



Customer Release Note

Linux QMI SDK 04.00.03



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

Document History

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Introduction

1.1. Document Scope

This document describes the content of the Linux QMI SDK 04.00.03 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
<p>Lite APIs</p>	<ul style="list-style-type: none"> • New Wrappers <ul style="list-style-type: none"> ○ LOC <ul style="list-style-type: none"> ▪ SLQSLOCInjectUTCTime ▪ SLQSLOCInjectPosition ▪ SLQSLOCSetCradleMountConfig ▪ SLQSLOCInjectSensorData ○ DMS <ul style="list-style-type: none"> ▪ UIMSetPINProtection ▪ UIMUnblockPIN ▪ UIMVerifyPIN ▪ UIMChangePIN ▪ UIMGetControlKeyStatus ▪ UIMGetPINStatus ▪ UIMSetControlKeyProtection ▪ SetActivationStatusCallback ▪ UIMUnblockControlKey ▪ ResetToFactoryDefaults ▪ ValidateSPC ▪ ActivateAutomatic ▪ SLQSGetERIFile ▪ SLQSUIMGetState ▪ SLQSSwiGetCrashInfo ▪ SLQSSwiGetHostDevInfo ▪ SLQSSwiSetHostDevInfo ▪ SLQSSwiGetOSInfo ▪ SLQSSwiSetOSInfo ▪ SLQSSwiGetSerialNoExt ○ WDS <ul style="list-style-type: none"> ▪ SetMobileIP ▪ SetMobileIPParameters ▪ SetAutoconnect ▪ GetAutoconnect ▪ SLQSWdsSetEventReport ▪ SLQSWdsGoDormant ▪ SLQSWdsGoActive ▪ SLQSRResetPacketStatics ▪ SLQSSSetDHCPv4ClientConfig ▪ GetDataBearerTechnology ○ Callback <ul style="list-style-type: none"> ▪ SLQSNasSigInfo2Callback ▪ SetMobileIPStatusCallback ▪ SetActivationStatusCallback ▪ SetPowerCallback ▪ SetCATEventCallback ▪ SetLocOpModeCallback ▪ SetLocDeleteAssistDataCallback ▪ SetLocGnssSvInfoCallback ▪ SetRMTransferStatisticsCallBack ▪ SetDHCPv4ClientLeaseCallback ▪ SetSLQSNasTimerCallback
<p>New API</p>	<ul style="list-style-type: none"> • SetSLQSNasTimerCallback

Feature	Description
Miscellaneous	<ul style="list-style-type: none"> • Binaries release now build with <code>-fPIC</code> to improve compatibility • Fix special symbol encode issue at <code>SLQSWCDMAEncodeMOTextMsg</code> • Fix Firmware Update in Dual modem scenario • Add a slot option in the Firmware Download Sample app • Add error check at libSDP when opening serial port • API to customize block size in libSDP (<code>libsdp_SetReadBlockSize</code>)

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
WP8548/7502/7504

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 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 04.00.02.

Table 8. Modem and Firmware tested with the SDK

Modem	Firmware
MC7430	SWI9X30C_02.23.00.00
EM/MC7455	SWI9X30C_02.23.00.00
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_05.05.67.00
MC7710	SWI9200X_03.05.29.06
MC9090	SWI6600U_02.04.05.00
EM7355	SWI9X15C_05.05.61.00
EM7330	SWI9X15C_05.05.65.00
EM7305	SWI9X15C_05.05.67.00
WP7502	SWI9X15Y_07.10.04.00
WP7504	SWI9X15Y_07.10.09.00
WP8548	SWI9X15Y_07.10.04.00

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	04.00.03
Date of generation	09/11/2016
Binary archive name	SLQS04.00.03.bin.tar.gz
MD5 checksum	a179350e8158e2b0c19955a85fb47ddb
Source code archive name	SLQS04.00.03.tar.gz
MD5 checksum	7c7f656136b42703739c9223475af8b1
Processor compatibility	x86, ARM, PowerPC, MIPS
Linux kernel compatibility	2.6.32 to 4.4
USB drivers compatibility	S2.26N2.38

6.

Software Changes Description

6.1. Validated Corrections/Improvements

ID	Description
LXQMISDK-797	SLQS 04.00.01: Airlink AT*SMSM2M received invalid characters when some special characters were sent
LXQMISDK-795	Please error check call to OpenSendTTYFD()
LXQMISDK-792	Firmware Download times out with 9x30 modems when block size is 1024
LXQMISDK-791	Errors when building SDK Lite on BBB
LXQMISDK-781	Implement Lite APIs for LOC
LXQMISDK-778	Implement Lite APIs for DMS
LXQMISDK-771	unpack_wds_SLQSGet3GPPConfigItem_t has 5 items for profileList instead of 4
LXQMISDK-770	The Lite-SDK-howto.html demo installation instructions are out-dated
LXQMISDK-768	build binaries with -fPIC
LXQMISDK-767	Implement Lite APIs for WDS
LXQMISDK-766	Linux QMI FWDL SLOT support
LXQMISDK-750	Implement Lite API for WP indications
LXQMISDK-746	Firmware Upgrade fails on dual modem platform
LXQMISDK-726	MC74xx - T3396 value
LXQMISDK-505	SLQSSwiGetFirmwareCurr() documentation needs to be updated

6.2. Known Issues

ID	Description
LXQMISDK-802	[SLQS04.00.03] special character '@' is not decoded correctly for 8bit and UCS2 encoding method of SDK

6.3. New API

API	Comment
SetSLQSNasTimerCallback	This enable/disable Network Timer callback function

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
SLQSNasSwiIndicationRegister	struct NasSwiIndReg is expanded to include Network Timer indication(pTimer)

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.