

# Configure a SmartSolutions™ Expansion Kit for Cellular Communication



## Introduction

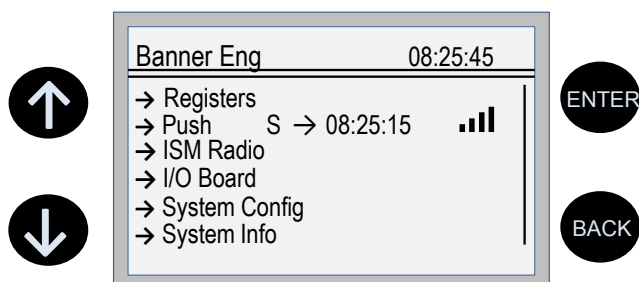
By default, the DXM Controllers within a SmartSolutions™ Expansion Kit are intended to use Ethernet communication. However, it may be preferable to use cellular communication when adding the device to the local area network or when some applications may require remote monitoring through a widely available cellular network.

Follow these instructions to configure the DXM Controller for cellular communication, then activate the cellular module onto the network by creating an account at [secure.bannercelldata.com](https://secure.bannercelldata.com) and purchasing a cellular subscription plan.

## LCD and Menu System

The LCD has four user-defined LED indicators, four control buttons, and an LCD. The four buttons control the menu system on the LCD menu.

Figure 1. Top-level menu



The top-level menu always displays the time in a 24-hour format.

- The up and down arrows scroll through display items.
- The **ENTER** button selects the highlighted items on the display
- The **BACK** button returns to a previous menu option.

The left display column shows an arrow at the beginning of the line if the menu has submenus. The right column shows a vertical line with an arrow at the bottom if the user can scroll down to see more menu items.

## Configure the Expansion Kit for Cellular

Follow these steps to configure your DXM to use a cellular connection for communication to the Cloud.

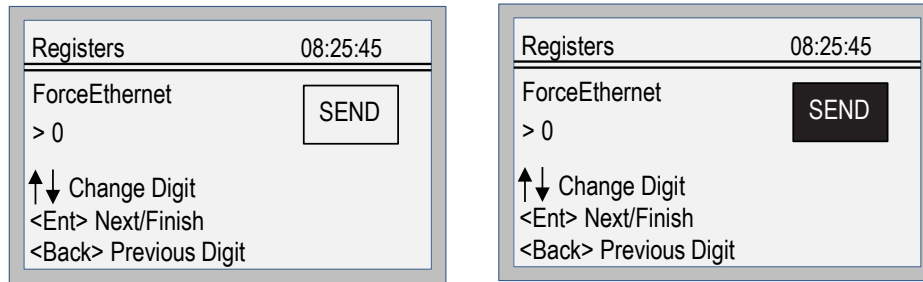
1. Connect the power supply to DXM using the Euro-style or barrel jack connector and plug the power supply into a wall socket.
2. If applicable, disconnect the Ethernet cable from the DXM and the local area network.
3. On the DXM: From the main menu, use the arrow keys to highlight **Registers** and press **ENTER**.



4. Scroll to the bottom of the Register list to highlight **ForceEthernet**. Press **ENTER**.
5. Use the arrow keys to change the Register value to zero (0). Press **ENTER**.

By default, this Register value is set to one (1).

- Press **ENTER** again until **SEND** is highlighted and blinking.



- Press **ENTER** to send the command.

The clock in the upper right corner of the DXM display pauses briefly while the DXM reboots. The DXM Gateway Controller has successfully rebooted when the screen returns to the main menu and the clock begins to operate again.

The DXM is now set to communicate through the embedded cellular module. The SmartSolutions™ Expansion Kit transmits data once every ten minutes when communicating via the cellular module, so please allow sufficient time to determine that a successful push has been received by the Banner Cloud Data Services platform.

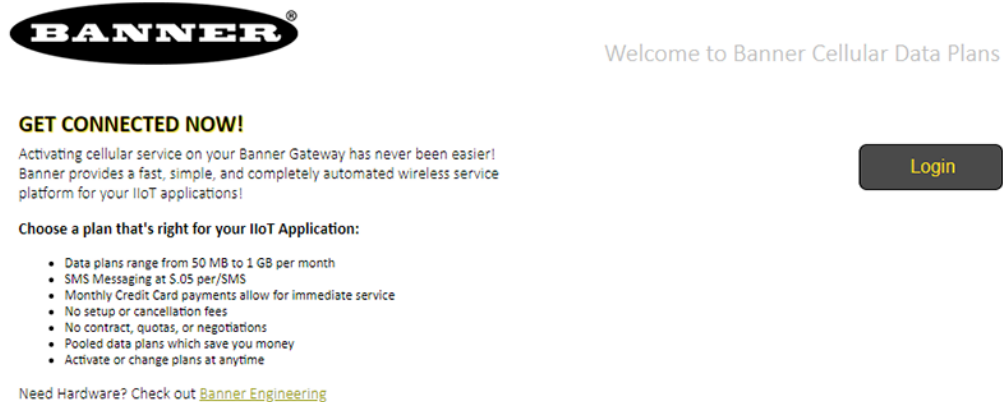
## Activate Cell Services for the SmartSolutions Kits

Follow these instructions to activate the cellular data plan for your SmartSolutions Expansion Kit.

The SmartSolutions Expansion Kit uses a cellular network specifically designed for IoT devices that use low power, have minimal data consumption, and are low cost. Banner has created several tiers of service plans for IoT deployment. Select the appropriate plan size for the Expansion Kit to avoid any data overage fees applied to your account.

- Using a web browser, navigate to [secure.bannercelldata.com](https://secure.bannercelldata.com).

Figure 2. Banner cellular data opening screen



- Select the region the system is operating in.
  - If the system is within the contiguous United States, select **United States** from the region drop-down list.
  - If the system will be used in Alaska, Hawaii, Canada, or Mexico, select **North America**.
- From the drop-down list of cellular data plans, select **250MB Plan - \$25 Monthly**.  
This is the required size of data plan best suited for the SmartSolutions Expansion Kit.

## Create an Account

Figure 3. Banner cell data username and password screen

### USERNAME and PASSWORD

Please enter the email address you wish to use as your login for the Banner Cellular Data Portal. You will be asked to enter it twice as a means to confirm we have the right address.

Your account will be configured with this email address as your preferred inbox address for important service level notifications. If you wish to change the email address for notices, you may do so after registration. However, your login credentials will remain the same.

Your password must be at least 6 characters in length, may contain numbers, letters, and a few reserved special characters \$@%#.!.\* and space, but they are not required.

Choosing a secure password is important. Please use appropriate measures to keep your information private and do not share your password with anyone.

\* Your e-mail address

\* re-enter your email address

\* Choose a password

\* re-enter your password

1. Enter an email address (username) and password.
2. Enter the requested payment information for your account.
3. Enter your mailing address and contact information.
4. Review and accept the terms and conditions.

## Add a Device to the Cellular Network

1. Navigate to the **My Services and Equipment** section.  
The purchased type of service displays.
2. Click on the drop-down arrow next to the cellular carrier to expose the **ICCID** and **IMEI** entry fields.
3. Select the appropriate cellular carrier for your kit.
  - For a kit model number ending in **-V**, select **Verizon**.
  - For a kit model number ending in **-A**, select **AT&T**.
4. Enter the **ICCID** and **IMEI** numbers.  
The ICCID and IMEI numbers are on the back label of the DXM.
5. Refresh the page as prompted.  
The device appears under the carrier line of service with a **Status** of **Active**.

It can take up to five minutes for the cellular module to be recognized by the network. Please wait until **Status** has changed to **Active** before proceeding. You will also receive a confirmation email that your device has been activated.

The DXM is now connected to the cellular network.