

OSPF OSPFv3

- area
- area-type
- authentication key
- authentication key chain
- clear ip ospf
- clear ipv6 ospf
- compatible rfc1583
- dead-interval
- hello-interval
- ip ospf
- ip ospf area
- ip ospf authentication algorithm
- ip ospf authentication key
- ip ospf authentication key-chain
- ip ospf cost
- ip ospf dead-interval
- ip ospf hello-interval
- ip ospf instance
- ip ospf mtu-ignore
- ip ospf neighbor
- ip ospf network
- ip ospf poll-interval
- ip ospf priority
- ip ospf retransmit-interval
- ip ospf wait-interval
- ipv6 ospf
- ipv6 ospf area
- ipv6 ospf cost
- ipv6 ospf dead-interval
- ipv6 ospf hello-interval
- ipv6 ospf instance
- ipv6 ospf mtu-ignore
- ipv6 ospf neighbor
- ipv6 ospf network
- ipv6 ospf poll-interval
- ipv6 ospf priority
- ipv6 ospf retransmit-interval
- ipv6 ospf wait-interval
- ipv6 router ospf
- ipv6 router ospf log-adjacency-changes
- preference
- retransmit-interval
- router ospf
- router ospf log-adjacency-changes
- router-id
- show ip ospf
- show ip ospf database
- show ip ospf interface
- show ip ospf neighbors
- show ip ospf virtual-links
- show ipv6 ospf
- show ipv6 ospf database
- show ipv6 ospf interface
- show ipv6 ospf neighbors
- show ipv6 ospf virtual-links
- summary-address
- virtual-link
- wait-interval

area

.
(no) .

[no] area <AREA_ID>

<AREA_ID> – , AAA.BBB.CCC.DDD, [0..255].

10

CONFIG-OSPF

CONFIG-OSPFV3

1

```
esr(config-ospf)# area 11.11.11.51
```

2

```
esr(config-ipv6-ospf)# area 11.11.11.51
```

area-type

.

(no) .

[no] area-type <TYPE> [no-summary]

<TYPE> – :

- normal – standart ();
- stub – stub ().

no-summary – «stub» «totally stubby» ().

- nssa – nssa (NSSA).

no-summary – nssa totally nssa ().

normal

10

CONFIG-OSPF-AREA

CONFIG-OSPFV3-AREA

1

```
esr(config-ospf-area)# area-type stub
```

2

```
esr(config-ipv6-ospf-area)# area-type nssa
```

authentication key

md5 .

(no) .

```
authentication key ascii-text { <CLEAR-TEXT> | encrypted <ENCRYPTED-TEXT> }
no authentication key
```

<CLEAR-TEXT>- , 1 8;

<ENCRYPTED-TEXT>- 8 (2 16) (0xYYYY...) (YYYY...).

15

CONFIG-OSPF-VLINK

```
esr(config-ospf-vlink)# authentication key ascii-text 12345678
```

authentication key chain

md5 .

(no) .

```
authentication key chain <KEYCHAIN>
no authentication key chain
```

<KEYCHAIN>- , 16.

15

CONFIG-OSPF-VLINK

```
esr(config-ospf-vlink)# authentication key chain key2
```

clear ip ospf

OSPF-.

```
clear ip ospf [ <ID> ] [ vrf <VRF> ]
```

<ID>- , [1..65535].

<VRF>- VRF, OSPF-, 31 .

10

ROOT

```
esr# clear ip ospf
esr# clear ip ospf 1000
```

clear ipv6 ospf

OSPFv3.

```
clear ipv6 ospf [ <ID> ] [ vrf <VRF> ]
```

<ID> – , [1..65535];

<VRF> – VRF, OSPFv3, 31.

10

ROOT

```
esr# clear ipv6 ospf
esr# clear ipv6 ospf 1000
```

compatible rfc1583

RFC 1583.

(no) RFC 1583.

```
[no] compatible rfc1583
```

.

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CONFIG-OSPF

CONFIG-OSPFV3

```
esr(config-ospf)# compatible rfc1583
```

dead-interval

, «hello-interval». , «dead-interval» 4 hello-, 40 .
(no) .

```
dead-interval <TIME>
no dead-interval
```

<TIME> – , [1..65535].

40

10

CONFIG-OSPF-VLINK

CONFIG-OSPFV3-VLINK

```
esr(config-ospf-vlink)# dead-interval 60
```

hello-interval

, hello-.
(no) .

```
hello-interval <TIME>
no hello-interval
```

<TIME> – , [1..65535].

10

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CONFIG-OSPF-VLINK

CONFIG-OSPFV3-VLINK

```
esr(config-ospf-vlink)# hello-interval 8
```

ip ospf

OSPF .

(no) OSPF .

```
[no] ip ospf
```

.

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf
```

ip ospf area

OSPF-.

(no) OSPF-.

```
ip ospf area <AREA_ID>
```

```
no ip ospf area
```

<AREA_ID> – , AAA.BBB.CCC.DDD, [0..255].

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-SERIAL
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-E1
CONFIG-MULTILINK
CONFIG-IP4IP4
CONFIG-GRE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-ip4ip4)# ip ospf area 1.1.1.1
```

ip ospf authentication algorithm

.
(no) .

```
ip ospf authentication algorithm <ALGORITHM>  
no ip ospf authentication algorithm
```

<ALGORITHM> – :

- cleartext – , ;
- md5 – md5.

15

CONFIG-GI
CONFIG-TE
CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-SERIAL
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-E1
CONFIG-MULTILINK
CONFIG-IP4IP4
CONFIG-GRE
CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf authentication algorithm cleartext
```

ip ospf authentication key

.
(no) .

```
ip ospf authentication key ascii-text { <CLEAR-TEXT> | encrypted <ENCRYPTED-TEXT> }  
no ip ospf authentication key
```

<CLEAR-TEXT>- , 1 8;

<ENCRYPTED-TEXT>- 8 (2 16) (0xYYYY...) (YYYY...).

15

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf authentication key ascii-text 123456789  
esr(config-if-gi)# ip ospf authentication key ascii-text encrypted CDE65039E5591FA3F1
```

ip ospf authentication key-chain

md5 .
(no) .

```
ip ospf authentication key-chain <KEYCHAIN>
```



```
no ip ospf authentication key-chain
```

<KEYCHAIN> – , 16.

15

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf authentication key-chain lock
```

ip ospf cost

.

(no) .

```
ip ospf cost <VALUE>
```

```
no ip ospf cost
```

<VALUE> – , [0..32767].

10

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CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF
CONFIG-SERIAL
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-E1
CONFIG-MULTILINK
CONFIG-IP4IP4
CONFIG-GRE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ip ospf cost 11
```

ip ospf dead-interval

, . hello-interval. , dead-interval 4 hello-, 40 .
(no) .

```
ip ospf dead-interval <TIME>  
no ip ospf dead-interval
```

<TIME> – , [1..65535].

40

10

CONFIG-GI
CONFIG-TE
CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-SERIAL
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-E1
CONFIG-MULTILINK
CONFIG-IP4IP4
CONFIG-GRE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ip ospf dead-interval 60
```

ip ospf hello-interval

, hello-.

(no) .

```
ip ospf hello-interval <TIME>
```

```
no ip ospf hello-interval
```

<TIME> - , [1..255].

10

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf hello-interval 8
```

ip ospf instance

OSPF-.

(no) OSPF-.

```
ip ospf instance <ID>
```

```
no ip ospf instance
```

<ID> – , [1..65535].

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-ip4ip4)# ip ospf instance 300
```

ip ospf mtu-ignore

, OSPF- MTU Database Description-.

(no) MTU .

```
[no] ip ospf mtu-ignore
```

.

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf mtu-ignore
```

ip ospf neighbor

IP- NBMA P2MP (Point-to-MultiPoint). (no) .

```
[no] ip ospf neighbor <IP> [ eligible ]
```

<IP> – IP- , AAA.BBB.CCC.DDD, [0..255].

eligible – , DR NBMA-. , [ip ospf priority](#).

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf neighbor 10.0.0.2
```

ip ospf network

.

(no) .

```
ip ospf network <TYPE>
no ip ospf network
```

<TYPE> – :

- broadcast – ;
- non-broadcast – NBMA;
- point-to-multipoint – -;
- point-to-multipoint non-broadcast – NBMA -;
- point-to-point – -.

broadcast

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf network point-to-point
```

ip ospf poll-interval

, NBMA-, HELLO-, , .

(no) .

```
ip ospf poll-interval <TIME>
```

```
no ip ospf poll-interval
```

<TIME> – , [1 .. 255].

120

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-E1

CONFIG-MULTILINK

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf poll-interval 60
```

ip ospf priority

, DR BDR.

DR .

DR router id.

(no) .

```
ip ospf priority <VALUE>
```

```
no ip ospf priority
```

<VALUE> – , [0..255].

128

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF
CONFIG-SERIAL
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-E1
CONFIG-MULTILINK
CONFIG-IP4IP4
CONFIG-GRE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ip ospf priority 200
```

ip ospf retransmit-interval

, , (, Database Description Link State Request).
(no) .

```
ip ospf retransmit-interval <TIME>  
no ip ospf retransmit-interval
```

<TIME> – , [2..65535].

5

10

CONFIG-GI
CONFIG-TE
CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-SERIAL
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-E1
CONFIG-MULTILINK
CONFIG-IP4IP4
CONFIG-GRE
CONFIG-LOOPBACK
CONFIG-LT


```
esr(config-if-gi)#ip ospf retransmit-interval 4
```

ip ospf wait-interval

, DR .

(no) .

```
ip ospf wait-interval <TIME>
```

```
no ip ospf wait-interval
```

<TIME> – , [1..65535].

40

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-SERIAL

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-IP4IP4

CONFIG-GRE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ip ospf wait-interval 60
```

ipv6 ospf

OSPFv3 .

(no) OSPFv3 .

```
[no] ipv6 ospf
```

.

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf
```

ipv6 ospf area

OSPFv3-.

(no) OSPFv3-.

```
ipv6 ospf area <AREA_ID>
```

```
no ipv6 ospf area
```

<AREA_ID> – , AAA.BBB.CCC.DDD, [0..255].

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-ip4ip4)# ipv6 ospf area 1.1.1.1
```

ipv6 ospf cost

(no) .

```
ipv6 ospf cost <VALUE>
no ipv6 ospf cost
```

<VALUE> – , [1..65535].

150

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf cost 11
```

ipv6 ospf dead-interval

, . hello-interval. , dead-interval 4- hello-, 40 .

(no) .

```
ipv6 ospf dead-interval <TIME>
no ipv6 ospf dead-interval
```

<TIME> – , [1..65535].

40

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf dead-interval 60
```

ipv6 ospf hello-interval

, hello-.

(no) .

```
ipv6 ospf hello-interval <TIME>  
no ipv6 ospf hello-interval
```

<TIME> – , [1..255].

10

10

CONFIG-GI
CONFIG-TE
CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf hello-interval 8
```

ipv6 ospf instance

OSPFv3-.

(no) OSPFv3-.

```
ipv6 ospf instance <ID>  
no ipv6 ospf instance
```

<ID> – , [1..65535].

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-ip4ip4)# ipv6 ospf instance 300
```

ipv6 ospf mtu-ignore

, OSPFv3- MTU Database Description .

(no) MTU .

```
[no] ipv6 ospf mtu-ignore
```

.

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf mtu-ignore
```

ipv6 ospf neighbor

IPv6- NBMA P2MP (Point-to-MultiPoint) . (no) .

```
[no] ipv6 ospf neighbor <IPv6-ADDR> [ eligible ]
```

<IPv6-ADDR> – IPv6-, X:X:X:X::X, [0..FFFF];

eligible – , DR NBMA-. , [ip ospf priority](#).

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf neighbor fc00::2
```

ipv6 ospf network

.

(no) .

```
ipv6 ospf network <TYPE>
```

```
no ipv6 ospf network
```

<TYPE> – :

- broadcast – ;
- non-broadcast – NBMA;
- point-to-multipoint – -;
- point-to-multipoint non-broadcast – NBMA -;
- point-to-point – -.

broadcast

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf network point-to-point
```

ipv6 ospf poll-interval

, NBMA-, hello-, , .
(no) .

```
ipv6 ospf poll-interval <TIME>  
no ipv6 ospf poll-interval
```

<TIME> – , [1..255].

120

10

CONFIG-GI
CONFIG-TE
CONFIG-SUBIF
CONFIG-QINQ-IF
CONFIG-PORT-CHANNEL
CONFIG-BRIDGE
CONFIG-LOOPBACK
CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf poll-interval 60
```

ipv6 ospf priority

, DR BDR.
(no) .

```
ipv6 ospf priority <VALUE>
```

no ipv6 ospf priority

<VALUE> – , [0..255].

120

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf priority 300
```

ipv6 ospf retransmit-interval

, , (, Database Description Link State Request).

(no) .

ipv6 ospf retransmit-interval <TIME>

no ipv6 ospf retransmit-interval

<TIME> – , [2..65535].

5

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)#ipv6 ospf retransmit-interval 4
```

ipv6 ospf wait-interval

, DR .

(no) .

```
ipv6 ospf wait-interval <TIME>
```

```
no ipv6 ospf wait-interval
```

<TIME> – , [1..65535].

40

10

CONFIG-GI

CONFIG-TE

CONFIG-SUBIF

CONFIG-QINQ-IF

CONFIG-PORT-CHANNEL

CONFIG-BRIDGE

CONFIG-LOOPBACK

CONFIG-LT

```
esr(config-if-gi)# ipv6 ospf wait-interval 60
```

ipv6 router ospf

OSPFv3- OSPFv3-.

(no) OSPFv3- .

```
[no] ipv6 router ospf <ID> [vrf <VRF>]
```

<ID> – , [1..65535].

<VRF> – VRF, OSPFv3-, 31 .

10

CONFIG

```
esr(config)# ipv6 router ospf 300
esr(config-ipv6-ospf)#
```

ipv6 router ospf log-adjacency-changes

OSPFv3.

(no) .

```
[no] ipv6 router ospf log-adjacency-changes
```

.

10

CONFIG

```
esr(config)# ipv6 router ospf log-adjacency-changes
```

preference

OSPF/OSPFv3.

(no) .

```
preference <VALUE>
```

```
no preference
```

<VALUE> – OSPF, [1..255].

10

10

CONFIG-OSPF

CONFIG-OSPFV3

```
esr(config-ospf)# preference 30
```

```
esr(config-ipv6-ospf)# preference 30
```

(no) .

```
esr(config-ospf-vlink)# restransmit-interval 4
```

OSPF- OSPF-
(no) OSPF- .

CONFIG

```
esr(config)# router ospf 300
esr(config-ospf)#
```

router ospf log-adjacency-changes

OSPFv2.

(no) .

```
[no] router ospf log-adjacency-changes
```

.

.

10

CONFIG

```
esr(config)# router bgp log-adjacency-changes
```

router-id

.

(no) .

```
router-id <ID>
```

```
no router-id
```

<ID> – , AAA.BBB.CCC.DDD, [0..255].

10

CONFIG-OSPF

CONFIG-OSPFV3

```
esr(config-ospf)# router-id 1.1.1.1
```

show ip ospf

OSPF, . . .

```
show ip ospf [ <ID> ] [ vrf <VRF> ]
```

```
<ID>- , [1..65535];  
<VRF>- VRF, OSPF, 31.
```

1

ROOT

```
esr# show ip ospf  
0 2.2.2.0/24 [150/10] dev gil/0/1 [ospf2 19:40:31] (2.2.2.2)
```

show ip ospf database
OSPF.

```
show ip ospf <ID> [ vrf <VRF> ] database
```

```
<ID>- OSPF-, [1..65535];  
<VRF>- VRF OSPF-, , 31.
```

1

ROOT

```
esr# show ip ospf 111 dababase  
Global  
Type LS ID Router Age Sequence Checksum  
0005 10.166.11.12 10.1.0.1 1020 80000013 01b7  
0005 0.0.0.0 10.166.11.1 245 80000010 aa48  
0005 10.62.19.128 10.166.11.1 725 8000000e 6d2b  
0005 10.62.20.0 10.166.11.1 731 8000000d 69af  
0005 10.62.20.128 10.166.11.1 244 80000010 5e37  
0005 10.62.21.128 10.166.11.1 244 80000010 5341  
0005 10.166.11.0 10.166.11.1 245 80000010 cc6d  
0005 10.166.11.12 10.166.11.1 245 80000010 54d9  
Area 0.0.11.1  
Type LS ID Router Age Sequence Checksum  
0001 10.1.0.1 10.1.0.1 1015 80000067 989e  
0001 10.166.11.1 10.166.11.1 1021 80000018 8d96  
0002 10.166.11.14 10.166.11.1 1021 80000001 68a5
```

show ip ospf interface

OSPF-.

```
show ip ospf interface [ vrf <VRF> ] [ <IF> | <TUN> ]
```

<IF>- , , .

<TUN>- , , .

<VRF>- VRF OSPF-, OSPF-, 31.

1

ROOT

```
esr# show ip ospf interface gil/0/1
Interface:                gigabitethernet 1/0/1
Internet Address:         25.25.0.1/24
Router ID:                6.0.0.1
Network Type:             broadcast
Area:                    0.0.0.0 (0)
Interface has:            no authentication
Transmit:                 1
State:                   dr
Priority:                 128
Cost:                    10
ECMP weight:              1
Hello timer:              10
Wait timer:               40
Dead timer:               40
Retransmit timer:         5
Designed router (ID):      6.0.0.1
Designed router (IP):      25.25.0.1
Backup designed router (ID): 6.0.0.3
Backup designed router (IP): 25.25.0.3
Neighbor Count:           0
Adjacent neighbor count:   0
```

show ip ospf neighbors

OSPF-.

```
show ip ospf [ <ID> [ vrf <VRF> ] ] neighbors
```

```
show ip ospf neighbors[ <ID> [ vrf <VRF> ] ]
```

<ID>- OSPF-, [1.65535];

<VRF>- VRF OSPF, , 31.

1

ROOT

```

esr# show ip ospf neighbors
Router ID      Pri      State      DTime      Interface  Router IP
160.0.0.2      0       full/ptp   00:53      vlink0     160.0.0.2
95.0.0.1       1       full/dr    00:31      gil_15     115.0.0.10
10.100.100.2   128     full/ptp   00:37      gre_25     25.25.0.2
153.0.0.1      1       full/bdr   00:30      pol        1.1.0.2
10.100.100.2   128     2way/other 00:34      gil_14.25  14.25.0.2
24.24.24.24    15      full/bdr   00:32      tel_1      24.0.0.2

```

show ip ospf virtual-links

```
show ip ospf <ID> [ vrf <VRF> ] virtual-links
```

<ID>- OSPF-, [1..65535];

<VRF>- VRF OSPF , , 31.

1

ROOT

```

esr# show ip ospf 10 virtual-links
Virtual Link to router 160.0.0.2 is ptp
Peer IP: 160.0.0.2
Transit area: 1.1.1.1
Interface has no authentication
Timer intervals configured Hello 10, Dead 60, Retransmit 5, Wait 60
Adjacency State full

```

show ipv6 ospf

OSPFv3, . . .

```
show ipv6 ospf [ <ID> ] [ vrf <VRF> ]
```

<ID>- , [1..65535].

<VRF>- VRF, OSPFv3, 31.

1

ROOT

:

```
esr# show ipv6 ospf
0          fc00::/120          [150/10] dev gil/0/5          [ospf2 19:39:18] (2.2.2.2)
```

show ipv6 ospf database

OSPFv3.

```
show ipv6 ospf <ID> [vrf <VRF>] database
```

<ID> – , [1..65535];

<VRF> – VRF OSPFv3, , 31.

1

ROOT

```
esr# show ipv6 ospf 111 dababase
Global
Type   LS ID           Router           Age  Sequence  Checksum
0005   10.166.11.12     10.1.0.1         1020 80000013   01b7
0005   0.0.0.0           10.166.11.1      245 80000010   aa48
0005   10.62.19.128       10.166.11.1      725 8000000e   6d2b
0005   10.62.20.0         10.166.11.1      731 8000000d   69af
0005   10.62.20.128       10.166.11.1      244 80000010   5e37
0005   10.62.21.128       10.166.11.1      244 80000010   5341
0005   10.166.11.0        10.166.11.1      245 80000010   cc6d
0005   10.166.11.12       10.166.11.1      245 80000010   54d9
Area 0.0.11.1
Type   LS ID           Router           Age  Sequence  Checksum
0001   10.1.0.1         10.1.0.1         1015 80000067   989e
0001   10.166.11.1      10.166.11.1      1021 80000018   8d96
0002   10.166.11.14     10.166.11.1      1021 80000001   68a5
```

show ipv6 ospf interface

, OSPFv3.

```
show ipv6 ospf interface [ vrf <VRF> ] [ <IF> ]
```

<ID> – , [1..65535];

<VRF> – VRF, OSPFv3 OSPFv3-, 31;

<IF> – , , ;

1

ROOT


```

esr# show ipv6 ospf interface gigabitethernet 1/0/14
esr# Interface:                gigabitethernet 1/0/14
Internet Address:              IID 0
Router ID:                     88.88.88.88
Network Type:                  broadcast
Area:                          0.0.0.0 (0)
Transmit:                      1
State:                         backup
Priority:                       128
Cost:                          10
ECMP weight:                   1
Hello timer:                   10
Wait timer:                    40
Dead timer:                    40
Retransmit timer:              5
Designed router (ID):          77.0.0.1
Designed router (IP):          fe80::c602:46ff:feed:0
Backup designed router (ID):   88.88.88.88
Backup designed router (IP):   fe80::1:2ff:fe03:463
Neighbor Count:                1
Adjacent neighbor count:       1
Adjacent with neighbor:        77.0.0.1 (dr)

```

show ipv6 ospf neighbors

OSPFv3.

```
show ipv6 ospf [<ID> [vrf <VRF>]] neighbors
```

<ID>- , [1..65535], .

<VRF>- VRF OSPFv3, , 31.

1

ROOT

```

esr# show ipv6 ospf neighbor
Router ID      Pri      State      DTime   Interface  Router IP
77.0.0.1       1        full/dr    00:32   gil_14     fe80::c602:46ff:feed:0
33.33.33.33    128      full/bdr   00:35   gil_18     fe80::20:3ff:fea0:498

```

show ipv6 ospf virtual-links

.

```
show ipv6 ospf <ID> [vrf <VRF>] virtual-links
```

<ID>- , [1..65535];

<VRF>- VRF OSPFv3, , 31.

ROOT

```
esr# show ipv6 ospf 10 virtual-links
Virtual Link to router 160.0.0.2 is ptp
Peer IP: fe80::20:3ff:fea0:498
Transit area: 1.1.1.1
Interface has no authentication
Timer intervals configured: Hello 10, Dead 60, Retransmit 5, Wait 60
Adjacency State full
```

summary-address

.

(no) .

```
summary-address { <ADDR/LEN> | <IPV6-ADDR/LEN> } { advertise | not-advertise }
no summary-address <ADDR/LEN>
```

<ADDR/LEN> – IP-, AAA.BBB.CCC.DDD/EE, AAA – DDD [0..255] EE [1..32];

<IPV6-ADDR/LEN> – IPv6- , X:X:X:X::X/EE, X [0..FFFF] EE [1..128];

advertise – ;

not-advertise – , , .

10

CONFIG-OSPF-AREA

CONFIG-OSPFV3-AREA

```
esr(config-ospf-area)# summary-address 192.168.16.0/24
```

virtual-link

, .

(no) .

[no] virtual-link <ID>

<ID> – , , AAA.BBB.CCC.DDD, [0..255].

10

CONFIG-OSPF-AREA

CONFIG-OSPFV3-AREA

```
esr(config-ospf-area)# virtual-link 160.0.0.2
```

wait-interval

, DR .

(no) .

wait-interval <TIME>

no wait-interval

<TIME> – , [1..65535].

40

10

CONFIG-OSPF-VLINK

CONFIG-OSPFV3-VLINK

```
esr(config-ospf-vlink)# ospf wait-interval 60
```