



Configuring OSPF

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Cisco OSPF Implementation

The Cisco implementation conforms to the OSPF Version 2 specifications detailed in the Internet RFC 2328. The following list outlines key features supported in the Cisco OSPF implementation:

- Stub areas
- Route redistribution
- Authentication
- Routing interface parameters
- Virtual links
- Not-so-stubby area (NSSA)
- OSPF over demand circuit

For more information on each key OSPF features, see https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xs-3s/iro-xe-3s-book/iro-cfg.html#GUID-A999A739-6B1D-4E5E-9396-F7531469D805.

Route Distribution for OSPF

You can specify route redistribution. For more information on how to configure route redistribution, see https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xs-3s/iro-xe-3s-book/iro-cfg.html#GUID-369415D9-E481-41AE-9387-ECEDFE461361.

Router Coordination for OSPF

OSPF typically requires coordination among many internal routers: Area Border Routers (ABRs), which are routers connected to multiple areas, and Autonomous System Boundary Routers (ASBRs). For more information, see https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xr-3s/iro-xe-3s-book/iro-cfg.html#GUID-CFFB7E62-5D56-4036-8DF7-F5BFC75ADF53.

Limitation for OSPF

- OSPFv3 is not supported.

How to Configure OSPF

Enabling OSPF

Before configuring, you need to enable OSPF.

To enable OSPF at the global configuration mode, enter the following commands:

```
enable
configure terminal
router ospf process-id
router-id <loopback ip-address>
network ip-address wildcard-mask area area-id
end
```

Configuring OSPF on BDI

Before configuring, you need to enable OSPF.

To enable OSPF on the BDI interface, enter the following commands:

```
enable
configure terminal
interface BDI <bdi-no>
ip address <ip-address > <subnet-mask>
ip ospf <process-id> area <area-id>
end
```

For more information, see [How to Configure OSPF](#).

Configuring Loopback on OSPF Interface

To configure loopback on OSPF interface, enter the following commands:

```
interface loopback<loopback-no>
ip address <ip-address > <subnet-mask>
```

```
ip ospf <process-id> area <area-id>
```

Configuration Examples for OSPF

Refer the following [examples](#) on various configurations for OSPF.

