This guide is intended to aid customers with using our GraceSense™ Provisioning App. This app is currently available on the Google Play Store, Windows, and we are developing an app for Apple devices. Follow the below steps in order to provision your CloudGate™ onto your WiFi network.

BEFORE GETTING STARTED

Ensure that the GraceSense™ Node that you have is WiFi enabled. This can be determined by looking at the face of the unit. If you have two identical antennas or if the part number has a "W2" before the third dash (IE G-XX-W1W2-K3XX to the left), you have a WiFi enabled node.

G-XX-W1W2-K3XX

Download the app that is compatible with your preferred device by clicking one of the buttons below. For Android devices, this will bring you to the Google Play Store where you can read through release notes and verify that your device is compatible. For Windows devices, this will start the Windows Installer for the GraceSense™ Provisioning app. Accept the terms and conditions and allow to complete the download.

Note: You may need to work with your IT department in order to clear your CloudGate™ onto your WiFi network. Visit the "Clearing Your CloudGate™ on Your IT Network" section at the end of this guide.

PROVISIONING OVERVIEW

App connects wirelessly to CloudGate

XML wifi configuration for corporate WiFi sent to CloudGate

CloudGate connects wirelessly to Corporate Network/Internet, able to transmit data from sensors to data storage on cloud

PROVISIONING INSTRUCTIONS

Creating a WiFi Profile:

(only needed to create once for your given network)

1. Launch the GraceSense™ WiFi Provisioning App

2. If this is your first time using the app, you will see no Profiles in the drop down

3. Click on the Hamburger Icon (3 Dashes) in the upper left hand corner.
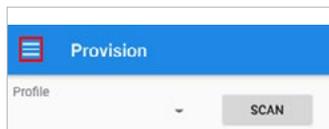
4. Select "Manage Profiles"

5. Click on the "Add New" Button

6. Click in the "Profile Name" Field and input the desired profile name. (This is not your SSID but many users choose to name it the SSID for simplicity).

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7. If the network you are trying to connect to is not hidden, it is easiest to scan for the network, see part A below. If the network is hidden, see step B below.

   A. Click on the Scan button. Wait for a few seconds while it scans for available networks. When complete, click on the drop down labelled "MANUAL" and select the appropriate network. *Note: Only networks being broadcast and in range will appear here.*
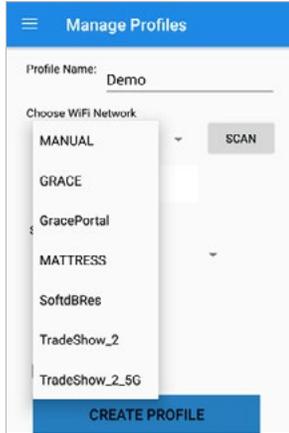
   B. Enter the SSID manually by clicking in the free text field labelled "Network name".

8. Security Type: If you scanned for and selected the network, the security type will be auto-populated with correct security type. If entering manually, you will need to select from the list.
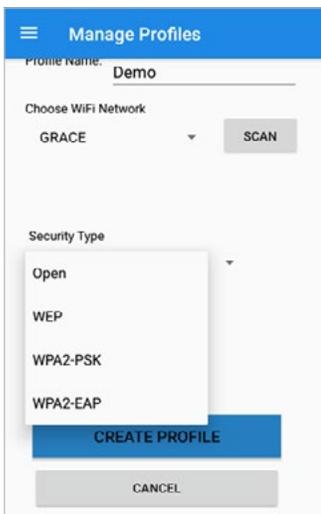
9. Fields will appear based upon the requirements to connect to your network, including user name, password, or none for an open network. *Note: Make sure that your Android device is connected to the Cloudgate™ before clicking yes, sometimes there is a few second delay between pressing "Provision" and making the connection to the Cloudgate™. If you press yes before it is connected it won't work. On Android 10 devices it does a better job with this timing.*

10. Input the required information

11. Click the Create button if a proxy is not required

FOR NETWORKS THAT REQUIRE A PROXY:

1. Toggle the "Proxy Enabled" switch
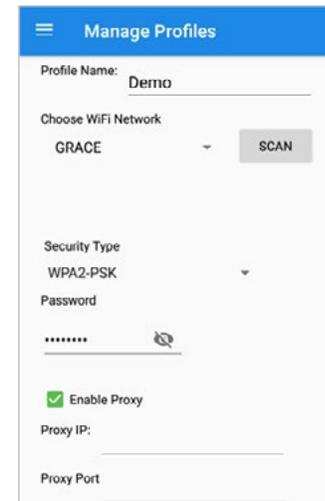
2. Click in the "Proxy IP or DNS" field

3. Input the Proxy IP

4. Click in the "Proxy Port"

5. Input the Proxy Port

6. Click Create Profile to Finish

PROVISIONING A WIFI CLOUDGATE™:

1. Launch the GraceSense™ Provisioning App

2. Click on the Hamburger Icon (3 Dashes) in the upper left hand corner

3. Select "Provision"
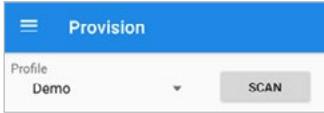
4. Click in the Profile dropdown and select the appropriate WiFi profile. If there is no profile or the appropriate one is not shown, use the above "Creating a WiFi Profile" instructions

5. Click the Scan button. Available CloudGates™ will appear in the list. f you do not see any, reboot your CloudGate and wait until only the Green light is on or blinking and scan again.

6. Click the check box for the CloudGate™ you would like to provision.
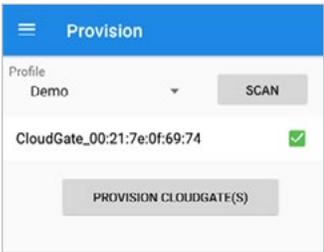
7. Click the Provision CloudGate(s)™ Button

8. A message will appear asking if you would like to provision the selected CloudGate™ with the network details from the selected profile.
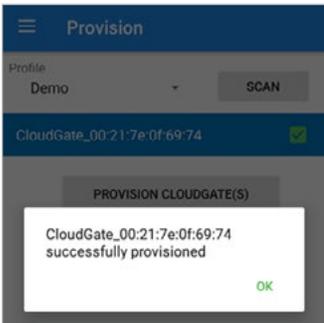
9. Click "Yes"

10. A message will appear letting you know that the CloudGate has been successfully provisioned. Click "OK" to exit.
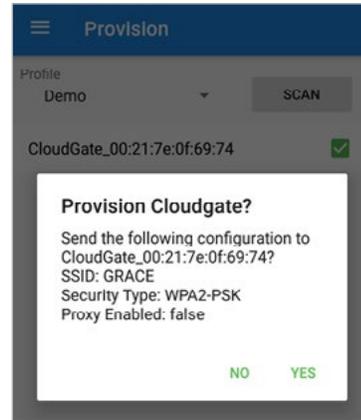
11. Note: CloudGates™ that were provisioned during this session will be highlighted in blue, as shown below. Repeat steps 6 – 10 to provision any remaining CloudGates™.
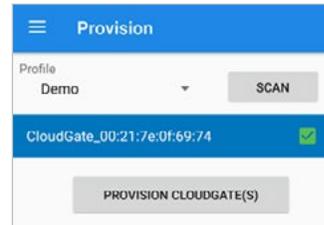
CLOUDGATE™ LED INDICATION UPON BOOT UP:

1. Upon initial boot up of the device, the "C" (Cloud) column of LEDs will blink for up to 30 seconds as it attempts to connect to a network

2. At the end of this sequence, only the Green LED in the "C" column will be illuminated

    a. If the Green LED is blinking, that means it does not have a cloud connection. This is expected behavior if the device has not been provisioned

    b. If the Green LED is solid on, that means a connection to the cloud has been established

CLOUDGATE™ LED INDICATION DURING PROVISIONING:

1. Before you provision the CloudGate™, only the Green LED in the "C" (Cloud) column should be illuminated or blinking.

2. When you click to provision the CloudGate™, the CloudGate™ will flash all Cloud LEDs once as it accepts the profile and starts the reboot process.

3. You will then see a single LED flash on the "L" (Local) column as the local communication radio is initialized.

4. Then all of the Cloud LEDs will start blinking as the cloud (WiFi) communication radio is initialized and it attempts to connect to the network using the credentials provided.

5. The blinking sequence will continue for up to 30 seconds. At the

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end of the process, you should have a solid Green Cloud LED, meaning that your CloudGate™ has connected to your network. Verify on the Maintenance Hub that the node is active and provisioning is complete.

6. If after the flashing sequence you have a blinking Green Cloud LED, provisioning was not successful. Verify the profile was correct and see the troubleshooting section below.

TROUBLESHOOTING
Network Connectivity:

If you have completed the above steps and are not making a successful connection to the cloud, try the following steps, completing the next step if successful connection has not been made.

1. Try to re-provision the device on the network again

2. Check all network information input into the WiFi profile, namely the password or Proxy (if enabled)

3. If the network is not hidden, make sure that you can see the network by searching for WiFi networks on any WiFi device.

4. Check with your IT Department to ensure that your devices are properly cleared, see the below section on information that your IT department might need.

Clearing Your CloudGate™ on Your IT Network:
Most IT departments need details about any device that connects to the network. Every company is different in what information they will need but a general guideline and where to find the information is below. If you have any requests outside of what is shown here, let us know.

MAC Address: MAC stands for Media Access Control. This is the most common way that IT departments prevent unauthorized devices from connecting to their network. In order to get the CloudGate™ MAC Addresses cleared, you will need to provide them with all of the MAC addresses for WiFi enabled CloudGates™. This can be found in two ways:

Node Settings Page: The first way is by going to the node settings page in the Maintenance Hub. Hover over the CloudGate™ that you would like to know the MAC Address of. Click on "Edit" on the right hand side and select "Configure Node". There will be a MAC address that can be found in the CloudGate™ MAC field.

Using the GraceSense™ Provisioning App: The second way is by powering up the node and using the GraceSense™ WiFi Provisioning App. When scanning, the network name has the MAC Address in it. Example: For CloudGate™ network name "CloudGate_00:21:7e:0f:69:74", the MAC Address is 00:21:7e:0f:69:74.

URL Whitelisting: The only URL that our devices need to connect to is http://cg.gracesense.com/. Your IT department can whitelist this URL and blacklist all other URLs for this device.

Access Points: Your IT department may want to know where in your plant the CloudGates™ will be installed so they know what access points they may be connecting to and only authorize connection on those access points. Make sure that any possible access points are cleared and if there is ever a layout change in the future, this may impact which access point your CloudGate™ will try to connect through so therefore should be revisited any time the layout changes.