## Configure a Banner Cloud ID Kit for Cellular Communication



# Introduction

By default, the DXM Controllers within a Banner Cloud ID™ 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 celldata.bannercds.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.

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 Banner Cloud ID<sup>™</sup> 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 M12 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.

Registers ----> Version

Number of Nodes Cell Strength **Push Attempts** Push Successes Push Misses Force Ethernet



to return to the previous menu

- 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).
- 6. Press ENTER again until SEND is highlighted and blinking.



| Registers 08:24:45   | Registers 08:24:45  |
|--|---|
| ForceEthernet SEND   | ForceEthernet SEND  |
| <ul> <li>Change Digit</li> <li>Ent&gt; Next/Finish</li> <li>Back&gt; Previous Digit</li> </ul> | <ul> <li>↓ Change Digit</li> <li><ent> Next/Finish</ent></li> <li><back> Previous Digit</back></li> </ul> |

- 7. 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 Banner Cloud ID<sup>™</sup> 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 Banner Cloud ID™ Kit.

The Banner Cloud ID<sup>™</sup> 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 Banner Cloud ID<sup>™</sup> Kit to avoid any data overage fees applied to your account.

1. Using a web browser, navigate to celldata.bannercds.com.

Banner cellular data opening screen



Welcome to Banner Cellular Data Plans

#### **GET CONNECTED NOW!**

Activating cellular service on your Banner Gateway has never been easier! Banner provides a fast, simple, and completely automated wireless service platform for your IIoT applications!

Choose a plan that's right for your IIoT Application:

- Data plans range from 50 MB to 1 GB per month
- SMS Messaging at \$.05 per/SMS
   Monthly Credit Card payments allow for immediate service
- No setup or cancellation fees
- No contract, quotas, or negotiations
  Pooled data plans which save you money
- Activate or change plans at anytime

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- 2. 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 region drop-down list.
  - If the system will be used in Europe, select Europe from the region drop-down list.

3. From the drop-down list of cellular data plans, select 250MB Plan.

This is the required size of data plan best suited for the Banner Cloud ID<sup>™</sup> Kit.



### Create an Account

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 \$@%#1." 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.

- 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 4G.
  - For a kit model number ending in -A, select AT&T 4G.
  - For a kit model number ending in -W, select Europe Data.
- 4. Enter the ICCID and IMEI numbers.
  - The ICCID and IMEI numbers are on the DXM housing.
- 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.

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| * Yo | our e-mail address        |
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| * ге | -enter your email address |
|      |                           |
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