



# Customer Release Note

## Linux QMI SDK 03.03.13



**SIERRA**  
WIRELESS®

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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.

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*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.*

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# Document History

Version	Date	Updates
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# Introduction

## 1.1. Document Scope

This document describes the content of the Linux QMI SDK 03.03.13 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
NAS Update	<ul style="list-style-type: none"><li>- Add TD-SCDMA support</li><li>- Add locking UE to UARFCN &amp; PCI</li><li>- Add Rank indicator API</li></ul>
LOC Update	<ul style="list-style-type: none"><li>- Add time &amp; coarse position inject</li></ul>
Firmware Update	<ul style="list-style-type: none"><li>- Download to firmware slot</li><li>- Fix OEM NVU update</li></ul>
AirVantage	<ul style="list-style-type: none"><li>- Fix Ubuntu 10 support</li><li>- Fix incorrect GPS position</li></ul>
Multi Modem	<ul style="list-style-type: none"><li>- Default disabled at pkgs/slqscmopile.mak</li></ul>

## 2.

# Abbreviations and Definitions

Table 2. 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 3. Related Documentation

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

# 4.

## Compatibility

Table 4. 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 5. Supported Application-Mode VID/PIDs

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

Table 6. Supported Boot-Mode VID/PIDs

<b>VID</b>	1199	1199	1199	1199	1199	1199	1199	1199	3F0
<b>PID</b>	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 03.03.13.

Table 7. Modem and Firmware tested with the SDK

Modem	Firmware
EM/MC7455	SWI9X30C_02.05.06.00

Modem	Firmware
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_03.05.29.03
MC9090	SWI6600U_02.04.04.00
EM7355	SWI9X15C_05.05.58.00
EM7330	SWI9X15C_05.05.65.00
EM7305	SWI9X15C_05.05.64.00

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

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# 5.

## Software Release Description

Table 8. Release Information

Component	Content
SDK version	03.03.13
Date of generation	2015/12/08
Binary archive name	SLQS03.03.13.bin.tar.gz
MD5 checksum	bdedd5cb533c7c76ee4d5520aef7f2f4
Source code archive name	SLQS03.03.13.tar.gz
MD5 checksum	7ce1abe7fa4680b0c61c45f3f156be57
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
DEV84396	[Linux QMI SDK][EM/MC7430] Add missing TD-SCDMA values in NAS service
ANO85332	[SLQS03.03.12-rc1] [MC7455] send SMS failure on Verizon LTE when IMS is registered
ANO85359	SLQSSwiGetFwUpdateStatus() needs to be updated to match 9x30 specification
ANO85365	ImageElement structure documentation needs to be corrected
DEV85404	Sample applications to be updated to match updated APIs
NEW83516	API for locking UE to a UARFCN and PCI
ANO84994	[Linux SDK] Sample App MC7xxx_Image_Management replace SLQSGetFirmwareInfo with SLQSSwiGetFirmwareCurr
ANO84998	[Linux SDK] AT test case t609, image ID displayed does not help user to choose firmware
ANO85078	[Linux SDK] Make the image ID more readable in QA test case t605 GetImagesPreference
DEV85098	Injecting time & coarse position to module
DEV85103	implement force download flag in SLQSDownloadFirmwareToSlot
NEW83224	API for Rank Indicator
ANO84516	[AVMS][SLQS Integration Guide][1.17] AirVantage/Mihini link page not found [avms-pilot]
DEV84536	[SLQS][ReadyAgent] Need to allow real time updates for the APN and Network adapter or to remove this feature [avms-pilot]
DEV84537	[SLQS][ReadyAgent] Need to allow real time updates for the username and password or to remove this feature [avms-pilot]
CUS85475	Firmware Download sample app does not kill the SDK process when "ps -e" is not supported
ANO85486	SLQSSwiSetHostDevInfo documentation needs to be corrected
ANO85487	SLQSSwiSetOSInfo documentation needs to be corrected
ANO85509	Downloading OEM PRI(.nvu) to 74xx modem is not being handled correctly
ANO81419	[Linux] [SDK] SDK stops detecting devices after running stress test for 300+ loops
DEV84079	API for GPS Autostart
ANO84111	[EM7455][LINUX Sample APP] Firmware download tool set wrong FW information after image switch
CUS84832	tFNLUReject documentation needs to be updated
CUS85138	device is registered on the roaming network even if pRoamPref to 0x01 into SLQSGetSysSelectionPref
DEV85183	[ReadyAgent] dhcpcd -v option in defaultconfig.lua script causes DHCP error with Ubuntu 10.04 [avms-pilot]

ID	Description
ANO85217	[AV][SLQS03.03.11] AV portal displaying the incorrect fix location [avms-pilot]
DEV85358	getCarrierId() needs to include all carriers
ANO86512	spk download failure on 73xx

## 6.2. Known Issues

ID	Description
ANO85423	[SLQS03.03.12-rc1] [MC7455] Get SMS failed on MC7455 on Verizon LTE when IMS is registered
ANO86705	[MC7455] [Verizon] send MO SMS over IMS failed when IMS is full service on Verizon
ANO86712	[EM7455] modem does not enter firmware download mode sometimes when running the stress test

## 6.3. New API

API	Comment
SetRankIndicatorCallback	This API is used to report the counts of rank1 & rank2 respectively
SLQSLOCInjectUTCTime	This API injects UTC time in the location engine
SLQSSetLocInjectUTCTimeCallback	This API is used to receive the SUCCESS/FAILURE status of SLQSLOCInjectUTCTime
SLQSLOCInjectPosition	This API injects a position to the location engine
SLQSSetLocInjectPositionCallback	This API is used to receive the SUCCESS/FAILURE status SLQSLOCInjectPosition()
SLQSGetValidFwPriCombinations	This API distills valid Firmware/PRI combinations from GetStoredImages result
SwiLocGetAutoStart	This API Get Loc Auto Start settings
SwiLocSetAutoStart	This API Set Loc Auto Start settings
SLQSNASSwiGetChannelLock	This API queries the channel or cell which the UE is locked into
SLQSNASSwiSetChannelLock	This API allows the host to lock the UE to a specific channel or cell

## 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
SLQSSwiGetFirmwareCurr	Add pLogStringLength & pLogString on response structure for failed image reference string

API	Comment
SLQSNasGetSigInfo	Add pTDSCDMASigInfoRscp & pTDSCDMASigInfoExt in response structure for TDSCDMA support
SLQSConfigSigInfo	Add pTDSCDMASINRCONFTthresh in request structure for TDSCDMA support
SLQSNasSwiIndicationRegister	Add pRankIndicatorInd in request structure for TDSCDMA support
SendSMS	Add pSmsOnIms parameter to control sending over IMS
SLQSSendLongSMS	Add pSmsOnIms parameter to control sending over IMS

## 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.