



TN0002 Activation On The Verizon Wireless Network

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Purpose:

This TechNote describes the steps required to activate a Ctek Series 4100, 4200, or 4300 SkyRouter on the Verizon Wireless Network using the Over The Air (OTA) interface, and the Wireless Interface settings required for operation on the Verizon Wireless Network. Once the steps described in this TechNote have been performed on an individual SkyRouter you should not need to repeat them.

Before You Start:

Before you begin this process you must have first created a wireless data account on the Verizon Wireless network for this specific unit. To do this you will need to contact Verizon, make the necessary commercial arrangements, and supply Verizon with the ESN (in both decimal and hexadecimal) assigned to your unit. The ESN information is found on the packing slip that came with your SkyRouter. The ESN is also available through the Wireless Status screen. It is a good practice to make a permanent record of the ESN information for future reference. When Verizon establishes your account, they will issue a telephone number to you. They refer to this number as the mobile ID number (MIN). You should also be given a time frame within which your assigned account will become activated. We recommend that you wait the full time indicated before proceeding with this TechNote.

OTA Activation:

Please follow these steps carefully.

1. Power up the SkyRouter unit
2. Connect to the local administrative interface using a PC with a web browser and the reverse Ethernet cable supplied with your unit. The Administrative interface is started by connecting to Internet Protocol (IP) address 192.168.1.10. Use the address `http:// 192.168.1.10` in your browser to make this connection. A login screen will appear. The default User ID is "ctek" (without the quotes) and the default Password is also "ctek".
3. Go to the Wireless screen under the Interfaces heading. Using the pull down menu function set the **Connection Type** to **Disabled**.
4. Press the **Update** button.
5. Return to top-level menu using the **Home** button.
6. At the top-level Administration screen do a **Restart**
7. Reconnect to the **Administrative Interface**
8. Select the **OTA Service** screen under the Services heading.
9. On the OTA screen enter the characters **AT+CDV*22899**
10. Press the **Submit** button
11. After a few seconds you should see the response **OK. Important** - At this time you should wait two (2) minutes before going to the next step. This pause is to insure that any additional information being downloaded from the network has completed.
12. Once the two-minute waiting period has expired return to the **top level Administration** screen.
13. Go to the **Wireless** screen under the **Status** heading. Record the 10-digit Phone Number (MIN) value found in the upper right hand corner of this screen. If the **MIN** value is blank, contains all zeros, or a 10-digit phone number containing 6 or more zeros, the OTA activation steps described above were not completed successfully. In this case you should redo this procedure starting with the OTA sequence described above.



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The next section sets the Wireless Interface parameters that will allow your SkyRouter to connect on the Verizon Wireless network.

Wireless Interface Configuration

1. Return to top-level menu using the **Home** button.
2. Go to the **Wireless** screen under the **Interfaces** heading.
3. Select the type of connection appropriate for your application. The choices will be **Always On** or **On Demand**. Refer to the appropriate SkyRouter User Manual for more detail on connection types.
4. Go to the **User Name** field in the upper left hand corner of the screen.
5. Enter the value **MIN@vzw3g.com** where MIN is the 10-digit Phone Number/MIN recorded previously. An example entry would look like 9995551212@VZW3G.com.
6. Go to the **Password** field immediately below the **User Name** field.
7. Enter **vzw** in lower case characters. This is a case sensitive field. **Note** that your typed characters will be echoed back as a dot character since this is a password field.
8. At this time you could, if desired, configure your SkyRouter for Name Server (DDNS) operation. Refer to Ctek TN0001 for details. This step is not mandatory and can also be performed later.
9. If your Verizon Wireless account has a static IP address (DMU) perform steps 10 – 13, otherwise go to Step 14.
10. Check the selection **Use the following static IP address:**
11. Enter your Verizon Wireless provided static IP address in the field provided
12. Insure that the selection item **Enable LCP echo packets in static IP mode:** is unchecked (blank).
13. If your selected type is **Always On** set the **Inactivity Timeout** pull down to 60 minutes, otherwise set the **Inactivity Timeout** pull down to the value appropriate for your application.
14. Press the **Update** button.
15. Return to top-level menu using the **Home** button.
16. At the top-level Administration screen press **Restart**
17. On the **Restart** screen press **Restart** again.
18. Reconnect to the **Administrative Interface** after the delay described on the restart screen.
19. Go to the **Wireless** screen under the **Status** heading.
20. The **Call Status** field should indicate **Connected**. If your Verizon Wireless account uses a dynamically assigned IP address the **Call Type** field should indicate **Packet – Relay Model**. If your Verizon Wireless account uses a static IP address (DMU) the **Call Type** field should indicate **Packet - Mobile IP**. **Note:** Depending on network traffic and signal level, it could take up to a minute to establish a connection.
21. Your SkyRouter is now activated, authenticated, and connected to the Verizon Wireless network.

Important – The **Call Status** and **Call Type** values indicated in step 20 will only be present if your SkyRouter is operating with a **Connection Type** of **Always On** as defined in the Wireless Interface screen. If your **Connection Type** has been changed to **On Demand** you will not observe the status indicated in step 14 until you make an outbound data request.

The following Figures show the correct settings and corresponding status screen for both a dynamic IP address mode and a static (DMU) IP address mode on the Verizon Wireless Network.



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dress http://192.168.1.10/admin-bin/cfg_cdma.cgi

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Wireless Interface Configuration

Network Select:

User Name:	<input type="text" value="3102705409@vzw3g.com"/>	Connection Type:	<input type="text" value="Always On"/>
Password:	<input type="password" value="●●●"/>	Inactivity Timeout:	<input type="text" value="Never"/>
<input checked="" type="radio"/> Use network provided dynamic IP address		<input type="radio"/> Use the following static IP address: <input type="text"/>	
Enable LCP echo packets in static IP mode: <input type="checkbox"/>			

Client For Dynamic IP Address Resolution

Select DDNS Type:	<input type="radio"/> None <input type="radio"/> EW/SMS <input checked="" type="radio"/> EW/UDP <input type="radio"/> Standard UDP		
Device Name:	<input type="text" value="ctek03.thingme.net"/>		
Primary Name Server:	<input type="text" value="68.15.89.150"/>	Secondary Name Server:	<input type="text"/>

Provide Network Name Server Facilities: Yes No

Wireless Configuration For Dynamic IP on Verizon Wireless



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The screenshot shows a web browser window with the address bar containing `http://192.168.1.10/admin-bin/stat_cdma.cgi`. The browser's search bar contains "Search Web" and "PageRank". The page content features the Ctek logo on the left and the title **Wireless Interface Status** in red. Below the title is a table of status information:

ESN - Dec:	15908739441	ESN- Hex:	9F855A71
System ID:	154	Phone Number (MIN):	3102705409
Network Status:	In Service	Signal Level (RSSI):	-80dBm
Roam Status:	Not Roaming	Current IP Address:	166.156.178.210
Call Type:	Packet - Relay Model	Call Status:	Connected

At the bottom of the page, there is a "Home" button.

Wireless Status For A Correctly Activated Dynamic IP Account



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Address http://ctek01.thingme.net/admin-bin/cfg_cdma.cgi

Google Search Web PageRank 6419 blocked AutoFill Options

Wireless Interface Configuration

Network Select:

User Name:	<input type="text" value="3103519873@vzw3g.com"/>	Connection Type:	<input type="text" value="Always On"/>
Password:	<input type="password" value="•••"/>	Inactivity Timeout:	<input type="text" value="60 Min"/>
<input type="radio"/> Use network provided dynamic IP address		<input checked="" type="radio"/> Use the following static IP address: <input type="text" value="166.139.104.35"/>	
Enable LCP echo packets in static IP mode: <input type="checkbox"/>			

Client For Dynamic IP Address Resolution

Select DDNS Type: None EW/SMS EW/UDP Standard UDP

Device Name:

Primary Name Server: Secondary Name Server:

Wireless Configuration For Static IP on Verizon Wireless




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ss http://ctek01.thingme.net/admin-bin/stat_cdma.cgi

Search Web PageRank 6419 blocked AutoFill Options



Wireless Interface Status

ESN - Dec:	06902491392	ESN- Hex:	45260400
System ID:	2	Phone Number (MIN):	3103519873
Network Status:	In Service	Signal Level (RSSI):	-83dBm
Roam Status:	Not Roaming	Current IP Address:	166.139.104.35
Call Type:	Packet - Mobile IP	Call Status:	Connected

[Home](#)

Wireless Status For A Correctly Activated Dynamic IP Account