

Author:	Sierra Wireless	Date:	September 17, 2010
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APN Content Level	BASIC	✓	INTERMEDIATE		ADVANCED		Confidentiality	Public	✓	Private	
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Software Compatibility*	FW:	6.x 7.x	Software Suite:	N/A	Plug-Ins:	TCP/IP	N/A	Security	N/A	Compiler Used:	N/A	Reference Hardware	No
						Internet	N/A	LUA	N/A			Reference Software	No
						C-GPS	N/A			RTE :	N/A		

* refer to software compatibility matrix section for more detail

Hardware Compatibility	AirPrime Q Series :	Q2686		Q2687		Q26Extreme		Q26Elite	✓
	AirPrime WMP Series :	WMP50		WMP100		WMP120		WMP150	
	AirPrime WS Series :	WISMO218		WISMO228					
	AirPrime AR Series	AR3550		AR5550		AR8550			
	AirLink FXT Series :	Fastrack Xtend GPRS		Fastrack Xtend EDGE		Fastrack Xtend HSPA		Fastrack Xtend CDMA	
	Legacy products (GSM):	Q24Classic		Q24Plus		Q24Extended		Q24Auto	
		Fastrack Supreme		Q520mni		Q64			
Legacy products (CDMA):	Q2438F		Q2438R						



1 Version

Application Notes may be updated over their lifetime. To ensure you design with the correct version, please check the application notes page in www.sierrawireless.com for latest versions.

2 Introduction

This Application Note (APN) is provided to Sierra Wireless distributors and clients to aid more rapid development of embedded applications using the Sierra Wireless portfolio of wireless solutions.

3 Application Note Description

This document describes in detail all of the steps required to activate an AirPrime Q26Elite CDMA 1xRTT module on Sprint network. The procedures below are provided under the assumption that the module has already been properly provisioned for the Sprint network by Sierra Wireless.

4 Activation on the Sprint Network

Before beginning the procedures below, confirm an account is setup with Sprint network.

To activate the AirPrime Q26Elite module on SPRINT network, perform the following procedure.

4.1 Automatic First Time Activation

The AirPrime Q26Elite had adopted OMA-DM. Therefore, for first time activation, once the module is powered on and registered onto Sprint Home Network, the activation procedure will take place automatically. MDN, MIN and PRL will be updated without requiring any actions from the user.

4.2 Activation by AT Command

For subsequent Service provisioning, please follow the procedure below.

1. Connect to the module using HyperTerminal (or equivalent) to Q26Elite UART1.
2. Confirm module is registered on HOME Sprint Network
AT+CREG?, module returns +CREG: 0,1
3. For device configuration request, enter AT+WDSS=1,1

The following messages display:

```
+WORG: #777      << Initiate Data call
+WCNT: 33       << 1xRTT Data call
+WDSI: 4        << The Wireless CPU® starts sending data to the server.
+WDSI: 6        << The authentication has succeeded, a session with the
                  server started.
+WDSI: 8,1     << The session with the server is finished.
+WEND: 29      << Release all call
```

4. For PRL update request, enter AT+WDSI=1,3

The following messages display:

```
+WORG: #777 << Initiate Data call
+WCNT: 33 << 1xRTT Data call
+WDSI: 4 << The module starts sending data to the server.
+WDSI: 6 << The authentication has succeeded, a session with the server started.
+WDSI: 8,1 << The session with the server is finished.
+WDSI: 21,10 << A provisioning was made by the server with Preferred Roaming List
(PRL)
+WEND: 0 << Phone is Off-Line
OFFLINE
RESET
```

4.3 Placing a 1xRTT DataCall

To confirm that a 1xRTT DataCall can be made successfully via internal IP stack, enter the following commands.

```
1. +wipcfg=1 << Start IP stack
OK
2. at+cme=1
OK
3. at+wipbr=4,6 << Start Bearer
OK
4. +WORG: #777 << Initiate Data call
5. +WCNT: 33 << 1xRTT Data call
6. +WIPBR: 6,1 << PPP is active
7. at+wipbr=3,6,15 << Query for assigned IP address
8. +WIPBR: 6,15,"70.196.10.171" <<< Network assigned an IP address
OK
```

5 Support

For direct clients: contact your Sierra Wireless FAE

For distributor clients: contact your distributor FAE

For distributors: contact your Sierra Wireless FAE

6 Document History

Version	Date	History
001	December 8, 2009	Creation
002	September 17, 2010	Reformat

7 Legal Notice

Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

Safety and Hazards

Do not operate the Sierra Wireless modem in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, near life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sierra Wireless modem **MUST BE POWERED OFF**. The Sierra Wireless modem can transmit signals that could interfere with this equipment. Do not operate the Sierra Wireless modem in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sierra Wireless modem **MUST BE POWERED OFF**. When operating, the Sierra Wireless modem can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless modems may be used at this time.

The driver or operator of any vehicle should not operate the Sierra Wireless modem while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offence.

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