Linux QMI SDK 04.00.13

Customer Release Note

SIERRA WIRELESS®

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Document History

Version	Date	Updates
1.0	February 28, 2018	Creation
2.0	April 11, 2018	Updated document reference number and template

Contents

List of Tables

1. Introduction

This document describes the contents of the Linux QMI SDK 04.00.13 release.

1.1. New Features/Enhancements

Table 1. New Features/Enhancements

Feature	Description
AVMS	AVMS API support for WP76xx
Lite SDK test environment update	Auto test report available for OEM API test cases
Lite SDK Callback support	Support common QMI callbacks
Add PSM QMI object support	New APIs: • SLQSSetPowerSaveModeConfig • SLQSGetPowerSaveModeConfig • SetCfgParamChangeCallback

Please refer to QMAP_FullSDK.html and QMAP_LiteSDK.html for QMAP test procedures.

1.2. Lite APIs Changed

- dms_UIMGetICCI
- dms_GetIMSI

Both APIs are depreciated on the AirPrime WP76xx and are replaced by uim_ReadTransparent.

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

[1] Linux QMI SDK Application Developer’s Guide

Reference number: 4110914

[2] Linux QMI SDK Sanity Test Report

Reference number: 41111983

[3] Linux QMI SDK Software Validation Test Report

Reference number: 41111984

4. Compatibility

Table 3. Hardware Compatibility

Compatible Devices
AR7554/AR7554RD
EM/MC73xx
MC77xx
MC83x5
MC/SL9090
MC/EM74xx
WP8548/7502/7504
WP7601/WP7603/WP7607/WP7609
WP7702

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

To switch the 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 (VID) pairs supported by the Linux QMI SDK.

Table 4. 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 5. 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 modules with their corresponding firmware that were tested with Linux QMI SDK 04.00.11.

Table 6. Modem and Firmware tested with the SDK

Modem	Firmware
MC7430	SWI9X30C_02.26.00.00
EM/MC7455	SWI9X30C_02.27.01.00
MC7304	SWI9X15C_05.05.58.00
MC7354	SWI9X15C_05.05.58.00
MC7350	SWI9C15C_05.05.58.01
MC7355	SWI9X15C_05.05.67.00
MC7330	SWI9X15C_05.05.65.00
MC7305	SWI9X15C_05.05.58.00
MC7710	SWI9200X_03.05.29.06
MC9090	SWI6600U_02.04.06.00
EM7355	SWI9X15C_05.05.67.00
EM7330	SWI9X15C_05.05.65.00
EM7305	SWI9X15C_05.05.67.00
WP7502	SWI9X15Y_07.12.09.00
WP7504	SWI9X15Y_07.12.09.00
WP8548	SWI9X15Y_07.12.09.00
WP7603	SWI9X07Y_02.13.01.00
WP7702	SWI9X06Y_02.13.01.00
EM7565	SWI9X50C_01.03.02.00

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

5. Software Release Description

Table 7. Release Information

SDK version	04.00.13
Date of generation	28/02/2018
Binary archive name	SLQS04.00.13.bin.tar.gz
Binary archive name	SLQS04.00.13-lite.bin.tar.gz
Source code archive name	SLQS04.00.13.tar.gz
Processor compatibility	x86, ARM, PowerPC, MIPS
Linux kernel compatibility	2.6.32 to 4.8
USB driver compatibility	S2.31N2.50

6. Software Changes

6.1. Validated Corrections/Improvements

Table 8. Validated Corrections/Improvements

ID	Description
LXQMISDK-1132	Lite AVMS API support for WP76xx
LXQMISDK-1131	Unable to download SoftBank PRI SWI9X30C_02.24.05.06_Softbank_001.006_000 with lite-fw-download
LXQMISDK-1129	Unable to compile FWATE Linux Proxy due to incomplete path provided in qaGobiApiDcs.h
LXQMISDK-1128	[Lite-SDK-API] OEM API Test config and report improvement
LXQMISDK-1126	Remove misleading application log from Firmware_Download
LXQMISDK-1124	litefw_GetModelFamily does return Model Family for WP76 modems
LXQMISDK-1120	Unable to download OEM PRI via lite-fw-download on WP7603
LXQMISDK-1119	separate OEM API test cases
LXQMISDK-1118	dump_wds_SLQSGetProfileSettings NULL pointer deference
LXQMISDK-1115	[Lite-SDK-API] OEM API Test improvement for WDS ping test
LXQMISDK-1112	GetActivationState documentation to indicate that it is only for 3GPP2 devices
LXQMISDK-1111	eTLV_CBK_TRANS_LAYER_INFO is not handled correctly by UpkQmiCbkWmsTransLayerInfoInd
LXQMISDK-1110	Test Reports Update
LXQMISDK-1109	SDK Firehose not able to run without qcqmi device node.
LXQMISDK-1108	Use Sysfs to determinate GobINet module is loaded.
LXQMISDK-1103	Close unnecessary DCS client
LXQMISDK-1098	Lite Callback implementation for VOICE service
LXQMISDK-1097	Update Firmware Downloader to indicate EM7565 support
LXQMISDK-1096	Lite SDK auto test log improvement for smsdemo.c
LXQMISDK-1095	Add pSupportEmergencyCalls field to Profile3GPP struct
LXQMISDK-1094	lite-fw-download does not manage error in SetImagesPreference properly
LXQMISDK-1090	LITE-SDK Create separate binary for OEM API test.
LXQMISDK-1070	Please add support to get SWI offline reason in Linux QMI SDK and SDKLITE
LXQMISDK-1069	Kernel panic during firmware download
LXQMISDK-1059	Report signature mismatch error codes when using signed Linux images
LXQMISDK-1058	Add PSM QMI support
LXQMISDK-1050	FW download process improvements
LXQMISDK-1030	Cannot Send UCS-2 Encoded SMS
LXQMISDK-1021	Firmware download app shall not check for modem manager process when bundled as swiflash
LXQMISDK-773	Implement Lite APIs for Callback

6.2. Known Issues

Table 9. Known Issues

ID	Description
QTI9X07-940	Add QMI to change USB composition
LXQMISDK-1139	[EM7565] firmware download failed for cwe+nvu on USB2.0

6.3. Minor API Prototype Change

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

6.4. Macro Usage

Table 10. 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.