Customer Release Note

Linux QMI SDK 03.03.04

SIERRA WIRELESS®

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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

Version	Date	Updates
1.0	October, 17, 2014	Creation
1.1	October, 20, 2014	remove API timeout macro usage
1.2	October, 21, 2014	add Known firmware issues

Contents

List of Tables

1. Introduction

1.1. Document Scope

This document describes the content of the Linux QMI SDK 03.03.04 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
Dynamic QoS	Enhanced QoS callbacks support
AVMS diagnostic and configuration	AirVantage Management Services modem diagnostic and configuration
AVMS security	AirVantage Management Services secured connections
AVMS agent size	AirVantage Management Services agent size optimization
Linux kernel compatibility	Linux kernels 3.11~3.13 compatibility
Sprint certification	Additional API for ##debug information
DM logging	Enhanced DM logging

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
EM73xx
MC73xx
MC77xx
MC78xx
MC83x5
MC9090
SL9090
WP71xx

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 (VID) pairs supported by the Linux QMI SDK.

Table 5. Supported Application-Mode VID/PIDs

VID	1199	1199	1199	1199	1199	1199	1199	3F0
PID	68A2	68C0	9011	9013	9015	9019	9041	371D

Table 6. Supported Boot-Mode VID/PIDs

VID	1199	1199	1199	1199	1199	1199	1199	3F0
PID	68A2	68C0	9010	9012	9014	9018	9040	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 03.03.04.

Table 7. Modem and Firmware tested with the SDK

Modem	Firmware
AR7554	SWI9X15A_06.03.07.00
EM7305	SWI9X15C_05.05.47.00
EM7330	SWI9X15C_05.05.47.00
EM7335	SWI9X15C_05.05.42.00
EM7355	SWI9X15C_05.05.39.00
MC7304	SWI9X15C_05.05.47.00
MC7305	SWI9X15C_05.05.39.00
MC7330	SWI9X15C_05.05.47.00
MC7350	SWI9C15C_05.05.47.00
MC7354	SWI9X15C_05.05.47.00
MC7355	SWI9X15C_05.05.37.00
MC7710	SWI9200X_03.05.29.02
MC7750	SWI9600M_03.05.13.02
MC9090	SWI6600C_02.00.01.01

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

5. Software Release Description

Table 8. Release Information

Component	Content
SDK version	03.03.04
Date of generation	2014/09/29
Binary archive name	SLQS03.03.04.bin.tar.gz
MD5 checksum	99bd1f391cbff00b1a88ffc0ded6851a
Source code archive name	SLQS03.03.04.tar.gz
MD5 checksum	2e7c18a18366a665fecab75a66aba8dd
Processor compatibility	x86, ARM, PowerPC, MIPS
Linux kernel compatibility	2.6.18 to 3.13
USB drivers compatibility	S2.20N2.26

6. Software Changes Description

6.1. Validated Corrections/Improvements

ID	Description
CUS72867	[Linux QMI SDK] Per bearer QoS paramters to be returned
ANO73302	[QMI SDK] Need to remove "pidof" from SDK
DEV73433	[US_CARRIER]Long SMS fix with link timer in TLV
ANO73579	[Linux QMI SDK] Useful debug messages to be added in the SDK
ANO73627	[SDK 3.3.2][AVMS] Linux not reconnecting to AVMS in case of a re-enumeration
DEV73629	[SDK 3.3.2][AVMS] Enable AVMS via a configuration flag
DEV73952	Implement API for QMI_DMS_SWI_GET_CRASH_INFO
CUS74094	SLQSGetOperatorData() fails and returns eQCWWAN_ERR_MEMORY
CUS74182	[QMI SDK/QoS] All Qos Flow and Filter parameters need to be completely implemented [BZ48310,NEW72047,NEW72269]
ANO74183	[Linux QMI SDK/QoS doc] Unsupported QoS flow and filter parameters are not documented correctly
ANO74235	[SLQS03.03.03] firmware download fail to start if download a spk file which contains a PRI version already existed in the module
CUS74547	tFFNET callback does not cpature QMI instance correctly [W152875]
DEV74555	Async SMS send api & callback using ASYNC_RAW_SEND
ANO74561	GetServingNetworkCapabilities memory corrupt at pDataCaps respnose
DEV74571	Implement API for QMI_DMS_SWI_GET/SET_CRASH_ACTION
CUS74637	[Linux QMI SDK] The SLQSSetCustFeatures() documentation does not mention that a reset is needed for changes to take effect[W152999]
CUS74661	SetPDSDefault() documentation has incorrect units for interval
CUS74966	Report EPS Bearer ID via QMI API
DEV75024	AVMS use FSN as default password
ANO75127	AVMS align system.sw_info.fw_ver/name with application package
ANO75325	[AVMS] gps latitude/longitude not in float
CUS75398	[QMI SDK doc] GetPDSState() API pTrackingStatus values are not documented
CUS75529	add bearer id in callback API SLQSSetPacketSrvStatusCallback()
CUS75530	tFFNET callback does not send out unthrottle event sometimes

6.2. Interface Changes

API	Comment
SLQSSendSMS	Add pLinkTimer in request structure (slqssendsmsparams_s)
SetNetChangeCbk	The parameter tFNNet of this API was expanded to include one more parameter which is instance id

API	Comment
SLQSSetPacketSrvStatusCallback	The parameter of function pointer tFNPacketSrvState of the mentioned API was expanded to include one more parameter which is bearer id
SLQSSetQosEventCallback	Parameter p3GPPTraHdlPri of the structure swiQosFlow is changed to BYTE type from WORD.

6.3. New API

API	Comment
SLQSSendAsyncSMS	This API send SMS without waiting for completion from modem
SLQSWmsAsyncRawSendCallBack	This callback subscribe the completion result from SLQSSendAsyncSMS
SLQSSwiGetCrashAction/ SLQSSwiSetCrashAction	These APIs get/set the Crash Action to the device
SLQSSwiGetCrashInfo	This API queries the Crash State from the device

6.4. Known Firmware Issues

Issues	Description
SBM16778	[MC73XX] UL TPUT degrade about 8Mbps when DL+UL TPUT traffic are transmitting simultaneously