



BLE Mesh Gateway Manual

V0.1

About this Document

This document supports “RT58x_SDK_v1.5.0” and later version.

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1. Introduction

This document is the command sets for implementing the BLE Mesh gateway function with BLE mesh gateway module. It includes the BLE mesh configuration models and application models for network management and application service commands.

2. Hardware Interface Setup

The coordinator module is connected to host control unit by UART port. The default baud rate is 115200 with 8-bit data length, no parity bit, and 1 stop bit format.

3. Command Data Format

The BLE mesh gateway command is constructed as the following format. It uses the little endian format

Header	Length	Command ID	Sub-Header	Parameter	Checksum
4 octets	1 octet	4 octets	n octets	n octets	1 octet

3.1 Length field

The command header is 4 bytes long and should be formatted as 0xFF 0xFC 0xFC 0xFF.

3.2 Length field

The command data length value is the length sum of command id, sub-header and parameter.

3.3 Command ID field

The command id is 4 bytes long and will be defined in the following command description.

Command ID	Description
0x1000-0000	Mesh network service command

0x1000-1000	Device configuration service command
0x1000-2000	Device application service command

3.4 Sub-Header field

The sub-header is variable bytes that depends on command id field. The following command description has detail sub-header information.

3.4.1 Mesh network service command

There is no sub-header for this message.

Opcode
1 octets

3.4.2 Device configuration service command

Address	Opcode
2 octets	1-4 octets

3.4.3 Device application service command

Address	App key index	Opcode
2 octets	2 octets	1-4 octets

3.5 Opcode field

The length of the opcode could be 1 byte to 4 bytes long. It depends the operation message defined in spec.

3.6 Address field

Address data is 2 bytes long, and could be unicast or group address

3.7 App key index field

App key index is 2 bytes long, and could be unicast or group address identified by address mode field.

3.8 Parameter field

The command parameter is variable bytes and used for command to configure the devices. The following command description has more detail information.

3.9 Checksum field

The checksum is 1-byte long and to confirm the received data correctly. Its value is bitwise not(~) of the sum of all command data fields but header field excluded.
Checksum value = ~(length[0]+command id[0]+ command id[1]+ command id[2]+ command id[3]+address[0]+address[1]+opcode[0]+opcode[1]+ +opcode[3]+ parameter[0]+parameter[1]+.....+parameter[n-1]).

4 Supplemental parameter requirements

This section contains supplemental requirements for the handling of some parameters. Parameter values that do not conform to these requirements shall be considered Reserved for Future Use.

4.1 Key index

All key indexes (include Network Key Index and App Key Index) are 12 bits long. Some commands include one, two or multiple key indexes. To enable efficient packing, two key indexes are packed into three octets. Where an odd number of key indexes need to be packed, all but the last key index are packed into sequences of three octets (see Figure 5.1), and the last key index is packed into two octets (see Figure 5.2). Where an even number of key indexes need to be packed, they are all packed into sequences of three octets.

To pack two key indexes into three octets, 8 LSbs of first key index value are packed into the first octet, placing the remaining 4 MSbs into 4 LSbs of the second octet. The first 4 LSbs of the second 12-bit key index are packed into the 4 MSbs of the second octet with the remaining 8 MSbs into the third octet.

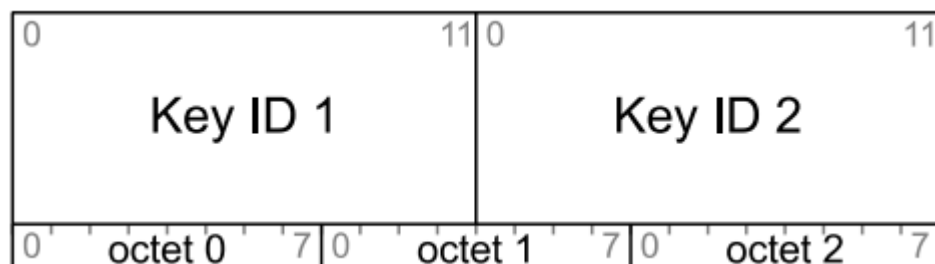


Figure 5.1: Packing of two 12-bit key Indexes into three octets

To pack one key index into two octets, 8 LSbs of first key index value are packed into the first octet, placing the remaining 4 MSbs into 4 LSbs of the second octet, and the 4 MSbs of the second octet shall be set to 0.

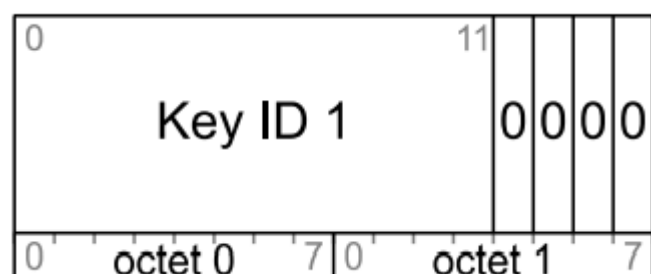
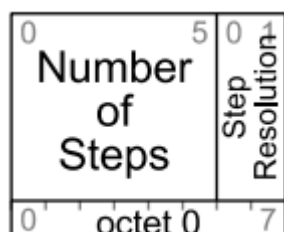


Figure 5.2: Encoding of one 12-bit key index into two octets

4.2 Publish Period

The Publish Period state determines the interval at which status messages are published by a model. This is a 1-octet value and consists of two fields: a 2-bit field representing the step resolution and a 6-bit field representing the number of steps. The format of this state is defined in the following table.

Field	Size(bits)	Notes
Number of Steps	6	The number of steps
Step Resolution	2	The resolution of the Number of Steps field



The Step Resolution field enumerates the resolution of the Number of Steps field and the values are defined in the following table.

Value	Description
0b00	The Step Resolution is 100 milliseconds
0b01	The Step Resolution is 1 second
0b10	The Step Resolution is 10 seconds
0b11	The Step Resolution is 10 minutes

The Number of Steps field is a value representing the number of steps and the values are defined in the following table.

Value	Description
0x00	Publish Period is disabled
0x01-0x3F	The number of steps

The Publish Period is calculated using the formula:

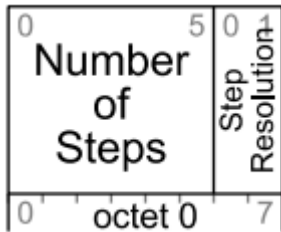
$$\text{Publish Period} = \text{Step Resolution} * \text{Number of Steps}$$

For example, if the Step Resolution is 0b10 and the Number of Steps is 0x31, then the Publish Period would be 490 seconds.

4.3 Transition Time Format

This is a 1-octet value that consists of two fields: a 2-bit bit field representing the step resolution and a 6-bit bit field representing the number of transition steps. The format of this state is defined in below Table and illustrated in the following Figure.

Field	Size(bits)	Notes
Number of Steps	6	The number of steps
Step Resolution	2	The resolution of the Number of Steps field



The Step Resolution field enumerates the resolution of the Number of Steps field and the values are defined in the following table.

Value	Description
0b00	The Step Resolution is 100 milliseconds
0b01	The Step Resolution is 1 second
0b10	The Step Resolution is 10 seconds
0b11	The Step Resolution is 10 minutes

The Steps field is a 6-bit value representing the number of transition steps. The field values represent the states defined in the following table.

Value	Description
0x00	The Generic Default Transition Time is immediate.
0x01-0x3E	The number of steps.
0x3F	The value is unknown. The state cannot be set to this value, but an element may report an unknown value if a transition is higher than 0x3E or not determined.

5 Mesh network Service

5.1 Unprpvisioned Device Scan Get

- Command Id
0x1000-0000
- Opcode

Byte 0
0x00

The Unprovisioned Device Scan Get is an acknowledged message used to get

the scan unprovisioned device state.

The response to a Unprovisioned Device Scan Get message is a Unprovisioned Device Scan Status message.

There are no parameters for this message.

5.2 Unprovsioned Device Scan Set

- Command Id
0x1000-0000

- Opcode

Byte 0
0x01

- Parameter

Field	Size(octets)	Notes
ScanFlg	1	The control flag is to start/stop scan process

The Unprovisioned Device Scan Set is an acknowledged message used to set the unprovisioned device scan state.

The response to a Unprovisioned Device Scan Set message is a Unprovisioned Device Scan Status message.

ScanFlg state 1 is to start scan the device, 0 is to stop scan the device

5.3 Unprovisioned Device Scan Status

- Command Id
0x1000-0000

- Opcode

Byte 0
0x02

- Parameter

Field	Size(octets)	Notes
ScanFlg	1	The control flag is to start/stop scan process

The Unprovisioned Device Scan Status is an unacknowledged message used to report the scan unprovisioned device state.

ScanFlg state 1 is to start scan the device, 0 is to stop scan the device

5.4 Unprovisioned Device indication

- Command Id
0x1000-0000

- Opcode

Byte 0
0x03

- Parameter

Field	Size(octets)	Notes
DeviceUUID	16	The UUID of the un-provisioned device
MAC	6	The MAC address of the un-provisioned device
RSSI	1	The RSSI value of the un- provisioned device

5.5 Device Provision Set

- Command Id
0x1000-0000

- Opcode

Byte 0
0x04

- Parameter

Field	Size(octets)	Notes
PrimaryAddress	2	The primary address for the un-provisioned device
DeviceUUID	16	The UUID of the un-provisioned device

The Device Provision Set is an acknowledged message used to provision an unprovisioned device into mesh network.

The response to a Device Provision Set message is a Device Provision Status message.

The Primary Address is the address assign to the selecting un-provisioned device to provision.

The Device UUID is for selecting the un-provisioned device to provision.

5.6 Device Provision Status

- Command Id

0x1000-0000

- Opcode

Byte 0
0x05

- Parameter

Field	Size(octets)	Notes
Status	1	Provision status
DeviceUUID	16	The UUID of the provisioned device
PrimaryAddress	2	The primary address of the provisioned device (optional)
ElementCount	1	The element count of the provisioned device (optional)
DeviceKey	16	The device key of the provisioned device (optional)

Status is defined in section [5.9.1](#) Only the Status code will present if the Status is not “Success (0) “.

ElementCount is the number of the elements supported by the device.

The DeviceKey is using for configuration Model security.

5.7 Mesh Network Key Get

- Command Id

0x1000-0000

- Opcode

Byte 0
0x10

The Mesh Network Key Set is an acknowledged message used to get current network key for mesh network.

The response to a Mesh Network Key Get message is a Mesh Network Key Status message.

There are no parameters for this message.

5.8 Mesh Network Key Set

- Command Id
0x1000-0000

- Opcode

Byte 0
0x11

- Parameter

Field	Size(octets)	Notes
NetworkKey	16	BLE mesh network key

The Mesh Network Key Set is an acknowledged message used to set a new network key for mesh network.

The response to a Mesh Network Key Set message is a Mesh Network Key Status message.

The Network key field shall contain the new network key

5.9 Mesh Network Key Status

- Command Id
0x1000-0000

- Opcode

Byte 0
0x12

- Parameter

Field	Size(octets)	Notes
-------	--------------	-------

Status	1	Status code for the requesting message
NetworkKey	16	BLE mesh network key

Status is defined in section [5.9.2](#) Only the Status code will present if the Status is not “Success (0) “.

5.10 Mesh Application Key Get

- Command Id
0x1000-0000

- Opcode

Byte 0
0x13

The Mesh Application Key Get is an acknowledged message used to get application key by index.

The response to a Mesh Application Key Get message is a Mesh Application Key Status message.

- Parameter

Field	Size(octets)	Notes
AppKeyIndex	1	application key index

5.11 Mesh Application Key Set

- Command Id
0x1000-0000

- Opcode

Byte 0
0x14

- Parameter

Field	Size(octets)	Notes
AppKeyIndex	1	application key index
AppKey	16	BLE mesh application key

The Mesh Application Key Set is an acknowledged message used to set a new application key of the application key index.

The response to a Mesh Application Key Set message is a Mesh Application Key Status message.

The AppKey field shall contain the new application key

5.12 Mesh Application Key Status

- Command Id
0x1000-0000

- Opcode

Byte 0
0x15

- Parameter

Field	Size(octets)	Notes
Status	1	Status code for the requesting message
AppKeyIndex	1	application key index
AppKey	16	BLE mesh application key

Status is defined in section [5.9.2](#) Only the Status code will present if the Status is not “Success (0) “.

5.13 Mesh Device Key Get

- Command Id
0x1000-0000

- Opcode

Byte 0
0x16

The Mesh Device Key Get is an acknowledged message used to get current device key.

The response to a Mesh Device Key Get message is a Mesh Device Key Status message.

There are no parameters for this message.

5.14 Mesh Device Key Set

- Command Id
0x1000-0000

- Opcode

Byte 0
0x17

- Parameter

Field	Size(octets)	Notes
DeviceKey	16	BLE mesh device key

The Mesh Device Key Set is an acknowledged message used to set a new device key of BLE mesh gateway for configure model.

The response to a Mesh Device Key Set message is a Mesh Device Key Status message.

The Device key field shall contain the new device key

5.15 Mesh Device Key Status

- Command Id
0x1000-0000

- Opcode

Byte 0
0x18

- Parameter

Field	Size(octets)	Notes
Status	1	Status code for the requesting message
DeviceKey	16	BLE mesh device key

Status is defined in section [5.9.2](#) Only the Status code will present if the Status is not “Success (0) “.

5.16 Code Definitions

5.16.1 Provision Status Code

Status Code	Status Code Name	Description
0x00	Success	The provisioning was successful
0x01	Timeout	The provisioning transaction timed out
0x02	Provision Fail	The provisioning failed
0x03	Address Invalid	The primary address is invalid
0x04-0xFF	RFU	Reserved for Future Use

5.16.2 Mesh Network Status Code

Value	Description
0x00	Success
0x01	Invalid Parameter
0x02	Invalid Role
0x03	Invalid State
0x04	Empty
0x03-0xFF	Reserved for Future Use

6 Device Configuration Service

6.1 Network Management

6.1.1 Config AppKey Add

- Command id
0x1000-1000

- Opcode

Byte 0
0x00

- Parameter

Field	Size(octets)	Notes
-------	--------------	-------

NetKeyIndexAndAppKeyIndex	3	Index of the NetKey and index of the AppKey
AppKey	16	AppKey value

The Config AppKey Add is an acknowledged message used to add an AppKey to the AppKey List on a node and bind it to the NetKey identified by NetKeyIndex. The added AppKey can be used by the node only as a pair with the specified NetKey. The AppKey is used to authenticate and decrypt messages it receives, as well as authenticate and encrypt messages it sends.

The response to a Config AppKey Add message is a Config AppKey Status message.

The NetKeyIndexAndAppKeyIndex field contains two indexes that shall identify the global NetKey Index of the NetKey and the global AppKey Index of the AppKey. These two indexes shall be encoded as defined in Section 4.1 using NetKey Index as first key index and AppKey Index as second key index.

6.1.2 Config AppKey Delete

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x00

- Parameter

Field	Size(octets)	Notes
NetKeyIndexAndAppKeyIndex	3	Index of the NetKey and index of the AppKey

The Config AppKey Delete is an acknowledged message used to delete an AppKey from the AppKey List on a node.

The response to a Config AppKey Delete message is a Config AppKey Status message.

NetKeyIndexAndAppKeyIndex is packed in the same way defined in Section

4.1.

6.1.3 Config AppKey Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x01

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	Index of the NetKey

The AppKey Get is an acknowledged message used to report all AppKeys bound to the NetKey.

The response to a Config AppKey Get message is a Config AppKey List message.

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

6.1.4 Config AppKey List

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x02

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
NetKeyIndex	2	Index of the NetKey
AppKeyIndexes	variable	A list of AppKey indexes that are bound to the NetKey identified by NetKeyIndex

The Status field shall identify the Status Code for the last operation on the

AppKey of the NetKey. The allowed values for Status codes and their meanings are documented in Section 4.5.

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey to which the AppKeys are bound. The NetKeyIndex field shall be encoded as defined in Section 4.1.

The AppKeyIndexes field shall contain all AppKey indexes that are bound to the NetKey. The AppKey indexes shall be encoded as defined in Section 4.1

6.1.5 Config AppKey Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x03

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
NetKeyIndexAndAppKeyIndex	3	Index of the NetKey and index of the AppKey

The Config AppKey Status is an unacknowledged message used to report a status for the requesting message, based on the NetKey Index identifying the NetKey on the NetKey List and on the AppKey Index identifying the AppKey on the AppKey List.

The Status field shall identify the Status Code for the last operation on the AppKey List. The allowed values for Status codes and their meanings are documented in Section 5.5. The Status Code shall be Success if the received request was redundant (add of an identical existing key, update of an identical updated key, or delete of a non-existent key), with no further action taken.

The NetKeyIndexAndAppKeyIndex field contains two indexes that shall identify the global NetKey Index of the NetKey and the global AppKey Index of the

AppKey. These two indexes shall be encoded as defined in Section 4.1 using NetKey Index as first key index and AppKey Index as second key index.

6.1.6 Config AppKey Update

- Command id
0x1000-1000

- Opcode

Byte 0
0x01

- Parameter

Field	Size(octets)	Notes
NetKeyIndexAndAppKeyIndex	3	Index of the NetKey and index of the AppKey
AppKey	16	AppKey value

The Config AppKey Update is an acknowledged message used to update an AppKey value on the AppKey List on a node.

The response to an Config AppKey Update message is an Config AppKey Status message.

The NetKeyIndexAndAppKeyIndex field contains two indexes that shall identify the global NetKey Index of the NetKey and the global AppKey Index of the AppKey. These two indexes shall be encoded as defined in Section 4.1 using NetKey Index as first key index and AppKey Index as second key index. The AppKeyIndex shall be bound to the NetKeyIndex.

The AppKey field shall contain the new value of the AppKey, identified by the AppKeyIndex

6.1.7 Config Beacon Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
--------	--------

0x80	0x09
------	------

The Config Beacon Get is an acknowledged message used to get the current Secure Network Beacon state of a node

The response to a Config Beacon Get message is a Config Beacon Status message.

There are no Parameters for this message.

6.1.8 Config Beacon Set

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x0A

- Parameter

Field	Size(octets)	Notes
Beacon	1	New Secure Network Beacon state

The Config Beacon Set is an acknowledged message used to set the Secure Network Beacon state of a node

The response to a Config Beacon Set message is a Config Beacon Status message.

The Beacon field shall provide the new Secure Network Beacon state of the node.

6.1.9 Config Beacon Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x0B

- Parameter

Field	Size(octets)	Notes
Beacon	1	New Secure Network Beacon state

The Config Beacon Status is an unacknowledged message used to report the current Secure Network Beacon state of a node

The Beacon field shall provide the current Secure Network Beacon state of the node.

6.1.10 Config Composition Data Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x08

- Parameter

Field	Size(octets)	Notes
Page	1	Page number of the Composition Data

The Config Composition Data Get is an acknowledged message used to read one page of the Composition Data.

The response to a Config Composition Data Get message is a Config Composition Data Status message.

The Page field shall identify the Composition Data Page number that is being read.

6.1.11 Config Composition Data Status

- Command id

0x1000-1000

- Opcode

Byte 0
0x02

- Parameter

Field	Size(octets)	Notes
Page	1	Page number of the Composition Data
Data	variable	Composition Data for the identified page

The Config Composition Data Status is an unacknowledged message used to report a single page of the Composition Data

This message uses a single octet opcode to maximize the size of a payload.

The Page field shall identify the Composition Data Page number.

The Data field shall contain the identified single page of the Composition Data.

The Composition Data state contains information about a node, the elements it includes, and the supported models. The Composition Data is composed of a number of pages of information. Composition Data Page 0 is mandatory. All other pages are optional. All Composition Data Pages not defined in this specification are reserved for future use.

The size of the state shall not exceed the maximum useful access payload size

- Composition Data Page 0

The format of the Composition Data Page 0 is defined as following.

Field	Size(octets)	Notes
CID	2	Contains a 16-bit company identifier assigned by the Bluetooth SIG
PID	2	Contains a 16-bit vendor-assigned product identifier
VID	2	Contains a 16-bit vendor-assigned product version identifier
CRPL	2	Contains a 16-bit value representing the minimum number of replay protection list entries in a device
Features	2	Contains a bit field indicating the device features

Elements	variable	Contains a sequence of element descriptions
----------	----------	---

The Features field contains a bit field format indicating the node capabilities is defined in the following table.

Bit	Feature	Notes
0	Relay	Relay feature support: 0 = False, 1 = True
1	Proxy	Proxy feature support: 0 = False, 1 = True
2	Friend	Friend feature support: 0 = False, 1 = True
3	Low Power	Low Power feature support: 0 = False, 1 = True
4-15	RFU	Reserved for Future Use

The Elements field contains a sequence of one or more element descriptions. The format of each element description is defined in the following table.

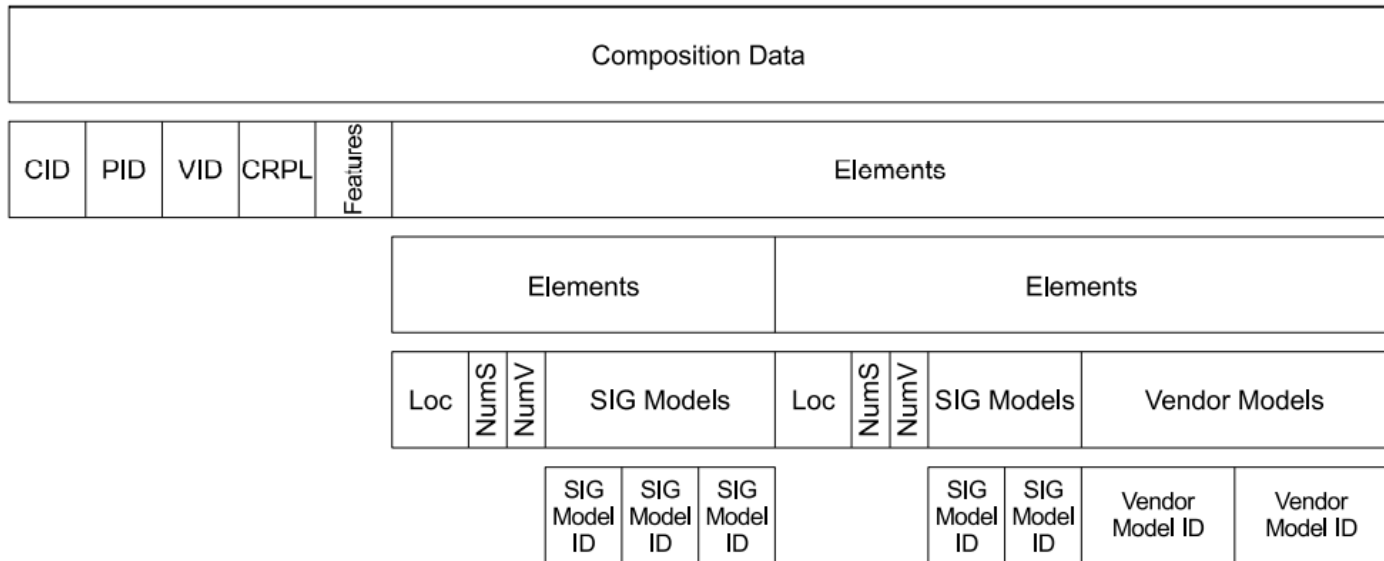
Field	Size(octets)	Notes
Loc	2	Contains a location descriptor
NumS	1	Contains a count of SIG Model IDs in this element
NumV	1	Contains a count of Vendor Model IDs in this element
SIG Models	variable	Contains a sequence of NumS SIG Model IDs
Vendor Models	variable	Contains a sequence of NumV Vendor Model IDs

The Loc field contains a location description as defined in the GATT Bluetooth Namespace Descriptors section of the Bluetooth SIG Assigned Numbers.

The SIG Models field contains a sequence of NumS SIG Model IDs. For each extended model included in this sequence, all models it extends shall also be included.

The Vendor Models field contains a sequence of NumV Vendor Model IDs.

The Composition Data Page 0 structure is showed as following figure.



6.1.12 Config Model Publication Set

- Command id
0x1000-1000

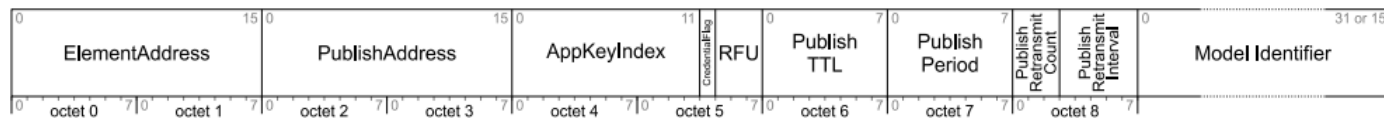
- Opcode

Byte 0
0x03

- Parameter

Field	Size (bits)	Notes
ElementAddress	16	Address of the element
PublishAddress	16	Value of the publish address
AppKeyIndex	12	Index of the application key
CredentialFlag	1	Value of the Friendship Credential Flag
RFU	3	Reserved for Future Use
PublishTTL	8	Default TTL value for the outgoing messages
PublishPeriod	8	Period for periodic status publishing
PublishRetransmitCount	3	Number of retransmissions for each published message
PublishRetransmitIntervalSteps	5	Number of 50-millisecond steps between retransmissions
ModelIdentifier	16/32	SIG Model ID or Vendor Model ID

The parameter should be constructed as the following format.



The Config Model Publication Set is an acknowledged message used to set the Model Publication state of an outgoing message that originates from a model.

The response to a Config Model Publication Set message is a Config Model Publication Status message.

The Config Model Publication Set message uses a single octet opcode to maximize the size of a payload.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The PublishAddress field shall contain the new Publish Address for the model. The value of PublishAddress field shall not be a virtual address.

The AppKeyIndex field shall contain the new Publish AppKey Index.

The CredentialFlag field shall contain the new Publish Friendship Credentials Flag

The PublishTTL field shall contain the new Publish TTL

The PublishPeriod field shall contain a new value for the Publish Period state (see Section 4.3).

6.1.13 Config Default TTL Get

- Command id
0x1000-1000
- Opcode

Byte 0	Byte 1
0x80	0x0C

The Config Default TTL Get is an acknowledged message used to get the current Default TTL state of a node.

The response to a Config Default TTL Get message is a Config Default TTL Status message.

There are no Parameters for this command.

6.1.14 Config Default TTL Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x0D

- Parameter

Field	Size(octets)	Notes
TTL	1	New Default TTL value

The Config Default TTL Set is an acknowledged message used to set the Default TTL state of a node

The response to a Config Default TTL Set message is a Config Default TTL Status message.

The TTL field shall identify a new Default TTL for the node.

6.1.15 Config Default TTL Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x0E

- Parameter

Field	Size(octets)	Notes
-------	--------------	-------

TTL	1	Default TTL value
-----	---	-------------------

6.1.16 Config Friend Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x0F

The Config Friend Get is an acknowledged message used to get the current Friend state of a node

The response to a Config Friend Get message is a Config Friend Status message.

There are no Parameters for this message.

6.1.17 Config Friend Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x10

- Parameter

Field	Size(octets)	Notes
Friend	1	New Friend state

The Config Friend Set is an acknowledged message used to set the Friend state of a node

The response to a Config Friend Set message is a Config Friend Status message

The Friend field shall provide the new Friend state of the node

6.1.18 Config Friend Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x11

- Parameter

Field	Size(octets)	Notes
Friend	1	New Friend state

The Config Friend Status is an unacknowledged message used to report the current Friend state of a node

The Friend field shall provide the current Friend state of the node

6.1.19 Config GATT Proxy Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x12

The Config GATT Proxy Get is an acknowledged message used to get the current GATT Proxy state of a node

The response to a Config GATT Proxy Get message is a Config GATT Proxy Status message.

There are no Parameters for this message

6.1.20 Config GATT Proxy Set

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
--------	--------

0x80	0x13
------	------

- Parameter

Field	Size(octets)	Notes
GATTProxy	1	New GATT Proxy state

The Config GATT Proxy Set is an acknowledged message used to set the GATT Proxy state of a node

The response to a Config GATT Proxy Set message is a Config GATT Proxy Status message.

The GATTProxy field shall provide the new GATT Proxy state of the node

6.1.21 Config GATT Proxy Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x14

- Parameter

Field	Size(octets)	Notes
GATTProxy	1	New GATT Proxy state

The Config GATT Proxy Status is an unacknowledged message used to report the current GATT Proxy state of a node

The GATTProxy field shall provide the current GATT Proxy state of the node

6.1.22 Config Key Refresh Phase Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x15

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	NetKey Index

The Config Key Refresh Phase Get is an acknowledged message used to get the current Key Refresh Phase state of the identified network key.

The response to a Config Key Refresh Phase Get message is a Config Key Refresh Phase Status message.

The NetKeyIndex field shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1

6.1.23 Config Key Refresh Phase Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x16

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	NetKey Index
Transition	1	New Key Refresh Phase Transition

The Config Key Refresh Phase Set is an acknowledged message used to set the Key Refresh Phase state of the identified network key

The response to a Config Key Refresh Phase Set message is a Config Key Refresh Phase Status message.

The NetKeyIndex field shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1

The Transition field shall identify the Key Refresh Phase Transitions allowed for each given starting state. All other transition values are Prohibited.

6.1.24 Config Key Refresh Phase Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x17

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
NetKeyIndex	2	NetKey Index
Phase	1	Key Refresh Phase State

The Status field shall identify the Status Code for the requesting message. The Status Code shall be Success if the received request was redundant (the requested phase transition has already occurred), with no further action taken.

The NetKeyIndex field shall identify the global NetKey Index of the NetKey

he Phase field shall identify the Key Refresh Phase state for the node

6.1.25 Config Low Power Node PollTimeout Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x2D

- Parameter

Field	Size(octets)	Notes
LPNAddress	2	The unicast address of the Low Power node

The Config Low Power Node PollTimeout Get is an acknowledged message used to get the current value of PollTimeout timer of the Low Power node within a Friend node. The message is sent to a Friend node that has claimed to be handling messages by sending ACKs On Behalf Of (OBO) the indicated Low Power node. This message should only be sent to a node that has the Friend

feature supported and enabled.

The response to a Config Low Power Node PollTimeout Get message is a Config Low Power Node PollTimeout Status message

The LPNAddress field shall contain the primary unicast address of the Low Power node within a Friend node.

6.1.26 Config Low Power Node PollTimeout Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x2E

- Parameter

Field	Size(octets)	Notes
LPNAddress	2	The unicast address of the Low Power node
PollTimeout	3	The current value of the PollTimeout timer of the Low Power node

The Config Low Power Node PollTimeout Status is an unacknowledged message used to report the current value of the PollTimeout timer of the Low Power node within a Friend node.

The LPNAddress field shall contain the primary unicast address of the Low Power node.

The PollTimeout field shall contain the current value of the PollTimeout timer of the Low Power node within a Friend node, or 0x000000 if the node is not a Friend node for the Low Power node identified by LPNAddress.

6.1.27 Config Model App Bind

- Command id
0x1000-1000
- Opcode

Byte 0	Byte 1
0x80	0x3D

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
AppKeyIndex	2	Index of the AppKey
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model App Bind is an acknowledged message used to bind an AppKey to a model.

The response to a Config Model App Bind message is a Config Model App Status message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited

The AppKeyIndex field is an index that shall identify the global AppKey Index of the AppKey. The AppKeyIndex field shall be encoded as defined in Section 4.1.

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.28 Config Model App Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x3E

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
ElementAddress	2	Address of the element
AppKeyIndex	2	Index of the AppKey
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

6.1.29 Config Model App Unbind

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x3F

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
AppKeyIndex	2	Index of the AppKey
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model App Unbind is an acknowledged message used to remove the binding between an AppKey and a model.

The response to a Config Model App Unbind message is a Config Model App Status message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited

The AppKeyIndex field is an index that shall identify the global AppKey Index of the AppKey. The AppKeyIndex field shall be encoded as defined in Section 4.1.

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.30 Config Model Publication Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x18

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Publication Get is an acknowledged message used to get the publish address and parameters of an outgoing message that originates from a model.

The response to a Config Model Publication Get message is a Config Model Publication Status message

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.31 Config Model Publication Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x19

- Parameter

Field	Size (bits)	Notes
Status	8	Status Code for the requesting message
ElementAddress	16	Address of the element
PublishAddress	16	Value of the publish address
AppKeyIndex	12	Index of the application key
CredentialFlag	1	Value of the Friendship Credential Flag
RFU	3	Reserved for Future Use
PublishTTL	8	Default TTL value for the outgoing

		messages
PublishPeriod	8	Period for periodic status publishing
PublishRetransmitCount	3	Number of retransmissions for each published message
PublishRetransmitIntervalSteps	5	Number of 50-millisecond steps between retransmissions
ModelIdentifier	16/32	SIG Model ID or Vendor Model ID

The Config Model Publication Status is an unacknowledged message used to report the model Publication state of an outgoing message that is published by the model.

The Status field shall identify the Status Code for the last operation on Config Model Publication parameters. The allowed values for Status codes and their meanings are documented in Section 5.5.

The ElementAddress field shall contain the unicast address of the element, all other address types are Prohibited.

The PublishAddress field shall contain the current Publish Address for the model. When using a Label UUID, the status message shall provide this value as the virtual address.

The AppKeyIndex is a global AppKey Index of the AppKey.

The CredentialFlag field shall contain the current value Publish Friendship Credentials Flag state.

6.1.32 Config Model Publication Virtual Address Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x1A

- Parameter

Field	Size (bits)	Notes
-------	----------------	-------

ElementAddress	16	Address of the element
PublishAddress	128	Value of the Label UUID publish address
AppKeyIndex	12	Index of the application key
CredentialFlag	1	Value of the Friendship Credential Flag
RFU	3	Reserved for Future Use
PublishTTL	8	Default TTL value for the outgoing messages
PublishPeriod	8	Period for periodic status publishing
PublishRetransmitCount	3	Number of retransmissions for each published message
PublishRetransmitIntervalSteps	5	Number of 50-millisecond steps between retransmissions
ModelIdentifier	16/32	SIG Model ID or Vendor Model ID

The Config Model Publication Virtual Address Set is an acknowledged message used to set the model Publication state of an outgoing message that originates from a model.

The response to a Config Model Publication Virtual Address Set message is a Config Model Publication Status message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The PublishAddress field shall contain the virtual address used as new Publish Address state for the model.

The AppKeyIndex field shall contain the new Publish AppKey Index state

The CredentialFlag field shall contain the new Publish Friendship Credentials Flag state

The PublishTTL field shall contain the new Publish TTL state

The PublishRetransmitCount field shall contain a new value for the Publish Retransmit Count state of an element

The PublishRetransmitIntervalSteps field shall contain a new value for the Publish Retransmit Interval Steps state of an element

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.33 Config Model Subscription Add

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x1B

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
Address	2	Value of the Address
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Add is an acknowledged message used to add an address to a Subscription List of a model

The response to a Config Model Subscription Add message is a Config Model Subscription Status message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The Address field shall contain the new address to be added to the Subscription List. The value of the Address field shall not be an unassigned address, unicast address, all-nodes address or virtual address.

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.34 Config Model Subscription Delete

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x1C

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
Address	2	Value of the Address
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Delete is an acknowledged message used to delete a subscription address from the Subscription List of a model

The response to a Config Model Subscription Add message is a Config Model Subscription Status message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The Address field shall contain the new address to be added to the Subscription List. The value of the Address field shall not be an unassigned address, unicast address, all-nodes address or virtual address.

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.35 Config Model Subscription Delete All

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x1D

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Delete All is an acknowledged message used to discard the Subscription List of a model

The response to a Config Model Subscription Delete All message is a Config Model Subscription Status message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.36 Config Model Subscription Overwrite

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x1E

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
Address	2	Value of the Address
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Delete is an acknowledged message used to delete a subscription address from the Subscription List of a model

The response to a Config Model Subscription Delete message is a Config Model Subscription Status message

The ElementAddress field is the unicast address of the element, all other address types are Prohibited

The Address field shall identify the address to be removed from the Subscription List. The value of the Address field shall not be an unassigned address, unicast address, all-nodes address or virtual address.

The ModelIdentifier field either is a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.37 Config Model Subscription Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x1F

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message.
ElementAddress	2	Address of the element
Address	2	Value of the Address
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Status is an unacknowledged message used to report a status of the operation on the Subscription List

The Status field shall identify the Status Code for the last operation on the Subscription List. The allowed values for Status codes and their meanings are documented in Section 5.5

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The value of the Address field shall contain the address that was used to modify the Subscription List or the unassigned address. When referencing the Label UUID, the virtual address shall be used. The value of the Address field shall not be a unicast address or the all-nodes address.

The ModelIdentifier field is a SIG Model ID or a Vendor Model ID that shall identify the model within the element

6.1.38 Config Model Subscription Virtual Address Add

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x20

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
Label	16	Value of the Label UUID
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Virtual Address Add is an acknowledged message used to add an address to a Subscription List of a model

The response to a Config Model Subscription Virtual Address Add message is a Config Model Subscription Status message

The ElementAddress field is the unicast address of the element, all other address types are Prohibited

The Label field shall contain the Label UUID to be added to the Subscription List.

The ModelIdentifier field is either a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.39 Config Model Subscription Virtual Address Delete

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
--------	--------

0x80	0x21
------	------

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
Address	16	Value of the Label UUID
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Virtual Address Delete is an acknowledged message used to delete a subscription address from the Subscription List of a model

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The Address field shall contain the Label UUID used to identify the Address to be removed from the Subscription List.

The ModelIdentifier field either is a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.40 Config Model Subscription Virtual Address Overwrite

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x22

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
Address	16	Value of the Label UUID
ModelIdentifier	2 or 4	SIG Model ID or Vendor Model ID

The Config Model Subscription Virtual Address Overwrite is an acknowledged message used to discard the Subscription List and add an address to the cleared Subscription List of a model

The response to a Config Model Subscription Virtual Address Overwrite message is a Config Model Subscription Status message

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The Address field shall contain the Label UUID used to identify the Address to be removed from the Subscription List.

The ModelIdentifier field either is a SIG Model ID or a Vendor Model ID that shall identify the model within the element.

6.1.41 Config NetKey Add

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x40

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	NetKey Index
NetKey	16	NetKey

The Config NetKey Add is an acknowledged message used to add a NetKey to a NetKey List on a node. The added NetKey is then used by the node to authenticate and decrypt messages it receives, as well as authenticate and encrypt messages it sends.

The response to a Config NetKey Add message is a Config NetKey Status message.

The NetKeyIndex field shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

The NetKey field shall contain the NetKey.

6.1.42 Config NetKey Delete

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x41

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	NetKey Index
NetKey	16	NetKey

6.1.43 Config NetKey Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x42

The Config NetKey Get is an acknowledged message used to report all NetKeys known to the node.

The response to a Config NetKey Get message is a Config NetKey List message.

There are no Parameters for this message.

6.1.44 Config NetKey List

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x43

- Parameter

Field	Size(octets)	Notes
NetKeyIndex		A list of NetKey Indexes known to the node

The Config NetKey List is an unacknowledged message reporting all NetKeys known to the node.

The NetKeyIndexes field shall contain all NetKey Indexes that are known to the node. The NetKey Indexes shall be encoded as defined in Section 4.1.

6.1.45 Config NetKey Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x44

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
NetKeyIndex	2	NetKey Index

The Config NetKey Status is an unacknowledged message used to report the status of the operation on the NetKey List.

The Status field shall identify the Status Code for the last operation on the NetKey List. The allowed values for Status codes and their meanings are documented in Section 5.5. The Status Code shall be Success if the received request was redundant (add of an identical existing key, update of an identical updated key, or delete of a non-existent key), with no further action taken.

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

6.1.46 Config NetKey Update

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x45

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	NetKey Index
NetKey	16	NetKey

The Config NetKey Update is an acknowledged message used to update a NetKey on a node. The updated NetKey is then used by the node to authenticate and decrypt messages it receives, as well as authenticate and encrypt messages it sends

The response to a Config NetKey Update message is a Config NetKey Status message

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

The NetKey field shall contain the NetKey.

6.1.47 Config Network Transmit Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x23

The Config Network Transmit Get is an acknowledged message used to get the current Network Transmit state of a node

The response to a Config Network Transmit Get message is a Config Network Transmit Status message

There are no Parameters for this message.

6.1.48 Config Network Transmit Set

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x24

- Parameter

Field	Size(bits)	Notes
NetworkTransmitCount	3	Number of transmissions for each Network PDU originating from the node
NetworkTransmitIntervalSteps	5	Number of 10-millisecond steps between transmissions

The Config Network Transmit Set is an acknowledged message used to set the Network Transmit state of a node

The response to a Config Network Transmit Set message is a Config Network Transmit Status message.

The NetworkTransmitCount field shall contain a new value for the Network Transmit Count state of a node

The NetworkTransmitIntervalSteps field shall contain a new value for the Network Transmit Interval Steps state of a node

6.1.49 Config Network Transmit Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x25

- Parameter

Field	Size(bits)	Notes
NetworkTransmitCount	3	Number of transmissions for each Network PDU originating from the

		node
NetworkTransmitIntervalSteps	5	Number of 10-millisecond steps between transmissions

The Config Network Transmit Status is an unacknowledged message used to report the current Network Transmit state of a node

The NetworkTransmitCount field shall contain a new value for the Network Transmit Count state of a node

The NetworkTransmitIntervalSteps field shall contain a new value for the Network Transmit Interval Steps state of a node

6.1.50 Config Node Identity Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x46

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	Index of the NetKey

The Config Node Identity Get is an acknowledged message used to get the current Node Identity state for a subnet

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

6.1.51 Config Node Identity Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x47

- Parameter

Field	Size(octets)	Notes
NetKeyIndex	2	Index of the NetKey
Identity	1	New Node Identity state

The Config Node Identity Set is an acknowledged message used to set the current Node Identity state for a subnet

The response to a Config Node Identity Set message is a Config Node Identity Status message.

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey of the Node Identity state. The NetKeyIndex field shall be encoded as defined in Section 4.1.

The Identity field shall provide the new Node Identity state of the NetKey.

6.1.52 Config Node Identity Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x48

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
NetKeyIndex	2	Index of the NetKey
Identity	1	Node Identity state

The Config Node Identity Status is an unacknowledged message used to report the current Node Identity state for a subnet

The Status field shall identify the Status Code for the requesting message. The allowed values for Status codes and their meanings are documented in Section 5.5.

The NetKeyIndex field is an index that shall identify the global NetKey Index of the NetKey of the Node Identity state. The NetKeyIndex field shall be encoded as defined in Section 4.1.

The Identity field shall provide the current Node Identity state for a subnet

6.1.53 Config Node Reset

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x49

The Config Node Reset is an acknowledged message used to reset a node (other than a Provisioner) and remove it from the network.

The response to a Config Node Reset message is a Config Node Reset Status message.

There are no Parameters for this message.

6.1.54 Config Node Reset Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x4A

The Config Node Reset Status is an unacknowledged message used to acknowledge that an element has received a Config Node Reset message.

There are no Parameters for this message

6.1.55 Config Relay Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x26

The Config Relay Get is an acknowledged message used to get the current Relay and Relay Retransmit states of a node.

The response to a Config Relay Get message is a Config Relay Status message.

There are no Parameters for this message.

6.1.56 Config Relay Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x27

- Parameter

Field	Size(bits)	Notes
Relay	8	Relay
RelayRetransmitCount	3	Number of retransmissions on advertising bearer for each Network PDU relayed by the node
RelayRetransmitIntervalSteps	5	Number of 10-millisecond steps between transmissions

The Config Relay Set is an acknowledged message used to set the Relay and Relay Retransmit states of a node.

The response to a Config Relay Set message is a Config Relay Status message.

The Relay field shall identify the new Relay state for the node

The RelayRetransmitCount field shall contain a new value for the Relay Retransmit Count state of a node

The RelayRetransmitIntervalSteps field shall contain a new value for the Relay Retransmit Interval Steps state of a node

6.1.57 Config Relay Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x28

- Parameter

Field	Size(bits)	Notes
Relay	8	Relay
RelayRetransmitCount	3	Number of retransmissions on advertising bearer for each Network PDU relayed by the node
RelayRetransmitIntervalSteps	5	Number of 10-millisecond steps between transmissions

The Config Relay Status is an unacknowledged message used to report the current Relay and Relay Retransmit states of a node.

The Relay field shall identify the new Relay state for the node

The RelayRetransmitCount field shall contain a new value for the Relay Retransmit Count state of a node

The RelayRetransmitIntervalSteps field shall contain a new value for the Relay Retransmit Interval Steps state of a node

6.1.58 Config SIG Model App Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x4B

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
ModelIdentifier	2	SIG Model ID

The Config SIG Model App Get is an acknowledged message used to request report of all AppKeys bound to the SIG Model.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a SIG Model ID that shall identify the model within the element.

6.1.59 Config SIG Model App List

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x4C

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
ElementAddress	2	Address of the element
ModelIdentifier	2	SIG Model ID
AppKeyIndexes	Variable	All AppKey indexes bound to the Model

The Config SIG Model App List is an unacknowledged message used to report all AppKeys bound to the SIG Model.

The ElementAddress field is the unicast address of the element, all other

address types are Prohibited.

The ModelIdentifier field is a SIG Model ID that shall identify the model within the element.

The AppKeyIndexes field shall contain all AppKey indexes that are bound to an instance of a model. The AppKey indexes shall be encoded as defined in Section 4.1.

6.1.60 Config SIG Model Subscription Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x29

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
ModelIdentifier	2	SIG Model ID

The Config SIG Model Subscription Get is an acknowledged message used to get the list of subscription addresses of a model within the element. This message is only for SIG Models

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a SIG Model ID that shall identify the model within the element.

6.1.61 Config SIG Model Subscription List

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
--------	--------

0x80	0x2A
------	------

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
ElementAddress	2	Address of the element
ModelIdentifier	2	SIG Model ID
Addresses	Variable	A block of all addresses from the Subscription List

The Config SIG Model App List is an unacknowledged message used to report all AppKeys bound to the SIG Model.

The Status field shall identify the Status Code for the requesting message. The allowed values for Status codes and their meanings are documented in Section 5.5.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a SIG Model ID that shall identify the SIG model within the element.

The Addresses field shall identify all addresses from the Subscription List of an element. When using a Label UUID, the status message shall provide the value of the virtual address. The empty Subscription List results in Address field of zero length.

6.1.62 Config Vendor Model App Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x4D

- Parameter

Field	Size(octets)	Notes
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ElementAddress	2	Address of the element
ModelIdentifier	4	Vendor Model ID

The Config Vendor Model App Get is an acknowledged message used to request report of all AppKeys bound to the model. This message is only for Vendor Models.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a Vendor Model ID that shall identify the model within the element.

6.1.63 Config Vendor Model App List

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x4E

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
ElementAddress	2	Address of the element
ModelIdentifier	4	Vendor Model ID
AppKeyIndexes	Variable	All AppKey indexes bound to the Model

The Config Vendor Model App List is an unacknowledged message used to report indexes of all AppKeys bound to the model. This message is only for Vendor Models.

The Status field shall identify the Status Code for the requesting message. The allowed values for Status codes and their meanings are documented in Section 5.5.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a Vendor Model ID that shall identify the model within the element.

The AppKeyIndexes field shall contain all AppKey indexes that are bound to an instance of a model. The AppKey indexes shall be encoded as defined in Section 4.1.

6.1.64 Config Vendor Model Subscription Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x2B

- Parameter

Field	Size(octets)	Notes
ElementAddress	2	Address of the element
ModelIdentifier	4	Vendor Model ID

The Config Vendor Model Subscription Get is an acknowledged message used to get the list of subscription addresses of a model within the element. This message is only for Vendor Models.

The response to a Config Vendor Model Subscription Get message is a Config Vendor Model Subscription List message.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a Vendor Model ID that shall identify the model within the element.

6.1.65 Config Vendor Model Subscription List

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x2C

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
ElementAddress	2	Address of the element
ModelIdentifier	4	Vendor Model ID
Addresses	Variable	A block of all addresses from the Subscription List

The Config Vendor Model Subscription List is an unacknowledged message used to report all addresses from the Subscription List of the model. This message is only for Vendor Models.

The Status field shall identify the Status Code for the last operation on the Subscription List. The allowed values for Status codes and their meanings are documented in Section 5.5.

The ElementAddress field is the unicast address of the element, all other address types are Prohibited.

The ModelIdentifier field is a Vendor Model ID that shall identify the model within the element.

The Addresses field shall identify all addresses from the Subscription List of an element. When using a Label UUID, the status message shall provide the value of the virtual address. The empty Subscription List results in Address field of zero length.

6.2 Heartbeat State Management

6.2.1 Config Heartbeat Publication Get

- Command id
0x1000-1000
- Opcode

Byte 0	Byte 1
0x80	0x38

The Config Heartbeat Publication Get is an acknowledged message used to get the current Heartbeat Publication state of an element

The response to a Config Heartbeat Publication Get message is a Config Heartbeat Publication Status message.

The message has no parameters

6.2.2 Config Heartbeat Publication Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x39

- Parameter

Field	Size(octets)	Notes
Destination	2	Destination address for Heartbeat messages
CountLog	1	Number of Heartbeat messages to be sent
PeriodLog	1	Period for sending Heartbeat messages
TTL	1	TTL to be used when sending Heartbeat messages
Features	2	Bit field indicating features that trigger Heartbeat messages when changed
NetKeyIndex	2	NetKey Index

The Config Heartbeat Publication Set is an acknowledged message used to set the current Heartbeat Publication state of an element

The response to a Config Heartbeat Publication Set message is a Config Heartbeat Publication Status message.

The Destination field shall identify the Heartbeat Publication Destination state

The CountLog field shall identify the Heartbeat Publication Count Log representation of the Heartbeat Publication Count state

The PeriodLog field shall identify the Heartbeat Publication Period Log state

The TTL field shall identify the Heartbeat Publication TTL state

The Features field shall identify the Heartbeat Publication Features state

The NetKeyIndex field shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

6.2.3 Config Heartbeat Publication Status

- Command id
0x1000-1000

- Opcode

Byte 0
0x06

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
Destination	2	Destination address for Heartbeat messages
CountLog	1	Number of Heartbeat messages to be sent
PeriodLog	1	Period for sending Heartbeat messages
TTL	1	TTL to be used when sending Heartbeat messages
Features	2	Bit field indicating features that trigger Heartbeat messages when changed
NetKeyIndex	2	NetKey Index

The Config Heartbeat Publication Status is an unacknowledged message used to report the Heartbeat Publication state of a node

The Status field shall identify the Status Code for the requesting message. The allowed values for Status codes and their meanings are documented in Section 5.5.

The Destination field shall identify the Heartbeat Publication Destination state

The CountLog field shall identify the Heartbeat Publication Count Log representation of the Heartbeat Publication Count state

The PeriodLog field shall identify the Heartbeat Publication Period Log state

The TTL field shall identify the Heartbeat Publication TTL state

The Features field shall identify the Heartbeat Publication Features state

The NetKeyIndex field shall identify the global NetKey Index of the NetKey. The NetKeyIndex field shall be encoded as defined in Section 4.1.

6.2.4 Config Heartbeat Subscription Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x3A

The Config Heartbeat Subscription Get is an acknowledged message used to get the current Heartbeat Subscription state of an element

The response to a Config Heartbeat Subscription Get message is a Config Heartbeat Subscription Status message.

The message has no parameters.

6.2.5 Config Heartbeat Subscription Set

- Command id
0x1000-1000
- Opcode

Byte 0	Byte 1
0x80	0x3B

- Parameter

Field	Size(octets)	Notes
Source	2	Source address for Heartbeat messages
Destination	2	Destination address for Heartbeat messages
PeriodLog	1	Period for sending Heartbeat messages

The Config Heartbeat Subscription Set is an acknowledged message used to set the current Heartbeat Subscription state of an element

The response to a Config Heartbeat Subscription Set message is a Config Heartbeat Subscription Status message.

The Source field shall identify the Heartbeat Subscription Source state

The Destination field shall identify the Heartbeat Subscription Destination state

The PeriodLog field shall identify the Heartbeat Subscription Period state

6.2.6 Config Heartbeat Subscription Status

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x3C

- Parameter

Field	Size(octets)	Notes
Status	1	Status Code for the requesting message
Source	2	Source address for Heartbeat messages
Destination	2	Destination address for Heartbeat messages
PeriodLog	1	Remaining Period for processing Heartbeat messages
CountLog	1	Number of Heartbeat messages received
MinHops	1	Minimum hops when receiving Heartbeat

		messages
MaxHops	1	Maximum hops when receiving Heartbeat messages

The Config Heartbeat Subscription Status is an unacknowledged message used to report the Heartbeat Subscription state of a node

The Status field shall identify the Status Code for the requesting message. The allowed values for Status codes and their meanings are documented in Section 5.5.

The Source field shall identify the Heartbeat Subscription Source state

The Destination field shall identify the Heartbeat Subscription Destination state

The PeriodLog field shall identify the Heartbeat Subscription Period Log state

The CountLog field shall identify the Heartbeat Subscription Count Log representation of the Heartbeat Publication Count state

The MinHops field shall identify the Heartbeat Subscription Min Hops state

The MaxHops field shall identify the Heartbeat Subscription Max Hops state

6.3 Device Health Management

6.3.1 Health Attention Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x04

The Health Attention Get is an acknowledged message used to get the current Attention Timer state of an element

The response to a Health Attention Get message is an Attention Status message.

There are no Parameters for this message.

6.3.2 Health Attention Set

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x05

- Parameter

Field	Size(octets)	Notes
Attention	1	Value of the Attention Timer state

The Health Attention Set is an acknowledged message used to set the Attention Timer state of an element

The Attention field shall identify the new Attention Timer state of an element.

6.3.3 Health Attention Set Unacknowledged

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x06

- Parameter

Field	Size(octets)	Notes
Attention	1	Value of the Attention Timer state

The Health Attention Status is an unacknowledged message used to report the current Attention Timer state of an element

The Attention field shall identify the new Attention Timer state of an element

6.3.4 Health Attention Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x07

- Parameter

Field	Size(octets)	Notes
Attention	1	Value of the Attention Timer state

The Health Attention Status is an unacknowledged message used to report the current Attention Timer state of an element

The Attention field shall identify the current Attention Timer state of the node

6.3.5 Health Current Status

- Command id
0x1000-1000

- Opcode

Byte 0
0x04

- Parameter

Parameters	Size(octets)	Notes
Test ID	1	Identifier of a most recently performed test
Company ID	2	16-bit Bluetooth assigned Company Identifier
FaultArray	N	The FaultArray field contains a sequence of 1-octet fault values

The Health Current Status is an unacknowledged message used to report the Current Health state of an element. The message may contain several Fault fields, depending on the number of concurrently present fault conditions. If no Fault fields are present, it means no fault condition exists on an element

The message uses a single-octet opcode to maximize the size of the FaultArray.

The Test ID field identifies a most recently performed test by the element.

The Company ID field is a Bluetooth assigned Company Identifier

The FaultArray field contains a sequence of fault values

6.3.6 Health Fault Clear

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x2F

- Parameter

Parameters	Size(octets)	Notes
Company ID	2	16-bit Bluetooth assigned Company Identifier

The Health Fault Clear is an acknowledged message used to clear the current Registered Fault state identified by Company ID of an element

The response to a Health Fault Clear message is a Health Fault Status message.

The Company ID field is a Bluetooth assigned Company identifier

6.3.7 Health Fault Clear Unacknowledged

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x30

- Parameter

Parameters	Size(octets)	Notes
Company ID	2	16-bit Bluetooth assigned Company Identifier

The Health Fault Clear Unacknowledged is an unacknowledged message used to clear the current Registered Fault state identified by Company ID of an element

The Company ID field is a Bluetooth assigned Company identifier

6.3.8 Health Fault Get

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x31

- Parameter

Parameters	Size(octets)	Notes
Company ID	2	16-bit Bluetooth assigned Company Identifier

The Health Fault Get is an acknowledged message used to get the current Registered Fault state identified by Company ID of an element

The response to a Health Fault Get message is a Health Fault Status message.

The Company ID field is a Bluetooth assigned Company identifier

6.3.9 Health Fault Status

- Command id

0x1000-1000

- Opcode

Byte 0
0x05

- Parameter

Parameters	Size(octets)	Notes
Test ID	1	Identifier of a most recently performed test
Company ID	2	16-bit Bluetooth assigned Company Identifier
FaultArray	N	The FaultArray field contains a sequence of

		1-octet fault values
--	--	----------------------

The Health Fault Status is an unacknowledged message used to report the current Registered Fault state of an element. The message may contain several Fault fields, depending on the number of concurrently present fault conditions. If no Fault fields are present, it means no registered fault condition exists on an element.

The message uses a single-octet opcode to maximize the size of the FaultArray.

The Test ID field identifies a most recently performed test by the element.

The FaultArray field contains a sequence of fault values

6.3.10 Health Fault Test

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x32

- Parameter

Parameters	Size(octets)	Notes
Test ID	1	Identifier of a most recently performed test
Company ID	2	16-bit Bluetooth assigned Company Identifier

The Health Fault Test is an acknowledged message used to invoke a self-test procedure of an element. The procedure is implementation specific and may result in changing the Health Fault state of an element

The response to a Health Fault Test message is a Health Fault Status message.

The Test ID field identifies a test the element should perform

The Company ID field is a Bluetooth assigned Company Identifier

6.3.11 Health Fault Test Unacknowledged

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x33

- Parameter

Parameters	Size(octets)	Notes
Test ID	1	Identifier of a most recently performed test
Company ID	2	16-bit Bluetooth assigned Company Identifier

The Health Fault Test Unacknowledged is an unacknowledged message used to invoke a self-test procedure of an element. The procedure is implementation specific and may result in changing the Health Fault state of an element

The Test ID field identifies a test the element should perform.

The Company ID field is a Bluetooth assigned Company Identifier

6.3.12 Health Period Get

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x34

The Health Period Get is an acknowledged message used to get the current Health Fast Period Divisor state of an element

The response to a Health Period Get message is a Health Period Status message

There are no parameters for this message.

6.3.13 Health Period Set

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x35

- Parameter

Parameters	Size(octets)	Notes
FastPeriodDivisor	1	Divider for the Publish Period. Modified Publish Period is used for sending Current Health Status messages when there are active faults to communicate

The Health Period Set is an acknowledged message used to set the current Health Fast Period Divisor state of an element

The FastPeriodDivisor field shall identify the Health Fast Period Divisor state for the element

6.3.14 Health Period Set Unacknowledged

- Command id

0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x36

- Parameter

Parameters	Size(octets)	Notes
FastPeriodDivisor	1	Divider for the Publish Period. Modified Publish Period is used for sending Current Health Status messages when there are active faults to communicate

The Health Period Set Unacknowledged is an unacknowledged message used to set the current Health Fast Period Divisor state of an element

The FastPeriodDivisor field shall identify the Health Fast Period Divisor state for the element

6.3.15 Health Period Status

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x80	0x37

- Parameter

Parameters	Size(octets)	Notes
FastPeriodDivisor	1	Divider for the Publish Period. Modified Publish Period is used for sending Current Health Status messages when there are active faults to communicate

The Health Period Status is an unacknowledged message used to report the Health Fast Period Divisor state of an element

The FastPeriodDivisor field shall identify the Health Fast Period Divisor state for the element

6.4 Code Definitions

6.4.1 Message Status Code

Value	Description
0x00	Success
0x01	Invalid Address
0x02	Invalid Model
0x03	Invalid AppKey Index
0x04	Invalid NetKey Index
0x05	Insufficient Resources
0x06	Key Index Already Stored

0x07	Invalid Publish Parameters
0x08	Not a Subscribe Model
0x09	Storage Failure
0x0A	Feature Not Supported
0x0B	Cannot Update
0x0C	Cannot Remove
0x0D	Cannot Bind
0x0E	Temporarily Unable to Change State
0x0F	Cannot Set
0x10	Unspecified Error
0x11	Invalid Binding
0x12-0xFF	Reserved for Future Use

6.4.2 Health Test Fault Status Code

Value	Description
0x00	No Fault
0x01	Battery Low Warning
0x02	Battery Low Error
0x03	Supply Voltage Too Low Warning
0x04	Supply Voltage Too Low Error
0x05	Supply Voltage Too High Warning
0x06	Supply Voltage Too High Error
0x07	Power Supply Interrupted Warning
0x08	Power Supply Interrupted Error
0x09	No Load Warning
0x0A	No Load Error
0x0B	Overload Error
0x0C	Overload Error
0x0D	Overheat Warning
0x0E	Overheat Error
0x0F	Condensation Warning
0x10	Condensation Error
0x11	Vibration Warning
0x12	Vibration Error
0x13	Configuration Warning

0x14	Configuration Error
0x15	Element Not Calibrated Warning
0x16	Element Not Calibrated Error
0x17	Memory Warning
0x18	Memory Error
0x19	Self-Test Warning
0x1A	Self-Test Error
0x1B	Input Too Low Warning
0x1C	Input Too Low Error
0x1D	Input Too High Warning
0x1E	Input Too High Error
0x1F	Input No Change Warning
0x20	Input No Change Error
0x21	Actuator Blocked Warning
0x22	Actuator Blocked Error
0x23	Housing Opened Warning
0x24	Housing Opened Error
0x25	Tamper Warning
0x26	Tamper Error
0x27	Device Moved Warning
0x28	Device Moved Error
0x29	Device Dropped Warning
0x2A	Device Dropped Error
0x2B	Overflow Warning
0x2C	Overflow Error
0x2D	Empty Warning
0x2E	Empty Error
0x2F	Internal Bus Warning
0x30	Internal Bus Error
0x31	Mechanism Jammed Warning
0x32	Mechanism Jammed Error
0x33-0x7F	Reserved for Future Use
0x80-0xFF	Vendor Specific Warning / Error

7 Device Application Service

Rafael Microelectronics *Rafael BLE Mesh Gateway Manual*

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7.1 Generic OnOff

7.1.1 Generic OnOff Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x01

Generic OnOff Get is an acknowledged message used to get the Generic OnOff state of an element

The response to the Generic OnOff Get message is a Generic OnOff Status message.

There are no parameters for this message.

7.1.2 Generic OnOff Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x02

- Parameter

Parameters	Size(octets)	Notes
OnOff	1	The target value of the Generic OnOff state
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic OnOff Set is an acknowledged message used to set the Generic OnOff

state of an element

The response to the Generic OnOff Set message is a Generic OnOff Status message.

The OnOff field identifies the Generic OnOff state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time that an element will take to transition to the target state from the present state

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.1.3 Generic OnOff Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x03

- Parameter

Parameters	Size(octets)	Notes
OnOff	1	The target value of the Generic OnOff state
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic OnOff Set Unacknowledged is an unacknowledged message used to set the Generic OnOff state of an element

The OnOff field identifies the Generic OnOff state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time that an element will take to transition to the target state from the present state

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.1.4 Generic OnOff Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x04

- Parameter

Parameters	Size(octets)	Notes
Present OnOff	1	The present value of the Generic OnOff state.
Target OnOff	1	The target value of the Generic OnOff state (optional).
Remaining Time	1	Format is defined in 4.3 (Note)

Note: If the Target OnOff field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present.

Generic OnOff Status is an unacknowledged message used to report the Generic OnOff state of an element

The Present OnOff field identifies the present Generic OnOff state of the element

If present, the Target OnOff field identifies the target Generic OnOff state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Generic OnOff state of the node

7.2 Generic Level

7.2.1 Generic Level Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x05

Generic Level Get is an acknowledged message used to get the Generic Level state of an element

The response to the Generic Level Get message is a Generic Level Status message.

There are no parameters for this message.

7.2.2 Generic Level Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x06

- Parameter

Parameters	Size(octets)	Notes
Level	2	The target value of the Generic Level state
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond(note) steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Level Set is an acknowledged message used to set the Generic Level state of an element to a new absolute value

The response to the Generic Level Set message is a Generic Level Status message.

The response to the Generic Level Set message is a Generic Level Status message.

7.2.3 Generic Level Set Unacknowledged

- Command id
0x1000-1000

- Opcode

Byte 0	Byte 1
0x82	0x07

- Parameter

Parameters	Size(octets)	Notes
Level	2	The target value of the Generic Level state
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Level Set Unacknowledged is an unacknowledged message used to set the Generic Level state of an element to a new absolute value.

The Level field identifies the Generic Level state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message.

If present, the Transition Time field identifies the time that an element will take to transition to the target state from the present state.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.2.4 Generic Level Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x08

- Parameter

Parameters	Size(octets)	Notes
Present Level	2	The present value of the Generic OnOff state.
Target Level	2	The target value of the Generic OnOff state (optional).
Remaining Time	1	Format is defined in 4.3 (Note)

Note: If the Target Level field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present.

Generic Level Status is an unacknowledged message used to report the Generic Level state of an element

The Present Level field identifies the present Generic Level state of the element

If present, the Target Level field identifies the target Generic Level state that the element is to reach

If present, the Remaining Time field identifies the time that it will take the element to complete the transition to the target Generic Level state of the element

7.2.5 Generic Delta Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x09

- Parameter

Parameters	Size(octets)	Notes
Delta Level	4	The Delta change of the Generic Level state
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Delta Set is an acknowledged message used to set the Generic Level state of an element by a relative value. The message is transactional – it supports changing the state by a cumulative value with a sequence of messages that are part of a transaction.

The response to the Generic Delta Set message is a Generic Level Status message.

The Delta Level field identifies the increase (when positive) or decrease (if negative) of the Generic Level state of the element

The TID field is a transaction identifier and shall be used to logically group a series of Generic Delta Set messages. When starting a new transaction, TID should be assigned a least recently used value.

The Transition Time field identifies the time that an element will take to transition to the target state from the present state

If present, the Delay field identifies the message execution delay, representing

a time interval between receiving the message by a model and executing the associated model behaviors

7.2.6 Generic Delta Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x0A

- Parameter

Parameters	Size(octets)	Notes
Delta Level	4	The Delta change of the Generic Level state
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Delta Set Unacknowledged is an unacknowledged message used to set the Generic Level state of an element by a relative value.

The Delta Level field identifies the increase (when positive) or decrease (if negative) of the Generic Level state of the element

The TID field is a transaction identifier and shall be used to logically group a series of Generic Delta Set Unacknowledged messages. When starting a new transaction, the TID should be assigned a least recently used value.

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.2.7 Generic Move Set

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x0B

- Parameter

Parameters	Size(octets)	Notes
Delta Level	2	The Delta Level step to calculate Move speed for the Generic Level state.
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Move Set is an acknowledged message used to start a process of changing the Generic Level state of an element with a defined transition speed.

The response to the Generic Move Set message is a Generic Level Status message.

The Delta Level field shall be used to calculate the speed of the transition of the Generic Level state

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message,

If present, the Transition Time field shall be used to calculate the speed of the transition of the Generic Level state.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the

associated model behaviors.

7.2.8 Generic Move Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x0C

- Parameter

Parameters	Size(octets)	Notes
Delta Level	2	The Delta Level step to calculate Move speed for the Generic Level state.
TID	1	Transaction Identifier
Transition Time	1	The transition time, format as defined in 4.3 (optional)
Delay	1	Message execution delay in 5 millisecond steps (Note)

Note: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Move Set Unacknowledged is an unacknowledged message used to start a process of changing the Generic Level state of an element with a defined transition speed.

The Delta Level field shall be used to calculate the speed of the transition of the Generic Level state.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field shall be used to calculate the speed of the transition of the Generic Level state.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors

7.3 Generic Default Transition Time

7.3.1 Generic Default Transition Time Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x0D

Generic Default Transition Time Get is an acknowledged message used to get the Generic Default Transition Time state of an element

The response to the Generic Default Transition Time Get message is a Generic Default Transition Time Status message.

There are no parameters for this message.

7.3.2 Generic Default Transition Time Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x0E

- Parameter

Parameters	Size(octets)	Notes
Transition Time	1	The value of the Generic Default Transition Time state.

Generic Default Transition Time Set is an acknowledged message used to set the Generic Default Transition Time state of an element

The response to the Generic Default Transition Time Set message is a Generic Default Transition Time Status message.

The structure of the message is defined in the following table.

The Transition Time field identifies the Generic Default Transition Time state of the element (see Section 4.3.). Only values of 0x00 through 0x3E shall be used to specify the Transition Number of Steps.

7.3.3 Generic Default Transition Time Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x0F

- Parameter

Parameters	Size(octets)	Notes
Transition Time	1	The value of the Generic Default Transition Time state.

Generic Default Transition Time Set Unacknowledged is an unacknowledged message used to set the Generic Default Transition Time state of an element

The Transition Time field identifies the Generic Default Transition Time state of the element

7.3.4 Generic Default Transition Time Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x10

- Parameter

Parameters	Size(octets)	Notes
Transition Time	1	The value of the Generic Default Transition Time state.

Generic Default Transition Time Status is an unacknowledged message used to report the Generic Default Transition Time state of an element

The Transition Time field identifies the Generic Default Transition Time state of the element

7.4 Generic OnPowerUp

7.4.1 Generic OnPowerUp Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x11

Generic OnPowerUp Get is an acknowledged message used to get the Generic OnPowerUp state of an element

The response to the Generic OnPowerUp Get message is a Generic OnPowerUp Status message.

There are no parameters for this message.

7.4.2 Generic OnPowerUp Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x12

- Parameter

Parameters	Size(octets)	Notes
OnPowerUp	1	The value of the Generic OnPowerUp state.

7.4.3 Generic OnPowerUp Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x13

- Parameter

Parameters	Size(octets)	Notes
OnPowerUp	1	The value of the Generic OnPowerUp state.

Generic OnPowerUp Set is an acknowledged message used to set the Generic OnPowerUp state of an element

The response to the Generic OnPowerUp Set message is a Generic OnPowerUp Status message.

The structure of the message is defined in the following table.

7.4.4 Generic OnPowerUp Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x14

- Parameter

Parameters	Size(octets)	Notes
OnPowerUp	1	The value of the Generic OnPowerUp state.

Generic OnPowerUp Set Unacknowledged is an unacknowledged message used to set the Generic OnPowerUp state of an element

The OnPowerUp field identifies the Generic OnPowerUp state of the element

7.5 Generic Power Level

7.5.1 Generic Power Level Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x15

Generic Power Level Get message is an acknowledged message used to get the Generic Power Actual state of an element

The response to the Generic Power Level Get message is a Generic Power Level Status message.

There are no parameters for this message.

7.5.2 Generic Power Level Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x16

- Parameter

Parameters	Size(octets)	Notes
Power	2	The target value of the Generic Power Actual state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 milliseconds steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Power Level Set is an acknowledged message used to set the Generic Power Actual state of an element

The response to the Generic Power Level Set message is a Generic Power Level Status message.

The structure of the message is defined in the following table.

The Power field identifies the target Generic Power Actual state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state as defined in Section 4.3. Only values of 0x00 through 0x3E shall be used to specify the Transition Number of Steps

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.5.3 Generic Power Level Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x17

- Parameter

Parameters	Size(octets)	Notes
Power	2	The target value of the Generic Power Actual state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 milliseconds steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Generic Power Level Set Unacknowledged is an unacknowledged message

used to set the Generic Power Actual state of an element

The Power field identifies the target Generic Power Actual state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state as defined in Section 4.3. Only values of 0x00 through 0x3E shall be used to specify the Transition Number of Steps

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.5.4 Generic Power Level Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x18

- Parameter

Parameters	Size(octets)	Notes
Present Power	2	The present value of the Generic Power Actual state.
Target Power	1	The target value of the Generic Power Actual state (optional).
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target Power field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present

The Present Power field identifies the Generic Power Actual state of the element

If present, the Target Power field identifies the target Generic Power Actual state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Generic Power Actual state of the element

7.5.5 Generic Power Last Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x19

Generic Power Last Get is an acknowledged message used to get the Generic Power Last state of an element

The response to a Generic Power Last Get message is a Generic Power Last Status message.

There are no parameters for this message.

7.5.6 Generic Power Last Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x1A

- Parameter

Parameters	Size(octets)	Notes
Power	2	The value of the Generic Power Last state.

Generic Power Last Status is an unacknowledged message used to report the Generic Power Last state of an element

The Power field identifies the Generic Power Last state of the element

7.5.7 Generic Power Default Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x1B

Generic Power Default Get is an acknowledged message used to get the Generic Power Default state of an element

The response to a Generic Power Default Get message is a Generic Power Default Status message.

There are no parameters for this message.

7.5.8 Generic Power Default Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x1C

- Parameter

Parameters	Size(octets)	Notes
Power	2	The value of the Generic Power Default state

Generic Power Default Status is an unacknowledged message used to report the Generic Power Default state of an element

The Power field identifies the Generic Power Default state of the element

7.5.9 Generic Power Range Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x1D

Generic Power Range Get is an acknowledged message used to get the Generic Power Range state of an element

The response to the Generic Power Range Get message is a Generic Power Range Status message.

There are no parameters for this message

7.5.10 Generic Power Range Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x1E

- Parameter

Parameters	Size(octets)	Notes
Status Code	1	Status Code for the requesting message.
Range Min	2	The value of the Generic Power Range Min field of the Generic Power Range state.
Range Max	2	The value of the Generic Power Range Max field of the Generic Power Range state.

Generic Power Range Status is an unacknowledged message used to report the Generic Power Range state of an element

The Status Code field identifies the Status Code for the last operation on the Generic Power Range state. The allowed values for status codes and their meanings are documented in Section 7.1.

The Range Min field identifies the Generic Power Range Min field of the Generic Power Range state of the element

The Range Max field identifies the Generic Power Range Max field of the Generic Power Range state of the element

7.5.11 Generic Power Default Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x1F

- Parameter

Parameters	Size(octets)	Notes
Power	2	The value of the Generic Power Default state

Generic Power Default Set is an acknowledged message used to set the Generic Power Default state of an element

The response to the Generic Power Default Set message is a Generic Power Default Status message.

The structure of the message is defined in the following table.

The Power field identifies the Generic Power Default state of the element

7.5.12 Generic Power Default Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x20

- Parameter

Parameters	Size(octets)	Notes
Power	2	The value of the Generic Power Default state

Generic Power Default Set Unacknowledged is an unacknowledged message used to set the Generic Power Default state of an element

The Power field identifies the Generic Power Default state of the element

7.5.13 Generic Power Range Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x21

- Parameter

Parameters	Size(octets)	Notes
Range Min	2	The value of the Generic Power Range Min field of the Generic Power Range state.
Range Max	2	The value of the Generic Power Range Max field of the Generic Power Range state.

Generic Power Range Set is an acknowledged message used to set the Generic Power Range state of an element

The response to the Generic Power Range Set message is a Generic Power Range Status message.

The Range Min field identifies the Generic Power Range Min field of the Generic Power Range state of the element

The Range Max field identifies the Generic Power Max field of the Generic Power Range state of the element

The value of the Range Max field shall be greater or equal to the value of the Range Min field.

7.5.14 Generic Power Range Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x22

- Parameter

Parameters	Size(octets)	Notes
Range Min	2	The value of the Generic Power Range Min field of the Generic Power Range state.
Range Max	2	The value of the Generic Power Range Max field of the Generic Power Range state.

Generic Power Range Set Unacknowledged is an unacknowledged message used to set the Generic Power Range state of an element

The Range Min field identifies the Generic Power Range Min field of the Generic Power Range state of the element

The Range Max field identifies the Generic Power Max field of the Generic Power Range state of the element

The value of the Range Max field shall be greater or equal to the value of the Range Min field.

7.6 Generic Battery

7.6.1 Generic Battery Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x23

Generic Battery Get message is an acknowledged message used to get the Generic Battery state of an element

The response to the Generic Battery Get message is a Generic Battery Status message.

There are no parameters for this message.

7.6.2 Generic Battery Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x24

- Parameter

Parameters	Size(octets)	Notes
Battery Level	1	The value of the Generic Battery Level state.
Time to Discharge	3	The value of the Generic Battery Time to Discharge state.
Time to Charge	3	The value of the Generic Battery Time to Charge state
Flags	1	The value of the Generic Battery Flags state.

Generic Battery Status is an unacknowledged message used to report the Generic Battery state of an element

The Time to Discharge field identifies the Generic Battery Time to Discharge

The Time to Charge field identifies the Generic Battery Time to Charge

The Flags field identifies the Generic Battery Flags state of the element

7.7 Generic Location

7.7.1 Generic Location Global Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x25

Generic Location Global Get message is an acknowledged message used to get the selected fields of the Generic Location state of an element

The response to the Generic Location Global Get message is a Generic Location Global Status message.

There are no parameters for this message.

7.7.2 Generic Location Global Set

- Command id
0x1000-2000

- Opcode

Byte 0
0x41

- Parameter

Parameters	Size(octets)	Notes
Global Latitude	4	Global Coordinates (Latitude)
Global Longitude	4	Global Coordinates (Longitude)
Global Altitude	2	Global Altitude

Generic Location Global Set is an acknowledged message used to set the selected fields of the Generic Location state of an element

The response to the Generic Location Global Set message is a Generic Location Global Status message.

The structure of the message is defined in the following table.

The Global Latitude field identifies the Generic Location Global Latitude state of the element

The Global Longitude field identifies the Generic Location Global Longitude state of the element

The Global Altitude field identifies the Generic Location Global Altitude state of

the element

7.7.3 Generic Location Global Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0
0x42

- Parameter

Parameters	Size(octets)	Notes
Global Latitude	4	Global Coordinates (Latitude)
Global Longitude	4	Global Coordinates (Longitude)
Global Altitude	2	Global Altitude

Generic Location Global Set Unacknowledged is an unacknowledged message used to set the selected fields of the Generic Location state of an element

The Global Latitude field identifies the Generic Location Global Latitude state of the element

The Global Longitude field identifies the Generic Location Global Longitude state of the element

The Global Altitude field identifies the Generic Location Global Altitude state of the element

7.7.4 Generic Location Global Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x40

- Parameter

Parameters	Size(octets)	Notes
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Global Latitude	4	Global Coordinates (Latitude)
Global Longitude	4	Global Coordinates (Longitude)
Global Altitude	2	Global Altitude

Generic Location Global Status is an unacknowledged message used to report the selected fields of the Generic Location state of an element

The Global Latitude field identifies the Generic Location Global Latitude state of the element

The Global Longitude field identifies the Generic Location Global Longitude state of the element

The Global Altitude field identifies the Generic Location Global Altitude state of the element

7.7.5 Generic Location Local Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x26

Generic Location Local Get message is an acknowledged message used to get the selected fields of the Generic Location state of an element

The response to the Generic Location Local Get message is a Generic Location Local Status message.

There are no parameters for this message.

7.7.6 Generic Location Local Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x26

- Parameter

Parameters	Size(octets)	Notes
Local North	2	Local Coordinates (North)
Local East	2	Local Coordinates (East)
Local Altitude	2	Local Altitude
Floor Number	1	Floor Number
Uncertainty	2	Uncertainty

Generic Location Local Set is an acknowledged message used to set the selected fields of the Generic Location state of an element

The response to the Generic Location Local Set message is a Generic Location Local Status message.

The Local North field identifies the Generic Location Local North state of the element

The Local East field identifies the Generic Location Local East state of the element

The Local Altitude field identifies the Generic Location Local Altitude state of the element

The Floor Number field identifies the Generic Location Floor Number state of the element

The Uncertainty field identifies the Generic Location Uncertainty state of the element

7.7.7 Generic Location Local Set Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x26

- Parameter

Parameters	Size(octets)	Notes
Local North	2	Local Coordinates (North)
Local East	2	Local Coordinates (East)
Local Altitude	2	Local Altitude
Floor Number	1	Floor Number
Uncertainty	2	Uncertainty

Generic Location Local Set Unacknowledged is an unacknowledged message used to set the selected fields of the Generic Location state of an element

The Local North field identifies the Generic Location Local North state of the element

The Local East field identifies the Generic Location Local East state of the element

The Local Altitude field identifies the Generic Location Local Altitude state of the element

The Floor Number field identifies the Generic Location Floor Number state of the element

The Uncertainty field identifies the Generic Location Uncertainty state of the element

7.7.8 Generic Location Local Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x27

- Parameter

Parameters	Size(octets)	Notes
Local North	2	Local Coordinates (North)
Local East	2	Local Coordinates (East)
Local Altitude	2	Local Altitude
Floor Number	1	Floor Number
Uncertainty	2	Uncertainty

Generic Location Local Status is an unacknowledged message used to report the selected fields of the Generic Location state of an element

The Local North field identifies the Generic Location Local North state of the element

The Local East field identifies the Generic Location Local East state of the element

The Local Altitude field identifies the Generic Location Local Altitude state of the element

The Floor Number field identifies the Generic Location Floor Number state of the element

The Uncertainty field identifies the Generic Location Uncertainty state of the element

7.8 Generic Manufacturer Property

7.8.1 Generic Manufacturer Properties Get

- Command id
0x1000-2000
- Opcode

Byte 0	Byte 1
0x82	0x2A

7.8.2 Generic Manufacturer Properties Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x43

- Parameter

Parameters	Size(octets)	Notes
Manufacturer Property IDs	2*N	A sequence of N Manufacturer Property IDs present within an element, where N is the number of device property IDs included in the message.

7.8.3 Generic Manufacturer Property Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x2B

- Parameter

Parameters	Size(octets)	Notes
Manufacturer Property IDs	2	Property ID identifying a Generic Manufacturer Property

7.8.4 Generic Manufacturer Property Set

- Command id
0x1000-2000

- Opcode

Byte 0
0x44

- Parameter

Parameters	Size(octets)	Notes
Manufacturer Property ID	2	Property ID identifying a Generic Manufacturer Property
Manufacturer	1	Enumeration indicating user access

User Access		
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7.8.5 Generic Manufacturer Property Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0
0x45

- Parameter

Parameters	Size(octets)	Notes
Manufacturer Property ID	2	Property ID identifying a Generic Manufacturer Property
Manufacturer User Access	1	Enumeration indicating user access

7.8.6 Generic Manufacturer Property Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x46

- Parameter

Parameters	Size(octets)	Notes
Manufacturer Property ID	2	Property ID identifying a Generic Manufacturer Property
Manufacturer User Access	1	Enumeration indicating user access (Optional)
Manufacturer Property Value	variable	Raw value for the Manufacturer Property (C.1)

C.1: If the Manufacturer User Access field is present, the Manufacturer Property Value field shall also be present; otherwise this field shall not be present.

7.9 Generic Admin Property

7.9.1 Generic Admin Properties Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x2C

7.9.2 Generic Admin Properties Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x47

- Parameter

Parameters	Size(octets)	Notes
Admin Property IDs	2*N	A sequence of N Admin Property IDs present within an element, where N is the number of device property IDs included in the message.

7.9.3 Generic Admin Property Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x2D

- Parameter

Parameters	Size(octets)	Notes
Admin Property ID	2	Property ID identifying a Generic Admin Property.

7.9.4 Generic Admin Property Set

- Command id
0x1000-2000

- Opcode

Byte 0
0x48

- Parameter

Parameters	Size(octets)	Notes
Admin Property ID	2	Property ID identifying a Generic Admin Property.
Admin User Access	1	Enumeration indicating user access.
Admin Property Value	variable	Raw value for the Admin Property

7.9.5 Generic Admin Property Set Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0
0x49

- Parameter

Parameters	Size(octets)	Notes
Admin Property ID	2	Property ID identifying a Generic Admin Property.
Admin User Access	1	Enumeration indicating user access.
Admin Property Value	variable	Raw value for the Admin Property.

7.9.6 Generic Admin Property Status

- Command id

0x1000-2000

- Opcode

Byte 0
0x47

- Parameter

Parameters	Size(octets)	Notes
Admin Property ID	2	Property ID identifying a Generic Admin Property
Admin User Access	1	Enumeration indicating user access (Optional)
Admin Property Value	variable	Raw value for the Admin Property (C.1)

C.1: If the Admin User Access field is present, the Admin Property Value field shall also be present; otherwise this field shall not be present.

7.10 Generic User Property

7.10.1 Generic User Properties Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x2E

Generic User Properties Get is an acknowledged message used to get the list of Generic User Property states of an element

The response to the Generic User Properties Get message is a Generic User Properties Status message.

The message has no parameters.

7.10.2 Generic User Properties Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x4B

- Parameter

Parameters	Size(octets)	Notes
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User Property IDs	2*N	A sequence of N User Property IDs present within an element, where N is the number of device property IDs included in the message
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Generic User Properties Status is an unacknowledged message used to report a list of the Generic User Properties states of an element

The message is sent as a response to the Generic User Properties Get message or may be sent as an unsolicited message.

The User Property IDs field contains a sequence of all Generic User Property ID states of an element

7.10.3 Generic User Property Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x2F

- Parameter

Parameters	Size(octets)	Notes
User Property ID	2	Property ID identifying a Generic User Property

Generic User Property Get is an acknowledged message used to get the Generic User Property state of an element

The response to the Generic User Property Get message is a Generic User Property Status message.

The User Property ID field identifies a Generic User Property ID state of an element

7.10.4 Generic User Property Set

- Command id

0x1000-2000

- Opcode

Byte 0
0x4C

- Parameter

Parameters	Size(octets)	Notes
User Property ID	2	Property ID identifying a Generic User Property
User Property Value	variable	Raw value for the User Property

Generic User Property Set is an acknowledged message used to set the Generic User Property state of an element

The response to the Generic User Property Set message is a Generic User Property Status message

The User Property ID field identifies a User Property ID state of an element

The User Property Value field identifies a User Property Value state of an element

7.10.5 Generic User Property Set Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0
0x4D

- Parameter

Parameters	Size(octets)	Notes
User Property ID	2	Property ID identifying a Generic User Property
User Property Value	variable	Raw value for the User Property

Generic User Property Set Unacknowledged is an unacknowledged message

used to set the Generic User Property state of an element

The User Property ID field identifies a User Property ID state of an element

The User Property Value field identifies a User Property Value state of an element

7.10.6 Generic User Property Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x4E

- Parameter

Parameters	Size(octets)	Notes
User Property ID	2	Property ID identifying a Generic User Property
User Access	1	Enumeration indicating user access (Optional)
User Property Value	variable	Raw value for the User Property (C.1)

C.1: If the User Access field is present, the User Property Value field shall also be present; otherwise this field shall not be present.

Generic User Property Status is an unacknowledged message used to report the Generic User Property state of an element

The message is sent as a response to the Generic User Property Get message and the Generic User Property Set message, or may be sent as an unsolicited message

The User Property ID field identifies a User Property ID state of an element

The User Access field identifies a User Access state of an element

The User Property Value field identifies a User Property Value state of an

element

7.11 Generic Client Property

7.11.1 Generic Client Properties Get

- Command id
0x1000-2000

- Opcode

Byte 0
0x4F

- Parameter

Parameters	Size(octets)	Notes
Client Property ID	2	A starting Client Property ID present within an element

Generic Client Properties Get is an acknowledged message used to get the list of Generic Client Property states of an element

The response to the Generic Client Properties Get message is a Generic Client Properties Status message.

The Client Property ID field contains the smallest Property ID the client is requesting

7.11.2 Generic Client Properties Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x50

- Parameter

Parameters	Size(octets)	Notes
Client Property IDs	2*N	A sequence of N Client Property IDs present within an element, where N is the number of device property IDs included in the message

The Generic Client Properties Status is an unacknowledged message used to report a list of the Generic Client Properties states of an element

The message is sent as a response to the Generic Client Properties Get message or may be sent as an unsolicited message

The Client Property IDs field contains a sequence of all Generic Client Property ID states of an element

7.12 Sensor

7.12.1 Sensor Descriptor Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x30

- Parameter

Parameters	Size(octets)	Notes
Property ID	2	Property ID for the sensor (Optional)

Sensor Descriptor Get is an acknowledged message used to get the Sensor Descriptor state of all sensors within an element

The response to a Sensor Descriptor Get message is a Sensor Descriptor Status message

If present, the Property ID field identifies a Sensor Property ID state of an element

7.12.2 Sensor Descriptor Status

- Command id
0x1000-2000
- Opcode

Byte 0
0x51

- Parameter

Parameters	Size(octets)	Notes
Descriptor	8*N or 2	Sequence of 8-octet Sensor Descriptors

The Sensor Descriptor Status is an unacknowledged message used to report a sequence of the Sensor Descriptor states of an element

The Descriptor field shall contain a sequence of 1 or more Sensor Descriptor states

7.12.3 Sensor Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x31

- Parameter

Parameters	Size(octets)	Notes
Property ID	2	Property for the sensor. (Optional)

Sensor Get is an acknowledged message used to get the Sensor Data state

The response to the Sensor Get message is a Sensor Status message.

If present, the Property ID field identifies a Sensor Property ID state of an element

7.12.4 Sensor Status

- Command id
0x1000-2000

- Opcode

Byte 0

0x52

- Parameter

Parameters	Size(octets)	Notes
Marshaled Sensor Data	variable	The Sensor Data state

Sensor Status is an unacknowledged message used to report the Sensor Data state of an element

The message contains a Sensor Data state, defined by the Sensor Descriptor state

The message shall be sent as a response to the Sensor Get message or as an unsolicited message

The Marshalled Sensor Data field represents the marshalled Sensor Data state

7.12.5 Sensor Column Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x32

- Parameter

Parameters	Size(octets)	Notes
Property ID	2	Property identifying a sensor
Raw Value X	variable	Raw value identifying a column

Sensor Column Get is an acknowledged message used to get the Sensor Series Column state

The response to the Sensor Column Get message is a Sensor Column Status message

The Property ID field identifies a sensor within an element

The Raw Value X field identifies a column of a sensor's series within an element

7.12.6 Sensor Column Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x53

- Parameter

Parameters	Size(octets)	Notes
Property ID	2	Property identifying a sensor
Raw Value X	variable	Raw value identifying a column
Column Width	variable	Raw value representing the width of the column. (Optional)
Raw Value Y	variable	Raw value representing the height of the column on the Y axis. (C.1)

C.1: If the Column Width field is present, the Raw Value Y field shall also be present; otherwise this field shall not be present.

Sensor Column Status is an unacknowledged message used to report the Sensor Series Column state of an element

The message shall be sent as a response to the Sensor Column Get message or as an unsolicited message

The Property ID field shall contain the Sensor Property ID state

The Raw Value X field shall contain the Sensor Raw Value X state

The Column Width field shall contain the Sensor Column Width state

The Raw Value Y field shall contain the Sensor Raw Value Y state

7.12.7 Sensor Series Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x33

- Parameter

Parameters	Size(octets)	Notes
Property ID	2	Property identifying a sensor
Raw Value X1	variable	Raw value identifying a starting column. (Optional)
Raw Value X2	variable	Raw value identifying an ending column. (C.1)

C.1: If the Raw Value X1 field is present, the Raw Value X2 field shall also be present; otherwise this field shall not be present.

Sensor Series Get is an acknowledged message used to get a sequence of the Sensor Series Column states

The response to the Sensor Series Get message is a Sensor Series Status message

The Property ID field identifies a sensor within an element

The Raw Value X1 field identifies a starting column of a sensor's series within an element

The Raw Value X2 field identifies an ending column of a sensor's series within an element

7.12.8 Sensor Series Status

- Command id

0x1000-2000

- Opcode

Byte 0
0x54

- Parameter

Parameters	Size(octets)	Notes
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Property ID	2	Property identifying a sensor and the Y axis.
Raw Value X[n]	variable	Raw value representing the left corner of the nth column on the X axis. (Optional)
Column Width [n]	variable	Raw value representing the width of the nth column. (C.1)
Raw Value Y [n]	variable	Raw value representing the height of the nth column on the Y axis. (C.1)

C.1: If Raw Value X [n] field is present, the Column Width [n], Raw Value Y [n] fields shall also be present; otherwise these fields shall not be present.

Sensor Series Status is an unacknowledged message used to report a sequence of the Sensor Series Column states of an element

The structure of the message is defined in the following table. The Raw Value X [n], Column Width [n], and Raw Value Y [n] fields are a triplet that may be repeated multiple times within the message. The Raw Value X [n] field is followed by the Column Width [n] field, which is followed by the Raw Value Y [n], which is followed by the Raw Value X [n+1], and so forth

The message shall be sent as a response to the Sensor Series Get message or as an unsolicited message.

The Property ID field shall contain the Sensor Property ID state

If present, the Raw Value X [n] field shall contain the nth Sensor Raw Value X state

If present, the Column Width [n] field shall contain the nth Sensor Column Width state

If present, the Raw Value Y [n] field shall contain the nth Sensor Raw Value Y state

7.12.9 Sensor Cadence Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x34

- Parameter

Parameters	Size(octets)	Notes
Property ID	2	Property ID for the sensor

Sensor Cadence Get is an acknowledged message used to get the Sensor Cadence state of an element

The response to the Sensor Cadence Get message is a Sensor Cadence Status message.

The Property ID field identifies a Sensor Property ID state of an element

7.12.10 Sensor Cadence Set

- Command id

0x1000-2000

- Opcode

Byte 0
0x55

- Parameter

Parameters	Size(bits)	Notes
Property ID	16	Property ID for the sensor
Fast Cadence Period Divisor	7	Divisor for the Publish Period
Status Trigger Type	1	Defines the unit and format of the Status Trigger Delta fields
Status Trigger Delta Down	variable	Delta down value that triggers a status message
Status Trigger Delta Up	variable	Delta up value that triggers a status message.
Status Min Interval	8	Minimum interval between two consecutive Status messages
Fast Cadence	variable	Low value for the fast cadence range

Low		
Fast Cadence High	variable	High value for the fast cadence range.

Sensor Cadence Set is an acknowledged message used to set the Sensor Cadence state of an element

The response to the Sensor Cadence Set message is a Sensor Cadence Status message.

The Property ID field identifies a Sensor Property ID state of an element

The Fast Cadence Period Divisor field identifies a Fast Cadence Period Divisor state of an element

The Status Trigger Type field identifies a Status Trigger Type state of an element

The Status Trigger Delta Down field identifies a Status Trigger Delta Down state of an element

The Status Trigger Delta Up field identifies a Status Trigger Delta Up state of an element

The Status Min Interval field identifies a Status Min Interval state of an element

The Fast Cadence Low field identifies a Fast Cadence Low state of an element

The Fast Cadence High field identifies a Fast Cadence High state of an element

7.12.11 Sensor Cadence Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0
0x56

- Parameter

Parameters	Size(bits)	Notes
Property ID	16	Property ID for the sensor
Fast Cadence Period Divisor	7	Divisor for the Publish Period
Status Trigger Type	1	Defines the unit and format of the Status Trigger Delta fields
Status Trigger Delta Down	variable	Delta down value that triggers a status message
Status Trigger Delta Up	variable	Delta up value that triggers a status message.
Status Min Interval	8	Minimum interval between two consecutive Status messages
Fast Cadence Low	variable	Low value for the fast cadence range
Fast Cadence High	variable	High value for the fast cadence range.

Sensor Cadence Set Unacknowledged is an unacknowledged message used to set the Sensor Cadence state of an element

The Property ID field identifies a Sensor Property ID state of an element

The Fast Cadence Period Divisor field identifies a Fast Cadence Period Divisor state of an element

The Status Trigger Type field identifies a Status Trigger Type state of an element

The Status Trigger Delta Down field identifies a Status Trigger Delta Down state of an element

The Status Trigger Delta Up field identifies a Status Trigger Delta Up state of an element

The Status Min Interval field identifies a Status Min Interval state of an element

The Fast Cadence Low field identifies a Fast Cadence Low state of an element

The Fast Cadence High field identifies a Fast Cadence High state of an element

7.12.12 Sensor Cadence Status

- Command id

0x1000-2000

- Opcode

Byte 0
0x57

- Parameter

Parameters	Size(bits)	Notes
Property ID	16	Property ID for the sensor
Fast Cadence Period Divisor	7	Divisor for the Publish Period (Optional)
Status Trigger Type	1	Defines the unit and format of the Status Trigger Delta fields. (C.1)
Status Trigger Delta Down	variable	Delta down value that triggers a status message. (C.1)
Status Trigger Delta Up	variable	Delta up value that triggers a status message. (C.1)
Status Min Interval	8	Minimum interval between two consecutive status messages. (C.1)
Fast Cadence Low	variable	Low value for the fast cadence range. (C.1)
Fast Cadence High	variable	High value for the fast cadence range. (C.1)

C.1: If the Fast Cadence Period Divisor field is present, the Status Trigger Type, Status Trigger Delta Down, Status Trigger Delta Up, Status Min Interval, Fast Cadence Low, and Fast Cadence High fields shall also be present; otherwise these fields shall not be present.

The Property ID field identifies a Sensor Property ID state of an element

If present, the Fast Cadence Period Divisor field identifies a Fast Cadence Period Divisor state of an element

If present, the Status Trigger Type field identifies a Status Trigger Type state of an element

If present, the Status Trigger Delta Down field identifies a Status Trigger Delta Down state of an element

If present, the Status Trigger Delta Up field identifies a Status Trigger Delta Up state of an element

If present, the Status Min Interval field identifies a Status Min Interval state of an element

if present, the Fast Cadence Low field identifies a Fast Cadence Low state of an element

If present, the Fast Cadence High field identifies a Fast Cadence High state of an element

7.12.13 Sensor Settings Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x35

- Parameter

Parameters	Size(octets)	Notes
Sensor Property ID	2	Property ID identifying a sensor.

Sensor Settings Get is an acknowledged message used to get the list of Sensor Setting states of an element

The response to the Sensor Settings Get message is a Sensor Settings Status message

The Sensor Property ID field identifies a Sensor Property ID state of an element

7.12.14 Sensor Settings Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x58

- Parameter

Parameters	Size(octets)	Notes
Sensor Property ID	2	Property ID identifying a sensor.
Sensor Setting Property IDs	2*N	A sequence of N Sensor Setting Property IDs identifying settings within a sensor, where N is the number of property IDs included in the message. (Optional)

The Sensor Settings Status is an unacknowledged message used to report a list of the Sensor Setting states of an element

The message is sent as a response to the Sensor Settings Get message or is sent as an unsolicited message.

The Sensor Property ID field identifies a Sensor Property ID state of an element

If present, the Sensor Setting Property IDs field contains a sequence of all Sensor Setting Property ID states of a sensor

7.12.15 Sensor Setting Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x36

- Parameter

Parameters	Size(octets)	Notes
Sensor Property ID	2	Property ID identifying a sensor.
Sensor Setting Property ID	2	Setting Property ID identifying a setting within a sensor

Sensor Setting Get is an acknowledged message used to get the Sensor Setting state of an element

The response to the Sensor Setting Get message is a Sensor Setting Status message.

The Sensor Property ID field identifies a Sensor Property ID state of an element

The Sensor Setting Property ID field identifies a Sensor Setting Property ID state of a sensor

7.12.16 Sensor Setting Set

- Command id
0x1000-2000

- Opcode

Byte 0
0x59

- Parameter

Parameters	Size(octets)	Notes
Sensor Property ID	2	Property ID identifying a sensor.
Sensor Setting Property ID	2	Setting Property ID identifying a setting within a sensor
Sensor Setting Raw	variable	Raw value for the setting.

Sensor Setting Set is an acknowledged message used to set the Sensor Setting state of an element

The response to the Sensor Setting Set message is a Sensor Setting Status

message.

The Sensor Property ID field identifies a Sensor Property ID state of an element

7.12.17 Sensor Setting Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0
0x5A

- Parameter

Parameters	Size(octets)	Notes
Sensor Property ID	2	Property ID identifying a sensor.
Sensor Setting Property ID	2	Setting Property ID identifying a setting within a sensor
Sensor Setting Raw	variable	Raw value for the setting.

Sensor Setting Set Unacknowledged is an unacknowledged message used to set the Sensor Setting state of an element

The Sensor Property ID field identifies a Sensor Property ID state of an element

The Sensor Setting Property ID field identifies a Sensor Setting Property ID state of a sensor

The Sensor Setting Raw field identifies a Sensor Setting Raw state of a sensor

7.12.18 Sensor Setting Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x5B

- Parameter

Parameters	Size(octets)	Notes
Sensor Property ID	2	Property ID identifying a sensor.
Sensor Setting Property ID	2	Setting Property ID identifying a setting within a sensor
Sensor Setting Access	1	Read / Write access rights for the setting. (Optional)
Sensor Setting Raw	variable	Raw value for the setting. (C.1)

C.1: If the Sensor Setting Access field is present, the Sensor Setting Raw field shall also be present; otherwise this field shall not be present.

Sensor Setting Status is an unacknowledged message used to report the Sensor Setting state of an element

The message is sent as a response to the Sensor Setting Get and Sensor Setting Set messages or sent as an unsolicited message.

The Sensor Property ID field identifies a Sensor Property ID state of an element

The Sensor Setting Property ID field identifies a Sensor Setting Property ID state of a sensor

If present, the Sensor Setting Access field identifies a Sensor Setting Access state of a sensor

If present, the Sensor Setting Raw field identifies a Sensor Setting Raw state of a sensor

7.13 Time

7.13.1 Time Get

- Command id
0x1000-2000
- Opcode

Byte 0	Byte 1
0x82	0x37

Time Get is a message used to get the Time state of neighbor nodes.

The response to the Time Get message is a Time Status message.

There are no parameters for this message.

7.13.2 Time Set

- Command id
0x1000-2000

- Opcode

Byte 0
0x5C

- Parameter

Parameters	Size(bits)	Notes
TAI Seconds	40	The current TAI time in seconds
Subsecond	8	The sub-second time in units of 1/256th second
Uncertainty	8	The estimated uncertainty in 10 millisecond steps
Time Authority	1	0 = No Time Authority, 1 = Time Authority
TAI-UTC Delta	15	Current difference between TAI and UTC in seconds
Time Zone Offset	8	The local time zone offset in 15-minute increments

Time Set is an acknowledged message used to set the Time state of an element

The response to the Time Set message is a Time Status message.

The TAI Seconds field identifies the TAI Seconds state

The Subsecond field identifies the Subsecond state

The Uncertainty field identifies the Time Uncertainty state

The Time Authority field identifies the Time Authority state

The TAI-UTC Delta field identifies the TAI-UTC Delta Current state

The Time Zone Offset field shall be set to the Time Zone Offset Current state

7.13.3 Time Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x5D

- Parameter

Parameters	Size(bits)	Notes
TAI Seconds	40	The current TAI time in seconds
Subsecond	8	The sub-second time in units of 1/256th second (C.1)
Uncertainty	8	The estimated uncertainty in 10 millisecond steps (C.1)
Time Authority	1	0 = No Time Authority, 1 = Time Authority (C.1)
TAI-UTC Delta	15	Current difference between TAI and UTC in seconds (C.1)
Time Zone Offset	8	The local time zone offset in 15-minute increments (C.1)

C.1: If the TAI Seconds field is 0x0000000000 the Subsecond, Uncertainty, Time Authority, TAI-UTC Delta and Time Zone Offset fields shall be omitted; otherwise these fields shall be present.

Time Status is an unacknowledged message used to report the Time state of an element

The TAI Seconds field identifies the TAI Seconds state

The Subsecond field identifies the Subsecond state

The Uncertainty field identifies the Time Uncertainty state

The Time Authority field identifies the Time Authority state

The TAI-UTC Delta field identifies the TAI-UTC Delta Current state

The Time Zone Offset field shall be set to the Time Zone Offset Current state

7.13.4 Time Role Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x38

Time Role Get is an acknowledged message used to get the Time Role state of an element

The response to the Time Role Get message is a Time Role Status message.

There are no parameters for this message.

7.13.5 Time Role Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x39

- Parameter

Parameters	Size(octets)	Notes
Time Role	1	The Time Role for the element

Time Role Set is an acknowledged message used to set the Time Role state of an element

The response to the Time Role Set message is a Time Role Status message.

7.13.6 Time Role Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x3A

- Parameter

Parameters	Size(octets)	Notes
Time Role	1	The Time Role for the element

Time Role Status is an unacknowledged message used to report the Time state of an element

The Time Role field identifies the Time Role state

7.13.7 Time Zone Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x3B

Time Zone Get is an acknowledged message used to get the Time Zone Offset Current state, the Time Zone Offset New state, and the TAI of Zone Change state

The response to the Time Zone Get message is a Time Zone Status message.

There are no parameters for this message.

7.13.8 Time Zone Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x3C

- Parameter

Parameters	Size(octets)	Notes
Time Zone Offset New	1	Upcoming local time zone offset
TAI of Zone Change	5	TAI Seconds time of the upcoming Time Zone Offset change

Time Zone Set is an acknowledged message used to set the Time Zone Offset New state and the TAI of Zone Change state.

The Time Zone Offset New field identifies the Time Zone Offset New state

The TAI of Zone Change field identifies the TAI of Zone Change state

7.13.9 Time Zone Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x3D

- Parameter

Parameters	Size(octets)	Notes
Time Zone Offset Current	1	Current local time zone offset
Time Zone Offset New	1	Upcoming local time zone offset
TAI of Zone Change	5	TAI Seconds time of the upcoming Time Zone Offset change

Time Zone Status is an unacknowledged message used to report the Time Zone Offset Current state, the Time Zone Offset New state, and the TAI of Zone Change state.

The Time Zone Offset Current field identifies the Time Zone Offset Current state

The Time Zone Offset New field identifies the Time Zone Offset New state

The TAI of Zone Change field identifies the TAI of Zone Change state

7.13.10 TAI-UTC Delta Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x3E

TAI-UTC Delta Get is an acknowledged message used to get the TAI-UTC Delta Current state (see Section 5.1.1.8), the TAI-UTC Delta New state (see Section 5.1.1.9), and the TAI of Delta Change state (see Section 5.1.1.10)

The response to the TAI-UTC Delta Get message is a TAI-UTC Delta Status message.

There are no parameters for this message.

7.13.11 TAI-UTC Delta Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x3F

- Parameter

Parameters	Size(bits)	Notes
TAI-UTC Delta	15	Upcoming difference between TAI and UTC in

New		seconds
Padding	1	Always 0b0. Other values are Prohibited.
TAI of Delta Change	40	TAI Seconds time of the upcoming TAI-UTC Delta change

TAI-UTC Delta Set is an acknowledged message used to set the TAI-UTC Delta New state and the TAI of Delta Change state.

The TAI-UTC Delta New field identifies the TAI-UTC Delta New state

The TAI of Delta Change field identifies the TAI of Delta Change state

7.13.12 TAI-UTC Delta Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x40

- Parameter

Parameters	Size(bits)	Notes
TAI-UTC Delta Current	15	Current difference between TAI and UTC in seconds
Padding 1	1	Always 0b0. Other values are Prohibited.
TAI-UTC Delta Current	15	Upcoming difference between TAI and UTC in seconds
Padding 2	1	Always 0b0. Other values are Prohibited.
TAI of Delta Change	40	TAI Seconds time of the upcoming TAI-UTC Delta change

TAI-UTC Delta Status is an unacknowledged message used to report the TAI-UTC Delta Current state, the TAI-UTC Delta New state, and the TAI of Delta Change state.

The TAI-UTC Delta Current field identifies the TAI-UTC Delta Current state

The TAI-UTC Delta New field identifies the TAI-UTC Delta New state

The TAI of Delta Change field identifies the TAI of Delta Change state

7.14 Scene

7.14.1 Scene Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x41

Scene Get is an acknowledged message used to get the current status of a currently active scene of an element

The response to the Scene Get message is a Scene Status message.

There are no parameters for this message.

7.14.2 Scene Recall

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x42

- Parameter

Parameters	Size(octets)	Notes
Scene Number	2	The number of the scene to be recalled.
TID	1	Transaction Identifier
Transition Time	1	Format as defined in section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise this field shall not be present.

The Scene Number field identifies the intended Scene. The value 0x0000 is Prohibited.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time that an element will take to transition from the present states to the target states defined by the recalled Scene. Only values of 0x00 through 0x3E shall be used to specify the Transition Number of Steps

If present, the Delay field identifies the message execution delay, which represents a time interval between receiving the message by a model and executing the associated model behaviors

7.14.3 Scene Recall Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x43

- Parameter

Parameters	Size(octets)	Notes
Scene Number	2	The number of the scene to be recalled.
TID	1	Transaction Identifier
Transition Time	1	Format as defined in section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise this field shall not be present.

Scene Recall Unacknowledged is an unacknowledged message used to recall the current state of an element from a previously stored Scene

The Scene Number field identifies the intended Scene. The value 0x0000 is Prohibited.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time that an element will take to transition from the present states to the target states defined by the recalled Scene. Only values of 0x00 through 0x3E shall be used to specify the Transition Number of Steps

If present, the Delay field identifies the message execution delay, which represents a time interval between receiving the message by a model and executing the associated model behaviors

7.14.4 Scene Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x5E

- Parameter

Parameters	Size(octets)	Notes
Status Code	1	Defined in 7.21.2
Scene Number	2	The number of the scene to be recalled.
TID	2	Transaction Identifier
Remaining Time	1	Format as defined in section 4.3 (C.1)

C.1: If the Target Scene field is present, the Remaining Time field shall also be present; otherwise the fields shall not be present.

The Status Code field identifies the status code for the last operation. The allowed values for status codes and their meanings are documented in Section 7.21.2

The Current Scene field identifies the Scene Number of the current Scene. If no scene is active, the Current Scene field value is 0.

When an element is in the process of changing the Scene state, the Target

Scene field identifies the target Scene Number of the target Scene state the element is to reach

When an element is not in the process of changing the Scene state, the Target Scene field shall be omitted

If present, the Remaining Time field indicates the time it will take the element to complete the transition to the target Scene state of the element.

7.14.5 Scene Register Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x44

Scene Register Get is an acknowledged message used to get the current status of the Scene Register of an element

The response to the Scene Register Get message is a Scene Register Status message.

There are no parameters for this message.

7.14.6 Scene Register Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x45

- Parameter

Parameters	Size(octets)	Notes
Status Code	1	Defined in 7.21.2
Current Scene	2	Scene Number of a current scene
Scenes	variable	A list of scenes stored within an element

Scene Register Status is an unacknowledged message that is used to report the current status of the Scene Register of an element

The message uses a single-octet Opcode to maximize the payload size

The Status Code field identifies the status code for the previous operation. The allowed values for status codes and their meanings are documented in Section 7.21.2

The Current Scene field identifies the Scene Number of the current scene

The Scenes field identifies the Scene Register state of an element

7.14.7 Scene Store

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x46

- Parameter

Parameters	Size(octets)	Notes
Scene Number	2	The number of the scene to be stored

Scene Store is an acknowledged message used to store the current state of an element as a Scene, which can be recalled later

The response to the Scene Store message is a Scene Register Status message

The Scene Number field identifies the intended scene. The value 0x0000 is Prohibited.

7.14.8 Scene Store Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x47

- Parameter

Parameters	Size(octets)	Notes
Scene Number	2	The number of the scene to be stored

Scene Store Unacknowledged is an unacknowledged message used to store the current state of an element as a Scene, which can be recalled later.

The Scene Number field identifies the intended scene. The value 0x0000 is Prohibited

7.14.9 Scene Delete

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x9E

- Parameter

Parameters	Size(octets)	Notes
Scene Number	2	The number of the scene to be deleted.

Scene Delete is an acknowledged message used to delete a Scene from the Scene Register state an element.

The response to the Scene Delete message is a Scene Register Status message.

The Scene Number field identifies the Scene to be deleted.

7.14.10 Scene Delete Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x9F

- Parameter

Parameters	Size(octets)	Notes
Scene Number	2	The number of the scene to be deleted.

Scene Delete Unacknowledged is an unacknowledged message used to delete a scene from the Scene Register state of an element.

The Scene Number field identifies the Scene to be deleted.

7.15 Scheduler

7.15.1 Scheduler Action Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x48

- Parameter

Parameters	Size(octets)	Notes
Index	1	Index of the Schedule Register entry to get

Scheduler Action Get is an acknowledged message used to report the action defined by the entry of the Schedule Register state of an element, identified by the Index field

The response to the Scheduler Action Get message is a Scheduler Action Status message.

The Index field identifies a single corresponding entry of the Schedule Register. The valid values for the Index field are 0x00–0x0F. Values 0x10–0xFF are Prohibited.

7.15.2 Scheduler Action Status

- Command id
0x1000-2000

- Opcode

Byte 0
0x5F

- Parameter

Parameters	Size(bits)	Notes
Index	4	Enumerates (selects) a Schedule Register entry
Schedule Register	76	Bit field defining an entry in the Schedule Register

Scheduler Action Status is an unacknowledged message used to report the entry of the Schedule Register state of an element, identified by the Index field.

The Index field identifies a single corresponding entry of the Schedule Register. The valid values for the Index field are 0x0-0xF.

The Schedule Register bit field shall be set to the value of the entry of the Schedule Register that is indicated by the Index field.

7.15.3 Scheduler Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x49

Scheduler Get is an acknowledged message used to get the current Schedule Register state of an element

The response to the Scheduler Get message is a Scheduler Status message.

There are no parameters for this message.

7.15.4 Scheduler Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x4A

- Parameter

Parameters	Size(bits)	Notes
Schedules	2	Bit field indicating defined Actions in the Schedule Register

Scheduler Status is an unacknowledged message used to report the current Schedule Register state of an element

The message shall be sent as a response to the Scheduler Get message

Each bit of the Schedules field set to 1 identifies a corresponding entry of the Schedule Register

7.15.5 Scheduler Action Set

- Command id

0x1000-2000

- Opcode

Byte 0
0x60

- Parameter

Parameters	Size(bits)	Notes
Index	4	Index of the Schedule Register entry to set
Schedule Register	76	Bit field defining an entry in the Schedule Register

Scheduler Action Set is an acknowledged message used to set the entry of the Schedule Register state of an element, identified by the Index field

The response to the Scheduler Action Set message is a Scheduler Action

Status message

The Index field identifies a single corresponding entry of the Schedule Register. The valid values for the Index field are 0x0-0xF.

The Schedule Register bit field identifies the value of the entry of the Schedule Register that is indicated by the Index field.

7.15.6 Scheduler Action Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0
0x61

- Parameter

Parameters	Size(bits)	Notes
Index	4	Index of the Schedule Register entry to set
Schedule Register	76	Bit field defining an entry in the Schedule Register

Scheduler Action Set Unacknowledged is an unacknowledged message used to set the entry of the Schedule Register state of an element, identified by the Index field

The Index field identifies a single corresponding entry of the Schedule Register. The valid values for the Index field are 0x0-0xF.

The Schedule Register bit field identifies the value of the entry of the Schedule Register that is indicated by the Index field.

7.16 Light Lightness

7.16.1 Light Lightness Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x4B

Light Lightness Get is an acknowledged message used to get the Light Lightness Actual state of an element

The response to the Light Lightness Get message is a Light Lightness Status message

There are no parameters for this message.

7.16.2 Light Lightness Set

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x4C

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The target value of the Light Lightness Actual state.
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light Lightness Set is an acknowledged message used to set the Light Lightness Actual state of an element

The response to the Light Lightness Set message is a Light Lightness Status message.

The Lightness field identifies the Light Lightness Actual state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.16.3 Light Lightness Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x4D

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The target value of the Light Lightness Actual state.
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light Lightness Set Unacknowledged is an unacknowledged message used to set the Light Lightness Actual state of an element

The Lightness field identifies the Light Lightness Actual state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.16.4 Light Lightness Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x4E

- Parameter

Parameters	Size(octets)	Notes
Present Lightness	2	The present value of the Light Lightness Actual state
Target Lightness	2	The target value of the Light Lightness Actual state. (Optional)
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target Lightness field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present.

The Present Lightness field identifies the present Light Lightness Actual state of the element

When an element is in the process of changing the Light Lightness Actual state, the Target Lightness field identifies the target Light Lightness Actual state that the element is to reach

When an element is not in the process of changing the Light Lightness Actual state, the Target Lightness field shall be omitted.

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Light Lightness Actual state of the element

7.16.5 Light Lightness Linear Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x4F

Light Lightness Linear Get is an acknowledged message used to get the Light Lightness Linear state of an element

The response to the Light Lightness Linear Get message is a Light Lightness Linear Status message

There are no parameters for this message.

7.16.6 Light Lightness Linear Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x50

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The target value of the Light Lightness Linear state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond

		steps. (C.1)
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C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light Lightness Linear Set is an acknowledged message used to set the Light Lightness Linear state of an element

The response to the Light Lightness Linear Set message is a Light Lightness Linear Status message.

The Lightness field identifies the Light Lightness Linear state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.16.7 Light Lightness Linear Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x51

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The target value of the Light Lightness Linear state
TID	1	Transaction Identifier

Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light Lightness Linear Set Unacknowledged is an unacknowledged message used to set the Light Lightness Linear state of an element

The Lightness field identifies the Light Lightness Linear state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.16.8 Light Lightness Linear Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x52

- Parameter

Parameters	Size(octets)	Notes
Present Lightness	2	The present value of the Light Lightness Linear state
Target Lightness	2	The target value of the Light Lightness Linear state (Optional)

Remaining Time	1	Format as defined in Section 4.3 (C.1)
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The Light Lightness Linear Status is an unacknowledged message used to report the Light Lightness Linear state of an element

The Present Lightness field identifies the present Light Lightness Linear state of the element

When an element is in the process of changing the Light Lightness Linear state, the Target Lightness field identifies the target Light Lightness Linear state that the element is to reach

When an element is not in the process of changing the Light Lightness Linear state, the Target Lightness field shall be omitted.

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Light Lightness Linear state of the element

7.16.9 Light Lightness Last Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x53

Light Lightness Last Get is an acknowledged message used to get the Light Lightness Last state of an element

The response to the Light Lightness Last Get message is a Light Lightness Last Status message

There are no parameters for this message.

7.16.10 Light Lightness Last Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x54

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Last

Light Lightness Last Status is an unacknowledged message used to report the Light Lightness Last state of an element

The Lightness field identifies the Light Lightness Last state of the element

7.16.11 Light Lightness Default Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x54

Light Lightness Default Get is an acknowledged message used to get the Light Lightness Default state of an element

The response to the Light Lightness Default Get message is a Light Lightness Default Status message

There are no parameters for this message.

7.16.12 Light Lightness Default Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x56

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state

Light Lightness Default Status is an unacknowledged message used to report the Light Lightness Default state of an element

Light Lightness Default Status is an unacknowledged message used to report the Light Lightness Default state of an element

7.16.13 Light Lightness Range Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x57

The Light Lightness Range Get is an acknowledged message used to get the Light Lightness Range state of an element

The response to the Light Lightness Range Get message is a Light Lightness Range Status message.

There are no parameters for this message.

7.16.14 Light Lightness Range Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x58

- Parameter

Parameters	Size(octets)	Notes
Status Code	1	Status Code for the requesting message
Range Min	2	The value of the Lightness Range Min field of the Light Lightness Range state

Range Max	2	The value of the Lightness Range Max field of the Light Lightness Range state
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Light Lightness Range Status is an unacknowledged message used to report the Light Lightness Range state of an element

The Status Code field identifies the Status Code for the last operation on the Light Lightness Range state. The allowed values for status codes and their meanings are documented in Section 7.21.1

The Range Min field identifies the Lightness Range Min field of the Light Lightness Range state of the element

The Range Max field identifies the Lightness Range Max field of the Light Lightness Range state of the element

7.16.15 Light Lightness Default Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x59

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state

The Light Lightness Default Set is an acknowledged message used to set the Light Lightness Default state of an element

The response to the Light Lightness Default Set message is a Light Lightness Default Status message.

The Lightness field identifies the Light Lightness Default state of the element

7.16.16 Light Lightness Default Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x5A

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state

The Light Lightness Default Set Unacknowledged is an unacknowledged message used to set the Light Lightness Default state of an element

The Lightness field identifies the Light Lightness Default state of the element

7.16.17 Light Lightness Range Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x5B

- Parameter

Parameters	Size(octets)	Notes
Range Min	2	The value of the Lightness Range Min field of the Light Lightness Range state
Range Max	2	The value of the Lightness Range Max field of the Light Lightness Range state

Light Lightness Range Set is an acknowledged message used to set the Light Lightness Range state of an element

The response to the Light Lightness Range Get message is a Light Lightness Range Status message.

The Range Min field identifies the Lightness Range Min field of the Light Lightness Range state of the element

The Range Max field identifies the Lightness Range Max field of the Light Lightness Range state of the element

The value of the Range Max field shall be greater or equal to the value of the Range Min field.

7.16.18 Light Lightness Range Set Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x5C

- Parameter

Parameters	Size(octets)	Notes
Range Min	2	The value of the Lightness Range Min field of the Light Lightness Range state
Range Max	2	The value of the Lightness Range Max field of the Light Lightness Range state

Light Lightness Range Set Unacknowledged is an unacknowledged message used to set the Light Lightness Range state of an element

The Range Min field identifies the Lightness Range Min field of the Light Lightness Range state of the element

The Range Max field identifies the Lightness Range Max field of the Light Lightness Range state of the element

The value of the Range Max field shall be greater or equal to the value of the Range Min field.

7.17 Light CTL

7.17.1 Light CTL Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x5D

Light CTL Get is an acknowledged message used to get the Light CTL state of an element

The response to the Light CTL Get message is a Light CTL Status message.

There are no parameters for this message.

7.17.2 Light CTL Set

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x5E

- Parameter

Parameters	Size(octets)	Notes
CTL Lightness	2	The target value of the Light CTL Lightness state.
CTL Temperature	2	The target value of the Light CTL Temperature state.
CTL Delta UV	2	The target value of the Light CTL Delta UV state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Light CTL Set is an acknowledged message used to set the Light CTL Lightness state, Light CTL Temperature state, and the Light CTL Delta UV state of an element

The response to the Light CTL Set message is a Light CTL Status message

The CTL Lightness field identifies the Light CTL Lightness state of the element.

The CTL Temperature field identifies the Light CTL Temperature state of the element.

The CTL Delta UV field identifies the Light CTL Delta UV state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.17.3 Light CTL Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x5F

- Parameter

Parameters	Size(octets)	Notes
CTL Lightness	2	The target value of the Light CTL Lightness state.
CTL Temperature	2	The target value of the Light CTL Temperature state.
CTL Delta UV	2	The target value of the Light CTL Delta UV

		state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

Light CTL Set Unacknowledged is an unacknowledged message used to set the Light CTL Lightness state, Light CTL Temperature state, and the Light CTL Delta UV state of an element

The CTL Lightness field identifies the Light CTL Lightness state of the element.

The CTL Temperature field identifies the Light CTL Temperature state of the element.

The CTL Delta UV field identifies the Light CTL Delta UV state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.17.4 Light CTL Status

- Command id
0x1000-2000
- Opcode

Byte 0	Byte 1
0x82	0x60

● Parameter

Parameters	Size(octets)	Notes
Present CTL Lightness	2	The present value of the Light CTL Lightness state.
Present CTL Temperature	2	The present value of the Light CTL Temperature state
Target CTL Lightness	2	The target value of the Light CTL Lightness state (Optional)
Target CTL Temperature	2	The target value of the Light CTL Temperature state (C.1)
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target CTL Lightness field is present, the Target CTL Temperature and the Remaining Time fields shall also be present; otherwise these fields shall not be present

The Light CTL Status is an unacknowledged message used to report the Light CTL Lightness and the Light CTL Temperature state of an element

The Present CTL Lightness field identifies the present Light CTL Lightness state of the element

The Present CTL Temperature field identifies the present Light CTL Temperature state of the node

If present, the Target CTL Lightness field identifies the target Light CTL Lightness state that the node is to reach

If present, the Target CTL Temperature field identifies the target Light CTL Temperature state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Light CTL state of the element

7.17.5 Light CTL Temperature Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x61

Light CTL Temperature Get is an acknowledged message used to get the Light CTL Temperature state of an element

The response to the Light CTL Temperature Get message is a Light CTL Temperature Status message.

There are no parameters for this message.

7.17.6 Light CTL Temperature Range Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x62

The Light CTL Temperature Range Get is an acknowledged message used to get the Light CTL Temperature Range state of an element

The response to the Light CTL Temperature Range Get message is a Light CTL Temperature Range Status message

There are no parameters for this message.

7.17.7 Light CTL Temperature Range Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x63

- Parameter

Parameters	Size(octets)	Notes
Status Code	1	Status Code for the requesting message.
Range Min	2	The value of the Temperature Range Min field of the Light CTL Temperature Range state
Range Max	2	The value of the Temperature Range Max field of the Light CTL Temperature Range state

Light CTL Temperature Range Status is an unacknowledged message used to report the Light CTL Temperature Range state of an element

The Status Code field identifies the Status Code for the last operation on the Light CTL Temperature Range state. The allowed values for status codes and their meanings are documented in Section 7.21.1

The Range Min field identifies the Temperature Range Min field of the Light CTL Temperature Range state of the element

The Range Max field identifies the Temperature Range Max field of the Light CTL Temperature Range state of the element

7.17.8 Light CTL Temperature Set

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x64

- Parameter

Parameters	Size(octets)	Notes
CTL Temperature	2	The target value of the Light CTL Temperature state.
CTL Delta UV	2	The target value of the Light CTL Delta UV state
TID	1	Transaction Identifier

Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light CTL Temperature Set is an acknowledged message used to set the Light CTL Temperature state and the Light CTL Delta UV state of an element

The response to the Light CTL Temperature Set message is a Light CTL Temperature Status message.

The CTL Temperature field identifies the Light CTL Temperature state of the element.

The CTL Delta UV field identifies the Light CTL Delta UV state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.17.9 Light CTL Temperature Set Unacknowledged

- Command id
0x1000-2000
- Opcode

Byte 0	Byte 1
0x82	0x65

- Parameter

Parameters	Size(octets)	Notes
CTL Temperature	2	The target value of the Light CTL Temperature state.
CTL Delta UV	2	The target value of the Light CTL Delta UV state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3 (Optional)
Delay	1	Message execution delay in 5 millisecond steps. (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light CTL Temperature Set Unacknowledged is an unacknowledged message used to set the Light CTL Temperature state and the Light CTL Delta UV state of an element

The CTL Temperature field identifies the Light CTL Temperature state of the element.

The CTL Delta UV field identifies the Light CTL Delta UV state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.17.10 Light CTL Temperature Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x66

- Parameter

Parameters	Size(octets)	Notes
Present CTL Temperature	2	The present value of the Light CTL Temperature state.
Present CTL Delta UV	2	The present value of the Light CTL Delta UV state
Target CTL Temperature	2	The target value of the Light CTL Temperature state (Optional)
Target CTL Delta UV	2	The target value of the Light CTL Delta UV state (C.1)
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target CTL Lightness field is present, the Target CTL Temperature and the Remaining Time fields shall also be present; otherwise these fields shall not be present

Light CTL Temperature Status is an unacknowledged message used to report the Light CTL Temperature and Light CTL Delta UV state of an element

The Present CTL Temperature field identifies the present Light CTL Temperature state of the element

The Present CTL Delta UV field identifies the present Light CTL Delta UV state of the element

If present, the Target CTL Temperature field identifies the target Light CTL Temperature state that the element is to reach

If present, the Target CTL Delta UV field identifies the target Light CTL Delta UV state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target state of the element

7.17.11 Light CTL Default Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x67

Light CTL Default Get is an acknowledged message used to get the Light CTL Temperature Default and Light CTL Delta UV Default states of an element

The response to the Light CTL Default Get message is a Light CTL Default Status message.

There are no parameters for this message.

7.17.12 Light CTL Default Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x68

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
Temperature	2	The value of the Light CTL Temperature Default state
Delta UV	2	The value of the Light CTL Delta UV Default state

The Light CTL Default Status is an unacknowledged message used to report the Light CTL Temperature Default and the Light CTL Delta UV Default states of an element

The Lightness field identifies the Light Lightness Default state of the element.

The Temperature field identifies the Light CTL Temperature Default state of the element.

The Delta UV field identifies the Light CTL Delta UV Default state of the element.

7.17.13 Light CTL Default Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x69

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
Temperature	2	The value of the Light CTL Temperature Default state
Delta UV	2	The value of the Light CTL Delta UV Default state

The Light CTL Default Set is an acknowledged message used to set the Light CTL Temperature Default state and the Light CTL Delta UV Default state of an element

The Lightness field identifies the Light Lightness Default state of the element.

The Temperature field identifies the Light CTL Temperature Default state of the element.

The Delta UV field identifies the Light CTL Delta UV Default state of the element.

7.17.14 Light CTL Default Set Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x6A

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
Temperature	2	The value of the Light CTL Temperature Default state
Delta UV	2	The value of the Light CTL Delta UV Default state

The Light CTL Default Set Unacknowledged is an unacknowledged message used to set the Light CTL Temperature Default state and the Light CTL Delta UV Default state of an element

The Lightness field identifies the Light Lightness Default state of the element.

The Temperature field identifies the Light CTL Temperature Default state of the element.

The Delta UV field identifies the Light CTL Delta UV Default state of the element.

7.17.15 Light CTL Temperature Range Set

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x6B

- Parameter

Parameters	Size(octets)	Notes
Range Min	2	The value of the Temperature Range Min field of the Light CTL Temperature Range state
Range Max	2	The value of the Temperature Range Max

		field of the Light CTL Temperature Range state
--	--	--

Light CTL Temperature Range Set is an acknowledged message used to set the Light CTL Temperature Range state of an element

The response to the Light CTL Temperature Range Get message is a Light CTL Temperature Range Status message

The Range Min field identifies the Temperature Range Min field of the Light CTL Temperature Range state of the element

The Range Max field identifies the Temperature Range Max field of the Light CTL Temperature Range state of the element

The value of the Range Max field shall be greater or equal to the value of the Range Min field.

7.17.16 Light CTL Temperature Range Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x6C

- Parameter

Parameters	Size(octets)	Notes
Range Min	2	The value of the Temperature Range Min field of the Light CTL Temperature Range state
Range Max	2	The value of the Temperature Range Max field of the Light CTL Temperature Range state

Light CTL Temperature Range Set Unacknowledged is an unacknowledged message used to set the Light CTL Temperature Range state of an element

The Range Min field identifies the Temperature Range Min field of the Light CTL

Temperature Range state of the element

The Range Max field identifies the Temperature Range Max field of the Light CTL Temperature Range state of the element

The value of the Range Max field shall be greater or equal to the value of the Range Min field.

7.18 Light HSL

7.18.1 Light HSL Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x6D

The Light HSL Get is an acknowledged message used to get the Light HSL Lightness, Light HSL Hue, and Light HSL Saturation states of an element.

The response to the Light HSL Get message is a Light HSL Status message.

There are no parameters for this message.

7.18.2 Light HSL Hue Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x6E

The Light HSL Hue Get is an acknowledged message used to get the Light HSL Hue state of an element.

The response to the Light HSL Hue Get message is a Light HSL Hue Status

message.

There are no parameters for this message.

7.18.3 Light HSL Hue Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x6F

- Parameter

Parameters	Size(octets)	Notes
Hue	2	The target value of the Light HSL Hue state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light HSL Hue Set is an acknowledged message used to set the target Light HSL Hue state of an element

The response to the Light HSL Hue Set message is a Light HSL Hue Status message.

The Hue field identifies the Light HSL Hue of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.18.4 Light HSL Hue Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x70

- Parameter

Parameters	Size(octets)	Notes
Hue	2	The target value of the Light HSL Hue state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light HSL Hue Set Unacknowledged is an unacknowledged message used to set the target Light HSL Hue state of an element

The Hue field identifies the Light HSL Hue of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing

a time interval between receiving the message by a model and executing the associated model behaviors.

7.18.5 Light HSL Hue Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x71

- Parameter

Parameters	Size(octets)	Notes
Present Hue	2	The present value of the Light HSL Hue state
Target Hue	2	The target value of the Light HSL Hue state (Optional)
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target Hue field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present.

The Light HSL Hue Status is an unacknowledged message used to report the Light HSL Hue state of an element

The Present Hue field identifies the present Light HSL Hue state of the element

If present, the Target Hue field identifies the target Light HSL Hue state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Light HSL Hue state of the element

7.18.6 Light HSL Saturation Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x72

The Light HSL Saturation Get is an acknowledged message used to get the Light HSL Saturation state of an element

The response to the Light HSL Saturation Get message is a Light HSL Saturation Status message.

There are no parameters for this message.

7.18.7 Light HSL Saturation Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x73

- Parameter

Parameters	Size(octets)	Notes
Saturation	2	The target value of the Light HSL Saturation state.
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light HSL Saturation Set is an acknowledged message used to set the target Light HSL Saturation state of an element

The Saturation field identifies the Light HSL Saturation the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition

Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.18.8 Light HSL Saturation Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x74

- Parameter

Parameters	Size(octets)	Notes
Saturation	2	The target value of the Light HSL Saturation state.
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light HSL Saturation Set Unacknowledged is an unacknowledged message used to set the target Light HSL Saturation state of an element

The Saturation field identifies the Light HSL Saturation of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as

defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.18.9 Light HSL Saturation Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x75

- Parameter

Parameters	Size(octets)	Notes
Present Saturation	2	The present value of the Light HSL Saturation state.
Target Saturation	2	The target value of the Light HSL Saturation state. (Optional)
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target Saturation field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present.

The Light HSL Saturation Status is an unacknowledged message used to report the Light HSL Saturation state of an element

The Present Saturation field identifies the present Light HSL Saturation state of the element

If present, the Target Saturation field identifies the target Light HSL Saturation state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Light HSL Saturation state of the element

7.18.10 Light HSL Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x76

- Parameter

Parameters	Size(octets)	Notes
HSL Lightness	2	The target value of the Light HSL Lightness state
HSL Hue	2	The target value of the Light HSL Hue state
HSL Saturation	2	The target value of the Light HSL Saturation state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light HSL Set is an acknowledged message used to set the Light HSL Lightness state, Light HSL Hue state, and the Light HSL Saturation state of an element.

The response to the Light HSL Set message is a Light HSL Status message.

The HSL Lightness field identifies the Light HSL Lightness state of the element.

The HSL Hue field identifies the Light HSL Hue state of the element

The HSL Saturation field identifies the Light HSL Saturation state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.18.11 Light HSL Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x77

- Parameter

Parameters	Size(octets)	Notes
HSL Lightness	2	The target value of the Light HSL Lightness state
HSL Hue	2	The target value of the Light HSL Hue state
HSL Saturation	2	The target value of the Light HSL Saturation state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light HSL Set Unacknowledged is an unacknowledged message used to set the Light HSL Lightness state, Light HSL Hue state, and the Light HSL Saturation state of an element

The HSL Lightness field identifies the Light HSL Lightness state of the element.

The HSL Hue field identifies the Light HSL Hue state of the element

The HSL Saturation field identifies the Light HSL Saturation state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.18.12 Light HSL Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x78

- Parameter

Parameters	Size(octets)	Notes
HSL Lightness	2	The present value of the Light HSL Lightness state
HSL Hue	2	The present value of the Light HSL Hue state
HSL Saturation	2	The present value of the Light HSL Saturation state
Remaining Time	1	Format as defined in Section 4.3 (Optional)

Light HSL Status is an unacknowledged message used to report the Light HSL Lightness, Light HSL Hue, and Light HSL Saturation states of an element

The HSL Lightness field identifies the present Light HSL Lightness state of the element

The HSL Hue field identifies the present Light HSL Hue state of the element

The HSL Saturation field identifies the present Light HSL Saturation state of the element

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target state of the element

7.18.13 Light HSL Target Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x79

Light HSL Target Get is an acknowledged message used to get the target Light HSL Lightness, Light HSL Hue, and Light HSL Saturation states of an element.

For example, it may be used when an element reports it is in transition to target Light HSL Lightness, Light HSL Hue, or Light HSL Saturation states by including a positive Remaining Time field in the Light HSL Status message, the Light Lightness Status message, or the Light xyL Status message.

The response to the Light HSL Target Get message is a Light HSL Target Status message.

There are no parameters for this message.

7.18.14 Light HSL Target Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
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0x82	0x7A
------	------

- Parameter

Parameters	Size(octets)	Notes
HSL Lightness Target	2	The target value of the Light HSL Lightness state
HSL Hue Target	2	The target value of the Light HSL Hue state
HSL Saturation Target	2	The target Light HSL Saturation state
Remaining Time	1	Format as defined in Section 4.3 (Optional)

The Light HSL Target Status is an unacknowledged message used to report the target Light HSL Lightness, Light HSL Hue, and Light HSL Saturation states of an element

The HSL Lightness Target field identifies the target Light HSL Lightness state of the element

The HSL Hue Target field identifies the target Light HSL Hue state of the element

The HSL Saturation Target field identifies the target Light HSL Saturation state of the element

7.18.15 Light HSL Default Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x7B

The Light HSL Hue Get is an acknowledged message used to get the Light HSL Hue state of an element

The response to the Light HSL Hue Get message is a Light HSL Hue Status message.

There are no parameters for this message

7.18.16 Light HSL Default Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x7C

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
Hue	2	The value of the Light HSL Hue Default state
Saturation	2	The value of the Light HSL Saturation Default state

Light HSL Default Status is an unacknowledged message used to report the Light Lightness Default, the Light HSL Hue Default, and Light HSL Saturation Default states of an element.

The Lightness field identifies the Light Lightness Default state of the element.

The Hue field identifies the Light HSL Hue Default state of the element

The Saturation field identifies the Light HSL Saturation Default state of the element.

7.18.17 Light HSL Range Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x7D

The Light HSL Range Get is an acknowledged message used to get the Light HSL Hue Range and Light HSL Saturation Range states of an element.

The response to the Light HSL Range Get message is a Light HSL Range Status message

There are no parameters for this message.

7.18.18 Light HSL Range Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x7E

- Parameter

Parameters	Size(octets)	Notes
Status Code	1	Status Code for the requesting message
Hue Range Min	2	The value of the Hue Range Min field of the Light HSL Hue Range state
Hue Range Max	2	The value of the Hue Range Max field of the Light HSL Hue Range state
Saturation Range Min	2	The value of the Saturation Range Min field of the Light HSL Saturation Range state
Saturation Range Max	2	The value of the Saturation Range Max field of the Light HSL Saturation Range state

The Status Code field identifies the Status Code for the last operation on the Light HSL Hue Range and Light HSL Saturation Range states. The allowed values for status codes and their meanings are documented in Section 7.21.1

The Hue Range Min field identifies the Light HSL Hue Range Min field of the Light HSL Hue Range state of the element

The Hue Range Max field identifies the Light HSL Hue Range Max field of the Light HSL Hue Range state of the element

The Saturation Range Min field identifies the Light HSL Saturation Range Min field of the Light HSL Saturation Range state of the element

The Saturation Range Max field identifies the Light HSL Saturation Range Max field of the Light HSL Saturation state of the element

7.18.19 Light HSL Default Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x7F

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
Hue	2	The value of the Light HSL Hue Default state
Saturation	2	The value of the Light HSL Saturation Default state

Light HSL Default Set is an acknowledged message used to set the Light Lightness Default, the Light HSL Hue Default, and Light HSL Saturation Default states of an element.

The response to the Light HSL Default Set message is a Light HSL Default Status message.

The Lightness field identifies the Light Lightness Default state of the element.

The Hue field identifies the Light HSL Hue Default state of the element.

The Saturation field identifies the Light HSL Saturation Default state of the element.

7.18.20 Light HSL Default Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x80

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
Hue	2	The value of the Light HSL Hue Default state
Saturation	2	The value of the Light HSL Saturation Default state

Light HSL Default Set Unacknowledged is an unacknowledged message used to set the Light Lightness Default, the Light HSL Hue Default, and Light HSL Saturation Default states of an element.

The Lightness field identifies the Light Lightness Default state of the element.

The Hue field identifies the Light HSL Hue Default state of the element.

The Saturation field identifies the Light HSL Saturation Default state of the element.

7.18.21 Light HSL Range Set

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x81

- Parameter

Parameters	Size(octets)	Notes
Hue Range Min	2	The value of the Hue Range Min field of the Light HSL Hue Range state
Hue Range Max	2	The value of the Hue Range Max field of the Light HSL Hue Range state
Saturation Range Min	2	The value of the Saturation Range Min field of the Light HSL Saturation Range state
Saturation	2	The value of the Saturation Range Max field

Range Max		of the Light HSL Saturation Range state
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Light HSL Range Set is an acknowledged message used to set the Light HSL Hue Range and Light HSL Saturation Range states of an element.

The response to the Light HSL Range Set message is a Light HSL Range Status message.

The Hue Range Min field identifies the Light HSL Hue Range Min field of the Light HSL Hue Range state of the element

The Hue Range Max field identifies the Light HSL Hue Range Max field of the Light HSL Hue Range state of the element

The value of the Hue Range Max field shall be greater or equal to the value of the Hue Range Min field.

The Saturation Range Min field identifies the Light HSL Saturation Range Min field of the Light HSL Saturation Range state of the element

The Saturation Range Max field identifies the Light HSL Saturation Range Max field of the Light HSL Saturation state of the element

The value of the Saturation Range Max field shall be greater or equal to the value of the Saturation Range Min field.

7.18.22 Light HSL Range Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x82

- Parameter

Parameters	Size(octets)	Notes
Hue Range Min	2	The value of the Hue Range Min field of the Light HSL Hue Range state

Hue Range Max	2	The value of the Hue Range Max field of the Light HSL Hue Range state
Saturation Range Min	2	The value of the Saturation Range Min field of the Light HSL Saturation Range state
Saturation Range Max	2	The value of the Saturation Range Max field of the Light HSL Saturation Range state

Light HSL Range Set Unacknowledged is an unacknowledged message used to set the Light HSL Hue Range and Light HSL Saturation Range states of an element.

The Hue Range Min field identifies the Light HSL Hue Range Min field of the Light HSL Hue Range state of the element

The Hue Range Max field identifies the Light HSL Hue Range Max field of the Light HSL Hue Range state of the element

The value of the Hue Range Max field shall be greater or equal to the value of the Hue Range Min field.

The Saturation Range Min field identifies the Light HSL Saturation Range Min field of the Light HSL Saturation Range state of the element

The Saturation Range Max field identifies the Light HSL Saturation Range Max field of the Light HSL Saturation state of the element

The value of the Saturation Range Max field shall be greater or equal to the value of the Saturation Range Min field.

7.19 Light xyL

7.19.1 Light xyL Get

- Command id
0x1000-2000
- Opcode

Byte 0	Byte 1
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0x82

0x83

The Light xyL Get is an acknowledged message used to get the Light xyL Lightness, Light xyL x, and Light xyL y states of an element.

Upon receiving a Light xyL Get message, the element shall respond with a Light xyL Status message

The response to the Light xyL Get message is a Light xyL Status message.

There are no parameters for this message.

7.19.2 Light xyL Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x84

- Parameter

Parameters	Size(octets)	Notes
xyL Lightness	2	The target value of the Light xyL Lightness state
xyL x	2	The target value of the Light xyL x state
xyL y	2	The target value of the Light xyL y state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light xyL Set is an acknowledged message used to set the Light xyL Lightness, Light xyL x state, and the Light xyL y states of an element.

The response to the Light xyL Set message is a Light xyL Status message

The xyL Lightness field identifies the Light xyL Lightness state of the element.

The xyL x field identifies the Light xyL x state of the element.

The xyL y field identifies the Light xyL y state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.19.3 Light xyL Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x85

- Parameter

Parameters	Size(octets)	Notes
xyL Lightness	2	The target value of the Light xyL Lightness state
xyL x	2	The target value of the Light xyL x state
xyL y	2	The target value of the Light xyL y state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present;

otherwise these fields shall not be present.

The Light xyL Set Unacknowledged is an unacknowledged message used to set the Light xyL Lightness, Light xyL x state, and the Light xyL y states of an element.

The xyL Lightness field identifies the Light xyL Lightness state of the element.

The xyL x field identifies the Light xyL x state of the element.

The xyL y field identifies the Light xyL y state of the element.

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.19.4 Light xyL Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x86

- Parameter

Parameters	Size(octets)	Notes
xyL Lightness	2	The present value of the Light xyL Lightness state

xyL x	2	The present value of the Light xyL x state
xyL y	2	The present value of the Light xyL y state
Remaining Time	1	Format as defined in Section 4.3 (Optional)

The Light xyL Status is an unacknowledged message used to report the Light xyL Lightness, Light xyL x, and Light xyL y states of an element

The xyL Lightness field identifies the present Light xyL Lightness state of the element

The xyL x field identifies the present Light xyL x state of the element

The xyL y field identifies the present Light xyL y state of the element

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target state of the element

7.19.5 Light xyL Target Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x87

The Light xyL Target Get is an acknowledged message used to get the target Light xyL Lightness, Light xyL x, and Light xyL y states of an element.

For example, it may be used when an element reports it is in transition to new Light xyL Lightness, Light xyL x, or Light xyL y states by including a positive Remaining Time field in the Light xyL Status message, Light Lightness Status message, or the Light HSL Status message.

The response to the Light xyL Target Get message is a Light xyL Target Status message.

There are no parameters for this message.

7.19.6 Light xyL Target Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x88

- Parameter

Parameters	Size(octets)	Notes
Target xyL Lightness	2	The target value of the Light xyL Lightness state
Target xyL x	2	The target value of the Light xyL x state
Target xyL y	2	The target value of the Light xyL y state
Remaining Time	1	Format as defined in Section 4.3 (Optional)

Light xyL Target Status is an unacknowledged message used to report the target Light xyL Lightness, Light xyL x, and Light xyL y states of an element

The Target xyL Lightness field identifies the target Light xyL Lightness state of the element

The Target xyL x field identifies the target Light xyL x state of the element

The Target xyL y field identifies the target Light xyL y state of the element

The Remaining Time field identifies the time it will take the element to complete the transition to the target state of the element.

7.19.7 Light xyL Default Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x89

Light xyL Default Get is an acknowledged message used to get the Light Lightness Default, the Light xyL x Default, and Light xyL y Default states of an element.

The response to the Light xyL Default Get message is a Light xyL Default Status message.

There are no parameters for this message.

7.19.8 Light xyL Default Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x8A

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
xyL x	2	The value of the Light xyL x Default state
xyL y	2	The value of the Light xyL y Default state

Light xyL Default Status is an unacknowledged message used to report the Light Lightness Default, the Light xyL x Default, and Light xyL y Default states of an element.

The Lightness field identifies the Light Lightness Default state of the element.

The xyL x field identifies the Light xyL x Default state of the element.

The xyL y field identifies the Light xyL y Default state of the element.

7.19.9 Light xyL Range Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x8B

The Light xyL Range Get is an acknowledged message used to get the Light xyL x Range and Light xyL y Range states of an element.

The response to the Light xyL Range Get message is a Light xyL Range Status message.

There are no parameters for this message.

7.19.10 Light xyL Range Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x8C

7.19.11 Light xyL Default Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x8D

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
xyL x	2	The value of the Light xyL x Default state
xyL y	2	The value of the Light xyL y Default state

Light xyL Default Set is an acknowledged message used to set the Light Lightness Default, the Light xyL x Default, and Light xyL y Default states of an element

The response to the Light xyL Default Set message is a Light xyL Default Status

message.

The Lightness field identifies the Light Lightness Default state of the element.

The xyL x field identifies the Light xyL x Default state of the element.

The xyL y field identifies the Light xyL y Default state of the element.

7.19.12 Light xyL Default Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x8E

- Parameter

Parameters	Size(octets)	Notes
Lightness	2	The value of the Light Lightness Default state
xyL x	2	The value of the Light xyL x Default state
xyL y	2	The value of the Light xyL y Default state

Light xyL Default Set Unacknowledged is an unacknowledged message used to set the Light Lightness Default, the Light xyL x Default, and Light xyL y Default states of an element

The Lightness field identifies the Light Lightness Default state of the element.

The xyL x field identifies the Light xyL x Default state of the element.

The xyL y field identifies the Light xyL y Default state of the element.

7.19.13 Light xyL Range Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
--------	--------

0x82	0x8F
------	------

● Parameter

Parameters	Size(octets)	Notes
xyL x Range Min	2	The value of the xyL x Range Min field of the Light xyL x Range state
xyL x Range Max	2	The value of the xyL x Range Max field of the Light xyL x Range state
xyL y Range Min	2	The value of the xyL y Range Min field of the Light xyL y Range state
xyL y Range Max	2	The value of the xyL y Range Max field of the Light xyL y Range state

Light xyL Range Set is an acknowledged message used to set the Light xyL x Range and Light xyL y Range states of an element.

The response to the Light xyL Range Set message is a Light xyL Range Status message

The structure of the message is defined in the following table.

The xyL x Range Min field identifies the Light xyL x Range Min field of the Light xyL x Range state of the element

The xyL x Range Max field identifies the Light xyL x Range Max field of the Light xyL x Range state of the element

The value of the xyL x Range Max field shall be greater or equal to the value of the xyL x Range Min field.

The xyL y Range Min field identifies the Light xyL y Range Min field of the Light xyL y Range state of the element

The xyL y Range Max field identifies the Light xyL y Range Max field of the Light xyL y Range state of the element

The value of the xyL y Range Max field shall be greater or equal to the value of the xyL y Range Min field.

7.19.14 Light xyL Range Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x90

- Parameter

Parameters	Size(octets)	Notes
xyL x Range Min	2	The value of the xyL x Range Min field of the Light xyL x Range state
xyL x Range Max	2	The value of the xyL x Range Max field of the Light xyL x Range state
xyL y Range Min	2	The value of the xyL y Range Min field of the Light xyL y Range state
xyL y Range Max	2	The value of the xyL y Range Max field of the Light xyL y Range state

Light xyL Range Set Unacknowledged is an unacknowledged message used to set the Light xyL x Range and Light xyL y Range states of an element.

The xyL x Range Min field identifies the Light xyL x Range Min field of the Light xyL x Range state of the element

The xyL x Range Max field identifies the Light xyL x Range Max field of the Light xyL x Range state of the element

The value of the xyL x Range Max field shall be greater or equal to the value of the xyL x Range Min field.

The xyL y Range Min field identifies the Light xyL y Range Min field of the Light xyL y Range state of the element

The xyL y Range Max field identifies the Light xyL y Range Max field of the Light xyL y Range state of the element

The value of the xyL y Range Max field shall be greater or equal to the value of the xyL y Range Min field.

7.20 Light LC

7.20.1 Light LC Mode Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x91

Light LC Mode Get is an acknowledged message used to get the Light LC Mode state of an element

The response to the Light LC Mode Get message is a Light LC Mode Status message

There are no parameters for this message.

7.20.2 Light LC Mode Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x92

- Parameter

Parameters	Size(octets)	Notes
Mode	1	The target value of the Light LC Mode state

The Light LC Mode Set is an acknowledged message used to set the Light LC Mode state of an element

The response to the Light LC Mode Set message is a Light LC Mode Status message.

The Mode field identifies the Light LC Mode state of the element

7.20.3 Light LC Mode Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x93

- Parameter

Parameters	Size(octets)	Notes
Mode	1	The target value of the Light LC Mode state

The Light LC Mode Set is an acknowledged message used to set the Light LC Mode state of an element

The Mode field identifies the Light LC Mode state of the element

7.20.4 Light LC Mode Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x94

- Parameter

Parameters	Size(octets)	Notes
Mode	1	The target value of the Light LC Mode state

The Light LC Mode Status is an unacknowledged message used to report the Light LC Mode state of an element

The Mode field identifies the present Light LC Mode state of the element

7.20.5 Light LC OM Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x95

Light LC OM Get is an acknowledged message used to get the Light LC Occupancy Mode state of an element

The response to the Light LC OM Get message is a Light LC OM Status message.

There are no parameters for this message.

7.20.6 Light LC OM Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x96

- Parameter

Parameters	Size(octets)	Notes
Mode	1	The target value of the Light LC Occupancy Mode state

The Light LC OM Set is an acknowledged message used to set the Light LC Occupancy Mode state of an element

The response to the Light LC OM Set message is a Light LC OM Status message.

The Mode field identifies the Light LC Occupancy Mode state of the element

7.20.7 Light LC OM Set Unacknowledged

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x97

- Parameter

Parameters	Size(octets)	Notes
Mode	1	The target value of the Light LC Occupancy Mode state

The Light LC OM Set is Unacknowledged an unacknowledged message used to set the Light LC Occupancy Mode state of an element

The Mode field identifies the Light LC Occupancy Mode state of the element

7.20.8 Light LC OM Status

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x98

- Parameter

Parameters	Size(octets)	Notes
Mode	1	The target value of the Light LC Occupancy Mode state

The Light LC OM Status is an unacknowledged message used to report the Light LC Occupancy Mode state of an element

The Mode field identifies the present Light LC Occupancy Mode state of the element

7.20.9 Light LC Light OnOff Get

- Command id

0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x99

Light LC Light OnOff Get is an acknowledged message used to get the Light LC Light OnOff state of an element

The response to the Light LC Light OnOff Get message is a Light LC Light OnOff Status message.

There are no parameters for this message.

7.20.10 Light LC Light OnOff Set

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x9A

- Parameter

Parameters	Size(octets)	Notes
Light OnOff	1	The target value of the Light LC Light OnOff state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light LC Light OnOff Set is an acknowledged message used to set the Light LC Light OnOff state of an element

The response to the Light LC Light OnOff Set message is a Light LC Light OnOff Status message.

The Light OnOff field identifies the Light LC Light OnOff state of the element

The TID field is a transaction identifier indicating whether the message is a new message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.20.11 Light LC Light OnOff Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x9B

- Parameter

Parameters	Size(octets)	Notes
Light OnOff	1	The target value of the Light LC Light OnOff state
TID	1	Transaction Identifier
Transition Time	1	Format as defined in Section 4.3. (Optional)
Delay	1	Message execution delay in 5 millisecond steps (C.1)

C.1: If the Transition Time field is present, the Delay field shall also be present; otherwise these fields shall not be present.

The Light LC Light OnOff Set Unacknowledged is an unacknowledged message used to set the Light LC Light OnOff state of an element

The Light OnOff field identifies the Light LC Light OnOff state of the element

The TID field is a transaction identifier indicating whether the message is a new

message or a retransmission of a previously sent message

If present, the Transition Time field identifies the time an element will take to transition to the target state from the present state. The format of the Transition Time field matches the format of the Generic Default Transition Time state, as defined in Section 4.3. Only values of 0x00 to 0x3E shall be used to specify the Transition Number of Steps.

If present, the Delay field identifies the message execution delay, representing a time interval between receiving the message by a model and executing the associated model behaviors.

7.20.12 Light LC Light OnOff Status

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x9C

- Parameter

Parameters	Size(octets)	Notes
Present Light OnOff	1	The present value of the Light LC Light OnOff state
Target Light OnOff	1	The target value of the Light LC Light OnOff state (Optional)
Remaining Time	1	Format as defined in Section 4.3 (C.1)

C.1: If the Target Light OnOff field is present, the Remaining Time field shall also be present; otherwise these fields shall not be present

The Light LC Light OnOff Status is an unacknowledged message used to report the Light LC Light OnOff state of an element

The Present Light OnOff field identifies the present Light LC Light OnOff state of the element

If present, the Target Light OnOff field identifies the target Light LC Light OnOff state that the element is to reach

If present, the Remaining Time field identifies the time it will take the element to complete the transition to the target Light LC Light OnOff state of the node

7.20.13 Light LC Property Get

- Command id
0x1000-2000

- Opcode

Byte 0	Byte 1
0x82	0x9D

- Parameter

Parameters	Size(octets)	Notes
Light LC Property ID	2	Property ID identifying a Light LC Property

Light LC Property Get is an acknowledged message used to get the Light LC Property state of an element

The response to the Light LC Property Get message is a Light LC Property Status message.

The Light LC Property ID field identifies a Light LC Property ID state of an element

7.20.14 Light LC Property Set

- Command id
0x1000-2000

- Opcode

Byte 0
0x62

- Parameter

Parameters	Size(octets)	Notes
Light LC Property ID	2	Property ID identifying a Light LC Property
Light LC	variable	Raw value for the Light LC Property

Property Value		
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The Light LC Property Set is an acknowledged message used to set the Light LC Property state of an element

The response to the Light LC Property Set message is a Light LC Property Status message.

The Light LC Property Value field identifies a Light LC Property Value state of an element

7.20.15 Light LC Property Set Unacknowledged

- Command id
0x1000-2000

- Opcode

Byte 0
0x63

- Parameter

Parameters	Size(octets)	Notes
Light LC Property ID	2	Property ID identifying a Light LC Property
Light LC Property Value	variable	Raw value for the Light LC Property

The Light LC Property Set Unacknowledged is an unacknowledged message used to set the Light LC Property state of an element

The Light LC Property Value field identifies a Light LC Property Value state of an element

7.20.16 Light LC Property Status

- Command id
0x1000-2000

- Opcode

Byte 0

0x64

● Parameter

Parameters	Size(octets)	Notes
Light LC Property ID	2	Property ID identifying a Light LC Property
Light LC Property Value	variable	Raw value for the Light LC Property

The Light LC Property Status is an unacknowledged message used to report the Light LC Property state of an element

The message is sent as a response to the Light LC Property Get and Light LC Property Set messages or may be sent as an unsolicited message

The Light LC Property ID field identifies a Light LC Property ID state of an element

The Light LC Property Value field identifies a Light LC Property Value state of an element

7.21 Application Model Status

7.21.1 Status Code

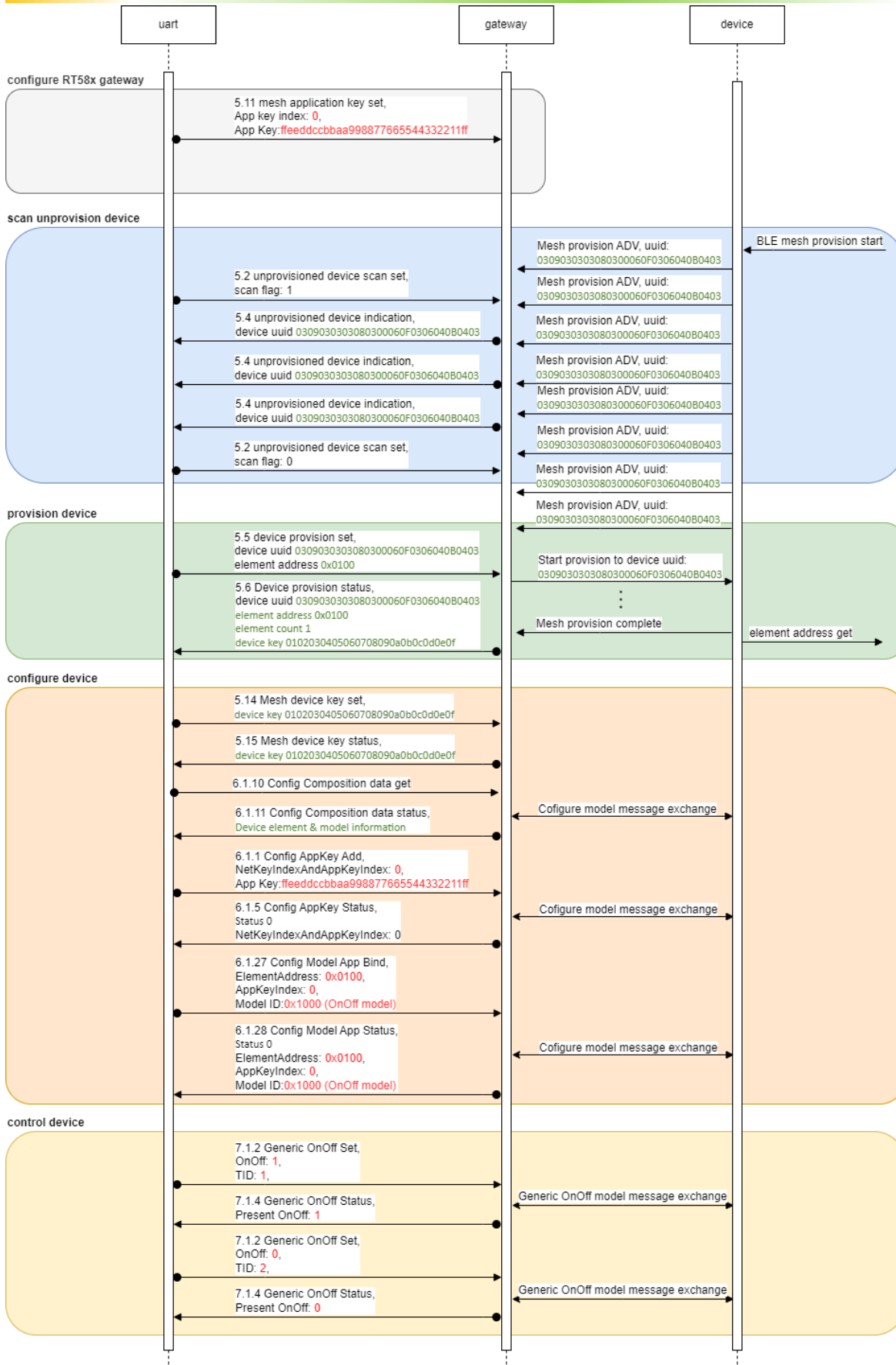
Status Code	Status Code Name	Description
0x00	Success	Command successfully processed
0x01	Cannot Set Range Min	The provided value for Range Min cannot be set
0x02	Cannot Set Range Max	The provided value for Range Max cannot be set
0x03-0xFF	RFU	Reserved for Future Use

7.21.2 Scene Status Code

Status Code	Description
0x00	Success

0x01	Scene Register Full
0x02	Scene Not Found
0x03-0xFF	Reserved for Future Use

8 Commands for provision and control device



Revision History

Revision	Description	Owner	Date
0.1	1. Initial version.	Joshua	2022/07/08

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