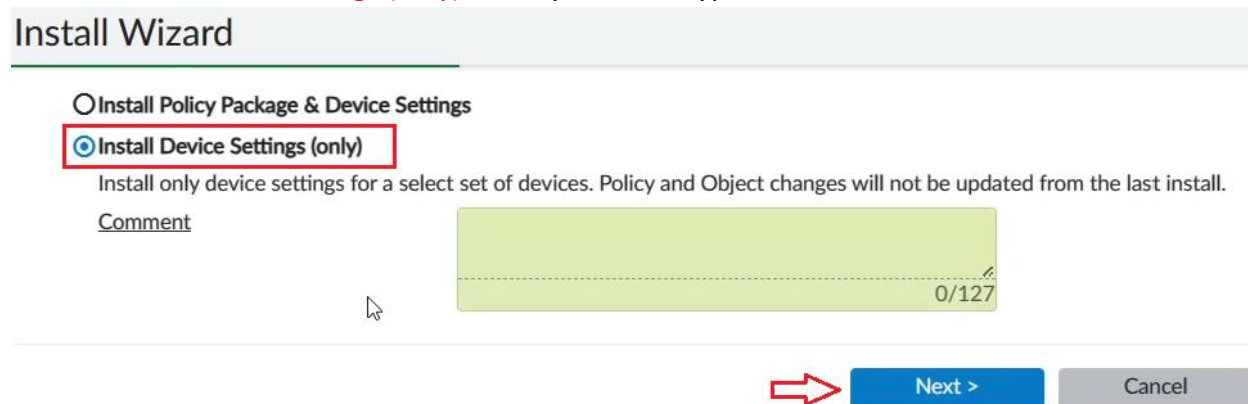
ebgp-multihop-ttl (1 - 255, default: 255)

Install Device Settings:

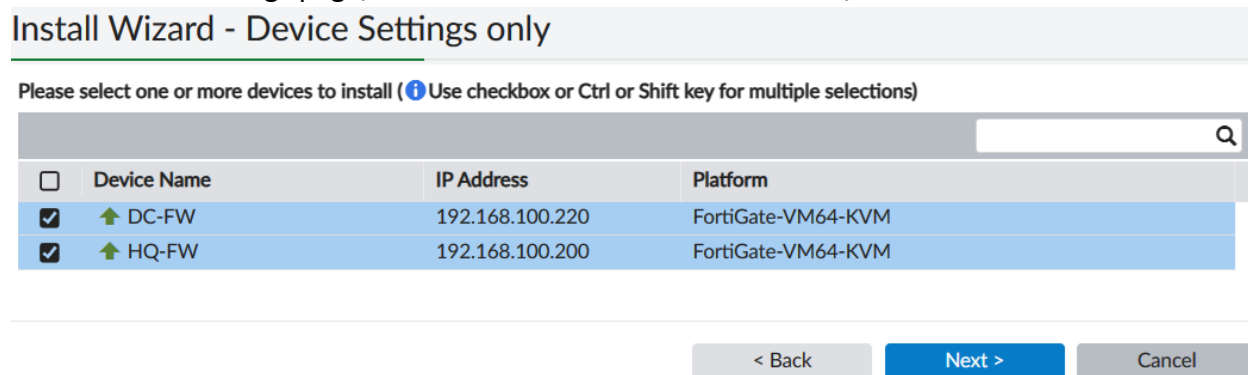
Ensure you are in the correct ADOM. In the toolbar, select **Install Wizard**.



Select **Install Device Settings (only)** and if you want, type a comment. Click **Next**.



In the Device Settings page, select one or more devices to install, and click **Next**.



Click **Install**.

Install Wizard - Device Settings

Only successfully validated device may be installed. Please confirm and click "Install" button to continue.

Install Preview			
<input type="checkbox"/>	Device Name	Status	Action
<input checked="" type="checkbox"/>	DC-FW	Connection Up	
<input checked="" type="checkbox"/>	HQ-FW	Connection Up	

Install

Cancel

Click **Finish** to close the wizard.

Install Wizard - Device Settings

✓ Device Settings is installed successfully.

100%

Total: 4/4, ✓ Success: 4, ⚠ Warning: 0, ✗ Error: 0

View Installation Log View Progress Report			
Column Settings			
#	Name	Time Used	Status
1	DC-FW	19s	install and save finished status=OK
2	DC-FW[copy]	20s	Installation to real device done
3	HQ-FW	19s	install and save finished status=OK
4	HQ-FW[copy]	20s	Installation to real device done

Finish

BGP Verification:

```
FW1 # get router info routing-table bgp
```

```
Routing table for VRF=0
```

```
B 2.2.2.2/32 [200/0] via 10.0.1.100 (recursive is directly connected, port1), 00:01:38
B 4.4.4.4/32 [200/0] via 10.0.1.100 (recursive is directly connected, port1), 00:01:38
B 6.6.6.6/32 [200/0] via 10.0.1.100 (recursive is directly connected, port1), 00:01:38
B 8.8.8.8/32 [200/0] via 10.0.1.100 (recursive is directly connected, port1), 00:01:38
B 192.168.1.0/24 [200/0] via 10.0.1.254 (recursive is directly connected, port1), 00:01:10
B 192.168.2.0/24 [200/0] via 10.0.1.254 (recursive is directly connected, port1), 00:01:10
```

```
FW1 # get router info bgp summary
```

```
VRF 0 BGP router identifier 2.2.2.2, local AS number 123
```

```
BGP table version is 1
```

```
1 BGP AS-PATH entries
```

```
0 BGP community entries
```

Neighbor	V	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down	State/PfxRcd
10.0.1.100	4	123	9	7	0	0	0	00:04:58	4
10.0.1.254	4	123	8	8	0	0	0	00:04:58	3

```
Total number of neighbors 2
```

```
FW1 # get router info bgp network
```

```
VRF 0 BGP table version is 1, local router ID is 2.2.2.2
```

```
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal, S Stale
```

```
Origin codes: i - IGP, e - EGP, ? - incomplete
```

Network	Next Hop	Metric	LocPrf	Weight	RouteTag	Path
*>i2.2.2.2/32	10.0.1.100	0	100	0	0	i <-/-1>
*>i4.4.4.4/32	10.0.1.100	0	100	0	0	i <-/-1>
*>i6.6.6.6/32	10.0.1.100	0	100	0	0	i <-/-1>
*>i8.8.8.8/32	10.0.1.100	0	100	0	0	i <-/-1>
*>i10.0.1.0/24	10.0.1.254	0	100	0	0	i <-/-1>
*>i192.168.1.0	10.0.1.254	0	100	0	0	i <-/-1>
*>i192.168.2.0	10.0.1.254	0	100	0	0	i <-/-1>

```
Total number of prefixes 7
```

OSPF Verification Commands

```
HQ-FW # get router info bgp neighbors
```

```
HQ-FW # get router info bgp summary
```

```
HQ-FW # get router info bgp network
```

```
HQ-FW # get router info routing-table bgp
```

```
FW1 # get router info routing-table bgp
```