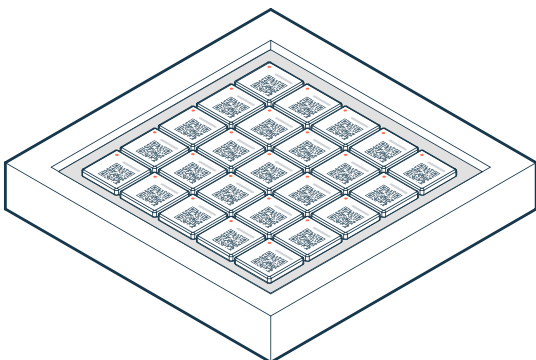


Installation Guide

Wireless Desk Occupancy Sensor

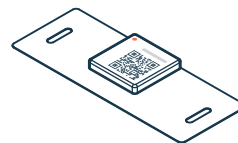
What is in the box



25 Desk Occupancy Sensors

What you will need

- A laptop or smartphone running the DT Studio web application studio.d21s.com.
- If your company does not have a DT Studio organization yet, get started at d21s.com/start.
- One or more Cloud Connectors (gateway) to forward sensor data to the DT Cloud.



- Optional: Range Extender accessory.

Planning the installation

Number of Desk Occupancy Sensors

One sensor per desk is required.



Number of Cloud Connectors

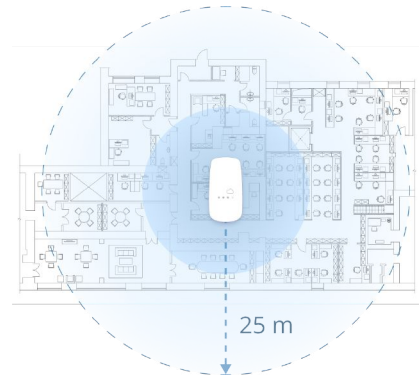
The number of Cloud Connectors needed to cover a typical office space depends on the size of the space as well as the material the walls in the space are made up of.



For example, concrete will reduce the coverage area more than thin drywall.

See the following sections for how to plan Cloud Connectors for different types of installation sites.

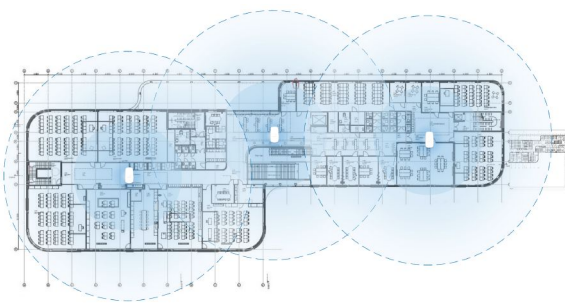
Cloud Connector Small site



One Cloud Connector is often enough to cover a smaller site.

To estimate if a single Cloud Connector can cover your entire installation site, we recommend approximating a circle with a radius of 25 m (82 ft) on the floor plan to mark the expected coverage for the Cloud Connector.

Cloud Connectors Large site

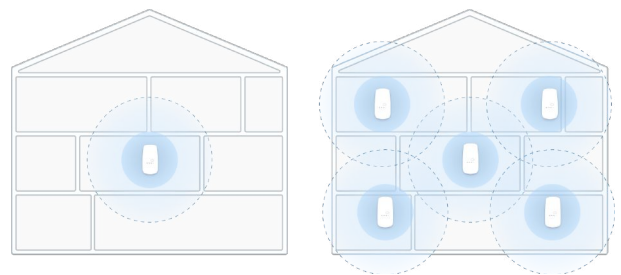


A large site with many sensors requires multiple Cloud Connectors to provide good coverage.

Estimate by approximating a circle with a 25 m (82 ft) radius on the floor plan.

Place subsequent circles with approximately 30 m (98 ft) spacing.

Cloud Connectors Multiple floors



Consider that Cloud Connectors can provide coverage on the floor above and below for multi-floor installations.

The range will depend on the construction of the building, especially the material of the floor separators.

If possible, plan for Cloud Connectors on each floor shifted horizontally to maximize the signal coverage, as seen in the image.

On the installation day

- 1 Install the Cloud Connectors in the locations found during planning.

Visit support.d21s.com to see best practices for Cloud Connector installations.



- 2 Claim the sensors in Studio by scanning the QR code found on the sensor packaging.

If only a few sensors are needed, they can also be claimed individually in Studio.



Ensure sensor coverage

- 3 To ensure that the coverage is sufficient, we recommend placing all the sensors on top of the desks before they are permanently installed.

Sensor name

Engineering Desk #42

- 4 Give the sensor a name or label in Studio for identification.
- 5 The connectivity status for all sensors can then be viewed in Studio to check if any of the sensors are in **High Power Boost Mode** or **not reporting data**.



If a sensor is in **High Power Boost Mode**, the battery life will be reduced because the sensor is using more energy to reach the Cloud Connector.

Either move the Cloud Connector or consider using a Range extender accessory to amplify the sensor range.

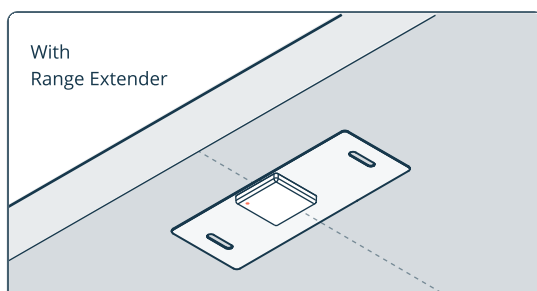
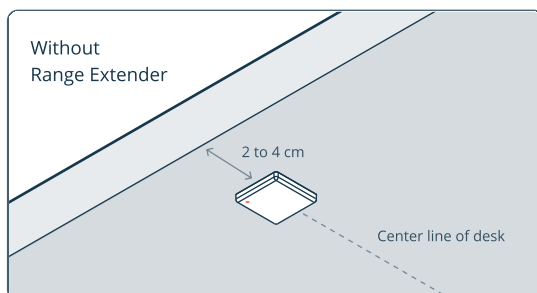


If the sensor is **not reporting data**, the sensor is outside the range of the Cloud Connector.

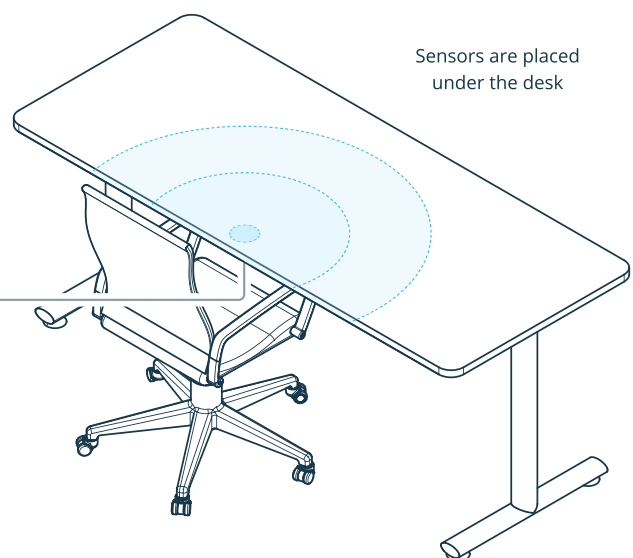
Install a second Cloud Connector to extend the coverage.

- 5 The sensor should be installed under the desk, approximately 2 to 4 cm from the edge of the desk, at the center where a person is usually sitting.

Clean the installation surface, peel the protective film from the back of the sensor, stick the sensor to the table, and press it firmly for a few seconds to ensure good adhesion.



NB! The orientation matters. Align the dot on the sensor and with the dot on the Range Extender.



Do not place the sensor directly on a metal surface as it will affect the wireless range of the sensor.

Settling Period

After the installation the sensor needs a working day of data from the environment before it accurately determines the occupancy status of the desk.

Connectivity

People sitting very close to the sensor can attenuate the radio signal. We recommend installing the sensor with a range extender or calculating in an extra margin of safety on the wireless range.

Metal Desks

Installing the sensor on a metal desk will severely impact the wireless range of the sensor. Using the Range Extender accessory with PN: 101707 can increase the performance when used on metal desks.

Factors that impact measurement accuracy

HVAC - unusual heating and cooling patterns

Offline periods - the sensor uses historic data to estimate the likelihood of people sitting at the desk

Support

If any problem should occur during installation, or if you have any questions, please reach out to us.

We thank you for choosing sensors from Disruptive Technologies.

d21s.com/support

support@disruptive-technologies.com

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(08:00-16:00 CET/CEST)

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(8 am - 5 pm EST)