

# DNA空间与CMX在Prem上的配置示例

## 目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[配置](#)

[网络图](#)

[配置](#)

[验证](#)

[故障排除](#)

## 简介

本文档介绍如何使用思科互联移动体验(CMX)现场配置思科DNA空间。

## 先决条件

### 要求

Cisco 建议您了解以下主题：

- 命令行界面(CLI)或图形用户界面(GUI)访问AireOS无线控制器
- 思科DNA空间
- 思科CMX

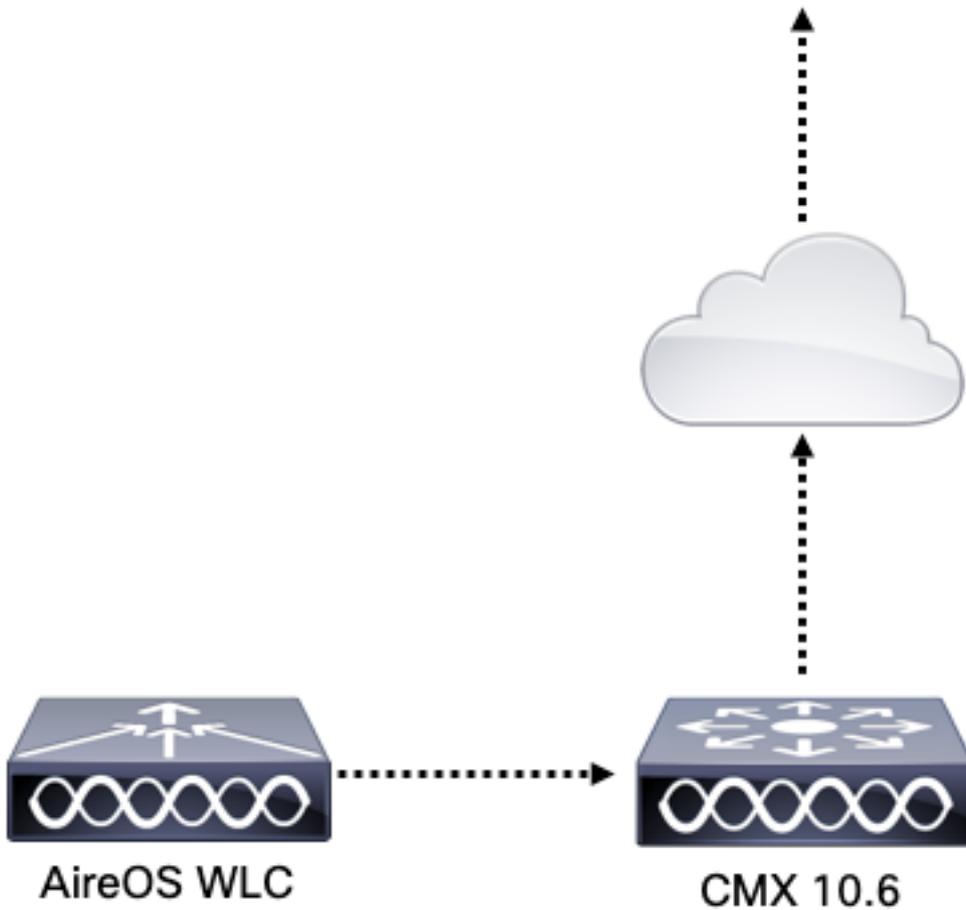
### 使用的组件

本文档中的信息基于以下软件和硬件版本：

- 5520无线LAN控制器(WLC)版本8.8.120.0
- 思科CMX 10.6.1-47

## 配置

### 网络图



## 配置

要将CMX连接到思科DNA空间，CMX必须能够通过HTTPS访问思科DNA空间云。

### 出站代理设置

如果CMX在代理后面，则需要此配置。

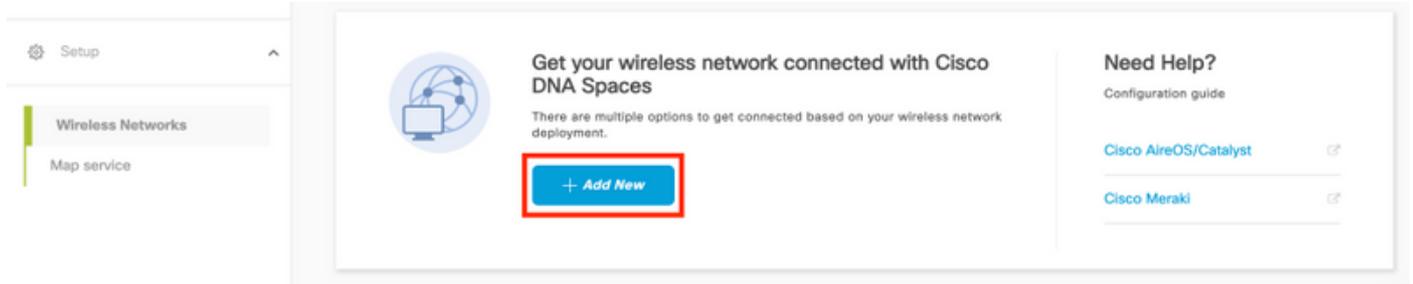
步骤1.连接到CMX CLI并运行以下命令：

```
[cmxadmin@CMX-addressi ~]$ cmxos sysproxy http_proxy http://<proxy-server-address>:80/  
[cmxadmin@CMX-addressi ~]$ cmxos sysproxy https_proxy https://<proxy-server-address>:443/  
[cmxadmin@CMX-addressi ~]$ cmxos sysproxy no_proxy 127.0.0.1,localhost  
[cmxadmin@CMX-addressi ~]$ cmxctl stop -a  
[cmxadmin@CMX-addressi ~]$ cmxctl agent start  
[cmxadmin@CMX-addressi ~]$ cmxctl start
```

### 在思科DNA上生成令牌 空格

步骤1.在DNA空间上生成令牌。

登录到Cisco DNA空间，然后导航至Setup > Wireless Setup > Add New



步骤2.选择Cisco AireOS/Catayst:

## What type of wireless network do you have?

Cisco DNA Spaces works with most Cisco wireless networks including Cisco Meraki.

### Cisco AireOS/Catalyst

Choose this for Cisco Aironet Access Points with Cisco Wireless LAN Controllers (WLC) or Cisco Connected Mobile Experiences(CMX On-Prem).

Select

### Cisco Meraki

Choose this for Cisco Meraki networks with Meraki MR Access Points

Select

Need help? Use this planning guide to decide the best suited option based on your network.

步骤3.选择通过CMX On-Prem，然后选择CMX的版本。

## How do you want to connect to Cisco DNA Spaces?

### Via Spaces Connector

Requires you to install Spaces Connector on a virtual machine in order to connect your WLC to Cisco DNA Spaces cloud.

Note: Not compatible with Catalyst 9800 controller

Select

### Connect WLC directly

Requires WLC with software version 8.8 MR2 and above or Cisco Catalyst Wireless Controller with software version 16.12.2 and above. Wireless controller needs direct internet connectivity.

Select

### Via CMX On-Prem

Configure your CMX On-Prem dashboard to send location updates to Cisco DNA Spaces, either by configuring the Notification URL in the Cisco CMX dashboard or by manually uploading a JSON file that contains your location hierarchy.

Select

Need help? Use this planning guide to decide the best suited option based on your network.

步骤4.单击“自定义设置”

Great!

Based on your inputs, we have customized setup to help you connect your wireless network to Cisco DNA Spaces using CMX On-Prem Tethering

#### Prerequisites for CMX On-Prem Tethering

- 1 You must have WLC version 8.0 and above.
- 2 You must have CMX 10.6 and above.

Customize Setup

#### 步骤5.单击“创建新令牌”。

### Connect via CMX Tethering

Tethering is an easy way to get your wireless network connected to Cisco DNA Spaces

- 1 **Upgrade your CMX to Version 10.6 or above**  
You must have CMX 10.6 and above to establish a connection
- 2 **Configure Token in CMX**  
You will need a token to configure in CMX dashboard. You need to connect to `https://<your cmx ip>` from a browser to configure the token.  

No CMX Tokens Configured yet[Create New Token](#)  
[View Tokens](#)
- 3 **Add CMX into Location Hierarchy**  
Once CMX connected to Cisco DNA Spaces, you can add them into the location hierarchy.  

0 Campus(s) imported to location hierarchy[Add CMX](#)  
[View Location Hierarchy](#)

#### Need Help?

Access the below links to view detailed help.

- [View Configuration Steps](#)
- [Frequently Asked Questions](#)

#### 步骤6.输入令牌的名称和说明，然后单击“保存”。

步骤7.在新的“自定义设置”页面的“在CMX中配置令牌”部分下，单击查看令牌。将鼠标悬停在最近创建的令牌上，然后单击密钥图标：

#### CMX Tethering Tokens

Cisco CMX [+ Add New CMX](#)

| Name         | Description              | Last Heard | First Heard             | Actions  |
|--------------|--------------------------|------------|-------------------------|--|
| CMX-Andressi | Token for Andressi's CMX |            | Jul 2, 2019, 3:51:05 PM | <a href="#">🔑</a> <a href="#">✎</a> <a href="#">🗑️</a> |

First | Previous **1** | Next | Last (1 - 1 of 1) : 1 pages

步骤8.输入您的Cisco DNA空间凭证，查看和复制显示在以下屏幕中的令牌。

#### 在CMX上配置令牌

步骤1.登录Cisco CMX，导航至Manage > Cloud Apps。单击“启用”，粘贴令牌并单击“保存”。

**Cloud Applications**

**Description**

CMX provides the calculated location of devices that can be used for different types of CMX Applications. These CMX Applications are provided as cloud services. These cloud services are generally configured using a set of northbound notifications from CMX to the CMX Application hosted in the cloud.

An outbound proxy may be required before connecting to the CMX applications - [Instructions](#)

| Name                       | Description   | Links | Actions              |
|----------------------------|---|-------|----------------------|
| Cisco DNA Spaces           | Cisco DNA Spaces is Cisco's new location platform. Tethering to Cisco DNA Spaces will send updates related to the deployment including information such as the maps and AP placement as well as the ongoing location updates. The destination of these updates will be to Cisco DNA Spaces cloud. | Login | Enable<br>Map Status |
| Cisco Operational Insights | Cisco Operational Insights is a cloud based solution to manage assets within a location. Using various input signals, this solution allows you to operationalize and benefit from better understanding of assets within an environment.   | Login | Enable               |
| Cisco Beacon Management    | Cisco Beacon Management is a comprehensive resource for detecting and monitoring Bluetooth Low Energy (BLE) Beacons, as well as managing CCX BLE Devices within your network.   | Login | Enable               |

## 将CMX添加到位置层次结构思科DNA空间

步骤1. 导航至DNA空间上的Setup > Wireless Networks，然后单击Add CMX:

**Connect via CMX Tethering**

Tethering is an easy way to get your wireless network connected to Cisco DNA Spaces

- Upgrade your CMX to Version 10.6 or above**  
You must have CMX 10.6 and above to establish a connection.
- Configure Token in CMX**  
You will need a token to configure in CMX dashboard. You need to connect to <https://your-cmx-ip> from a browser to configure the token.  
1 token(s) added | [Create New Token](#) | [View Tokens](#)
- Add CMX into Location Hierarchy**  
Once CMX connected to Cisco DNA Spaces, you can add them into the location hierarchy.  
0 Campus(s) imported to location hierarchy | [Add CMX](#) | [View Location Hierarchy](#)

**Need Help?**  
Access the below links to view detailed help.  
[View Configuration Steps](#) | [Frequently Asked Questions](#)

步骤2. 选择要导入CMX的位置，然后单击“下一步”。如果这是您首次导入CMX，您可能会看到默认位置，即您的Cisco DNA空间帐户名称。

### Add CMX to Location Hierarchy

Where do you want to import CMX?  
Choose a location that you want to import.

Search Locations

AndresSilva

**注意：** 思科DNA空间不允许添加两个具有相同接入点的CMX节点。

步骤3.配置显示名称，并选择要从CMX添加到位置层次结构的园区、建筑和楼层。然后，单击“Import(导入)”。

## Add CMX to Location Hierarchy



DISPLAY NAME

Display name

Choose the Sites you want to import

| Campus  | Building   | Floor   |
|---|--|---|
| <input checked="" type="checkbox"/> All<br><input checked="" type="checkbox"/> Cisco Mexico | <input checked="" type="checkbox"/> All<br><input checked="" type="checkbox"/> MXC10 | <input checked="" type="checkbox"/> All<br><input checked="" type="checkbox"/> 14th floor |

Cisco DNA空间根据所选站点组织位置层次结构，包括与每个站点关联的AP。

步骤4.根据位置配置每个园区/建筑/楼层的时区。导航至Cisco DNA空间上的位置层次结构。将鼠标悬停在所需的园区、建筑或楼层上，然后单击位置信息。输入值，然后单击“更新”。

**注意：**定义的时区会影响Cisco DNA空间规则和报告。

## 验证

要确认出站代理已在CMX上配置，请运行以下命令：

```
[cmxadmin@CMX-andressi ~]$ cmxos sysproxy show
```

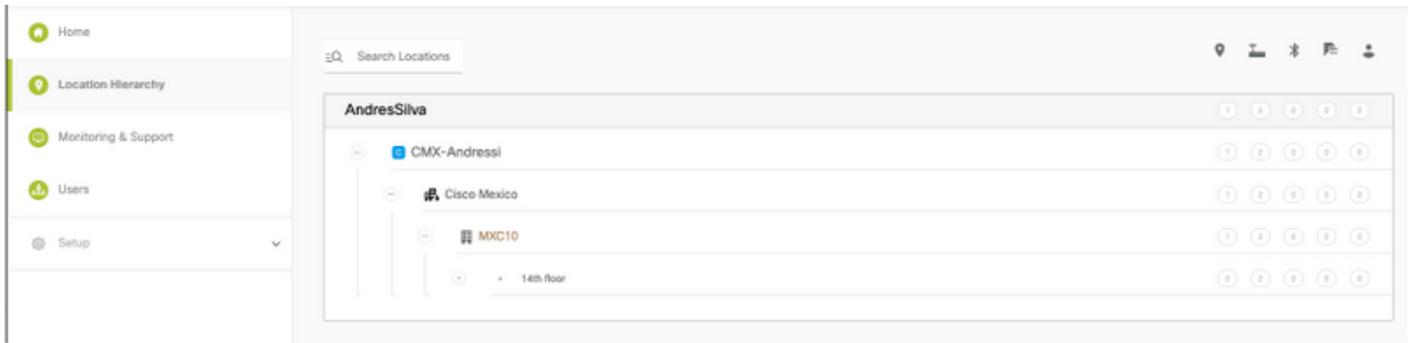
要确认CMX与思科DNA空间通信，请导航至CMX上的管理>云应用，并查看北向通知的统计信息：

| Name                       | Description   | Links | Actions  |
|----------------------------|---|-------|--|
| Cisco DNA Spaces           | Cisco DNA Spaces is Cisco's new location platform. Tethering to Cisco DNA Spaces will send updates related to the deployment including information such as the maps and AP placement as well as the ongoing location updates. The destination of these updates will be to Cisco DNA Spaces cloud. | Login | <input type="button" value="Disable"/> <input type="button" value="Update"/> <input type="button" value="Map Status"/> |
| Cisco Operational Insights | Cisco Operational Insights is a cloud based solution to manage assets within a location. Using various input signals, this solution allows you to operationalize and benefit from better understanding of assets within an environment.   | Login | <input type="button" value="Enable"/>  |
| Cisco Beacon Management    | Cisco Beacon Management is a comprehensive resource for detecting and monitoring Bluetooth Low Energy (BLE) Beacons, as well as managing CCX BLE Devices within your network.   | Login | <input type="button" value="Enable"/>  |

| Notifications |   |            |                    |                      |                 |                 |                |                                      |
|---------------|---|------------|--------------------|----------------------|-----------------|-----------------|----------------|--------------------------------------|
| Name          | Notification Receiver   | Total Sent | Acknowledged Count | Unacknowledged Count | Success Percent | Failure Percent | Latency(in ms) | Actions                              |
| DNASpaces-all | https://cmx.dnaspaces.io:443/api/v1/cmxc/notifications/locationUpdate | 9          | 9                  | 0                    | 100.00%         | 0.00%           | 548            | <input type="button" value="Reset"/> |

要确认位置层次结构已配置为与CMX上一样，请导航至DNA空间上的位置层次结构，然后点击CMX名称：



## 故障排除

目前没有针对此配置故障排除信息。

## 关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

请注意：即使是最好的机器翻译，其准确度也不及专业翻译人员的水平。

Cisco Systems, Inc. 对于翻译的准确性不承担任何责任，并建议您总是参考英文原始文档（已提供链接）。