



NTP Configuration Guide

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Registered Address	Support	Sales
26, Kingston Terrace, Princeton, New Jersey 08540, United States		
		+91 80 4850 5445
http://www.rtbrick.com	support@rtbrick.com	sales@rtbrick.com

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1. Time Synchronization with NTP

The Network Time Protocol (NTP) enables you to synchronize time among network devices such as routers or switches in a network. It works by using an NTP server that maintains a highly accurate time, and allows clients to query for that time.

1.1. Prerequisites

- An NTP server must be installed and configured in your network.
- You must know the address of the NTP server.

1.2. Enabling NTP Service

To enable the NTP service, you need to perform the following tasks.

- Enable the NTP service
- Specify the NTP server

1.2.1. Enabling the NTP service

To enable the NTP service under a specific VRF where NTP server is reachable (usually the inband management VRF), enter the following command:

```
set inband-management instance <inband-mgmt-vrf> ntp true
```

Command Parameters

<inband-mgmt-vrf>	Specify the name of the VRF from which NTP is reachable
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Example

```
root@rtbrick:~$ root@rtbrick: cfm> set inband-management instance mgmt-vrf ntp true
root@rtbrick: cfm> commit
```

```
admin@rtbrick:~$ rtb confd show datastore table dump
global.instance.inband.mgmt.config
object: 1, sequence: 2, last update: Tue Sep 22 14:54:49 GMT +0000 2020
  attribute: instance_name (1), type: string (9), length: 9, value: mgmt-vrf
admin@rtbrick:~$
```

1.2.2. Specifying the NTP Server

To specify the NTP server, perform the following tasks:

1.2.2.1. Specify the IPv4 Server Address

To specify the IPv4 server address, enter the following command:

```
set system ntp server <server-id> ipv4-address <ipv4-address>
```

Command Parameters

<server-id>	Specifies the name of the NTP server.
<ipv4-address>	Specifies the IPv4 address of the NTP server.

Example

```
root@rtbrick:~# cfg> set system ntp server Server1 ipv4-address 1.1.1.1
root@rtbrick:~# cfg> commit
```

```
admin@rtbrick:~$ rtb confd show datastore table dump global.ntp.config
object: 1, sequence: 1, last update: Tue Sep 22 14:47:07 GMT +0000 2020
  attribute: ntp_server_id (1), type: string (9), length: 8, value: Server1
  attribute: ntp_server_ipv4 (2), type: ipv4addr (12), length: 4, value:
1.1.1.1
admin@rtbrick:~$
```

1.2.2.2. Specify the Domain Name of the NTP Server

To specify the domain name of the NTP server, enter the following command:

```
set system ntp server <server-id> domain-name <domain-name>
```

Command Parameters

<server-id>	Specifies the name of the NTP server.
<domain-name>	Specifies the domain name of the NTP server.

Example

```
root@rtbrick: cfg> set system ntp server Server2 domain-name
0.ubuntu.pool.ntp.org
root@rtbrick: cfg> set system ntp server Server1 ipv4-address 1.1.1.1
root@rtbrick: cfg> commit
root@rtbrick: cfg> exit

admin@rtbrick:~/development/libigmp$ rtb confd show datastore table dump
global.ntp.config
object: 1, sequence: 2600001, last update: Mon Oct 19 07:17:38 GMT +0000 2020
  attribute: ntp_server_id (1), type: string (9), length: 8, value: Server1
  attribute: ntp_server_ipv4 (2), type: ipv4addr (12), length: 4, value:
1.1.1.1
object: 2, sequence: 2600002, last update: Mon Oct 19 07:17:38 GMT +0000 2020
  attribute: ntp_server_id (1), type: string (9), length: 8, value: Server2
  attribute: ntp_server_dns (3), type: string (9), length: 22, value:
0.ubuntu.pool.ntp.org
admin@rtbrick:~/development/libigmp$
```