Iridium**Edge**™

Demo Kit │ Quick Installation Guide

⚠ Prior to using the Iridium Edge™ read and understand the Iridium Edge
User Manual including the safety warnings and information.
Failure to do so could result in serious injury or death.

INTRODUCTION

Thank you for purchasing the Iridium Edge Demo Kit! This kit allows prospective customers to evaluate the Iridium Edge and Iridium's network services before developing applications.

The Iridium Edge Demo Kit includes an Iridium Edge device, cabling, power supplies and six (6) months of demonstration airtime, and access to a Demonstration App for iPhone® which can be found on the Apple iOS App Store℠.

Iridium partner Global Satellite Engineering (GSE) provides an Iridium enabled Mapping Portal as part of this demo. Demo Kit users are not required to use this portal and are welcome to explore or evaluate other options. Iridium can provide a list of other partners who have Iridium-enabled mapping platforms.

If you have any questions concerning Iridium Edge or the Demo Kit during the evaluation period, please contact Iridium's support team at **datasupport@iridium.com**.

When an evaluation is complete, users should contact Iridium at **iot_sales@iridium.com** to discuss next steps to integrate Iridium into their applications. Demo Kit users that qualify as a direct Iridium VAR can work directly with Iridium to obtain development documentation and purchase additional Iridium Edge products and/or airtime. Alternatively, Iridium will refer users to existing Iridium partners who can support their development and provide billing/provisioning platforms to assist their integration with Iridium. In both cases, the user can continue to use the Iridium Edge device purchased with the Demo Kit.

Iridium will automatically deactivate the Iridium Edge at the end of the evaluation period if no alternative arrangements are made. Continued use will require users to contact an existing Iridium partner to purchase network services.

REGULATORY COMPLIANCE
In most cases, the Iridium Edge requires country certification before it is used. Iridium has obtained certification for the Iridium Edge in key regions. If you have any questions or concerns regarding regulatory compliance, contact Iridium or the Iridium Service Provider that sold you the Iridium Edge Demo Kit.

INSTALLATION COMPONENTS & PARTS LIST:

1. Iridium Edge Demo Kit includes the following parts:
- **A** Iridium Edge
- **B** Iridium Transceiver Cable
  (iPhone™ to DB9)
- **C** Breakout Cable
- **D** Automotive Power Adapter
  (Cigarette Adapter Plug)
- **E** AC Adapter with
  International Plugs
- **F** Serial to USB Converter
  (Optional; for advanced use)
- **G** Plug to Leads
  (Optional; for advanced use)

2. Iridium Edge Demo Kit includes airtime
- 25 Kb per month (over 2,000 location reports)
- Valid for 6 months after first activation, no more than
  1 year after purchase of the Demo Kit

3. User Supplied Materials Required for Evaluation using a vehicle
- An iPhone 5 or greater with a Lightning™ connector is
  required. The Demo Kit does not support Android devices
- Materials to safely secure the Iridium Edge to a vehicle
- A vehicle with a 12V cigarette plug

4. Optional Iridium Edge Demo Kit items
Some items included in the Demo Kit are for **advanced use** and will
not be needed by all evaluators

- Serial to USB Converter. This item is for users wishing to connect
  the Iridium Edge to a PC using a serial emulation program.
  Users can also use this accessory to develop or trouble shoot an
  Iridium Edge application once the evaluation is complete. Detail
  serial port parameters can be found in the Iridium Edge user
  documentation available on **iridium.com**.

- Plugs to Leads. This item is for users allowing them to power the
  Iridium Edge from an alternate DC power supply instead of using
  the included AC adapter or Automotive Power Adapter.

STEP 1: INSTALL THE APP

The Demo Kit App requires a fully charged
iPhone with iOS 10.0 or higher. Download the
"**Iridium Edge Demo App**" from the App Store.

Open the Iridium Edge Demo App and take the tour
to familiarize yourself with the general operation.
(The tour is only shown when the app is first launched.)

STEP 2: CONNECT IRIDIUM EDGE

Open the Demo Kit and make connections as shown below:

Connect the Iridium Edge Transceiver Cable∗ **B** to the iPhone.		
Connect the **C** Breakout Cable to the Iridium Edge Transceiver Cable. **C**+**B**		
Take the **A** Iridium Edge unit out of its box and connect it to the Breakout Cable. **A**+**C**		
Connect **E** DC Adaptor to the Breakout cable **E**+**C** and then plug it into a wall outlet with the appropriate international plugs.		

∗ After disconnecting the Transceiver Cable, wait at least 30 seconds
  before reconnecting. Otherwise, iOS may not correctly recognize
  the Transceiver Cable.

STEP 3: VERIFY APP CONNECTION

In the Iridium Edge Demo App, navigate to the Device Screen and confirm that Device Status indicates "**Connected**" and that an IMEI number is displayed. (The IMEI is a 15-digit number on the bottom of the Iridium Edge device, and is used to recognize the device on the Iridium network.)

If the Device status does not indicate "**Connected**", double check all cable connections and ensure that power is present. If the App still does not show the Device is connected, continue to the **Trouble Shooting Section** at the end of this document.
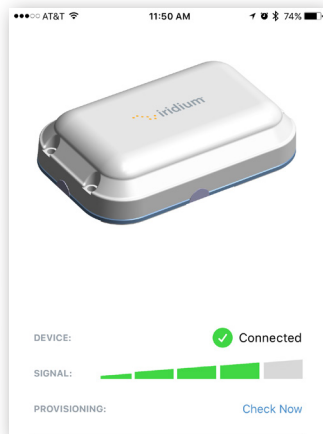
STEP 4: PROVISION IRIDIUM EDGE

To operate properly, the Iridium Edge device must be provisioned. Use the "**Check Now**" button on the app to start the process. Alternatively, access **www.iridiumedgedemo.com** to manually provision the device.

Select "**Create a New Account**" and enter fields specified in Step #1. While not required, it is recommended that your username is also your email address. Write down and record all credentials.

STEP 4: PROVISION IRIDIUM EDGE (Continued)

Step #2 and Step #3 describe how to connect the **Iridium Edge Demo App** to the Iridium Edge. If not prefilled, enter the IMEI of the unit along with any name you want to give the Iridium Edge unit.

In Step #4, the "**Basic**" for the routing options should be selected. Under "**Choose Icon**", select the icon you would like to display the location of the Iridium Edge when position is reported through the demo app.


Finally, select "**Add Iridium Edge**". A new account will be created provided that the IMEI number:
- is for an Iridium Edge demo device
- hasn't been used previously to create a Mapping portal account
- is not already activated on the Iridium gateway

STEP 5: VERIFY PROVISIONING

With the Iridium Edge device connected to the Iridium Edge Demo App, select the "**Check Provisioning**" button on the Device page to confirm provisioning.

(This step requires a data connection and does not use the Iridium satellite.)
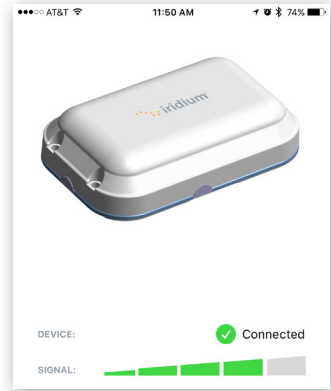
STEP 6: CONFIGURE APP REPORTING

On the "**Location**" page, confirm that your current position is displayed with a blue dot.

Select a Report Pace of 2 minutes and press the "**Start**" button to enable the phone to send regular location-based reports. If your position is not shown, ensure Location Services in your phone setting is enabled for the app.

The "**Transmit Timer**" counts down to the next report transmission.

Using the app with GPS Reporting enabled allows the Iridium Edge to receive service requests from Iridium, as well as transmit GPS reports. When GPS Reporting is enabled, the Demo App continues to run even when the iPhone is left idle or when other Apps are selected; thus allowing it to service requests from the Iridium network and transmit the GPS reports.
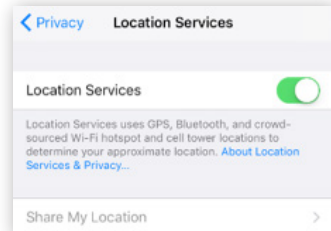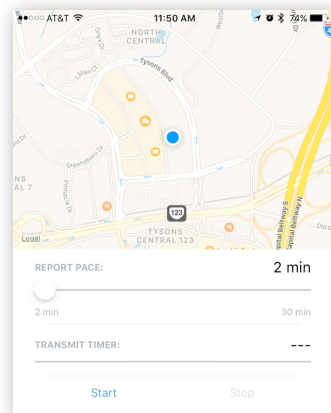
STEP 7: INSTALL ON VEHICLE

Read the Quick Installation Guide, including the Safety Warnings that are located in the Iridium Edge shipping box.

Before removing the red cover from the double sided tape on the Iridium Edge and affixing the device to your vehicle, be aware that tape mounting is intended to be permanent and later removal will damage a vehicle's finish.

Park the vehicle in an open area with 360 degrees visibility of the sky without any obstruction from objects such as buildings, trees or large vehicles.

The Iridium Edge should be mounted flat on a vehicle, facing upwards. Secure the breakout cable inside the vehicle, taking care to keep a minimum length of <10cm (`4 in) of cable outside.

Be sure to secure Iridium Edge so as to not cause damage to persons or property. If you have any concerns about the adequacy of the mounting for the Iridium Edge, seek advice from an installation technician or other qualified individual.

After ensuring power is available inside the vehicle, connect the "**Automotive Power Adapter**" to the breakout cable and insert into car power port or cigarette lighter socket.
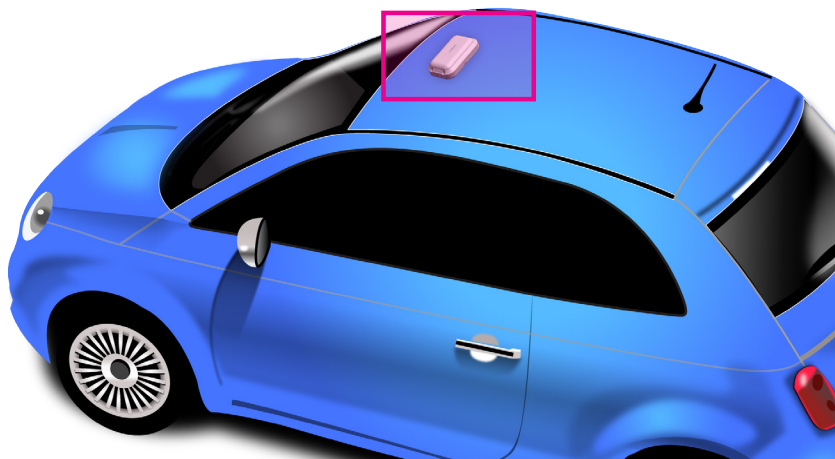
STEP 8: SEND AND RECEIVE SATELLITE MESSAGES

Confirm all cables are properly connected. Refer to Step 3
"**Verify App Connection**"

On the Device page, confirm that signal indicator shows at least three
bars, ideally 4 or 5 bars. If less than three bars are visible for more
than sixty seconds, confirm good visibility to the sky in all directions.

With an adequate signal level, the Iridium Edge Demo App should
start reporting at regular intervals.

Go to the Chat page, type a test message and press "**Send**".
Wait till the message is timestamped and transmitted. These
messages can be read and replied to on the demo portal.

Drive the vehicle at a slow speed (<40km/h, 25mi/h) to ensure the
Iridium Edge remains safely mounted to the vehicle. Drive vehicle
for a suitable duration to allow the App to send the expected number
of messages at two-minute intervals. **Observe all driving laws and
safety guidelines in your jurisdiction.**

Upon completion, disconnect all cables and power.

STEP 9: CONFIRM SATELLITE PERFORMANCE

With a browser, log into the Mapping Portal (**iridiumedgedemo.com**) with the same credentials used to create the account.
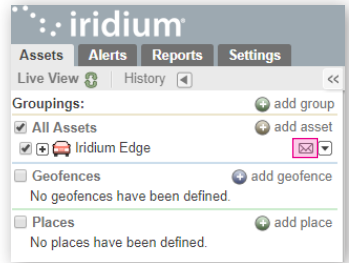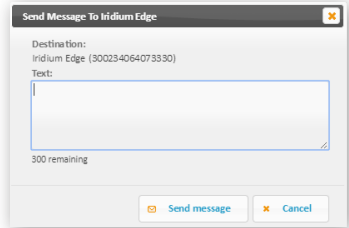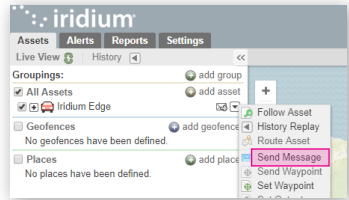
In order to send messages to the Iridium Edge, select the "**Send Message**" command from the pulldown list by the mail envelope and enter the desired message text.

Once the "**Send Message**" button is pressed, the Mapping Portal updates the display to show that the "**Message was Successfully Sent**" to the Iridium gateway. Messages will appear on the Iridium Edge Demo App once the device successfully connects to the network.
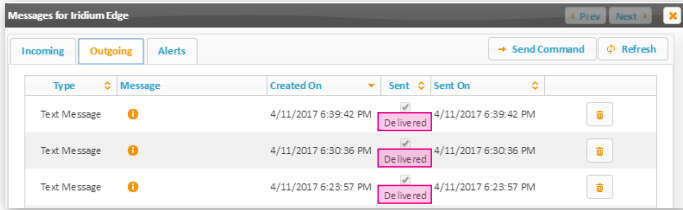

See all previous incoming messages and the status of the outgoing text messages by selecting the "**Mail Envelope**" on the left of the pulldown arrow. The Incoming tab lists all the text messages from the Iridium Edge. The Outgoing tab lists all the text messages to the Iridium Edge.

The Alerts tab is not required for the evaluation.

In the Outgoing tab, the Sent status is "**Delivered**" if the Iridium Edge acknowledged receiving the message. Otherwise, the Sent status is "**Submitted**" meaning the message is at the Iridium Gateway and not yet transmitted to the Iridium Edge. This window is not automatically refreshed if the Iridium Edge receives the message. Update the status by using the "**Refresh**" button.

The times in the Mapping Portal are in UTC, not in local time.

Only the "**Assets**" tab is required to verify the Iridium Edge's performance. The other tabs are advanced functions, not required for evaluation of the Iridium network.

Inside the "**Assets**" tab, only the "**All Asset**" grouping is required. The groupings of "**Geofences**" and "**Places**" are advanced functions.

The portal displays all messages from the Iridium Edge until the "**Confirm**" button is pressed.
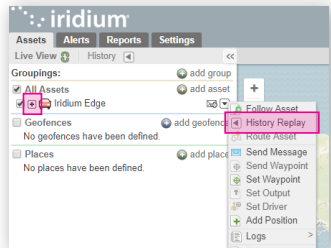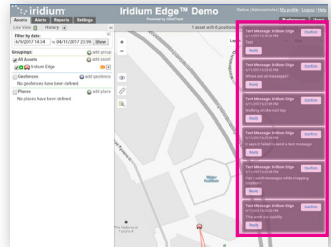
Select the "**History Replay**" command to show all messages from the Iridium Edge Demo App. Once the "**History Replay**" has been selected, the [**+**] button can be alternatively selected to display a list of the position reports received from the Iridium Edge.

STEP 10: USE THE SERIAL LOG

The Serial Log screen of the Iridium Edge displays
- Demo Application version
- AT commands and diagnostic messages

All AT commands and diagnostic messages are automatically saved to an internal file.

All AT commands and diagnostic messages are timestamped. The timestamps are in Universal Time Coordinates (UTC), not in local time. UTC provides a global time reference, independent of where the Iridium Edge evaluation takes place.

The Serial logs can be shared and emailed as an attachment containing either AT commands, diagnostic messages or a combined file with both AT commands and diagnostic messages.

STEP 11: COMPLETE EVALUATION

Congratulations on completing your evaluation of the Iridium Edge.

If you are interested in continuing to the next step and develop with the Iridium Edge, contact Iridium at **iot_sales@iridium.com**.

If you qualify as a direct Iridium VAR, Iridium will work with you and provide you with guidance to start development. Alternatively, Iridium will refer you to an existing Iridium partner. In either case, you can continue your development with your Iridium Edge Demo unit.
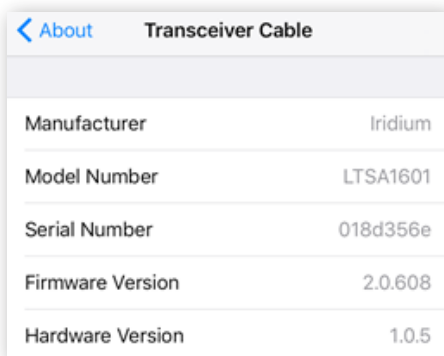
TROUBLE SHOOTING - DEVICE NOT CONNECTED

PROBLEM: "**Connected**" is not displayed on the Device screen.

SOLUTION	EXPLANATION
Confirm cables are connected properly (Refer to Step 2.)	Confirm the three connections ▪ Iridium Edge to Breakout cable ▪ Breakout cable to power supply ▪ Transceiver cable to Breakout cable
Confirm power is present	Confirm that the AC outlet is functional. Use the Automotive Power Adapter as an alternative way to verify power cables are working properly.
Confirm iOS recognizes the serial cable. When the Transceiver Cable is inserted into the iPhone, the Transceiver Cable should appear in the list under Settings/General/About. After selecting the Transceiver Cable, the iPhone should display its details as per the adjacent figure. If the Transceiver Cable does not appear, reset the iPhone and recheck.	

TROUBLE SHOOTING - LOW SATELLITE SIGNAL

PROBLEM: On the Device screen of the Iridium Edge Demo App, (Step #3) the signal strength indicator does not show more than 3 bars. As a result, the Iridium Edge will not transmit any messages.

SOLUTION	EXPLANATION
Confirm the Iridium Edge is mounted flat with the logo facing directly upwards.	The Iridium Edge should see the whole sky.
Confirm the Iridium Edge can see the whole sky, 360 degrees in all directions.	The sky and line of sight to Iridium satellites, should not be blocked by objects located above the Iridium Edge.
Confirm the Iridium Edge is installed outdoors.	The Iridium Edge is not designed for indoor operation. The Iridium Edge will work through glass but not through metallized glass, which is commonly found in many office buildings.

QUESTIONS

If you have any technical questions, please contact Iridium at **datasupport@iridium.com**.

Before contacting Iridium, please have the Serial log files containing both AT commands and diagnostic messages available.

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