



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.

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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.
Step 2	ip name-server <i>namesvr-ip-addr</i> Example: Device(config)# <code>ip name-server 10.10.10.205</code>	Configures the DNS on the controller to resolve the FQDN names used by the NMSP cloud-services.

	Command or Action	Purpose
Step 3	crypto pki trustpool import url <i>url</i> Example: <pre>Device(config)#crypto pki trustpool import url http://www.cisco.com/security/pki/trs/ios.p7b</pre>	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: <pre>Device(config)# nmsp cloud-services server url https://cisco.com</pre>	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: <pre>Device(config)# nmsp cloud-services server token test</pre>	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: <pre>Device(config)# nmsp cloud-services http-proxy 10.0.0.1 10</pre>	(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: <pre>Device(config)# nmsp cloud-services enable</pre>	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
```

