

CISCO SD-WAN Configure vEdgeDevice AnNTP Parent User Guide

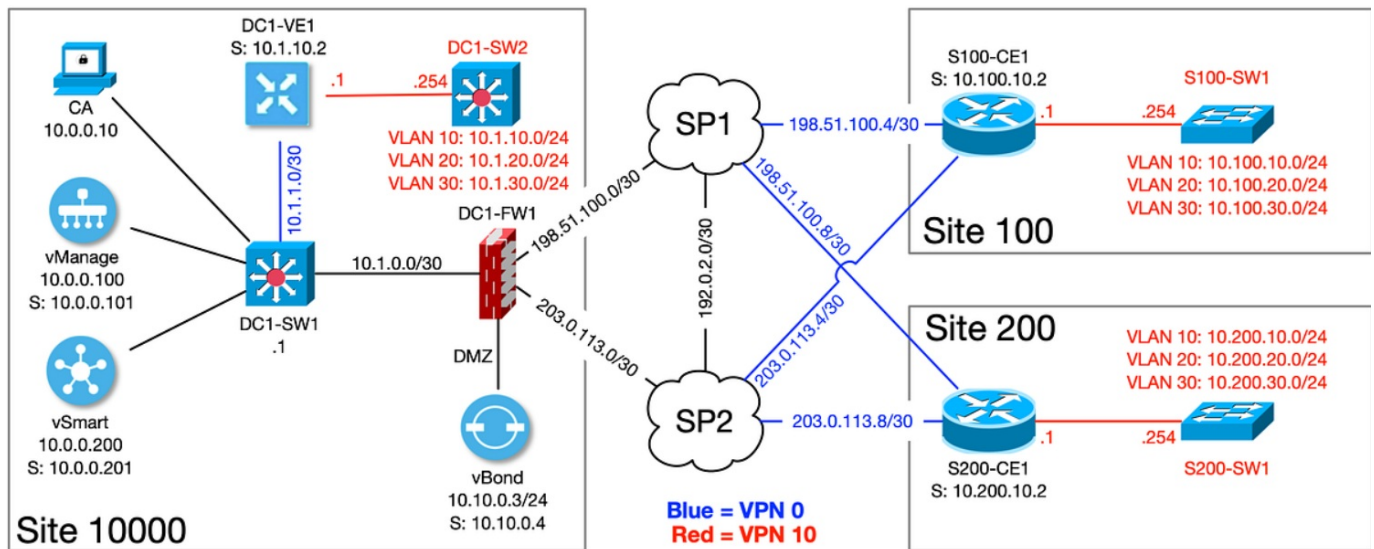
[Home](#) » [Cisco](#) » CISCO SD-WAN Configure vEdgeDevice AnNTP Parent User Guide 

Contents

- 1 CISCO SD-WAN Configure vEdgeDevice AnNTP Parent
- 2 Product Information
- 3 Product Usage Instructions
- 4 Configure a Cisco vEdge Device as an NTP Parent
- 5 Configure an NTP Parent
- 6 Restrictions and Limitations
- 7 Configure Support for NTP in Symmetric Active Mode
- 8 Restrictions and Limitations
- 9 Documents / Resources
 - 9.1 References
- 10 Related Posts



CISCO SD-WAN Configure vEdgeDevice AnNTP Parent



Product Information

The Cisco vEdge Device is a networking device that is part of the Cisco SD-WAN solution. It allows for the configuration of NTP (Network Time Protocol) functionality, acting as an NTP parent device. This device can synchronize its time with other nodes in the deployment and support NTP in symmetric active mode. The NTP server functionality is supported for IPv4.

Specifications

- **Product Name:** Cisco vEdge Device
- **Release:** Cisco SD-WAN Release 20.4.1
- **Supported Modes:** NTP Parent, Symmetric Active Mode
- **Supported Protocols:** IPv4

Product Usage Instructions

Configure an NTP Parent

To configure a Cisco vEdge device as an NTP parent, follow these steps

1. Access the device CLI template.
2. Enter the following commands

```
config terminal
system
ntp
parent
enable
source-interface loopback511
stratum 6
vpn 511
exit
```

Configure Support for NTP in Symmetric Active Mode

To configure support for NTP in symmetric active mode on a Cisco vEdge device, follow these steps

1. Access the device CLI template.
2. Enter the following commands

```
config terminal
system
ntp
parent
enable
source-interface loopback511
stratum 6
vpn 511
exit
```

Restrictions and Limitations

There are certain restrictions and limitations to be aware of when configuring the Cisco vEdge Device as an NTP parent

- The NTP server functionality is supported for IPv4 only.

Verify Configuration

To verify the NTP parent configuration, use the following show command

- Device# show running-config system ntp

Frequently Asked Questions (FAQ)

- **Q: Can a Cisco vEdge Device act as multiple NTP parents?**

A: Yes, you can configure multiple Cisco vEdge devices as NTP parents.

- **Q: Can the NTP server functionality be used with IPv6?**

A: No, the NTP server functionality is supported for IPv4 only.

- **Q: What is the purpose of configuring NTP in symmetric active mode?**

A: Configuring NTP in symmetric active mode allows a device to synchronize its time with another device defined with this mode if it cannot reach its original NTP parent.

Configure a Cisco vEdge Device as an NTP Parent

Table 1: Feature History

Feature Name	Release Information	Feature Description
<ul style="list-style-type: none"> Configure a Cisco vEdge Device as an NTP Parent and Optionally to Support NTP in Symmetric Active Mode. 	Cisco SD-WAN Release 20.4.1 Cisco vManage Release 20.4.1	This feature enables configuring a Cisco vEdge device as an NTP parent and configuring the device to support NTP in symmetric active mode.

You can configure a Cisco vEdge device as an NTP parent. You also can configure an NTP parent device to support NTP in symmetric active mode.

- Configure an NTP Parent, on page 1
- Configure Support for NTP in Symmetric Active Mode, on page 2

Configure an NTP Parent

- Starting with Cisco SD-WAN Release 20.4.1, you can configure a supported Cisco vEdge device as an NTP parent device by using the device CLI template. A device that is configured in this way acts as the NTP server to which other nodes in the deployment synchronize their clocks. You can configure multiple devices as NTP parents. The NTP server functionality is supported for IPv4, but not for IPv6.
- You also can configure a device that is configured as an NTP parent device to support NTP in symmetric active mode. See “Configure Support for NTP in Symmetric Active Mode.”

Use the following commands to configure device as an NTP parent device using a Cisco vEdge device device

- CLI template. For more information about configuring device CLI template, see “Create a Device CLI
- Template” in Systems and Interfaces Configuration Guide.
 - Device# config terminal
 - Device(config)# system
 - Device(config-system) ntp
 - Device(config-ntp) parent
 - Device(config-parent) enable
 - Device(config-parent) source-interface loopback511
 - Device(config-parent) stratum 6
 - Device(config-parent) vpn 511
 - Device(config-parent) exit

Restrictions and Limitations

- You can configure a device as an NTP parent only through a Cisco vManage CLI template. Cisco vManage feature templates do not support this configuration.
- The source interface must be in the same VPN that the vpn keyword defines.

Verify Configuration

Use the following show command to verify NTP parent configuration. The sample output shows that the server

also is configured to support NTP in symmetric active mode.

- Device# show running-config system ntp
 - system
 - ntp
- keys
 - authentication 101 md5 \$8\$vV6PtHeLdiEcLqDNLqV/mCWN5X92yT8PUPOwDCQgS4c= authentication 108 md5 \$8\$NTzFC6sRZiFUYeHw/pOY2dEoiO6dpxhecDs7YnRKeuY= trusted 101 108
 - !
 - parent
 - enable
 - stratum 6
 - source-interface loopback511 vpn 511
 - exit
 - server 10.20.25.1
 - source-interface ge0/1 vpn 511
 - version 4
 - exit
 - peer 172.16.10.100
 - key 101
 - vpn 511
 - version 4
 - source-interface ge0/1
 - exit

Configure Support for NTP in Symmetric Active Mode

- Starting with Cisco SD-WAN Release 20.4.1, you can configure a Cisco vEdge device that is configured as an NTP parent to support NTP in symmetric active mode by using the device CLI template. When a device is configured in this way, it synchronizes its time with another device that is defined with this mode if it cannot reach its original NTP parent. Use the following commands to configure a device to support NTP in symmetric active mode by using a Cisco vManage device CLI template. For more information about configuring device CLI template, see “Create a
- Device CLI Template” in Systems and Interfaces Configuration Guide.
 - Device# config terminal
 - Device# system
 - Device(config-system) ntp
 - Device(config-ntp)# peer 172.16.10.1
 - Device(config-peer)# key 101
 - Device(config-peer)# vpn 511
 - Device(config-peer)# version 4
 - Device(config-parent)# source-interface ge0/1
 - Device(config-parent)# exit

Restrictions and Limitations

- You can configure a device support NTP in symmetric active mode only through a Cisco vManage CLI template. Cisco vManage feature templates do not support this configuration.
- You can configure up to two devices to support NTP in symmetric active mode.
- A device that is configured as an NTP peer should also be configured as an NTP parent.
- The source interface must be in the same VPN that the vpn keyword defines.
- Each peer must use the same source interface.

Use the following show command to verify NTP parent functional configuration. In the show ntp peer command output, the server with the .LOCL. REFID is the NTP parent.


Device# show ntp peer

INDEX REMOTE REFID ST TYPE WHEN POLL REACH DELAY OFFSET JITTER

1. 10.20.25. 1 .GNSS. 1 u 186 1024 377 226.712 0.793 2.381
2. 172.16.10.1 (loop) 3 s 760 1024 376 0.126 -1.307 1.397
3. 172.16.10.10 .LOCL. 6 l 52h 64 0 0.000 0.000 0.000

Configure a Cisco vEdge Device as an NTP Parent

Documents / Resources

	CISCO SD-WAN Configure vEdgeDevice AnNTP Parent [pdf] User Guide SD-WAN, SD-WAN Configure vEdgeDevice AnNTP Parent, Configure vEdgeDevice AnNTP Parent, vEdgeDevice AnNTP Parent, AnNTP Parent, Parent
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References

- [User Manual](#)