



Cisco Spaces

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Cisco Spaces

Cisco Spaces is the next generation indoor location services platform. The Network Mobility Services Protocol (NMSP) cloud-service of the wireless controller communicates with Cisco Spaces using HTTPS as a transport protocol.

Configuring Cisco Spaces

Follow the procedure given below to configure Cisco Spaces:

Before you begin

- **Configure DNS**—To resolve fully qualified domain names used by NMSP cloud-services, configure a DNS using the **ip name-server *server_address*** configuration command as shown in Step 2.
- **Import 3rd party root CAs**—The controller verifies the peer and the host based on the certificate that is sent by the CMX when a connection is established. However, root CAs are not preinstalled on the controller. You have to import a set of root CAs trusted by Cisco to the trustpool of the crypto PKI by using the **crypto pki trustpool import url <url>** configuration command as shown in Step 3.
- A successful registration to Cisco Spaces is required to enable **server url** and **server token** parameters configuration which is needed to complete this setup.

Procedure

| | Command or Action | Purpose |
|--------|---|-----------------------------------|
| Step 1 | configure terminal Example: Device# <code>configure terminal</code> | Enters global configuration mode. |

| | Command or Action | Purpose |
|---------------|--|--|
| Step 2 | ip name-server <i>namesvr-ip-addr</i> Example: Device(config)#ip name-server 10.10.10.205 | Configures the DNS on the controller to resolve the FQDN names used by the NMSP cloud-services. |
| Step 3 | crypto pki trustpool import url <i>url</i> Example: Device(config)#crypto pki trustpool import url http://www.cisco.com/security/pki/trs/ios.p7b | Imports the 3rd party root CA. The controller verifies the peer using the imported certificate. |
| Step 4 | [no] nmsp cloud-services server url <i>url</i> Example: Device(config)# nmsp cloud-services server url https://cisco.com | Configures the URL used for cloud services. Use the no form of the command to delete the server url from the configuration. |
| Step 5 | [no] nmsp cloud-services server token <i>token</i> Example: Device(config)# nmsp cloud-services server token test | Configures the authentication token for the NMSP cloud service. Use the no form of the command to delete the server token from the configuration. |
| Step 6 | [no] nmsp cloud-services http-proxy <i>proxy-server port</i> Example: Device(config)# nmsp cloud-services http-proxy 10.0.0.1 10 | (Optional) Configures HTTP proxy details for the NMSP cloud service. Use the no form of the command to disable the use of a HTTP proxy. |
| Step 7 | [no] nmsp cloud-services enable Example: Device(config)# nmsp cloud-services enable | Enables NMSP cloud services. Use the no form of the command to disable the feature. |

Verifying Cisco Spaces Configuration

Use the following commands to verify the Cisco Spaces configuration.

To view the status of active NMSP connections, use the following command:

```
Device# show nmsp status
```

```

MSE IP Address   Tx Echo Resp  Rx Echo Req   Tx Data   Rx Data   Transport
-----
9.9.71.78       0             0             1           1           TLS
64.103.36.133  0             0             1230        2391        HTTPs

```

To view the NMSP cloud service status, use the following command:

```
Device# show nmsp cloud-services summary
```

```
CMX Cloud-Services Status
```

```
-----  
Server:                https://yenth8.cmxcisco.com  
IP Address:            64.103.36.133  
Cmx Service:          Enabled  
Connectivity:         https: UP  
Service Status:       Active  
Last Request Status:  HTTP/1.1 200 OK  
Heartbeat Status:     OK
```

To view the NMSP cloud service statistics, use the following command:

```
Device# show nmsp cloud-services statistics
```

```
CMX Cloud-Services Statistics  
-----
```

```
Tx DataFrames:          3213  
Rx DataFrames:          1606  
Tx HeartBeat Req:      31785  
Heartbeat Timeout:     0  
Rx Subscr Req:         2868  
Tx DataBytes:          10069  
Rx DataBytes:          37752  
Tx HeartBeat Fail:     2  
Tx Data Fail:          0  
Tx Conn Fail:          0
```

To view the mobility services summary, use the following command:

```
Device# show nmsp subscription summary
```

```
Mobility Services Subscribed:
```

```
Index Server IP Services  
-----
```

```
1 209.165.200.225 RSSI, Info, Statistics, AP Monitor, AP Info  
2 209.165.200.225 RSSI, Statistics, AP Info
```

