EM7590

QMI Interface Specification

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Rev 1
Proprietary and Confidential
Contents subject to change

SIERRA WIRELESS®

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Revision History

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1	April 2023	Document creation

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1: Introduction

1.1 Purpose

This document describes libqmi APIs for use with EM7590 on Linux platforms.

For more information, refer to the libqmi web page at https://www.freedesktop.org/wiki/Software/libqmi/

2: DMS Service APIs

2.1 QMI_DMS_SWI_SET_EVENT_REPORT

This message enables indications for Sierra Wireless defined events. Its usage is similar to QMI_DMS_SET_EVENT_REPORT (see *[3] 80-NV615-4 A QMI DMS 1.57*).

Command ID

0x5557

Version Introduced

Major – 1, Minor – 0

2.1.1 QMI_DMS_SWI_SET_EVENT_REPORT_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Table 2-1: QMI_DMS_SWI_SET_EVENT_REPORT_REQ Optional TLVs (List)

TLV Name	Version last modified
PC Temperature	1.0
Voltage	1.0
Deferred Shutdown	1.0
UIM Status	1.0
PA Temperature	1.0
Call Mode	1.0

Table 2-2: QMI_DMS_SWI_SET_EVENT_REPORT_REQ Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	PC Temperature
Length	1			2	
Value	→	uint8	temperature	1	0—Do not report 1—Report when state changes
Type	0x11			1	Voltage

Table 2-2: QMI_DMS_SWI_SET_EVENT_REPORT_REQ Optional TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Length	1			2	
Value	→	uint8	voltage	1	0—Do not report 1—Report when state changes
Type	0x12			1	Deferred Shutdown
Length	1			2	
Value	→	uint8	deferred shutdown	1	0—Do not report 1—Report when state changes
Type	0x13			1	UIM Status
Length	1			2	
Value	→	uint8	UIM status	1	0—Do not report 1—Report when state changes
Type	0x14			1	PA Temperature
Length	1			2	
Value	→	uint8	PA temperature	1	0—Do not report 1—Report when state changes
Type	0x15			1	Call Mode
Length	1			2	
Value	→	uint8	Call mode	1	0—Do not report 1—Report when state changes

2.1.2 QMI_DMS_SWI_SET_EVENT_REPORT_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 2-3: QMI_DMS_SWI_SET_EVENT_REPORT_RESP Error Codes

Error Code	Description
QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_MALFORMED_MSG	Message was not formulated correctly by the control point or the message was corrupted during transmission

Description

The control point event reporting state variables are modified to reflect the settings indicated in the TLVs that are present in the request message. The service maintains a set of state variables for each control point.

Relevant wireless data connection state changes are communicated to the registered DMS control point via the QMI_DMS_SWI_EVENT_REPORT_IND message.

The AT command equivalents to this command are:

- AT!PCVOLT
- AT!PCTEMP
- AT!PATEMP

2.1.3 QMI_DMS_SWI_EVENT_REPORT_IND

Message Type

Indication

Sender

Service

Indication scope

Unicast (per control point)

Mandatory TLVs

None.

Optional TLVs

Table 2-4: QMI_DMS_SWI_SET_EVENT_REPORT_INT Optional TLVs (List)

TLV Name	Version last modified
PC Temperature Status	1.0
Voltage Status	1.0
Deferred Shutdown Status	1.0
UIM Status	1.0
PA Temperature Status	1.0
Call Mode	1.0

Table 2-5: QMI_DMS_SWI_SET_EVENT_REPORT_INT Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x10			1	PC Temperature Status
Length	3			2	
Value	→	uint8	state	1	0—Unknown 1—Normal 2—High (warning) 3—High (critical) 4—Low (critical)
		int16	temperature	2	Temperature in degrees Celsius
Type	0x11			1	Voltage Status
Length	3			2	
Value	→	uint8	state	1	0—Unknown 1—Normal 2—Low (warning) 3—Low (critical) 4—High (critical)
		uint16	voltage	2	Voltage in mV
Type	0x12			1	Deferred Shutdown Status
Length	1			2	
Value	→	uint8	state	1	0—Exit 1—Enter
Type	0x13			1	UIM Status
Length	2			2	
Value	→	uint8	interface	1	0—External UIM 1—Embedded UIM 2—Remote UIM
		uint8	event	1	0—UIM card removed 1—UIM card inserted
Type	0x14			1	PA Temperature Status
Length	3			2	
Value	→	uint8	state	1	0—Unknown 1—Normal 2—High (warning) 3—High (critical)
		int16	temperature	2	Temperature in degrees Celsius
Type	0x15			1	Call Mode

Table 2-5: QMI_DMS_SWI_SET_EVENT_REPORT_INT Optional TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Length	1			2	
Value	→	uint8	mode	1	0—Unknown 1—No calls allowed 2—All calls allowed 3—ecall only

Description

This unsolicited message is sent by the service to relevant control points when the device state corresponds to any TLV changes. Relevant control points are those that previously registered for the corresponding state to be reported using the QMI_DMS_SWI_SET_EVENT_REPORT_REQ message.

2.2 QMI_DMS_GET_ENVIRONMENT

This message requests the device to return environmental data.

Command ID

0x5558

Version Introduced

Major – 1 , Minor – 0

2.2.1 QMI_DMS_GET_ENVIRONMENT_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

2.2.2 QMI_DMS_GET_ENVIRONMENT_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

Table 2-6: QMI_DMS_GET_ENVIRONMENT_RESP Optional TLVs (list)

TLV Name	Version last modified
PC Temperature	1.0
Voltage	1.0
PA Temperature	1.0

Table 2-7: QMI_DMS_GET_ENVIRONMENT_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	PC Temperature
Length	12			2	
Value	→	int16	temperature	2	Degrees Celsius
		int16	hi_critical	2	High Critical threshold
		int16	hi_warning	2	High Warning threshold
		int16	hi_normal	2	High Normal threshold
		int16	lo_normal	2	Low Normal threshold
		int16	lo_critical	2	Low Critical threshold
Type	0x11			1	Voltage
Length	12			2	
Value	→	uint16	voltage	2	Voltage (mV)
		uint16	hi_critical	2	High Critical threshold
		uint16	hi_normal	2	High Normal threshold
		uint16	lo_normal	2	Low Normal threshold
		uint16	lo_warning	2	Low Warning threshold
		uint16	lo_critical	2	Low Critical threshold
Type	0x12			1	PA Temperature
Length	8			2	
Value	→	int16	temperature	2	Degrees Celsius
		int16	hi_critical	2	High Critical threshold
		int16	hi_warning	2	High Warning threshold
		int16	hi_normal	2	High Normal threshold

Error codes

Table 2-8: QMI_DMS_GET_ENVIRONMENT_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NOT_SUPPORTED	Operation is not supported
QMI_ERR_MALFORMED_MSG	Message was not formulated correctly by the control point or the message was corrupted during transmission

Description

The AT command equivalents to this command are:

- AT!PCVOLT?
- AT!PCVOLTLIMITS?
- AT!PCTEMP?
- AT!PCTEMPLIMITS?
- AT!PATEMP?
- AT!PATEMPLIMITS?

2.3 QMI_DMS_SET_ENVIRONMENT

This message requests the device to update environmental limits.

Command ID

0x5559

Version Introduced

Major – 1, Minor – 0

2.3.1 QMI_DMS_SET_ENVIRONMENT_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Table 2-9: QMI_DMS_SET_ENVIRONMENT_REQ Optional TLVs (List)

TLV Name	Version last modified
PC Temperature	1.0
Voltage	1.0
PA Temperature	1.0

Table 2-10: QMI_DMS_SET_ENVIRONMENT_REQ Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	PC Temperature
Length	10			2	
Value	→	int16	hi_critical	2	High Critical threshold
		int16	hi_warning	2	High Warning threshold
		int16	hi_normal	2	High Normal threshold
		int16	lo_normal	2	Low Normal threshold
		int16	lo_critical	2	Low Critical threshold
Type	0x11			1	Voltage
Length	10			2	

Table 2-10: QMI_DMS_SET_ENVIRONMENT_REQ Optional TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Value	→	int16	hi_critical	2	High Critical threshold
		int16	hi_normal	2	High Normal threshold
		int16	lo_normal	2	Low Normal threshold
		uint16	lo_warning	2	Low Warning threshold
		uint16	lo_critical	2	Low Critical threshold
Type	0x12			1	PA Temperature
Length	6			2	
Value	→	int16	hi_critical	2	High Critical threshold
		int16	hi_warning	2	High Warning threshold
		int16	hi_normal	2	High Normal threshold

2.3.2 QMI_DMS_SET_ENVIRONMENT_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error codes

Table 2-11: QMI_DMS_SET_ENVIRONMENT_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NOT_SUPPORTED	Operation is not supported
QMI_ERR_MALFORMED_MSG	Message was not formulated correctly by the control point or the message was corrupted during transmission
QMI_ERR_INVALID_ARG	Specified parameter is invalid

Description

The AT command equivalents to this command are:

- AT!PCVOLTLIMITS=
- AT!PCTEMPLIMITS=
- AT!PATEMPLIMITS=

2.4 QMI_DMS_GET_USB_COMP

This command is used to query the modem's USB interface configuration, and supported configuration parameters.

Command ID

0x555B

Version Introduced

Major – 1, Minor – 0

2.4.1 QMI_DMS_GET_USB_COMP_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

2.4.2 QMI_DMS_GET_USB_COMP_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

Table 2-12: QMI_DMS_GET_USB_COMP_RESP Optional TLVs (List)

TLV Name	Version last modified
USB Composition	1.0
Supported USB Composition	1.0

Table 2-13: QMI_DMS_GET_USB_COMP_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x10			1	USB Composition
Length	1			2	
Value	→	uint8	usb_comp	1	Current USB Composition See Table 2-15, Supported USB Compositions,
Type	0x11			1	Supported USB Composition
Length	Var			2	
Value	→	uint8	num_supported	1	Number of supported USB compositions in the next parameter (usb_comp_list) • 0-255
		string	usb_comp_list	255	List of N one-byte supported USB compositions See Table 2-15, Supported USB Compositions,

Error Codes

Table 2-14: QMI_DMS_GET_USB_COMP_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

USB Compositions

Table 2-15: Supported USB Compositions

Value (uint8)	Description
1..5	Reserved
6	DM NMEA AT RMNET
7	Reserved
8	DM NMEA AT MBIM
9	MBIM
10	NMEA MBIM
11	DM MBIM
12	DM NMEA MBIM

2.5 QMI_DMS_SET_USB_COMP

This command is used to change the modem's USB interface configuration, thus allowing a device to have multiple USB compositions. Devices will, by default, be configured to support a minimal set of interfaces to reduce end user modem installation time. Developers and some customers, however, require access to a custom set of interfaces.

Command ID

0x555C

Version Introduced

Major – 1, Minor – 0

2.5.1 QMI_DMS_SET_USB_COMP_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 2-16: QMI_DMS_SET_USB_COMP_REQ Mandatory TLVs (List)

TLV Name	Version last modified
USB Composition	1.0

Table 2-17: QMI_DMS_SET_USB_COMP_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	USB Composition
Length	1			2	
Value	→	uint8	usb_comp	1	USB Composition See Table 2-15, Supported USB Compositions,

Optional TLVs

None

2.5.2 QMI_DMS_SET_USB_COMP_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 2-18: QMI_DMS_SET_USB_COMP_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_INVALID_ARG	Specified parameter is invalid

2.6 QMI_DMS_GET_FSN

This command gets the module FSN string.

Command ID

0x5567

Version Introduced

Major – 1, Minor – 0

2.6.1 QMI_DMS_GET_FSN_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

2.6.2 QMI_DMS_GET_FSN_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

Table 2-19: QMI_DMS_GET_FSN_RESP Optional TLVs (List)

TLV Name	Version last modified
Device FSN	1.0

Table 2-20: QMI_DMS_GET_FSN_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	Device FSN

Table 2-20: QMI_DMS_GET_FSN_RESP Optional TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Length	16			2	
Value	→	string	fsn	16	FSN string

Optional TLVs

None

Error codes

Table 2-21: QMI_DMS_GET_FSN_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

2.7 QMI_DMS_GET_CRASH_INFO

This command queries the crash info. The command is equivalent to AT!GCDUMP.

Command ID

0x5565

Version Introduced

Major – 1, Minor – 0

2.7.1 QMI_DMS_GET_CRASH_INFO_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Table 2-22: QMI_DMS_GET_CRASH_INFO_REQ Optional TLVs (List)

TLV Name	Version last modified
Clear	1.0

Table 2-23: QMI_DMS_GET_CRASH_INFO_REQ Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x10			1	Clear
Length	1			2	
Value	→	uint8	clear	1	0—Do not clear crash data after response 1—Clear crash data after response

If the Clear TLV is not provided, the default behaviour is to retain the crash data on the modem. This is the same behaviour as providing this TLV with Clear set to 0. Note that the response will still contain the crash info if Clear is set to 1, if available. A client may read and clear the crash info in one step by setting Clear to 1 in the initial request.

2.7.2 QMI_DMS_GET_CRASH_INFO_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Table 2-24: QMI_DMS_GET_CRASH_INFO_RESP Mandatory TLVs (List)

TLV Name	Version last modified
Device Crash Status	1.0

Table 2-25: QMI_DMS_GET_CRASH_INFO_RESP Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	Device Crash Status
Length	1			2	
Value	→	uint8	crash status	1	0—No crash 1—Crash has occurred

Optional TLVs

This TLV is sent if a crash has occurred.

Table 2-26: QMI_DMS_GET_CRASH_INFO_RESP Optional TLVs (List)

TLV Name	Version last modified
Crash Info	1.0

Table 2-27: QMI_DMS_GET_CRASH_INFO_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	Crash Info
Length	Var			2	
Value	→	uint16	num_crashes	2	Number of instances of the remaining fields
		uint32	crash_id	4	Random crash ID assigned at crash
		uint32	crash_data	4	Crash data
		uint16	crash_str_len	2	Length of the crash_string field
		string	crash_string	255	
		uint16	gcdump_str_len	2	Length of the gcdump_string field
		string	gcdump_string	255	gcdump string for the crash

Error codes

Table 2-28: QMI_DMS_GET_CRASH_INFO_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response

2.8 QMI_DMS_GET_CRASH_ACTION

This command queries the action performed in the event of a crash. The command is equivalent to AT!ERROPTION.

Command ID

0x5568

Version Introduced

Major – 1, Minor – 0

2.8.1 QMI_DMS_GET_CRASH_ACTION_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

2.8.2 QMI_DMS_GET_CRASH_ACTION_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Table 2-29: QMI_DMS_GET_CRASH_ACTION_RESP Mandatory TLVs (List)

TLV Name	Version last modified
Device Crash State	1.0

Table 2-30: QMI_DMS_GET_CRASH_ACTION_RESP Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	Device Crash State

Table 2-30: QMI_DMS_GET_CRASH_ACTION_RESP Mandatory TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Length	1			2	
Value	→	uint8	crash action	1	0—USB memory download 1—Reset 2—No action

Optional TLVs

None

Error codes

Table 2-31: QMI_DMS_GET_CRASH_ACTION_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

2.9 QMI_DMS_SET_CRASH_ACTION

This command configures the action performed in the event of a crash. This setting is persistent over a device reset. The command is equivalent to AT!EROPTION.

Command ID

0x5569

Version Introduced

Major – 1, Minor – 0

2.9.1 QMI_DMS_SET_CRASH_ACTION_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 2-32: QMI_DMS_SET_CRASH_ACTION_REQ Mandatory TLVs (List)

TLV Name	Version last modified
Device Crash State	1.0

Table 2-33: QMI_DMS_SET_CRASH_ACTION_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x01			1	Device Crash State
Length	1			2	
Value	→	uint8	crash action	1	0—USB memory download 1—Reset 2—No action

Optional TLVs

None

2.9.2 QMI_DMS_SET_CRASH_ACTION_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 2-34: QMI_DMS_SET_CRASH_ACTION_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_INVALID_ARG	Specified parameter is invalid

2.10 QMI_DMS_GET_HOST_DEV_INFO

This command gets the host device info configured on the modem for LWM2M reporting. The command is equivalent to AT+ODIS. This information is reported in compliance with <CDR-DVM-4543> mentioned in *[4] AT&T Requirement 13340_22.2*.

Command ID

0x556A

Version Introduced

Major – 1, Minor – 0

2.10.1 QMI_DMS_GET_HOST_DEV_INFO_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

2.10.2 QMI_DMS_GET_HOST_DEV_INFO_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

Table 2-35: QMI_DMS_GET_HOST_DEV_INFO_RESP Optional TLVs (List)

TLV Name	Version last modified
Host Device Manufacturer	1.0
Host Device Model	1.0
Host Device Software Version	1.0
Host Device Plasma ID	1.0

Table 2-36: QMI_DMS_GET_HOST_DEV_INFO_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	Host Device Manufacturer
Length	var			2	
Value	→	string	hostman	256	Null terminated ASCII string. Max length of 256 bytes.
Type	0x11			1	Host Device Model
Length	var			2	
Value	→	string	hostmod	256	Null terminated ASCII string. Max length of 256 bytes.
Type	0x12			1	Host Device Software Version
Length	var			2	
Value	→	string	hostswv	256	Null terminated ASCII string. Max length of 256 bytes.
Type	0x13			1	Host Device Plasma ID
Length	var			2	
Value	→	string	hostplasmaid	256	Null terminated alphanumeric ASCII string. Max length of 256 bytes.

Error codes

Table 2-37: QMI_DMS_GET_HOST_DEV_INFO_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

2.11 QMI_DMS_SET_HOST_DEV_INFO

This command sets the host device info configured on the modem for LWM2M reporting. The command is equivalent to AT+ODIS. This information is reported in compliance with <CDR-DVM-4543> mentioned in *[4] AT&T Requirement 13340_22.2*.

Command ID

0x556B

Version Introduced

Major – 1, Minor – 0

2.11.1 QMI_DMS_SET_HOST_DEV_INFO_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

Table 2-38: QMI_DMS_SET_HOST_DEV_INFO_REQ Optional TLVs (List)

TLV Name	Version last modified
Host Device Manufacturer	1.0
Host Device Model	1.0
Host Device Software Version	1.0
Host Device Plasma ID	1.0

Table 2-39: QMI_DMS_SET_HOST_DEV_INFO_REQ Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x10			1	Host Device Manufacturer
Length	var			2	
Value	→	string	hostman	256	Null terminated ASCII string. Max length of 256 bytes.
Type	0x11			1	Host Device Model
Length	var			2	
Value	→	string	hostmod	256	Null terminated ASCII string. Max length of 256 bytes.

Table 2-39: QMI_DMS_SET_HOST_DEV_INFO_REQ Optional TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x12			1	Host Device Software Version
Length	var			2	
Value	→	string	hostswv	256	Null terminated ASCII string. Max length of 256 bytes.
Type	0x13			1	Host Device Plasma ID
Length	var			2	
Value	→	string	hostplasmaid	256	Null terminated alphanumeric ASCII string. Max length of 256 bytes.

2.11.2 QMI_DMS_SET_HOST_DEV_INFO_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 2-40: QMI_DMS_SET_HOST_DEV_INFO_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

2.12 QMI_DMS_SWI_INDICATION_REGISTER

This message sets the registration state for different QMI_DMS SWI indications for the requesting control point. Indications themselves are defined separately.

Note: This message will be extended to support new SWI indications as needed.

Command ID

0x557F

Version Introduced

Major – 1, Minor – 0

2.12.1 QMI_DMS_SWI_INDICATION_REGISTER_REQ

Message Type

Request

Sender

Control Point

Mandatory TLVs

None. One or more optional TLVs must be provided in the request.

Optional TLVs

Table 2-41: QMI_DMS_SWI_INDICATION_REGISTER_REQ Optional TLVs (List)

TLV Name	Version last modified
Reset Information	1.0

Table 2-42: QMI_DMS_SWI_INDICATION_REGISTER_REQ Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	Reset Information
Length	1			2	
Value	→	uint8	enable	1	0—Disable 1—Enable

2.12.2 QMI_DMS_SWI_INDICATION_REGISTER_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 2-43: QMI_DMS_SWI_INDICATION_REGISTER_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

2.13 QMI_DMS_GET_RESET_INFO

This command queries the reason for the most recent device reset or power down. An indication is also supported which reports the same information just before the reset or power down.

Command ID

0x5580

Version Introduced

Major – 1, Minor – 0

2.13.1 QMI_DMS_GET_RESET_INFO_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

2.13.2 QMI_DMS_GET_RESET_INFO_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

The following TLV will be present if the result code is QMI_RESULT_SUCCESS.

Table 2-44: QMI_DMS_GET_RESET_INFO_RESP Optional TLVs (List)

TLV Name	Version last modified
Reset Information	1.0

Table 2-45: QMI_DMS_GET_RESET_INFO_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	Reset Information
Length	2			2	
Value	→	uint8	type	1	Type of reset or power down: 0—Unknown 1—Warm 2—Hard 3—Crash 4—Power down
	→	uint8	source	1	Entity that initiated the reset or power down: 0—Unknown 1—User requested 2—Hardware switch 3—Temperature critical 4—Voltage critical 5—Configuration update 6—LWM2M 7—OMA-DM 8—FOTA

Optional TLVs

None

Error codes

Table 2-46: QMI_DMS_GET_RESET_INFO_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

2.13.3 QMI_DMS_GET_RESET_INFO_IND

Message Type

Indication

Sender

Service

Indication scope

Unicast (per control point)

Mandatory TLVs

Indication structure is identical to the query response. See QMI_DMS_GET_RESET_INFO_RESP above.

Description

The unsolicited message is sent by the service to relevant control points when the device is about to perform a controlled reset or power-down. Relevant control points are those which registered for the indication through QMI_DMS_SWI_INDICATION_REGISTER.

Optional TLVs

None

3: WDS Service APIs

3.1 QMI_WDS_SWI_GET_DATA_ROAMING_ACCESS

This message requests the device to return the current user preference for user data connection access while on a roaming system. User preference is saved in non-volatile memory. This object is applicable to Verizon devices.

QMI Service Type

0x01

Message ID

0x5556

Version Introduced

Major – 1 Minor – 0

3.1.1 QMI_WDS_SWI_GET_DATA_ROAMING_ACCESS_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.1.2 QMI_WDS_SWI_GET_DATA_ROAMING_ACCESS_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Table 3-1: QMI_WDS_SWI_GET_DATA_ROAMING_ACCESS_RESP Mandatory TLVs (List)

TLV Name	Version last modified
Data Roaming Access	1.0

Table 3-2: QMI_WDS_SWI_GET_DATA_ROAMING_ACCESS_RESP Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x01			1	Data Roaming Access
Length	1			2	
Value	→	uint8	Data_roam_access	1	0x00—Off/deny roaming access 0x01—On/always allow roaming access 0x02—Allow roaming access only for this trip (until device registers on home system)

Optional TLVs

None

Error codes

Table 3-3: QMI_WDS_SWI_GET_DATA_ROAMING_ACCESS_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

3.2 QMI_WDS_SWI_SET_DATA_ROAMING_ACCESS

This message requests the device to update current user preference for user data connection access while on a roaming system. User preference is saved in non-volatile memory. This object is applicable to Verizon devices.

QMI Service Type

0x01

Message ID

0x5557

Version Introduced

Major – 1, Minor – 0

3.2.1 QMI_WDS_SWI_SET_DATA_ROAMING_ACCESS_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 3-4: QMI_WDS_SWI_SET_DATA_ROAMING_ACCESS_REQ Mandatory TLVs (List)

TLV Name	Version last modified
Data Roaming Access	1.0

Table 3-5: QMI_WDS_SWI_SET_DATA_ROAMING_ACCESS_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x01			1	Data Roaming Access
Length	1			2	
Value	→	uint8	Data_roam_access	1	0x00—Off/deny roaming access 0x01—On/always allow roaming access 0x02—Allow roaming access only for this trip (until device registers on home system)

Optional TLVs

None

3.2.2 QMI_WDS_SWI_SET_DATA_ROAMING_ACCESS_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error codes

Table 3-6: QMI_WDS_SWI_SET_DATA_ROAMING_ACCESS_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

3.3 QMI_WDS_SWI_GET_DATA_LOOPBACK

This message is used to get Data Loopback settings.

QMI Service Type

0x01

Message ID

0x5569

Version Introduced

Major – 1, Minor – 0

3.3.1 QMI_WDS_SWI_GET_DATA_LOOPBACK_REQ

Server can send this command to fetch the Data Loopback mode and the value of the loopback multiplier.

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

3.3.2 QMI_WDS_SWI_GET_DATA_LOOPBACK_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Table 3-7: QMI_WDS_SWI_GET_DATA_LOOPBACK_RESP Mandatory TLVs (List)

TLV Name	Version last modified
Data Loopback Indicator	1.0
Loopback Multiplier	1.0

Table 3-8: QMI_WDS_SWI_GET_DATA_LOOPBACK_RESP Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x10			1	Data Loopback Indicator
Length	1			2	
Value	→	uint8	loopback_mode	1	0—Disabled 1—Enabled
Type	0x11			1	Loopback multiplier. Number of downlink bytes to send for each uplink byte
Length	1			2	
Value	→	uint8	loopback_multiplier	1	Replication count

Optional TLVs

None

Error Codes

Table 3-9: QMI_WDS_SWI_GET_DATA_LOOPBACK_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response

3.4 QMI_WDS_SWI_SET_DATA_LOOPBACK

This message is used to set Data Loopback settings.

QMI Service Type

0x01

Message ID

0x556A

Version Introduced

Major – 1, Minor – 0

3.4.1 QMI_WDS_SWI_SET_DATA_LOOPBACK_REQ

Server can send this command to enable/disable Data Loopback Mode and set the value of the loopback multiplier.

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 3-10: QMI_WDS_SWI_SET_DATA_LOOPBACK_REQ Mandatory TLVs (List)

TLV Name	Version last modified
Data Loopback Indicator	1.0
Loopback Multiplier	1.0

Table 3-11: QMI_WDS_SWI_SET_DATA_LOOPBACK_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	Data Loopback Indicator
Length	1			2	
Value	→	uint8	loopback_mode	1	0—Disabled 1—Enabled
Type	0x11			1	Loopback Multiplier—The number of downlink bytes to send for each uplink byte
Length	1			2	
Value	→	uint8	loopback_multiplier	1	Replication count

Optional TLVs

None

3.4.2 QMI_WDS_SWI_SET_DATA_LOOPBACK_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 3-12: QMI_WDS_SWI_SET_DATA_LOOPBACK_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response
QMI_ERR_INVALID_ARG	Specified parameter is invalid

4: SWI Service APIs

4.1 QMI_SWI_BSP_GPIO_READ

Request to read the GPIO pin level.

Command ID

0x0001

Version Introduced

Major – 1, Minor – 0

4.1.1 QMI_SWI_BSP_GPIO_READ_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 4-1: QMI_SWI_BSP_GPIO_READ_REQ Mandatory TLVs (List)

TLV Name	Version last modified
GPIO Pin	1.0

Table 4-2: QMI_SWI_BSP_GPIO_READ_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	GPIO Pin
Length	1			2	
Value	→	uint8	gpio_pin_number	1	Possible range is from 1 to max of uint8 (actual number varies by product). At power-on, all GPIOs are configured for input.

Optional TLVs

None

4.1.2 QMI_SWI_BSP_GPIO_READ_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

Table 4-3: QMI_SWI_BSP_GPIO_READ_RESP Optional TLVs (List)

TLV Name	Version last modified
GPIO Pin	1.0

Table 4-4: QMI_SWI_BSP_GPIO_READ_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	GPIO Pin
Length	1			2	
Value	→	uint8	gpio_pin_number	1	GPIO pin number
		uint8	gpio_value	1	0—Active LOW 1—Active HIGH

Error Codes

Table 4-5: QMI_SWI_BSP_GPIO_READ_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

4.2 QMI_SWI_BSP_GPIO_WRITE

This object is used to read the specified I/O port.

Command ID

0x0002

Version Introduced

Major – 1, Minor – 0

4.2.1 QMI_SWI_BSP_GPIO_WRITE_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 4-6: QMI_SWI_BSP_GPIO_WRITE_REQ Mandatory TLVs (List)

TLV Name	Version last modified
GPIO Pin	1.0

Table 4-7: QMI_SWI_BSP_GPIO_WRITE_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	GPIO Pin
Length	2			2	
Value	→	uint8	gpio_pin_number	1	GPIO pin number
		uint8	gpio_value	1	0—Active LOW 1—Active HIGH

Optional TLVs

None

4.2.2 QMI_SWI_BSP_GPIO_WRITE_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 4-8: QMI_SWI_BSP_GPIO_WRITE_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

4.3 QMI_SWI_BSP_GPIO_CFG_TRIGGER

This object is used to read the specified I/O port.

Command ID

0x0003

Version Introduced

Major – 1, Minor – 0

4.3.1 QMI_SWI_BSP_GPIO_CFG_TRIGGER_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 4-9: QMI_SWI_BSP_GPIO_CFG_TRIGGER_REQ Mandatory TLVs (List)

TLV Name	Version last modified
GPIO Configure Type	1.0

Table 4-10: QMI_SWI_BSP_GPIO_CFG_TRIGGER_REQ Mandatory TLVs

Field	Field value	Field Type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	GPIO Configure Type
Length	6			2	

Table 4-10: QMI_SWI_BSP_GPIO_CFG_TRIGGER_REQ Mandatory TLVs (Continued)

Field	Field value	Field Type	Parameter	Size (bytes)	TLV Name/Description
Value	→	uint8	gpio_pin_number	1	GPIO pin number
		uint8	enable	1	0—Disable 1—Enable
		uint8	direction	1	0—Input 1—Output
		uint8	gpio_pull_type	1	0—No pull 1—Pull down 2—Keeper 3—Pull up
		uint8	initval_or_notify	1	If GPIO direction type is Output: 0—Active low at power-up 1—Active high at power-up If GPIO direction type is Input: 0—Disable level/edge change notification 1—Level changed to active high notification 2—Level changed to active low notification 3—Edge rising notification 4—Edge falling notification
		enum	level_checking_interval	1	0—50 ms 1—1000 ms For level change interrupt, the module will read the level again after level_checking_interval.

Optional TLVs

None

4.3.2 QMI_SWI_BSP_GPIO_CFG_TRIGGER_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 4-11: QMI_SWI_BSP_GPIO_CFG_TRIGGER_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

5: NAS Service APIs

5.1 QMI_NAS_SWI_GET_ROAMING_MODE

This command returns a list of available roaming mode options for users to choose from, and the currently active roaming mode. This object is applicable to Sprint devices.

QMI Service Type

0x03

Message ID

0x5562

Version Introduced

Major – 1, Minor – 0

5.1.1 QMI_NAS_SWI_GET_ROAMING_MODE_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

None

Optional TLVs

None

5.1.2 QMI_NAS_SWI_GET_ROAMING_MODE_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Table 5-1: QMI_NAS_SWI_GET_ROAMING_MODE_RESP Mandatory TLVs (List)

TLV Name	Version last modified
Roam Mode List	1.0

Table 5-2: QMI_NAS_SWI_GET_ROAMING_MODE_RESP Mandatory TLVs (List)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x01			1	Roam Mode List
Length	Var			2	
Value	→	uint32	Roam_mode_num	4	Number of sets of following elements: • Current • Roam_mode • valid
		uint8	current	1	True if roam_mode is the currently active selection; False otherwise.
		uint32	Roam_mode	4	Roaming setting 0—Home only 1—Domestic Roaming (includes home and domestic roaming systems) 2—International Roaming (includes home, domestic and international roaming systems)
		uint8	Valid	1	Indicates if current roam_mode is valid option to present to the user. 0—Not valid 1—Valid

Optional TLVs

None

Error Codes

Table 5-3: QMI_NAS_SWI_GET_ROAMING_MODE_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

5.2 QMI_NAS_SWI_SET_ROAMING_MODE

This command allows the user to set the roaming mode. The mode can be set to enable domestic roaming or international roaming, or roaming can be disabled. This object is applicable to Sprint devices.

QMI Service Type

0x03

Message ID

0x5563

Version Introduced

Major – 1, Minor – 0

5.2.1 QMI_NAS_SWI_SET_ROAMING_MODE_REQ

Message Type

Request

Sender

Control point

Mandatory TLVs

Table 5-4: QMI_NAS_SWI_SET_ROAMING_MODE_REQ Mandatory TLVs (List)

TLV Name	Version last modified
Roaming Mode Selection	1.0

Table 5-5: QMI_NAS_SWI_SET_ROAMING_MODE_REQ Mandatory TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x01			1	Roaming Mode Selection
Length	4			2	
Value	→	uint32	Roam_mode	4	Selected roaming mode: 0—Home only (i.e., no roaming) 1—Domestic roaming 2—International roaming

Optional TLVs

None

5.2.2 QMI_NAS_SWI_SET_ROAMING_MODE_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 5-6: QMI_NAS_SWI_SET_ROAMING_MODE_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing

5.3 QMI_NAS_SWI_GET_CHANNEL_LOCK

This message queries the channel or cell which the UE is locked into.

QMI Service Type

0x03

Message ID

0x5568

Version Introduced

Major – 1, Minor – 0

5.3.1 QMI_NAS_SWI_GET_CHANNEL_LOCK_REQ

Message Type

Request

Sender

Control Point

Mandatory TLVs

None

Optional TLVs

None

5.3.2 QMI_NAS_SWI_GET_CHANNEL_LOCK_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

Table 5-7: QMI_NAS_SWI_GET_CHANNEL_LOCK_RESP Optional TLVs (List)

TLV Name	Version last modified
WCDMA UARFCN	1.0
LTE EARFCN	1.0
LTE PCI	1.0

Table 5-8: QMI_NAS_SWI_GET_CHANNEL_LOCK_RESP Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name / Description
Type	0x10			1	WCDMA UARFCN
Length	5			2	
Value	→	uint8	enable	1	0—Disable 1—Enable
		uint32	uarfcn	4	UARFCN to which UE is locked
Type	0x11			1	LTE EARFCN
Length	9			2	
Value	→	uint8	enable	1	0—Disable 1—Enable
		uint32	earfcn0	4	Primary DL EARFCN to which the UE is locked
		uint32	earfcn1	4	Secondary DL EARFCN to which the UE is locked (make equal to earfcn0 if only one EARFCN is desired)
Type	0x12			1	LTE PCI
Length	9			2	
Value	→	uint8	enable	1	0—Disable 1—Enable
		uint32	earfcn	4	DL EARFCN to which the UE is locked
		uint32	pci	4	PCI to which the UE is locked

Error Codes

Table 5-9: QMI_NAS_SWI_GET_CHANNEL_LOCK_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_DEVICE_NOT_READY	Device is not ready
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response

5.4 QMI_NAS_SWI_SET_CHANNEL_LOCK

This message allows the host to lock the UE to a specific channel or cell. The settings are persistent across reboots.

QMI Service Type

0x03

Message ID

0x5569

Version Introduced

Major – 1, Minor – 0

5.4.1 QMI_NAS_SWI_SET_CHANNEL_LOCK_REQ

Message Type

Request

Sender

Control Point

Mandatory TLVs

None

Optional TLVs

Table 5-10: QMI_NAS_SWI_SET_CHANNEL_LOCK_REQ Optional TLVs (List)

TLV Name	Version last modified
WCDMA UARFCN	1.0
LTE EARFCN	1.0
LTE PCI	1.0

Table 5-11: QMI_NAS_SWI_SET_CHANNEL_LOCK_REQ Optional TLVs

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Type	0x10			1	WCDMA UARFCN
Length	5			2	
Value	→	uint8	enable	1	0—Disable 1—Enable
		uint32	uarfcn	4	UARFCN to which UE is locked
Type	0x11			1	LTE EARFCN
Length	9			2	

Table 5-11: QMI_NAS_SWI_SET_CHANNEL_LOCK_REQ Optional TLVs (Continued)

Field	Field value	Field type	Parameter	Size (bytes)	TLV Name/Description
Value	→	uint8	enable	1	0—Disable 1—Enable
		uint32	earfcn0	4	Primary DL EARFCN to which the UE is locked
		uint32	earfcn1	4	Secondary DL EARFCN to which the UE is locked (make equal to earfcn0 if only one EARFCN is desired)
Type	0x12			1	LTE PCI
Length	9			2	
Value	→	uint8	enable	1	0—Disable 1—Enable
		uint32	earfcn	4	DL EARFCN to which the UE is locked
		uint32	pci	4	PCI to which the UE is locked

5.4.2 QMI_NAS_SWI_SET_CHANNEL_LOCK_RESP

Message Type

Response

Sender

Service

Mandatory TLVs

The result code TLV, shown in Table A-1 on page 67, will always be present in the response.

Optional TLVs

None

Error Codes

Table 5-12: QMI_NAS_SWI_SET_CHANNEL_LOCK_RESP Error Codes

QMI_ERR_NONE	No error in the request
QMI_ERR_INTERNAL	Unexpected error occurred during processing
QMI_ERR_NO_MEMORY	Device could not allocate memory to formulate a response

A: Appendix—TLVs

A.1 Response Message Result TLV

Table A-1: Response Message Result TLV

Field	Field value	Field type	Parameter	Size (bytes)	Description
Type	0x02			1	Result code
Length	4			2	
Value	→	uint16	qmi_result	2	Result code: • QMI_RESULT_SUCCESS • QMI_RESULT_FAILURE
		uint16	qmi_error	2	Error code—Possible error code values are described in the error codes section of each message definition.

B: References

B.1 QCT Documents

[1] 80-NV615-6 A QMI NAS 1.190

[2] 80-NV615-5 A QMI WDS 1.133

[3] 80-NV615-4 A QMI DMS 1.57

B.2 Other Documents

[4] AT&T Requirement 13340_22.2