



Customer Release Note

Linux QMI SDK 04.00.05



SIERRA
WIRELESS®

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Document History

Version	Date	Updates
01.00	March 06, 2017	Creation
01.01	March 08, 2017	Fix table alignment across pages



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Introduction

1.1. Document Scope

This document describes the content of the Linux QMI SDK 04.00.05 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
Lite APIs	<ul style="list-style-type: none">• New Wrappers<ul style="list-style-type: none">○ AVMS<ul style="list-style-type: none">▪ SLQSAVMSStartSession▪ SLQSAVMSStopSession▪ SLQSAVMSSelection▪ SLQSAVMSSetSettings▪ SLQSAVMSSetSettingsIgnoreAutoReboot▪ SLQSAVMSSetEventReport○ NAS<ul style="list-style-type: none">▪ SLQSNasNetworkRejectCallback○ SWIOMA<ul style="list-style-type: none">▪ SLQSOMADMStartSessionExt▪ SLQSOMADMCancelSessionExt▪ SLQSOMADMSendSelectionExt▪ SLQSOMADMSetSettingsExt▪ SLQSOMADMStartSession▪ SLQSOMADMSendSelection▪ SLQSOMADMGetSettings▪ SLQSOMADMSetSettings▪ SLQSOMADMSetSettings2○ SAR<ul style="list-style-type: none">▪ SLQSGetRfSarState▪ SLQSSetRfSarState○ RMS<ul style="list-style-type: none">▪ GetSMSWake▪ SetSMSWake○ Voice<ul style="list-style-type: none">▪ OriginateUSSD▪ AnswerUSSD▪ CancelUSSD▪ SLQSVoiceDialCall

	<ul style="list-style-type: none"> ▪ SLQSVoiceEndCall ▪ SLQSVoiceSetSUPSService ▪ SLQSVoiceSetConfig ▪ SLQSVoiceAnswerCall ▪ SLQSVoiceGetCLIR ▪ SLQSVoiceGetCLIP ▪ SLQSVoiceGetCallWaiting ▪ SLQSVoiceGetCallBarring ▪ SLQSVoiceGetCallForwardingStatus ▪ SLQSVoiceSetCallBarringPassword ▪ SLQSVoiceGetCallInfo ▪ SLQSVoiceGetAllCallInfo ▪ SLQSVoiceManageCalls ▪ SLQSVoiceBurstDTMF ▪ SLQSVoiceStartContDTMF ▪ SLQSVoiceStopContDTMF ▪ SLQSVoiceSendFlash ▪ SLQSVoiceSetPreferredPrivacy ▪ SLQSVoiceIndicationRegister ▪ SLQSVoiceGetConfig ▪ SLQSVoiceOrigUSSDNoWait ▪ SLQSVoiceBindSubscription ▪ SLQSVoiceALSSetLineSwitching ▪ SLQSVoiceALSSelectLine ▪ SLQSVoiceGetCOLP ▪ SLQSVoiceGetCOLR ▪ SLQSVoiceGetCNAP ▪ SLQSOriginateUSSD
<p>Miscellaneous</p>	<ul style="list-style-type: none"> • Support WP7601/WP7603 firmware update (Firehose protocol) • Rename libpack to lite-qmi • Rename libsdp to lite-fw • Add AVMS APIs <ul style="list-style-type: none"> ○ SLQSAVMSStartSession ○ SLQSAVMSStopSession ○ SLQSAVMSSelection ○ SLQSAVMSSetSettings ○ SLQSAVMSSetSettingsIgnoreAutoReboot ○ SLQSAVMSSetEventReport • Fix compilation on GCC 5.3 • Add missing test cases in lite-qmi-demo • Add "-d" switch for slqssdk to disable log • SLQSSetDHCPv4ClientLeaseStatusCallback, fix 2nd PDN issue

1.4. Removed Features

Table 2. Removed features

Feature	Description
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1.5. Lite APIs Rename

In order to be consistent on naming convention, we have renamed libpack and libsdp to lite-qmi and lite-fw respectively.

Table 3. libSDP to lite-fw Structure name update

libSDP	lite-fw
libSDP_FirmwareInfo	litefw_FirmwareInfo

Table 4. libSDP to lite-fw Enum name update

libSDP	lite-fw
LIBSDP_CARRIER_PACKAGE_SKU	LITEFW_CARRIER_PACKAGE_SKU

Table 5. libSDP to lite-fw API name update

libSDP	lite-fw
libSDP_getFileType	litefw_getFileType
libSDP_ExtractFirmwareParametersByPath	litefw_ExtractFirmwareParametersByPath
libSDP_GetModelFamily	litefw_GetModelFamily
libSDP_CheckValidFirmwareInfo	litefw_CheckValidFirmwareInfo
libSDP_BuildImagesPreferenceRequest	litefw_BuildImagesPreferenceRequest
libSDP_CalculateImageMask	litefw_CalculateImageMask
libSDP_DownloadFW	litefw_DownloadFW
libsdp_set_log_func	litefw_set_log_func
libsdp_SetReadBlockSize	litefw_SetReadBlockSize

2.

Abbreviations and Definitions

Table 6. 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 7. Related Documentation

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

4.

Compatibility

Table 8. 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 9. 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 10. 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 04.00.05.

Table 11. Modem and Firmware tested with the SDK

Modem	Firmware
MC7430	SWI9X30C_02.24.02.00
EM/MC7455	SWI9X30C_02.24.02.00
MC7304	SWI9X15C_05.05.67.00
MC7354	SWI9X15C_05.05.67.00
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
MC9090	SWI6600U_02.04.06.00
EM7355	SWI9X15C_05.05.67.00
EM7330	SWI9X15C_05.05.65.00
EM7305	SWI9X15C_05.05.58.00
WP7502	SWI9X15Y_07.11.22.00
WP7504	SWI9X15Y_07.11.22.00
WP8548	SWI9X15Y_07.11.22.00

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

5.

Software Release Description

Table 12. Release Information

Component	Content
SDK version	04.00.05
Date of generation	06/03/2017
Binary archive name	SLQS04.00.05-lite.bin.tar.gz
MD5 checksum	710665fc2d68c7f1de5691d67f2a8cc3
Binary archive name	SLQS04.00.05.bin.tar.gz
MD5 checksum	fa698ef5e254985e9c421df923fe6b2a
Source code archive name	SLQS04.00.05.tar.gz
MD5 checksum	b68777ccc14b46deba2b2fde1440f48f
Processor compatibility	x86, ARM, PowerPC, MIPS
Linux kernel compatibility	2.6.32 to 4.8
USB drivers compatibility	S2.27N2.41

6.

Software Changes Description

6.1. Validated Corrections/Improvements

ID	Description
LXQMISDK-837	missing write endpoints check on sysfs
LXQMISDK-831	tFNEventPosition documentation is missing
LXQMISDK-828	Unable to download SPK created with SWICWE with SDK Lite
LXQMISDK-827	Compilation errors with gcc 5.3.x
LXQMISDK-826	NAS_PLMN_LENGTH incorrectly documented as PLMN_LENGTH
LXQMISDK-825	packing demo is missing test cases for SDK Lite APIs
LXQMISDK-824	Linux SDK APIs for AVMS QMI Service
LXQMISDK-823	syslog option in connection manager flood console with debug logs
LXQMISDK-822	[Linux SDK] MC7430, How to indicate EMM reject status
LXQMISDK-821	packingdemo missing from SDK04.00.04
LXQMISDK-819	helper should be updated with all supported SDK Lite QMI commands
LXQMISDK-816	[SDK]To add a switch to enable/disable output SDK log
LXQMISDK-812	Rename libpack,libsdp to match SDK LITE naming convention
LXQMISDK-805	libsdp reduce transfer payload overhead when blocksize for filesystem less then transfer buffer size
LXQMISDK-796	Add Firehose support
LXQMISDK-788	Implement Lite APIs for swioma
LXQMISDK-786	Implement Lite APIs for SAR
LXQMISDK-785	Implement Lite APIs for RMS
LXQMISDK-775	Implement Lite APIs for voice
LXQMISDK-699	[Linux] [SDK] SDK segfaults after running Image switching stress test for 500+ loops

ID	Description
LXQMISDK-836	SLQSSetDHCPv4ClientLeaseStatusCallback does not support registration on APN2

6.2. Known Issues

ID	Description
LXQMISDK-838	[SLQS04.00.05] API SLQSAVMGetSessionInfo() failed on Marvell

6.3. New API

API	Comment
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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
SLQSNasIndicationRegisterExt	Add pNetworkRejectInd and SuppressSysInfoInd members in nasIndicationRegisterReq structure

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.