



Customer Release Note

Linux QMI SDK 03.03.15



SIERRA
WIRELESS®

4134397
01.00
March 04, 2016

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 cellular modems are not advised without proper device certifications. These areas include environments where cellular radio can interfere such as explosive atmospheres, medical equipment, or any other equipment which may be susceptible to any form of radio interference. 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.

Limitations of Liability

This manual is provided "as is". Sierra Wireless makes no warranties of any kind, either expressed or implied, including any implied warranties of merchantability, fitness for a particular purpose, or noninfringement. The recipient of the manual shall endorse all risks arising from its use.

The information in this manual is subject to change without notice and does not represent a commitment on the part of Sierra Wireless. SIERRA WIRELESS AND ITS AFFILIATES SPECIFICALLY DISCLAIM LIABILITY FOR ANY AND ALL DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY SIERRA WIRELESS PRODUCT, EVEN IF SIERRA WIRELESS AND/OR ITS AFFILIATES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY.

Notwithstanding the foregoing, in no event shall Sierra Wireless and/or its affiliates aggregate liability arising under or in connection with the Sierra Wireless product, regardless of the number of events, occurrences, or claims giving rise to liability, be in excess of the price paid by the purchaser for the Sierra Wireless product.

Customer understands that Sierra Wireless is not providing cellular or GPS (including A-GPS) services. These services are provided by a third party and should be purchased directly by the Customer.

SPECIFIC DISCLAIMERS OF LIABILITY: CUSTOMER RECOGNIZES AND ACKNOWLEDGES SIERRA WIRELESS IS NOT RESPONSIBLE FOR AND SHALL NOT BE HELD LIABLE FOR ANY DEFECT OR DEFICIENCY OF ANY KIND OF CELLULAR OR GPS (INCLUDING A-GPS) SERVICES.

Patents

This product may contain technology developed by or for Sierra Wireless Inc.

This product includes technology licensed from QUALCOMM®.

This product is manufactured or sold by Sierra Wireless Inc. or its affiliates under one or more patents licensed from InterDigital Group and MMP Portfolio Licensing.

Copyright

© 2014 Sierra Wireless. All rights reserved.

Trademarks

Sierra Wireless®, AirPrime®, AirLink®, AirVantage®, WISMO® and the Sierra Wireless and Open AT logos are registered trademarks of Sierra Wireless, Inc. or one of its subsidiaries.

Watcher® is a registered trademark of Netgear, Inc., used under license.

Windows® and Windows Vista® are registered trademarks of Microsoft Corporation.

Macintosh® and Mac OS X® are registered trademarks of Apple Inc., registered in the U.S. and other countries.

QUALCOMM® is a registered trademark of QUALCOMM Incorporated. Used under license.

Other trademarks are the property of their respective owners.

Contact Information

Sales Desk:	Phone:	1-604-232-1488
	Hours:	8:00 AM to 5:00 PM Pacific Time
	Contact:	http://www.sierrawireless.com/sales
Post:	Sierra Wireless 13811 Wireless Way Richmond, BC Canada V6V 3A4	
Technical Support:	support@sierrawireless.com	
RMA Support:	repairs@sierrawireless.com	
Fax:	1-604-231-1109	
Web:	http://www.sierrawireless.com/	

Consult our website for up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases: www.sierrawireless.com

Document History

Version	Date	Updates
01.00	March 04, 2016	Creation



Contents

1. INTRODUCTION	7
1.1. Document Scope	7
1.2. Document Audience	7
1.3. New Features/Enhancements	7
2. ABBREVIATIONS AND DEFINITIONS	8
3. RELATED DOCUMENTATION	9
4. COMPATIBILITY	10
5. SOFTWARE RELEASE DESCRIPTION	12
6. SOFTWARE CHANGES DESCRIPTION	13
6.1. Validated Corrections/Improvements	13
6.2. Known Issues	14
6.3. New API.....	14
6.4. Minor API prototype change.....	14
6.5. Macro Usage	14



List of Tables

Table 1.	New Features/Enhancements	7
Table 2.	Abbreviations and Definitions	8
Table 3.	Related Documentation	9
Table 4.	Hardware Compatibility	10
Table 5.	Supported Application-Mode VID/PIDs	10
Table 6.	Supported Boot-Mode VID/PIDs	10
Table 7.	Modem and Firmware tested with the SDK.....	11
Table 8.	Release Information	12



Introduction

1.1. Document Scope

This document describes the content of the Linux QMI SDK 03.03.15 release.

1.2. Document Audience

This release note may be distributed to all direct and indirect customers.

1.3. New Features/Enhancements

Table 1. New Features/Enhancements

Feature	Description
AVMS support	<ul style="list-style-type: none">• Include support for EM73xx
New API	<ul style="list-style-type: none">• Set/GetDefaultProfileNum• SLQSUIMGetConfiguration
Miscellaneous	<ul style="list-style-type: none">• Enable multi modem by default

1.4. Removed Features

Table 2. Removed features

Feature	Description
---------	-------------

2.

Abbreviations and Definitions

Table 3. Abbreviations and Definitions

Abbreviation/Acronym	Definitions
MSM	Mobile Station Modem
PRI	Product Release Instructions
QMI	Qualcomm MSM Interface
SLQS	Sierra Linux QMI SDK
WP	Work Package

3.

Related Documentation

Table 4. Related Documentation

Ref. #	Doc. #	Document title
[R-1]	4110914	Linux QMI SDK Application Developer's Guide

4.

Compatibility

Table 5. Hardware Compatibility

Devices Compatibility List
AR7554/AR7554RD
EM/MC73xx
MC77xx
MC83x5
MC/SL9090
WP71xx
MC/EM74xx

Note: MC77xx devices must operate in “QMI Mode” and not in “Direct-IP” mode.

To switch device into QMI mode of operation, use the following AT commands:

- **AT!UDPID=68A2**
- **AT!RESET**

Note: MC73xx, set the device using “**AT!UDPID=68C0**”.

The tables below list the hexadecimal values of the Vendor ID (VID) and Product ID (PID) pairs supported by the Linux QMI SDK.

Table 6. Supported Application-Mode VID/PIDs

VID	1199	1199	1199	1199	1199	1199	1199	1199	3F0
PID	68A2	68C0	9011	9013	9015	9019	9041	9071	371D

Table 7. Supported Boot-Mode VID/PIDs

VID	1199	1199	1199	1199	1199	1199	1199	1199	3F0
PID	68A2	68C0	9010	9012	9014	9018	9040	9070	361D

To check your device’s VID/PID, issue the `lsusb` command. The output will present a list of USB devices with a column showing each device’s manufacturer. The device VID/PID can be read from the row containing the correct device manufacturer. Additionally, on MC77xx devices, you can use the `AT!UDINFO?` command to check VID/PID information. If your VID/PID does not match the any of the entries in the tables above, contact your FAE for support.

The following table enumerates the modems with their corresponding firmware that were tested with Linux QMI SDK 03.03.15.

Table 8. Modem and Firmware tested with the SDK

Modem	Firmware
MC7430	SWI9X30C_02.12.01.00
EM/MC7455	SWI9X30C_02.12.01.00
MC7304	SWI9X15C_05.05.58.00
MC7354	SWI9X15C_05.05.66.00
MC7350	SWI9C15C_05.05.58.01
MC7355	SWI9X15C_05.05.58.00
MC7330	SWI9X15C_05.05.65.00
MC7305	SWI9X15C_05.05.58.00
MC7710	SWI9200X_03.05.29.05
MC7750	SWI9600M_03.05.13.02
MC9090	SWI6600U_02.04.05.00
EM7355	SWI9X15C_05.05.58.00
EM7330	SWI9X15C_05.05.65.00
EM7305	SWI9X15C_05.05.61.00

Note: The SDK in general work across all firmware revisions. However, some new API might require a recent firmware.

5.

Software Release Description

Table 9. Release Information

Component	Content
SDK version	03.03.15
Date of generation	04/03/2016
Binary archive name	SLQS03.03.15.bin.tar.gz
MD5 checksum	b7094c19c9c5c222c30ffbf85ca3ef5b
Source code archive name	SLQS03.03.15.tar.gz
MD5 checksum	678857978018c07133fa5d0774eb7fdc
Processor compatibility	x86, ARM, PowerPC, MIPS
Linux kernel compatibility	2.6.32 to 4.1
USB drivers compatibility	S2.25N2.36



6.

Software Changes Description

6.1. Validated Corrections/Improvements

ID	Description
ANO77857	[AVMS] Need a solution in SDK to fix operator short name is wrong when MC7354 registered to eHRPD of Verizon
ANO85714	[FDT] On some platforms firmware download times out
CUS87664	can not get Band 28 using SLQSNasSwiModemStatus with MC7430
ANO87736	SetLocCradleMountCallback() and SetLocInjectSensorDataCallback() incorrectly register for LOC events
ANO87950	Memory leak in API SLQSSwiGetCrashInfo()
CUS88034	Package ID to be marked as deprecated for 74xx modems in slqsfwinfo_s and unpack_dms_GetFirmwareInfo_t
DEV88201	[Linux QMI SDK] EM73xx AVMS support
DEV88259	[FDT] firmware download support for WP8548
DEV88309	[AVMS] document the network interfaces config when running AVMS on Ubuntu
DEV88469	Add new API SLQSUIGetConfiguration support with QMI object QMI_UIM_GET_CONFIGURATION(58 0x3A)
CUS88567	SLQSNasGetTxRxInfo does not return proper dbm range
DEV88600	SDK documentation to be updated with information on how to interpret secondary cell values
ANO88717	[SLQS03.03.14][Sample App] SWIOMA_Application crashes when running "Get Session Info"
ANO88719	[SLQS03.03.14][Sample App] SWIOMA_Application stuck when attempting to update the PRL
CUS88754	Linux SDK several modem access issue
DEV88819	[Developer Studio FDT Support] FDT reported error message firmware download failed when force to DM mode
DEV88849	SDK to support QMI_WDS_GET/SET_DEFAULT_PROFILE_NUM (QMI CMD ID: 0x0049/004A)
DEV88995	SLQSKillSDKProcess: pclose hang & impose amtype check
ANO89093	IPC debug messages are not correct
ANO89119	[AVMS] wds default profile information such as PDP Type and APN were overwritten when data connection is up
ANO89207	[Linux QMI SDK] execute qa test case t392 cause qa test app segfault on Verizon EVDO
ANO89380	SLQSOMADMGetSettings2 segfault at pFwAutoCheck

6.2. Known Issues

ID	Description
ANO89431	[SLQS03.03.15] cannot launch the sdk for the third modem
ANO80847	[Linux SDK][Firmware Download App] Firmware Downloads will fail on USB 3.0

6.3. New API

API	Comment
Set/GetDefaultProfileNum	This API set/get default profile number
SLQSUIMGetConfiguration	This API Gets the modem configuration for the UIM module
SLQSLOCSetCradleMountConfig	This API sets the current cradle mount configuration
SLQSLOCInjectSensorData	This API injects sensor data into the GNSS location engine

6.4. Minor API prototype change

Note: when updating SDK, please make sure to pull the latest headers from <SDK_ROOT>/api folder

API	Comment
SLQSNasGetTxRxInfo	Update nasGetTxRxInfoResp to report signed values
GetHomeNetwork3GPP2	Update pNw2DescLen to return length
SLQSOMADMGetSessionInfo	Update retry count in SLQSOMADMSessionInfo to 16bit

6.5. Macro Usage

Macro	Usage
AM_API_MUTEX_TIMEOUT_IN_SEC	This is the timeout time (in seconds) for which the mutex is locked when the SDK is compiled with API_TIMEOUT flag.
API_TIMEOUT	This is a compilation flag. If this flag is defined during compilation, SDK will lock the mutex for a particular time. The locking time is defined by AM_API_MUTEX_TIMEOUT_IN_SEC. If this flag is not defined then the mutex is locked indefinitely.