Application Note

Provisioning ACM5000-G and IMX4200-G

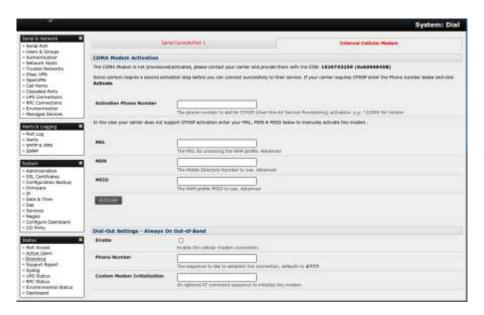## CDMA Internal Cellular Modems

After creating an account with a carrier and adding a line for the ACM5000-GV/GS some carriers require an additional step referred to as Provisioning. Opengear device's supports both Over-the-Air Service Provisioning (OTASP) where modem specific parameters can be retrieved via a voice call to a special phone number as well as a manual process where the phone number and other parameters can be entered manually.

Of the two leading CDMA carriers in the US (**Verizon** & **Sprint**), only **Verizon** required this step.

Note that before this step you need both a working account and an activated device (in that the Opengear's ESN (Electronic Serial Number) needs to be registered with an appropriate plan on your Carriers account).

1. OTASP

Navigate your browser to the Opengear web-based **Management Console** → **System** → **Dial** → **Internal Cellular Modem**.
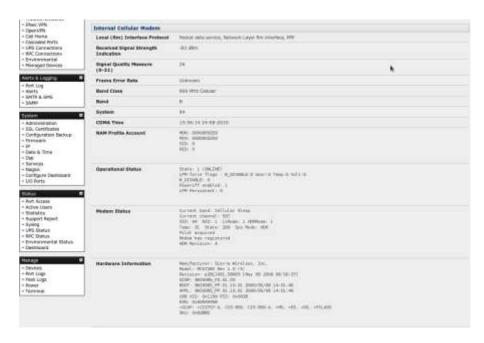

If your modem has not previously been provisioned with a carrier that requires it (e.g. **Verizon**) it is recommended that you use the **OTASP** feature before connecting the modem to your carrier's network. Please note that some carriers such as **Sprint** do not require this.

A particular phone number will need to be dialed to complete OTASP e.g. Verizon uses *22899, Telus use *22886 etc.

The CDMA Modem is not provisioned/activated, please contact your carrier and provide them with the ESN: **1620743259 (0x609A945B)**

Some carriers require a second activation step before you can connect successfully to their service. If your carrier requires OTASP enter the Phone number below and click **Activate**

Activation Phone Number | *22899

The phone number to dial for OTASP (Over-the-Air Service Provisioning) activation. e.g. *22899 for Verizon

Click **Activate** to initiate the **OTASP** call. The process is successful if no errors are displayed and you no longer see the **CDMA Modem Activation** form. If **OTASP** is unsuccessful you can consult the System Logs for clues to what went wrong at **Management Console → Status → Syslog**.
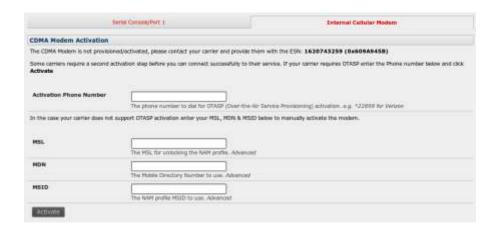
When **OTASP** has completed successfully you can proceed to enabling the **Internal Cellular Modem** by entering the carriers phone number (which defaults to **#777**) and clicking **Apply**. The **Cellular** statistics page will display the current state of the Modem and can be accessed via **Management Console → Status → Statistics → Cellular**.

OTASP success will result in a valid phone number being placed in the **NAM Profile Account MDN** field.
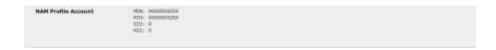
2.   Manual Activation

Some carriers may not support **OTASP** in which case it may be necessary to manually provision the modem. Navigate to **Management Console → System → Dial → Internal Cellular Modem.**

The **MSL**, **MDN** and **MSID** fields are specific to your carrier. They will need to be entered here to attempt manual activation. If this step is necessary you will have to investigate what values your carrier uses in each field. For example **Verizon** have been known to use an **MSL** of **000000** and the phone number assigned to the Opengear device as both the **MDN** and **MSID** with no spaces or hyphens e.g. "5551231234" for "555-123-1234".

Click **Activate** once the values for the fields have been determined and entered to attempt manual activation. If no errors occur you will see the new values entered into the **NAM Profile** at the **Management Console →Status → Statistics → Cellular** page.

Enabling the Internal Cellular Modem

Navigate to the Opengear web-based **Management Console → System → Dial → Internal Cellular Modem** tab. To connect to your carriers 3G network enter the appropriate phone number (usually **#777**) and a **Username** and **Password** if directed to by your account/plan documentation.

Select **Enable** and then click **Apply** to initiate the **Always On Out-of-Band** connection. You can refer to **Management Console → Status → Statistics → Cellular** at any time to see the current connection status of the Modem.