



# Customer Release Note

## Linux QMI SDK 03.03.17



**SIERRA**  
WIRELESS®

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## Contact Information

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

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# Document History

Version	Date	Updates
01.00	May 27, 2016	Creation
01.01	May 31, 2016	Update binary archive
01.02	May 31, 2016	Add sample app binaries



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# Introduction

## 1.1. Document Scope

This document describes the content of the Linux QMI SDK 03.03.17 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
<b>Lite APIs</b>	<ul style="list-style-type: none"><li>• <b>New Wrappers</b><ul style="list-style-type: none"><li>○ SLQSDmsSwiGetResetInfo</li><li>○ unpack_loc_EngineState_Ind</li></ul></li><li>• <b>Fix</b><ul style="list-style-type: none"><li>○ sms destination number encoding issue</li><li>○ missing libpack documentation</li><li>○ FOTAUpdate field typo at SLQSOMADMSetSettings</li><li>○ packingdemo missed first iccid digit</li><li>○ doc update for pack_loc_EventRegister_t</li></ul></li><li>• <b>Enhancement</b><ul style="list-style-type: none"><li>○ prefix libpack symbols</li><li>○ pdf for Lite api only</li></ul></li></ul>
<b>New API</b>	<ul style="list-style-type: none"><li>• <b>Thermal Mitigation</b><ul style="list-style-type: none"><li>○ SLQSTmdGetMitigationDevList</li><li>○ SLQSTmdGetMitigationLvl</li><li>○ SLQSTmdRegNotMitigationLvl</li><li>○ SLQSTmdDeRegNotMitigationLvl</li><li>○ SetTmdMitigationLvlRptCallback</li></ul></li><li>• SLQSSGetDHCPv4ClientConfig</li><li>• SLQSSetDHCPv4ClientLeaseChange</li></ul>
<b>Miscellaneous</b>	<ul style="list-style-type: none"><li>• FOTAUpdate field typo at SLQSOMADMSetSettings</li><li>• Fix Application crash at GetPower while unpacking</li><li>• Fix destination number encoding in CDMA SMS</li><li>• Update SLQSGetBandCapability to support LTE &amp; TD-SCDMA</li><li>• Add mipsel binaries</li></ul>

## 1.4. Removed Features

Table 2. Removed features

Feature	Description
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## 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

<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 7. 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 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 03.03.17.

**Table 8. Modem and Firmware tested with the SDK**

<b>Modem</b>	<b>Firmware</b>
MC7430	SWI9X30C_02.18.02.00
EM/MC7455	SWI9X30C_02.18.02.00
MC7304	SWI9X15C_05.05.67.00
MC7354	SWI9X15C_05.05.58.00
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_03.05.29.06
MC7750	SWI9600M_03.05.13.02
MC9090	SWI6600U_02.04.05.00
EM7355	SWI9X15C_05.05.66.00
EM7330	SWI9X15C_05.05.65.00
EM7305	SWI9X15C_05.05.67.00

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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 9. Release Information

Component	Content
SDK version	03.03.17
Date of generation	31/05/2016
Binary archive name	SLQS03.03.17.bin.tar.gz
MD5 checksum	7a6841d395b2fba52f599752cc6ce57c
Source code archive name	SLQS03.03.17.tar.gz
MD5 checksum	12b1ca792b1561c976fba2a561b6ceb1
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
CUS85222	APP crashes when sending SMS with newline characters
CUS86033	GetPower() causes a app crash as QmiDmsGetOperatingModeResp is not initialized correctly
ANO86471	[EM7455][LINUX Sample APP] Connection manager tries to kill SLQSSDK when quitting application
DEV90427	Add namespace prefix to global symbols only used internally within SDK-lite library
DEV90487	[Linux][SDK] Updates to SLQSSetSysSelectionPref QA test cases
ANO90520	Connection Manager readme.txt to be updated for logging information.
NEW90620	Add support for Thermal mitigation QMI objects
DEV90815	Add unpack function for QMI_LOC_EVENT_ENGINE_STATE_IND
CUS90816	Documentation for mask 0x00000080 in pack_loc_EventRegister_t to be corrected
CUS90880	CDMA SMS destination number is not encoded correctly and SMS is not delivered
CUS90917	[SDK Lite] CDMA SMS destination number is not encoded correctly
ANO90918	SDK Lite documentation not available with 03.03.16
CUS90942	SLQSGetCustFeatures does not work for 74xx modems
DEV91031	SDK support for Phase II DHCPV4 Client Configuration and Lease Status QMI Objects
CUS91073	SDK TxPower description is not accurate
ANO91074	SwiOmaDmSetSettings typo when packing FOTAUpdate value
NEW91162	Please add support for QMI_DMS_SWI_GET_RESET_INFO in SDK Lite
DEV91285	reduce SLQSStartStopDataSession timeout from 5 to 2min
NEW91343	Add LTE and TD-SCDMA band capability to API SLQSGetBandCapability
DEV91361	packingdemo locks pin and force LTE only
DEV91362	WIFCONTINUED might not defined in libc
ANO91534	packindemo does not print complete ICCID
CUS91535	qatestapp test case t865 does not read IMSI on 74xx modems
CUS91720	[SLQSSDK][3.3.16] Missing mipself binary
ANO91821	IND portion of QMI_DMS_SWI_GET_RESET_INFO not implemented in SDK Lite
ANO91901	[Linux QMI SDK] special characters such as '@' '#' key is not encoded correctly

## 6.2. Known Issues

ID	Description
ANO92093	[SLQS03.03.17] SMS Sample application is unable to display multiple sms due to buffer overflow

## 6.3. New API

API	Comment
SLQSTmdMitigationLvlRptCallback	Thermal Mitigation Callback
SLQSGetBandCapabilities	Returns the band capability of the device
SLQSTmdGetMitigationDevList	Gets the list of mitigation devices from the remote endpoint
SLQSTmdGetMitigationLvl	Gets the thermal mitigation level for the mitigation devic
SLQSTmdRegNotMitigationLvl	Registers for notification of mitigation device level changes
SLQSTmdDeRegNotMitigationLvl	Deregisters the notification for mitigation device level changes
SLQSSGetDHCPv4ClientConfig	Gets the DHCP Client V4 Configuration
SLQSSetDHCPv4ClientLeaseChange	Allows the host to configure and receive notification for DHCPv4 Client lease state change

## 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
SLQSDmsSwiGetResetInfo	Update type/source at dmsSwiGetResetInfo from BYTE pointer to BYTE

## 6.5. Libpack, qmi.h replaced by msgid.h

Note: QMI message IDs are now defined in msgid.h, below is the migration table

qmi.h	msgid.h
<b>WDS</b>	
QMI_WDS_SET_EVENT_REPORT	eQMI_WDS_SET_EVENT
QMI_WDS_START_NETWORK_INTERFACE	eQMI_WDS_START_NET
QMI_WDS_STOP_NETWORK_INTERFACE	eQMI_WDS_STOP_NET
QMI_WDS_GET_PKT_SRVC_STATUS	eQMI_WDS_GET_PKT_STATUS
QMI_WDS_CREATE_PROFILE	eQMI_WDS_CREATE_PROFILE
QMI_WDS_MODIFY_PROFILE	eQMI_WDS_MODIFY_PROFILE
QMI_WDS_GET_PROFILE_SETTINGS	eQMI_WDS_GET_PROFILE
QMI_WDS_GET_RUNTIME_SETTINGS	eQMI_WDS_GET_SETTINGS
<b>NAS</b>	
QMI_NAS_INDICATION_REGISTER	eQMI_NAS_SET_REG_EVENT
QMI_NAS_GET_SIGNAL_STRENGTH	eQMI_NAS_GET_RSSI
QMI_NAS_SET_SYS_SELECT_PREF	eQMI_NAS_SET_SYS_SELECT_PREF
QMI_NAS_GET_SYS_SELECT_PREF	eQMI_NAS_GET_SYS_SELECT_PREF
QMI_NAS_GET_SYS_INFO	eQMI_NAS_GET_SYS_INFO
QMI_NAS_SYS_INFO_IND	eQMI_NAS_SYS_INFO_IND

## 6.6. 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.