2020 Wireless Access Point Replacement Project

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Overview

As part of the ongoing modernization of MIT's network infrastructure, Information Systems and Technology (IS&T) is replacing the Cisco wireless access points across the campus with next-generation cloud-based technology from Mist.

The Mist cloud platform will provide IS&T with rich optimization capabilities, and troubleshooting data driven by machine learning and artificial intelligence. The Mist platform offers a variety of capabilities far beyond anything we could ever accomplish with our traditional premises-based infrastructure, and will help further automate and support MIT's transition to a more intelligent campus. The Mist wireless access points also support 802.11ax (WiFi 6), which can offer higher throughput speeds of more than 1 Gb/s and better spectral efficiency, which improves overall network capacity.

Each building's upgrade schedule and status updates will be posted on 3down.mit.edu. Access points will be replaced on a rolling basis within each building. Sporadic brief disruptions are expected as devices are replaced.

- More information about Mist wireless access points
- More information about the Mist platform

Schedule

See: 3down.mit.edu

Troubleshooting and Known Issues

No connectivity
Some devices can get confused when switching between using legacy Cisco access points and the new Mist access points. This may be because they use separate 10-dot address ranges. You may be able to correct this issue by forcing a refresh of your IP address as follows.

- **Windows 8, 10**
    1. Press the **Windows key** and **X** key at the same time.
    2. Select **Command Prompt**.
    3. Enter the following commands:

```
ipconfig /release
ipconfig /renew
```

- **MacOS** - ?Renew your IP address from the DHCP server on Mac
    1. Select **Apple menu > System Preferences > Network**
    2. In the left-hand list, select **Wi-Fi**
    3. Click **Advanced > TCP/IP > Renew DHCP Lease**
- **Other Devices** - Turning on/off the wi-fi may be sufficient. If not possible or sufficient, a full reboot of the device may be necessary to cause it to refresh its IP address.

Some Windows 10 devices may be unable to connect to MIT SECURE, and see only MIT GUEST and Kendall WiFi if they're within range.
The new access points support 802.11ax (Wi-Fi 6). Depending on the Wi-Fi driver version used, Intel Wireless Adapters supporting 802.11ac may not show Wi-Fi 6 (802.11ax) networks in their scan lists, and as a result, might not be able to connect to Wi-Fi 6 (802.11ax) capable wireless routers and access points, even at 802.11ac speeds. Intel recommends using the latest driver version. For more information, see this Intel support page.

During deployment, some devices may be close to access points from the legacy Cisco access points and deploying Mist access points may become confused and have connectivity issues.

This happens because the two systems have different sets of IP address pools, so devices cannot move smoothly between them. This can cause disruptions in connections, downloads, and other network access activities. This should resolve once the Mist deployment is complete and the legacy Cisco access points are turned off. In the interim, you can use a wired network connection to prevent this issue. To see if your building is currently undergoing deployment, see 3down.mit.edu.

Have Questions?

If you have questions about this planned upgrade, please contact the IS&T Service Desk at (617) 253-1101 or servicedesk@mit.edu.