

知 F1060 多区域OSPFV3典型组网配置案例

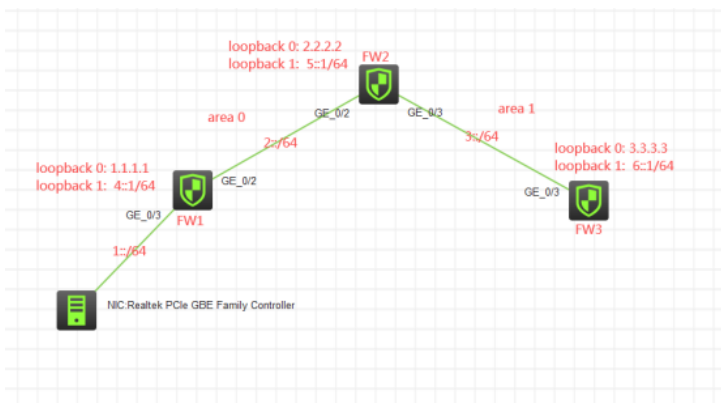
设备部署方式

H3C模拟器

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组网及说明



组网说明：

本案例采用H3C HCL模拟器的F1060防火墙来模拟多区域OSPFV3典型组网配置，OSPFV3的区域划分已在网络拓扑图中有了明确的标识，要求物理机能跟各F1060防火墙的loopback1互通。

配置步骤

- 1、按照网络拓扑图正确配置IP地址
- 2、按照网络拓扑正确配置OSPFV3及区域

配置关键点

FW1：

<H3C>sys

System View: return to User View with Ctrl+Z.

[H3C]sysname FW1

[FW1]acl ipv6 basic 2001

[FW1-acl-ipv6-basic-2001]rule 0 permit source any

[FW1-acl-ipv6-basic-2001]quit

[FW1]acl basic 2002

[FW1-acl-ipv4-basic-2002]rule 0 permit source any

[FW1-acl-ipv4-basic-2002]quit

[FW1]

[FW1]zone-pair security source trust destination untrust

[FW1-zone-pair-security-Trust-Untrust]packet-filter ipv6 2001

[FW1-zone-pair-security-Trust-Untrust]packet-filter 2002

[FW1-zone-pair-security-Trust-Untrust]quit

[FW1]

[FW1]zone-pair security source untrust destination trust

[FW1-zone-pair-security-Untrust-Trust]packet-filter ipv6 2001

[FW1-zone-pair-security-Untrust-Trust]packet-filter 2002

[FW1-zone-pair-security-Untrust-Trust]quit

[FW1]

[FW1]zone-pair security source trust destination local

[FW1-zone-pair-security-Trust-Local]packet-filter ipv6 2001

[FW1-zone-pair-security-Trust-Local]packet-filter 2002

[FW1-zone-pair-security-Trust-Local]quit

[FW1]

[FW1]zone-pair security source local destination trust

[FW1-zone-pair-security-Local-Trust]packet-filter ipv6 2001

[FW1-zone-pair-security-Local-Trust]packet-filter 2002

[FW1-zone-pair-security-Local-Trust]quit

[FW1]

[FW1]zone-pair security source untrust destination local

[FW1-zone-pair-security-Untrust-Local]packet-filter ipv6 2001

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[FW1-zone-pair-security-Untrust-Local]packet-filter 2002
[FW1-zone-pair-security-Untrust-Local]quit
[FW1]
[FW1]zone-pair security source local destination untrust
[FW1-zone-pair-security-Local-Untrust]packet-filter ipv6 2001
[FW1-zone-pair-security-Local-Untrust]packet-filter 2002
[FW1-zone-pair-security-Local-Untrust]quit
[FW1]
[FW1]zone-pair security source trust destination trust
[FW1-zone-pair-security-Trust-Trust]packet-filter ipv6 2001
[FW1-zone-pair-security-Trust-Trust]packet-filter 2002
[FW1-zone-pair-security-Trust-Trust]quit
[FW1]
[FW1]zone-pair security source untrust destination untrust
[FW1-zone-pair-security-Untrust-Untrust]packet-filter ipv6 2001
[FW1-zone-pair-security-Untrust-Untrust]packet-filter 2002
[FW1-zone-pair-security-Untrust-Untrust]quit
[FW1]int LoopBack 0
[FW1-LoopBack0]ip address 1.1.1.1 32
[FW1-LoopBack0]quit
[FW1]ospfv3 1
[FW1-ospfv3-1]router-id 1.1.1.1
[FW1-ospfv3-1]import-route direct
[FW1-ospfv3-1]quit
[FW1]int gi 1/0/3
[FW1-GigabitEthernet1/0/3]ipv6 address 1::1 64
[FW1-GigabitEthernet1/0/3]ospfv3 1 area 0
[FW1-GigabitEthernet1/0/3]quit
[FW1]int gi 1/0/2
[FW1-GigabitEthernet1/0/2]des <connect to FW2>
[FW1-GigabitEthernet1/0/2]ipv6 address 2::1 64
[FW1-GigabitEthernet1/0/2]ospfv3 1 area 0
[FW1-GigabitEthernet1/0/2]quit
[FW1]int loopback 1
[FW1-LoopBack1]ipv6 address 4::1 64
[FW1-LoopBack1]ospfv3 1 area 0
[FW1-LoopBack1]quit
[FW1]security-zone name Trust
[FW1-security-zone-Trust]import interface GigabitEthernet 1/0/3
[FW1-security-zone-Trust]quit
[FW1]security-zone name Untrust
[FW1-security-zone-Untrust]import interface GigabitEthernet 1/0/2
[FW1-security-zone-Untrust]import interface LoopBack 0
[FW1-security-zone-Untrust]import interface LoopBack 1
[FW1-security-zone-Untrust]quit

```

FW2:

```

<H3C>sys
System View: return to User View with Ctrl+Z.
[H3C]sysname FW2
[FW2]acl ipv6 basic 2001
[FW2-acl-ipv6-basic-2001]rule 0 permit source any
[FW2-acl-ipv6-basic-2001]quit
[FW2]acl basic 2002
[FW2-acl-ipv4-basic-2002]rule 0 permit source any
[FW2-acl-ipv4-basic-2002]quit
[FW2]
[FW2]zone-pair security source trust destination untrust
[FW2-zone-pair-security-Trust-Untrust]packet-filter ipv6 2001
[FW2-zone-pair-security-Trust-Untrust]packet-filter 2002
[FW2-zone-pair-security-Trust-Untrust]quit
[FW2]
[FW2]zone-pair security source untrust destination trust

```

```

[FW2-zone-pair-security-Untrust-Trust]packet-filter ipv6 2001
[FW2-zone-pair-security-Untrust-Trust]packet-filter 2002
[FW2-zone-pair-security-Untrust-Trust]quit
[FW2]
[FW2]zone-pair security source trust destination local
[FW2-zone-pair-security-Trust-Local]packet-filter ipv6 2001
[FW2-zone-pair-security-Trust-Local]packet-filter 2002
[FW2-zone-pair-security-Trust-Local]quit
[FW2]
[FW2]zone-pair security source local destination trust
[FW2-zone-pair-security-Local-Trust]packet-filter ipv6 2001
[FW2-zone-pair-security-Local-Trust]packet-filter 2002
[FW2-zone-pair-security-Local-Trust]quit
[FW2]
[FW2]zone-pair security source untrust destination local
[FW2-zone-pair-security-Untrust-Local]packet-filter ipv6 2001
[FW2-zone-pair-security-Untrust-Local]packet-filter 2002
[FW2-zone-pair-security-Untrust-Local]quit
[FW2]
[FW2]zone-pair security source local destination untrust
[FW2-zone-pair-security-Local-Untrust]packet-filter ipv6 2001
[FW2-zone-pair-security-Local-Untrust]packet-filter 2002
[FW2-zone-pair-security-Local-Untrust]quit
[FW2]
[FW2]zone-pair security source trust destination trust
[FW2-zone-pair-security-Trust-Trust]packet-filter ipv6 2001
[FW2-zone-pair-security-Trust-Trust]packet-filter 2002
[FW2-zone-pair-security-Trust-Trust]quit
[FW2]
[FW2]zone-pair security source untrust destination untrust
[FW2-zone-pair-security-Untrust-Untrust]packet-filter ipv6 2001
[FW2-zone-pair-security-Untrust-Untrust]packet-filter 2002
[FW2-zone-pair-security-Untrust-Untrust]quit
[FW2]int loopback 0
[FW2-LoopBack0]ip address 2.2.2.2 32
[FW2-LoopBack0]quit
[FW2]ospfv3 1
[FW2-ospfv3-1]router-id 2.2.2.2
[FW2-ospfv3-1]import-route direct
[FW2-ospfv3-1]quit
[FW2]int gi 1/0/3
[FW2-GigabitEthernet1/0/3]des <connect to FW3>
[FW2-GigabitEthernet1/0/3]ipv6 address 3::2 64
[FW2-GigabitEthernet1/0/3]ospfv3 1 area 1
[FW2-GigabitEthernet1/0/3]quit
[FW2]int loopback 1
[FW2-LoopBack1]ipv6 address 5::1 64
[FW2-LoopBack1]ospfv3 1 area 1
[FW2-LoopBack1]quit
[FW2]int gi 1/0/2
[FW2-GigabitEthernet1/0/2]des <connect to FW1>
[FW2-GigabitEthernet1/0/2]ipv6 address 2::2 64
[FW2-GigabitEthernet1/0/2]ospfv3 1 area 0
[FW2-GigabitEthernet1/0/2]quit
[FW2]security-zone name Untrust
[FW2-security-zone-Untrust]import interface GigabitEthernet 1/0/3
[FW2-security-zone-Untrust]import interface LoopBack 0
[FW2-security-zone-Untrust]import interface LoopBack 1
[FW2-security-zone-Untrust]quit
[FW2]security-zone name Trust
[FW2-security-zone-Trust]import interface GigabitEthernet 1/0/2
[FW2-security-zone-Trust]quit

```

FW3:

```
<H3C>sys
System View: return to User View with Ctrl+Z.
[H3C]sysname FW3
[FW3]acl ipv6 basic 2001
[FW3-acl-ipv6-basic-2001]rule 0 permit source any
[FW3-acl-ipv6-basic-2001]quit
[FW3]acl basic 2002
[FW3-acl-ipv4-basic-2002]rule 0 permit source any
[FW3-acl-ipv4-basic-2002]quit
[FW3]
[FW3]zone-pair security source trust destination untrust
[FW3-zone-pair-security-Trust-Untrust]packet-filter ipv6 2001
[FW3-zone-pair-security-Trust-Untrust]packet-filter 2002
[FW3-zone-pair-security-Trust-Untrust]quit
[FW3]
[FW3]zone-pair security source untrust destination trust
[FW3-zone-pair-security-Untrust-Trust]packet-filter ipv6 2001
[FW3-zone-pair-security-Untrust-Trust]packet-filter 2002
[FW3-zone-pair-security-Untrust-Trust]quit
[FW3]
[FW3]zone-pair security source trust destination local
[FW3-zone-pair-security-Trust-Local]packet-filter ipv6 2001
[FW3-zone-pair-security-Trust-Local]packet-filter 2002
[FW3-zone-pair-security-Trust-Local]quit
[FW3]
[FW3]zone-pair security source local destination trust
[FW3-zone-pair-security-Local-Trust]packet-filter ipv6 2001
[FW3-zone-pair-security-Local-Trust]packet-filter 2002
[FW3-zone-pair-security-Local-Trust]quit
[FW3]
[FW3]zone-pair security source untrust destination local
[FW3-zone-pair-security-Untrust-Local]packet-filter ipv6 2001
[FW3-zone-pair-security-Untrust-Local]packet-filter 2002
[FW3-zone-pair-security-Untrust-Local]quit
[FW3]
[FW3]zone-pair security source local destination untrust
[FW3-zone-pair-security-Local-Untrust]packet-filter ipv6 2001
[FW3-zone-pair-security-Local-Untrust]packet-filter 2002
[FW3-zone-pair-security-Local-Untrust]quit
[FW3]
[FW3]zone-pair security source trust destination trust
[FW3-zone-pair-security-Trust-Trust]packet-filter ipv6 2001
[FW3-zone-pair-security-Trust-Trust]packet-filter 2002
[FW3-zone-pair-security-Trust-Trust]quit
[FW3]
[FW3]zone-pair security source untrust destination untrust
[FW3-zone-pair-security-Untrust-Untrust]packet-filter ipv6 2001
[FW3-zone-pair-security-Untrust-Untrust]packet-filter 2002
[FW3-zone-pair-security-Untrust-Untrust]quit
[FW3]int loopback 0
[FW3-LoopBack0]ip address 3.3.3.3 32
[FW3-LoopBack0]quit
[FW3]ospfv3 1
[FW3-ospfv3-1]import-route direct
[FW3-ospfv3-1]router-id 3.3.3.3
[FW3-ospfv3-1]quit
[FW3]int loopback 1
[FW3-LoopBack1]ipv6 address 6::1 64
[FW3-LoopBack1]ospfv3 1 area 1
[FW3-LoopBack1]quit
[FW3]int gi 1/0/3
[FW3-GigabitEthernet1/0/3]des <connect to FW2>
[FW3-GigabitEthernet1/0/3]ipv6 address 3::1 64
[FW3-GigabitEthernet1/0/3]ospfv3 1 area 1
```

```
[FW3-GigabitEthernet1/0/3]quit
[FW3]security-zone name Untrust
[FW3-security-zone-Untrust]import interface LoopBack 0
[FW3-security-zone-Untrust]import interface LoopBack 1
[FW3-security-zone-Untrust]import interface GigabitEthernet 1/0/3
[FW3-security-zone-Untrust]quit
```

分别查看FW1、FW2、FW3的OSPFV3邻居状态:

```
[FW1]dis ospfv3 peer

      OSPFv3 Process 1 with Router ID 1.1.1.1

Area: 0.0.0.0
-----
Router ID    Pri State          Dead-Time InstID Interface
2.2.2.2      1  Full/DR           00:00:39  0    GE1/0/2
[FW1]
```

```
[FW2]dis ospfv3 peer

      OSPFv3 Process 1 with Router ID 2.2.2.2

Area: 0.0.0.0
-----
Router ID    Pri State          Dead-Time InstID Interface
1.1.1.1      1  Full/BDR          00:00:36  0    GE1/0/2

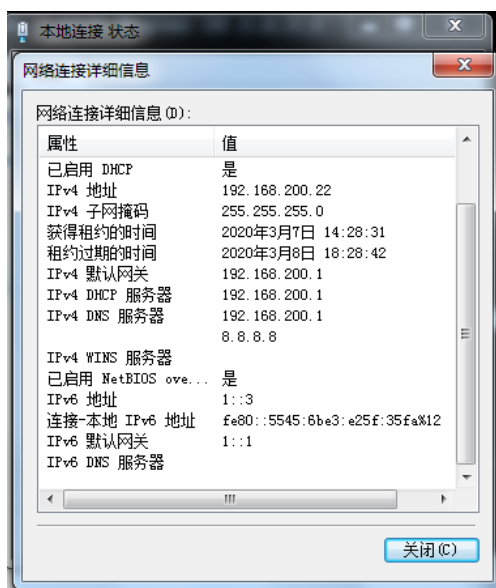
Area: 0.0.0.1
-----
Router ID    Pri State          Dead-Time InstID Interface
3.3.3.3      1  Full/BDR          00:00:30  0    GE1/0/3
[FW2]
```

```
[FW3]dis ospfv3 peer

      OSPFv3 Process 1 with Router ID 3.3.3.3

Area: 0.0.0.1
-----
Router ID    Pri State          Dead-Time InstID Interface
2.2.2.2      1  Full/DR           00:00:32  0    GE1/0/3
[FW3]
```

物理机填写IPv6地址:



物理机能分别PING通FW1、FW2、FW3的loopback1地址:

```
管理员: C:\Windows\system32\cmd.exe

C:\Users\Administrator.USER-20190510MA>ping 4::1

正在 Ping 4::1 具有 32 字节的数据:
来自 4::1 的回复: 时间<1ms
来自 4::1 的回复: 时间<1ms
来自 4::1 的回复: 时间<1ms
来自 4::1 的回复: 时间<1ms

4::1 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
    往返行程的估计时间(以毫秒为单位):
        最短 = 0ms, 最长 = 0ms, 平均 = 0ms

C:\Users\Administrator.USER-20190510MA>ping 5::1

正在 Ping 5::1 具有 32 字节的数据:
来自 5::1 的回复: 时间=1ms
来自 5::1 的回复: 时间<1ms
来自 5::1 的回复: 时间=1ms
来自 5::1 的回复: 时间<1ms

5::1 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
    往返行程的估计时间(以毫秒为单位):
        最短 = 0ms, 最长 = 1ms, 平均 = 0ms

C:\Users\Administrator.USER-20190510MA>ping 6::1

正在 Ping 6::1 具有 32 字节的数据:
来自 6::1 的回复: 时间=2ms
来自 6::1 的回复: 时间=1ms
来自 6::1 的回复: 时间=1ms
来自 6::1 的回复: 时间=1ms

6::1 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
    往返行程的估计时间(以毫秒为单位):
        最短 = 1ms, 最长 = 2ms, 平均 = 1ms

C:\Users\Administrator.USER-20190510MA>
```

FW1能分别PING通FW2、FW3的Loopback1地址及物理机的地址:

```
hcl_ispnzh

F1060_1 F1060_3 F1060_3

[FW1]ping ipv6 1::3
Ping6(56 data bytes) 1::1 --> 1::3, press CTRL_C to break
56 bytes from 1::3, icmp_seq=0 hlrm=128 time=0.000 ms
56 bytes from 1::3, icmp_seq=1 hlrm=128 time=0.000 ms
56 bytes from 1::3, icmp_seq=2 hlrm=128 time=0.000 ms
56 bytes from 1::3, icmp_seq=3 hlrm=128 time=0.000 ms
56 bytes from 1::3, icmp_seq=4 hlrm=128 time=0.000 ms

--- Ping6 statistics for 1::3 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 0.000/0.000/0.000/0.000 ms
[FW1]Mar 8 11:42:00:729 2020 FW1 PING/6/PING_STATISTICS: -Context=1; Ping6 statistics fo
r 1::3: 5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss, round-trip min/av
g/max/std-dev = 0.000/0.000/0.000/0.000 ms.

ping ipv6 5::1
Ping6(56 data bytes) 2::1 --> 5::1, press CTRL_C to break
56 bytes from 5::1, icmp_seq=0 hlrm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=1 hlrm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=2 hlrm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=3 hlrm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=4 hlrm=64 time=1.000 ms

--- Ping6 statistics for 5::1 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 1.000/1.200/2.000/0.400 ms
[FW1]Mar 8 11:42:05:646 2020 FW1 PING/6/PING_STATISTICS: -Context=1; Ping6 statistics fo
r 5::1: 5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss, round-trip min/av
g/max/std-dev = 1.000/1.200/2.000/0.400 ms.

ping ipv6 6::1
Ping6(56 data bytes) 2::1 --> 6::1, press CTRL_C to break
56 bytes from 6::1, icmp_seq=0 hlrm=63 time=2.000 ms
56 bytes from 6::1, icmp_seq=1 hlrm=63 time=1.000 ms
56 bytes from 6::1, icmp_seq=2 hlrm=63 time=1.000 ms
56 bytes from 6::1, icmp_seq=3 hlrm=63 time=1.000 ms
56 bytes from 6::1, icmp_seq=4 hlrm=63 time=1.000 ms

--- Ping6 statistics for 6::1 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 1.000/1.200/2.000/0.400 ms
[FW1]Mar 8 11:42:08:598 2020 FW1 PING/6/PING_STATISTICS: -Context=1; Ping6 statistics fo
r 6::1: 5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss, round-trip min/av
g/max/std-dev = 1.000/1.200/2.000/0.400 ms.
```

FW2能分别PING通FW1、FW3的Loopback1地址及物理机的地址:

```
hcl_ispnzh
F1060_1 F1060_3 F1060_2
Router ID Pri State Dead-Time InstID Interface
3.3.3.3 1 Full/BDR 00:00:30 0 GE1/0/3
[FW2]ping ipv6 1::3
Ping6(56 data bytes) 2::2 --> 1::3, press CTRL_C to break
56 bytes from 1::3, icmp_seq=0 hlwm=127 time=2.000 ms
56 bytes from 1::3, icmp_seq=1 hlwm=127 time=1.000 ms
56 bytes from 1::3, icmp_seq=2 hlwm=127 time=2.000 ms
56 bytes from 1::3, icmp_seq=3 hlwm=127 time=1.000 ms
56 bytes from 1::3, icmp_seq=4 hlwm=127 time=1.000 ms
--- Ping6 statistics for 1::3 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 1.000/1.400/2.000/0.490 ms
[FW2]Mar 8 11:41:31:446 2020 FW2 PING/6/PING_STATISTICS: -Context=1; Ping6 statistics fo
nd-trip min/avg/max/std-dev = 1.000/1.400/2.000/0.490 ms.
ping ipv6 4::1
Ping6(56 data bytes) 2::2 --> 4::1, press CTRL_C to break
56 bytes from 4::1, icmp_seq=0 hlwm=64 time=2.000 ms
56 bytes from 4::1, icmp_seq=1 hlwm=64 time=0.000 ms
56 bytes from 4::1, icmp_seq=2 hlwm=64 time=0.000 ms
56 bytes from 4::1, icmp_seq=3 hlwm=64 time=1.000 ms
56 bytes from 4::1, icmp_seq=4 hlwm=64 time=0.000 ms
--- Ping6 statistics for 4::1 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 0.000/0.600/2.000/0.800 ms
[FW2]Mar 8 11:41:35:982 2020 FW2 PING/6/PING_STATISTICS: -Context=1; Ping6 statistics fo
nd-trip min/avg/max/std-dev = 0.000/0.600/2.000/0.800 ms.
ping ipv6 6::1
Ping6(56 data bytes) 3::2 --> 6::1, press CTRL_C to break
56 bytes from 6::1, icmp_seq=0 hlwm=64 time=2.000 ms
56 bytes from 6::1, icmp_seq=1 hlwm=64 time=1.000 ms
56 bytes from 6::1, icmp_seq=2 hlwm=64 time=0.000 ms
56 bytes from 6::1, icmp_seq=3 hlwm=64 time=0.000 ms
56 bytes from 6::1, icmp_seq=4 hlwm=64 time=1.000 ms
--- Ping6 statistics for 6::1 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 0.000/0.800/2.000/0.748 ms
[FW2]Mar 8 11:41:38:933 2020 FW2 PING/6/PING_STATISTICS: -Context=1; Ping6 statistics fo
nd-trip min/avg/max/std-dev = 0.000/0.800/2.000/0.748 ms.
```

FW3能分别PING通FW1、FW2的Loopback1地址及物理机的地址：

```
hcl_ispnzh
F1060_1 F1060_3 F1060_2
Router ID Pri State Dead-Time InstID Interface
2.2.2.2 1 Full/DR 00:00:32 0 GE1/0/3
[FW3]ping ipv6 1::3
Ping6(56 data bytes) 3::1 --> 1::3, press CTRL_C to break
56 bytes from 1::3, icmp_seq=0 hlwm=126 time=3.000 ms
56 bytes from 1::3, icmp_seq=1 hlwm=126 time=2.000 ms
56 bytes from 1::3, icmp_seq=2 hlwm=126 time=1.000 ms
56 bytes from 1::3, icmp_seq=3 hlwm=126 time=1.000 ms
56 bytes from 1::3, icmp_seq=4 hlwm=126 time=2.000 ms
--- Ping6 statistics for 1::3 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 1.000/1.800/3.000/0.748 ms
[FW3]Mar 8 11:43:00:677 2020 FW3 PING/6/PING_STATISTICS: -Context=1; Ping6 st
nd-trip min/avg/max/std-dev = 1.000/1.800/3.000/0.748 ms.
ping ipv6 4::1
Ping6(56 data bytes) 3::1 --> 4::1, press CTRL_C to break
56 bytes from 4::1, icmp_seq=0 hlwm=63 time=1.000 ms
56 bytes from 4::1, icmp_seq=1 hlwm=63 time=1.000 ms
56 bytes from 4::1, icmp_seq=2 hlwm=63 time=2.000 ms
56 bytes from 4::1, icmp_seq=3 hlwm=63 time=1.000 ms
56 bytes from 4::1, icmp_seq=4 hlwm=63 time=1.000 ms
--- Ping6 statistics for 4::1 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 1.000/1.200/2.000/0.400 ms
[FW3]Mar 8 11:43:04:338 2020 FW3 PING/6/PING_STATISTICS: -Context=1; Ping6 st
nd-trip min/avg/max/std-dev = 1.000/1.200/2.000/0.400 ms.
ping ipv6 5::1
Ping6(56 data bytes) 3::1 --> 5::1, press CTRL_C to break
56 bytes from 5::1, icmp_seq=0 hlwm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=1 hlwm=64 time=0.000 ms
56 bytes from 5::1, icmp_seq=2 hlwm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=3 hlwm=64 time=1.000 ms
56 bytes from 5::1, icmp_seq=4 hlwm=64 time=1.000 ms
--- Ping6 statistics for 5::1 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 0.000/0.800/1.000/0.400 ms
[FW3]Mar 8 11:43:07:141 2020 FW3 PING/6/PING_STATISTICS: -Context=1; Ping6 st
nd-trip min/avg/max/std-dev = 0.000/0.800/1.000/0.400 ms.
```

分别查看FW1、FW2、FW3的IPV6路由表：

[FW1]dis ipv6 routing-table

Destinations : 14 Routes : 14

Destination: ::1/128 Protocol : Direct
NextHop : ::1 Preference: 0
Interface : InLoop0 Cost : 0

Destination: 1::/64 Protocol : Direct
NextHop : :: Preference: 0

Interface : GE1/0/3	Cost : 0
Destination: 1::1/128 Protocol : Direct	
NextHop : ::1	Preference: 0
Interface : InLoop0	Cost : 0
Destination: 2::/64 Protocol : Direct	
NextHop : ::	Preference: 0
Interface : GE1/0/2	Cost : 0
Destination: 2::1/128 Protocol : Direct	
NextHop : ::1	Preference: 0
Interface : InLoop0	Cost : 0
Destination: 3::/64 Protocol : O_INTER	
NextHop : FE80::2CC7:D8FF:FE90:307	Preference: 10
Interface : GE1/0/2	Cost : 2
Destination: 4::/64 Protocol : Direct	
NextHop : ::	Preference: 0
Interface : Loop1	Cost : 0
Destination: 4::1/128 Protocol : Direct	
NextHop : ::1	Preference: 0
Interface : InLoop0	Cost : 0
Destination: 5::/64 Protocol : O_ASE2	
NextHop : FE80::2CC7:D8FF:FE90:307	Preference: 150
Interface : GE1/0/2	Cost : 1
Destination: 5::1/128 Protocol : O_INTER	
NextHop : FE80::2CC7:D8FF:FE90:307	Preference: 10
Interface : GE1/0/2	Cost : 1
Destination: 6::/64 Protocol : O_ASE2	
NextHop : FE80::2CC7:D8FF:FE90:307	Preference: 150
Interface : GE1/0/2	Cost : 1
Destination: 6::1/128 Protocol : O_INTER	
NextHop : FE80::2CC7:D8FF:FE90:307	Preference: 10
Interface : GE1/0/2	Cost : 2
Destination: FE80::/10 Protocol : Direct	
NextHop : ::	Preference: 0
Interface : InLoop0	Cost : 0
Destination: FF00::/8 Protocol : Direct	
NextHop : ::	Preference: 0
Interface : NULL0	Cost : 0

[FW1]

[FW2]dis ipv6 routing-table

Destinations : 14 Routes : 14

Destination: ::1/128 Protocol : Direct	
NextHop : ::1	Preference: 0
Interface : InLoop0	Cost : 0
Destination: 1::/64 Protocol : O_INTRA	
NextHop : FE80::2CC7:C9FF:FEBC:107	Preference: 10
Interface : GE1/0/2	Cost : 2
Destination: 2::/64 Protocol : Direct	


```

NextHop  : ::
Interface : GE1/0/2
Preference: 0
Cost : 0

Destination: 2::2/128
Protocol : Direct
NextHop  : ::1
Preference: 0
Interface : InLoop0
Cost : 0

Destination: 3::/64
Protocol : Direct
NextHop  : ::
Preference: 0
Interface : GE1/0/3
Cost : 0

Destination: 3::2/128
Protocol : Direct
NextHop  : ::1
Preference: 0
Interface : InLoop0
Cost : 0

Destination: 4::/64
Protocol : O_ASE2
NextHop  : FE80::2CC7:C9FF:FEBC:107
Preference: 150
Interface : GE1/0/2
Cost : 1

Destination: 4::1/128
Protocol : O_INTRA
NextHop  : FE80::2CC7:C9FF:FEBC:107
Preference: 10
Interface : GE1/0/2
Cost : 1

Destination: 5::/64
Protocol : Direct
NextHop  : ::
Preference: 0
Interface : Loop1
Cost : 0

Destination: 5::1/128
Protocol : Direct
NextHop  : ::1
Preference: 0
Interface : InLoop0
Cost : 0

Destination: 6::/64
Protocol : O_ASE2
NextHop  : FE80::2CA3:B5FF:FEFF:208
Preference: 150
Interface : GE1/0/3
Cost : 1

Destination: 6::1/128
Protocol : O_INTRA
NextHop  : FE80::2CA3:B5FF:FEFF:208
Preference: 10
Interface : GE1/0/3
Cost : 1

Destination: FE80::/10
Protocol : Direct
NextHop  : ::
Preference: 0
Interface : InLoop0
Cost : 0

Destination: FF00::/8
Protocol : Direct
NextHop  : ::
Preference: 0
Interface : NULL0
Cost : 0

```

[FW2]

[FW3]dis ipv6 routing-table

Destinations : 13 Routes : 13

```

Destination: ::1/128
Protocol : Direct
NextHop  : ::1
Preference: 0
Interface : InLoop0
Cost : 0

Destination: 1::/64
Protocol : O_INTER
NextHop  : FE80::2CC7:D8FF:FE90:308
Preference: 10
Interface : GE1/0/3
Cost : 3

Destination: 2::/64
Protocol : O_INTER
NextHop  : FE80::2CC7:D8FF:FE90:308
Preference: 10
Interface : GE1/0/3
Cost : 2

```

Destination: 3::/64	Protocol : Direct
NextHop : ::	Preference: 0
Interface : GE1/0/3	Cost : 0
Destination: 3::1/128	Protocol : Direct
NextHop : ::1	Preference: 0
Interface : InLoop0	Cost : 0
Destination: 4::/64	Protocol : O_ASE2
NextHop : FE80::2CC7:D8FF:FE90:308	Preference: 150
Interface : GE1/0/3	Cost : 1
Destination: 4::1/128	Protocol : O_INTER
NextHop : FE80::2CC7:D8FF:FE90:308	Preference: 10
Interface : GE1/0/3	Cost : 2
Destination: 5::/64	Protocol : O_ASE2
NextHop : FE80::2CC7:D8FF:FE90:308	Preference: 150
Interface : GE1/0/3	Cost : 1
Destination: 5::1/128	Protocol : O_INTRA
NextHop : FE80::2CC7:D8FF:FE90:308	Preference: 10
Interface : GE1/0/3	Cost : 1
Destination: 6::/64	Protocol : Direct
NextHop : ::	Preference: 0
Interface : Loop1	Cost : 0
Destination: 6::1/128	Protocol : Direct
NextHop : ::1	Preference: 0
Interface : InLoop0	Cost : 0
Destination: FE80::/10	Protocol : Direct
NextHop : ::	Preference: 0
Interface : InLoop0	Cost : 0
Destination: FF00::/8	Protocol : Direct
NextHop : ::	Preference: 0
Interface : NULL0	Cost : 0

[FW3]

至此，F1060多区域OSPFV3典型组网配置案例已完成！