

VELUX® VELUX A/S Accessories		



VELUX A/S Accessories

 VELUX A/S Accessories		

History

Version	Changes	Author	Date

		
VELUX A/S Accessories		

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1 Welcome

2 VELUX liability

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3 Introduction

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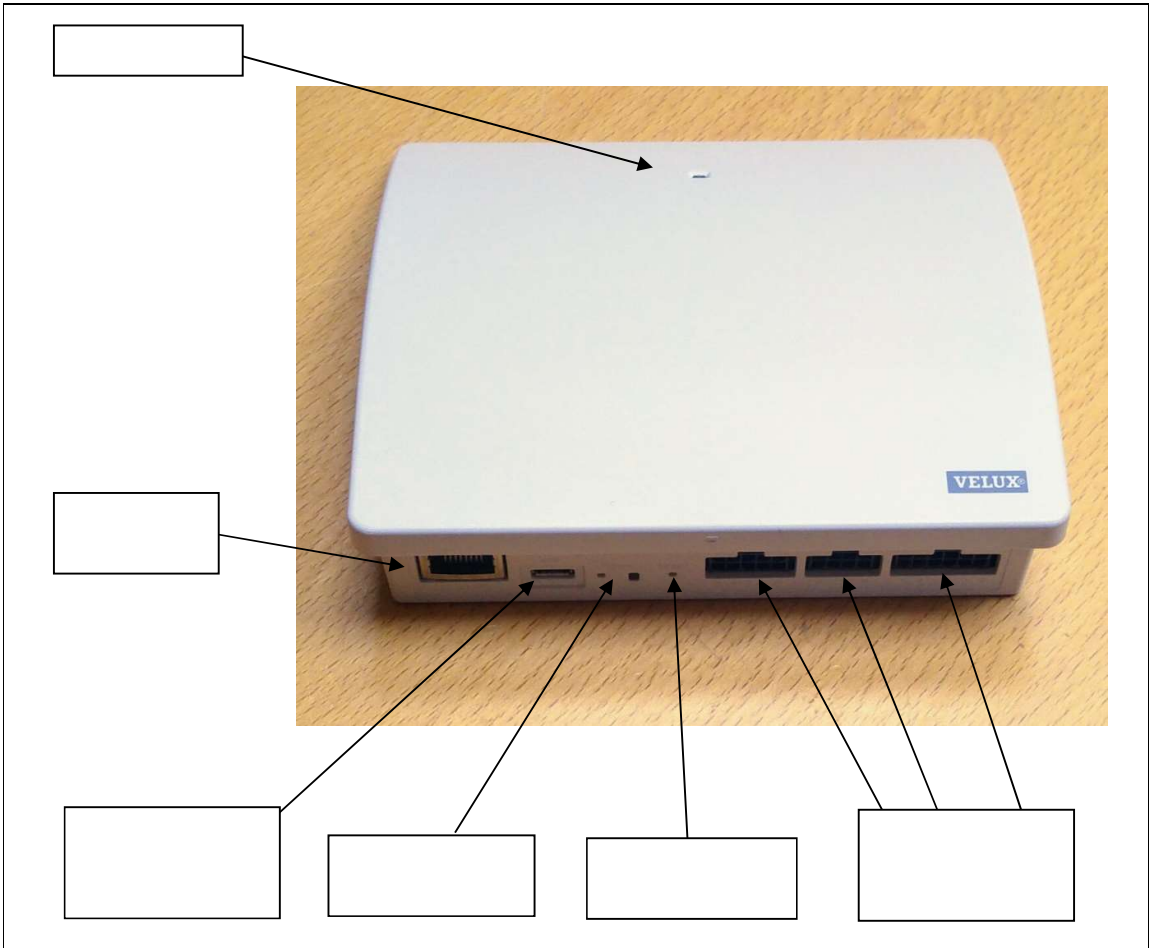


Figure 1 – KLF 200 photo.

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4 Gateway interface

4.1 TCP/IP interface

4.2 Gateway command frame

Table 1 - Prototype of gateway command frame format.

4.2.1 Command parameter

4.2.2 Data field

4.3 Gateway command frame length

Table 2 – Length parameter added to Gateway Command frame.

4.3.1 Length parameter

Figure 2 - Length parameter description.

4.4 Transport layer

Table 3 – Transport layer frame format.

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4.4.1 ProtocolID parameter

4.4.2 Checksum parameter

Checksum

Checksum

4.5 SLIP wrapping

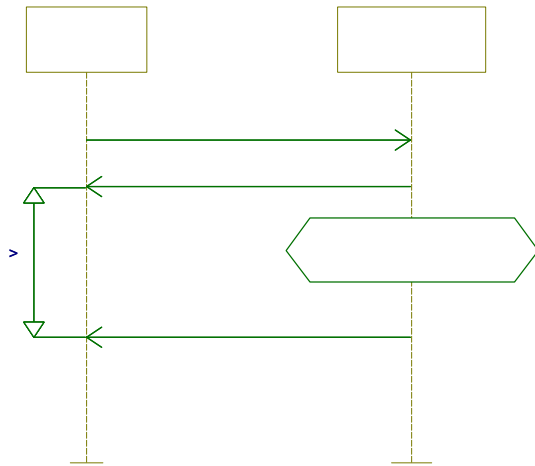


Figure 4 - Sequence diagram showing standard communication with REQ, CFM and NTF frames.

Deviations from the rules above

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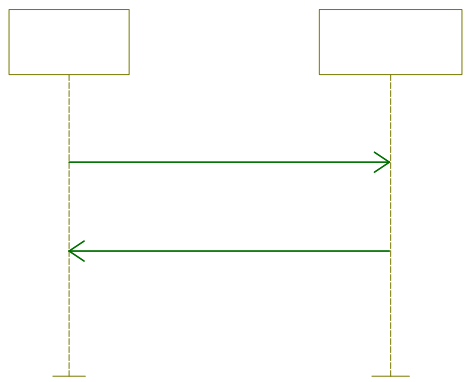
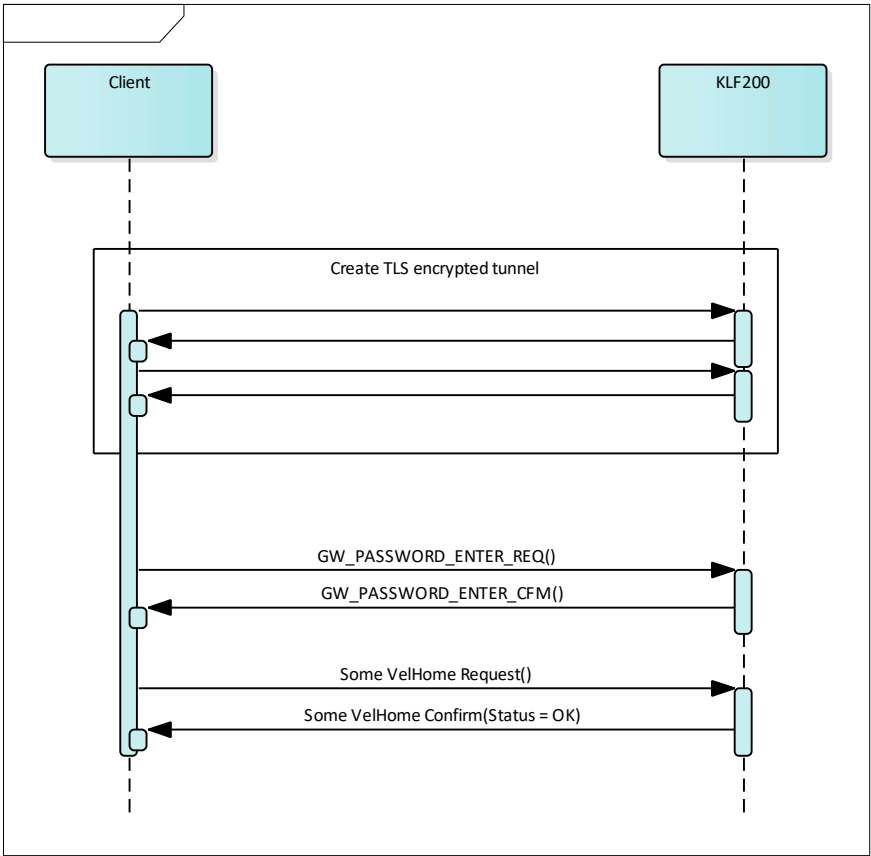


Figure 5 - Sequence diagram showing standard communication with REQ and Error frames.

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5 Authentication



5.1.1 GW_PASSWORD_ENTER_REQ

Table 6 - GW_PASSWORD_ENTER_REQ frame format.

5.1.1.1 Password

5.1.2 GW_PASSWORD_ENTER_CFM

Table 7 - GW_PASSWORD_ENTER_CFM frame format.

5.1.2.1 Status

Table 8 - Status parameter

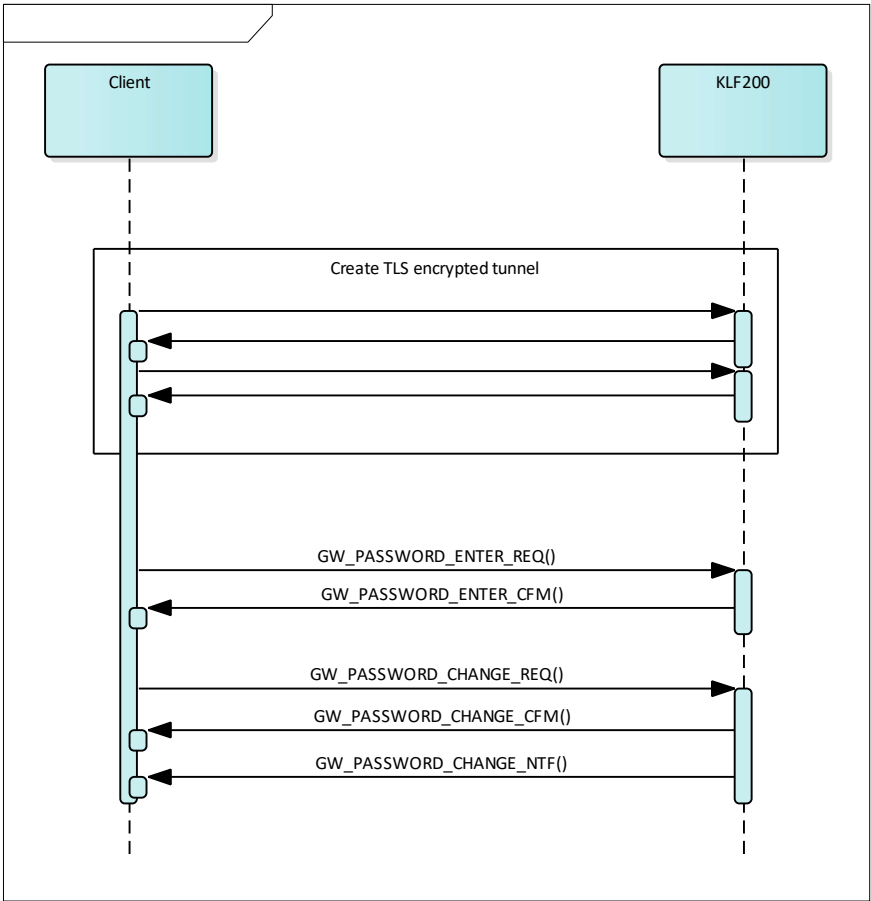


Figure 6 - Sequence diagram, change password.

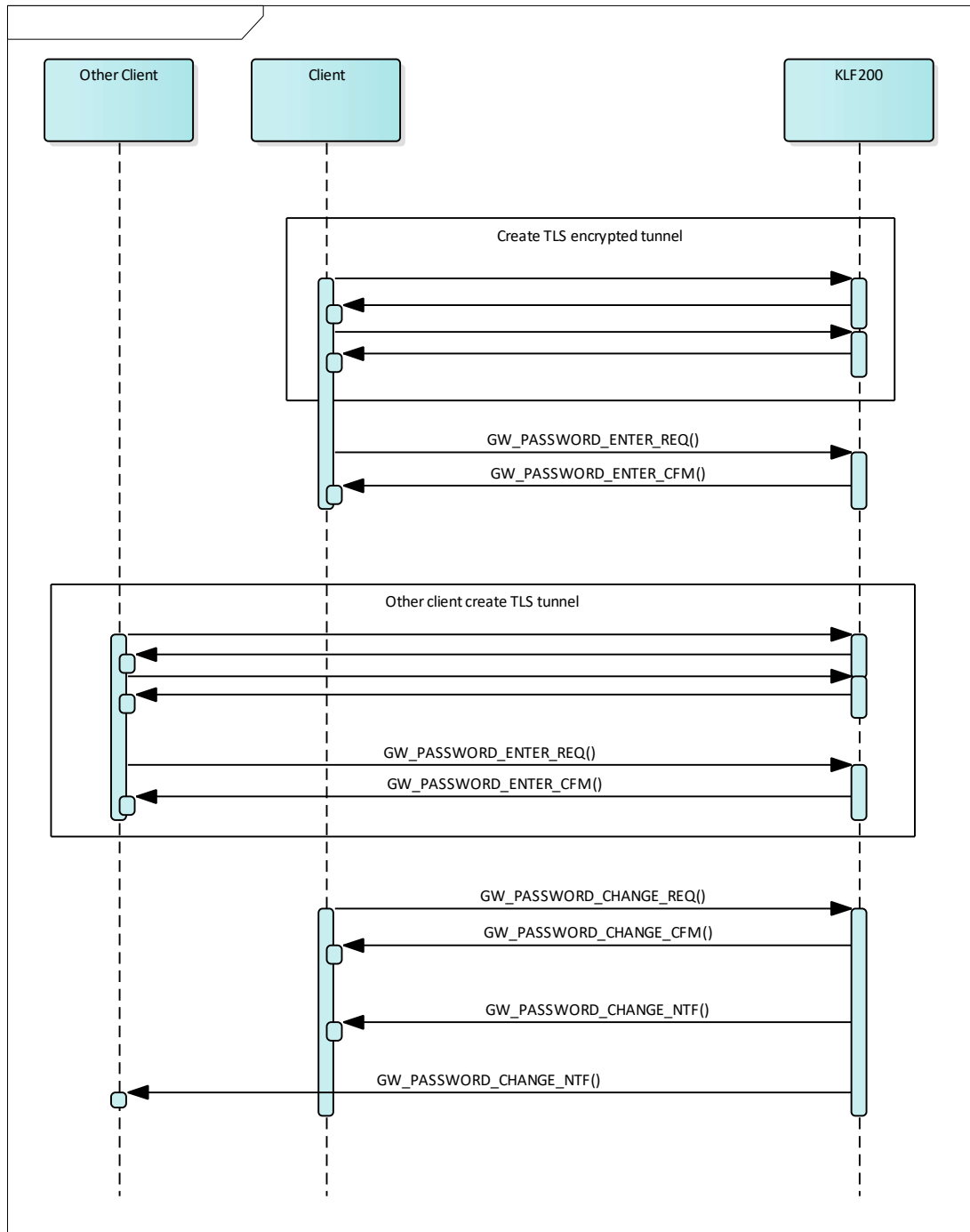


Figure 7 - Sequence diagram, change password and inform other client.

5.1.3 GW_PASSWORD_CHANGE_REQ

Table 9 - GW_PASSWORD_CHANGE_REQ frame format.

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5.1.3.1
CurrentPassword and NewPassword


5.1.4
GW_PASSWORD_CHANGE_CFM

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Table 2: GW_PASSWORD_CHANGE_CFM frame format.

5.1.4.1
Status

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6 General device commands

6.1 Version information commands

6.1.1 GW_GET_VERSION_REQ

Table 13 - GW_GET_VERSION_REQ frame format.

6.1.2 GW_GET_VERSION_CFM

Table 14 - GW_GET_VERSION_CFM frame format.

6.1.2.1 SoftwareVersion parameter

Table 15 - SoftwareVersion description

6.1.2.2 HardwareVersion parameter

6.1.2.3 ProductGroup parameter

6.1.2.4 ProductType parameter

6.1.3 GW_GET_PROTOCOL_VERSION_REQ

Table 16 - GW_GET_PROTOCOL_VERSION_REQ frame format.

6.1.4 GW_GET_PROTOCOL_VERSION_CFM

Table 17 - GW_GET_PROTOCOL_VERSION_CFM frame format.

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6.1.4.1 MajorVersion parameter

6.1.4.2 MinorVersion parameter

6.2 Gateway state

6.2.1 GW_GET_STATE_REQ

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6.2.2.1 GatewayState

Table 20 - GatewayState value Description

6.2.2.2 SubState

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6.2.2.3 StateData

6.3 Leave learn state

6.3.1 GW_LEAVE_LEARN_STATE_REQ

Table 22 - GW_LEAVE_LEARN_STATE_REQ frame format.

6.3.2 GW_LEAVE_LEARN_STATE_CFM

Table 23 - GW_LEAVE_LEARN_STATE_CFM frame format.

6.3.2.1 Status

Table 24 - Status parameter

6.4 Real Time Clock

6.4.1 GW_SET_UTC_REQ

Table 25- GW_SET_UTC_REQ frame format.

6.4.1.1 Parameter utcTimeStamp

unix timestamp

6.4.2 GW_SET_UTC_CFM

Table 26 - GW_SET_UTC_CFM frame format.

6.4.3 GW_RTC_SET_TIME_ZONE_REQ

Table 27 - GW_RTC_SET_TIME_ZONE_REQ frame format.

6.4.3.1 TimeZoneString parameter


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6.4.4 GW_RTC_SET_TIME_ZONE_CFM

Table 28 - GW_RTC_SET_TIME_ZONE_CFM frame format.

6.4.4.1 Status parameter

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Table 29 - Status parameter

6.4.5 GW_GET_LOCAL_TIME_REQ command

Table 30 - GW_GET_LOCAL_TIME_REQ frame format.

6.4.6 GW_GET_LOCAL_TIME_CFM command

Table 31 - GW_GET_LOCAL_TIME_CFM frame format.

6.4.6.1 UtcTime parameter

6.4.6.2 Second parameter

6.4.6.3 Minute parameter

6.4.6.4 Hour parameter

6.4.6.5 DayOfMonth parameter

6.4.6.6 Month parameter


6.4.6.7 Year parameter

6.4.6.8 WeekDay parameter

6.4.6.9 DayOfYear parameter

6.4.6.10 DaylightSavingFlag parameter

Table 32 - DaylightSavingFlag parameter description.

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6.5 Reboot command set

6.5.1 GW_REBOOT_REQ

Table 33 - GW_REBOOT_REQ frame format.

6.5.2 GW_REBOOT_CFM

Table 34 - GW_REBOOT_CFM frame format.

6.6 Factory default command set

6.6.1 GW_SET_FACTORY_DEFAULT_REQ

Table 35 - GW_SET_FACTORY_DEFAULT_REQ frame format.

6.6.2 GW_SET_FACTORY_DEFAULT_CFM

Table 36 - GW_SET_FACTORY_DEFAULT_CFM frame format.

6.7 Network setup

6.8 Get network setup command set

6.8.1 GW_GET_NETWORK_SETUP_REQ


Table 37 - GW_GET_NETWORK_SETUP_REQ frame format.

6.8.2 GW_GET_NETWORK_SETUP_CFM

Table 38 - GW_GET_NETWORK_SETUP_CFM frame format.

6.8.2.1 IPAddress parameter

6.8.2.2 Mask parameter

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6.8.2.3 DefGW parameter

6.8.2.4 DHCP parameter

Table 39 - DHCP parameter description.

6.9 Set network setup command set

6.9.1 GW_SET_NETWORK_SETUP_REQ

Table 40 - GW_SET_NETWORK_SETUP_REQ frame format.


6.9.2 GW_SET_NETWORK_SETUP_CFM

Table 41 - GW_SET_NETWORK_SETUP_CFM frame format.

6.10 GW_ERROR_NTF

Table 42 - GW_ERROR_NTF command frame format.

Table 43 - Error types.

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7 Configuration service

7.1 System table

7.2 GW_CS_GET_SYSTEMTABLE_DATA_REQ

Table 44 - GW_CS_GET_SYSTEMTABLE_DATA_REQ frame format.

7.3 GW_CS_GET_SYSTEMTABLE_DATA_CFM

Table 45 - GW_CS_GET_SYSTEMTABLE_DATA_CFM frame format.

7.4 GW_CS_GET_SYSTEMTABLE_DATA_NTF

Table 46 - GW_CS_GET_SYSTEMTABLE_DATA_NTF frame format. Note $n \in \{11; 22; \dots; 110\}$.

7.4.1.1 NumberOfEntry parameter

7.4.1.2 SystemTableObjects parameter

Table 47 - Frame format of the parameter SystemTableObjects.

Class: General Actuator	
Byte Index	Description


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Table 50 - NodeType data parameter description.

7.4.1.2.4 PowerSave Mode parameter

Table 51 - PowerSave Mode parameter description.

7.4.1.2.5 io-Membership parameter

7.4.1.2.6 RF support parameter

Table 52 - RF support parameter description.

7.4.1.2.7 Actuator Turnaround time parameter

Table 53 - Actuator Turnaround time parameter description.

7.4.1.2.8 io-Manufacturer Id parameter

Table 54 - io-Manufacturer Id parameter description.

7.4.1.2.9 Backbone reference number

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7.4.1.3 RemainingNumberOfEntry parameter

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7.4.2 GW_CS_GET_SYSTEMTABLE_DATA_NTF frame if system table are empty.

Table 55 - GW_CS_GET_SYSTEMTABLE_DATA_NTF frame format. Example where there are no nodes in the system table.

7.5 Discover nodes

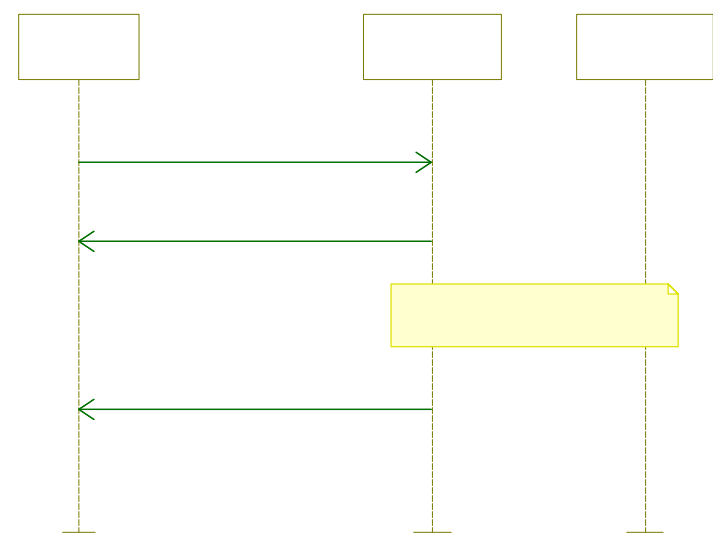



Figure 8 - Discover nodes sequence diagram.

7.5.1 GW_CS_DISCOVER_NODES_REQ

Table 56 - GW_CS_DISCOVER_NODES_REQ frame format.

7.5.1.1 NodeType parameter

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7.5.3.2 RFConnectionError

7.5.3.3 ioKeyErrorExistingNode

7.5.3.4 Removed

7.5.3.5 Open

7.5.3.6 DiscoverStatus

Table 60 - Parameter DiscoverStatus description.

7.6 Remove Nodes command set

7.6.1 GW_CS_REMOVE_NODES_REQ

Table 61 - GW_CS_REMOVE_NODES_REQ frame format.

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7.6.1.1 RemoveNodes

7.6.2 GW_CS_REMOVE_NODES_CFM

Table 62 - GW_CS_REMOVE_NODES_CFM frame format.

7.6.2.1 SceneDeleted

Table 63 - Parameter SceneDeleted description.

7.7 Virgin State command set

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-
-
-

7.7.1 GW_CS_VIRGIN_STATE_REQ

Table 64 - GW_CS_VIRGIN_STATE_REQ frame format.

7.7.2 GW_CS_VIRGIN_STATE_CFM

Table 65 - GW_CS_VIRGIN_STATE_CFM frame format.

7.8 Controller Copy command set

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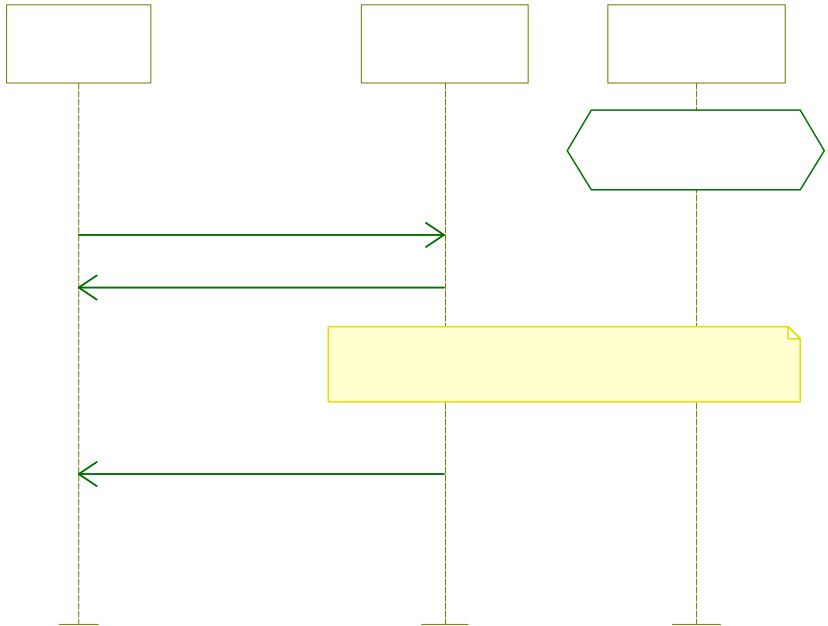


Figure 9 - Sequence diagram -Normal controller copy from remote controller to gateway (ControllerCopyMode = 0).

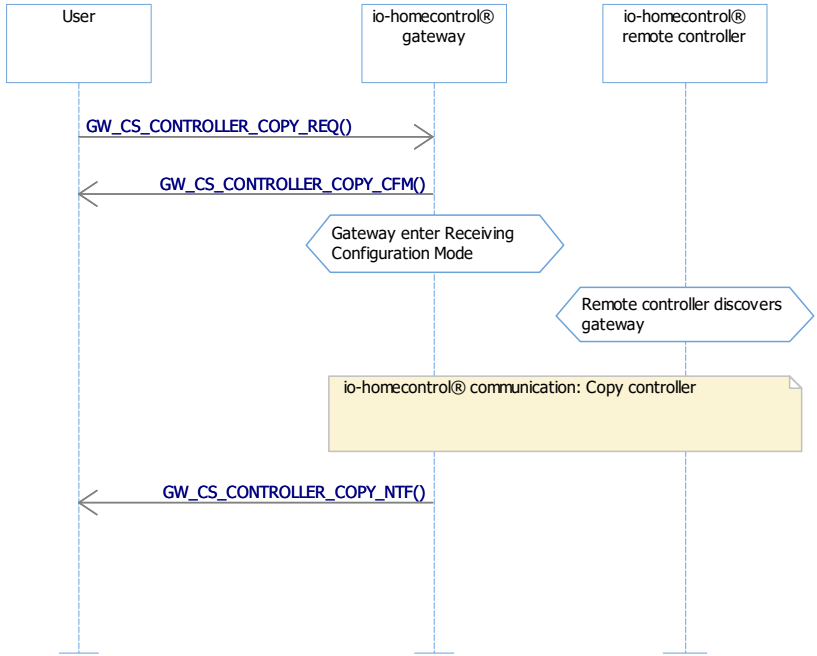


Figure 10 - Sequence diagram -Normal controller copy from gateway to remote controller (ControllerCopyMode = 1).

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7.8.1 GW_CS_CONTROLLER_COPY_REQ

Table 66 - GW_CS_CONTROLLER_COPY_REQ frame format

Table 67 - ControllerCopyMode parameter description.

7.8.2 GW_CS_CONTROLLER_COPY_CFM

Table 68 - GW_CS_CONTROLLER_COPY_CFM frame format.

7.8.3 GW_CS_CONTROLLER_COPY_NTF

Table 69 - GW_CS_CONTROLLER_COPY_NTF frame format.

Table 70 - Parameter ControllerCopyStatus description with Transmitting Configuration Mode

Table 71 - Parameter ControllerCopyStatus description with Receiving Configuration Mode

7.8.4 GW_CS_CONTROLLER_COPY_CANCEL_NTF

Table 72 - GW_CS_CONTROLLER_COPY_CANCEL_NTF frame format.


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Figure 11 - Sequence diagram - Cancel controller copy.

7.9 Generate new system Key

7.9.1 GW_CS_GENERATE_NEW_KEY_REQ

Table 73 - GW_CS_GENERATE_NEW_KEY_REQ frame format.

7.9.2 GW_CS_GENERATE_NEW_KEY_CFM

Table 74 - GW_CS_GENERATE_NEW_KEY_CFM frame format.

7.9.3 GW_CS_GENERATE_NEW_KEY_NTF

Table 75 - GW_CS_GENERATE_NEW_KEY_NTF frame format.

7.9.3.1 ChangeKeyStatus parameter

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Table 76 - Parameter ChangeKeyStatus description.

7.9.3.2 KeyChanged parameter

7.9.3.3 KeyNotChanged parameter

7.10 Receive Key command set

7.10.1 GW_CS_RECEIVE_KEY_REQ

Table 77 - GW_CS_RECEIVE_KEY_REQ frame format.

7.10.2 GW_CS_RECEIVE_KEY_CFM

Table 78 - GW_CS_RECEIVE_KEY_CFM frame format.

7.10.3 GW_CS_RECEIVE_KEY_NTF

Table 79 - GW_CS_RECEIVE_KEY_NTF frame format.

7.10.3.1 ChangeKeyStatus parameter

Table 80 - Parameter ChangeKeyStatus description.

7.10.3.2 KeyChanged parameter

7.10.3.3 KeyNotChanged parameter

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7.11 Update new key in actuators with old key

7.11.1 GW_CS_REPAIR_KEY_REQ

Table 81 - GW_CS_REPAIR_KEY_REQ frame format.

7.11.2 GW_CS_REPAIR_KEY_CFM

Table 82 - GW_CS_REPAIR_KEY_CFM frame format.

7.11.3 GW_CS_REPAIR_KEY_NTF

Table 83 - GW_CS_REPAIR_KEY_NTF frame format.

7.12 Product Generic Configuration (PGC)

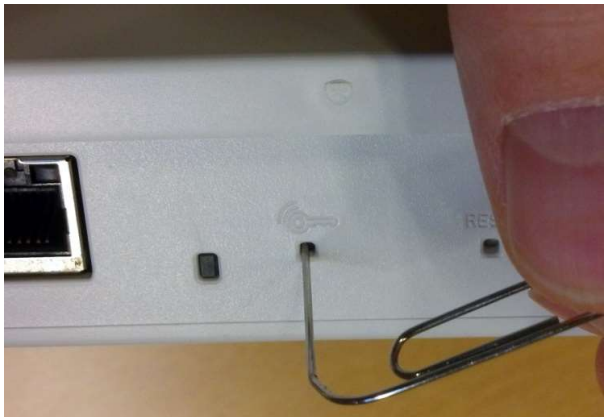


Figure 12 - Straightened paper clip used to enable the PGC button.

7.12.1 Button presses overview

	Get the 2W io-SystemKey

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	Give the 2W io-SystemKey
	Generate a new 2W io-SystemKey

Table 84 - Button presses overview

7.12.2 PGC job descriptions

7.12.2.1 Get the 2W io-SystemKey


- _____
-
-
-
-

7.12.2.2 Give the 2W io-SystemKey

- _____
- ≤
-
- _____
- _____
-
-

7.12.2.3 Generate a new 2W io-SystemKey

- _____
- ≤
- _____
- _____
-
-

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7.12.3 LED feedback overview






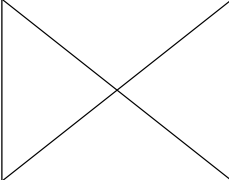


Function	Feedback Function	Feedback SUCCES	Feedback ERROR	Feedback PARTLY SUCCESS
Get the 2W io-SystemKey				
Give the 2W io-SystemKey	 ~			
Generate a new 2W io-SystemKey				

Table 85 - LED feedback overview

7.12.4 GW_CS_PGC_JOB_NTF

Table 86 - GW_CS_PGC_JOB_NTF frame format.

7.12.4.1 PgcJobState

Table 87 - Parameter PgcJobState description

7.12.4.2 PgcJobStatus

Table 88 - Parameter PgcJobStatus description

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7.12.4.3

 PgcJobType

Table 89 - Parameter PgcJobType description

7.13 System table change notification

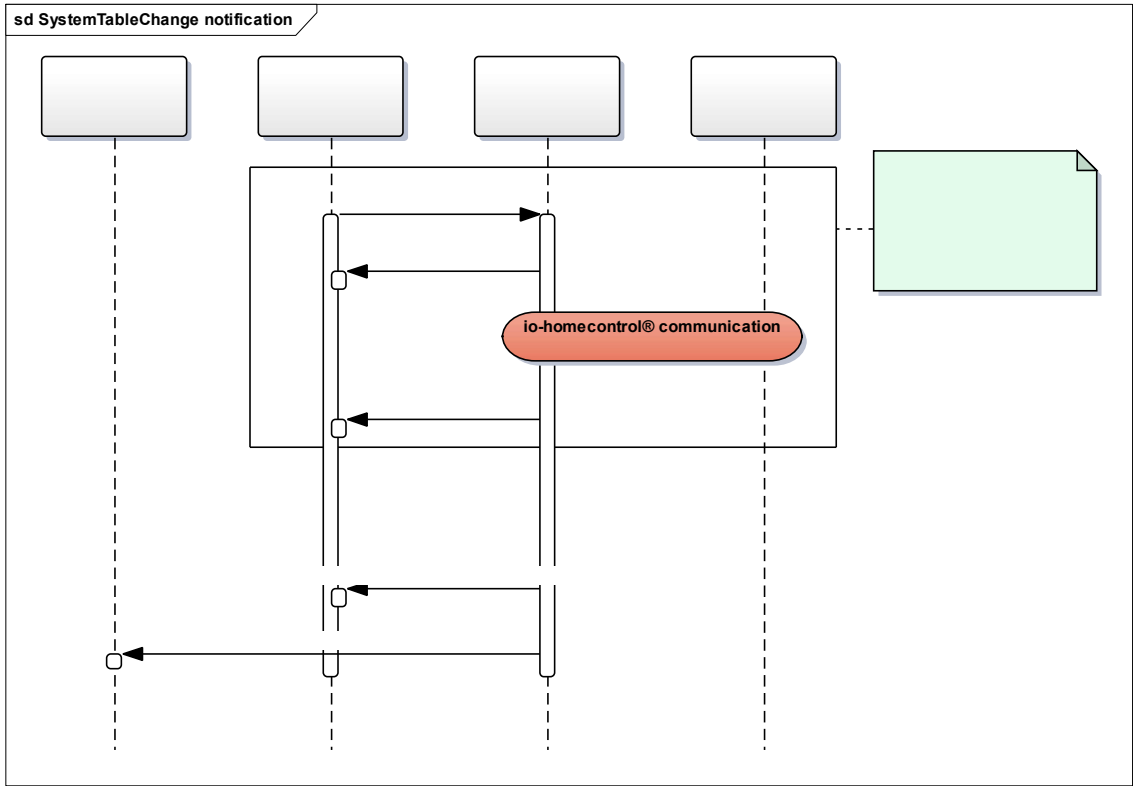



Figure 13 - GW_CS_SYSTEM_TABLE_UPDATE_NTF is sent to all clients.

7.13.1 GW_CS_SYSTEM_TABLE_UPDATE_NTF

Figure 14 - GW_CS_SYSTEM_TABLE_UPDATE_NTF frame format.

7.13.1.1

 AddedNodesBitArray parameter

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7.13.1.2 RemovedNodesBitArray parameter

7.14 Open actuator for configuration

7.14.1 GW_CS_ACTIVATE_CONFIGURATION_MODE_REQ

Table 90 - GW_CS_ACTIVATE_CONFIGURATION_MODE_REQ frame format.

7.14.1.1 ActivateConfiguration parameter

7.14.2 GW_CS_ACTIVATE_CONFIGURATION_MODE_CFM

Table 91 - GW_CS_ACTIVATE_CONFIGURATION_MODE_CFM frame format.

7.14.2.1 Activated parameter

7.14.2.2 NoContact parameter

7.14.2.3 OtherError parameter

7.14.2.4 Status parameter

Table 92 - Status parameter description.

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8 Information Service

8.1 House Status Monitor service

Table 93 – How often information is requested from actuator, depending of its type and state.

8.2 Enable or disable House Status Monitor.

8.2.1 GW_HOUSE_STATUS_MONITOR_ENABLE_REQ

Table 94 - GW_HOUSE_STATUS_MONITOR_ENABLE_REQ frame format.

8.2.2 GW_HOUSE_STATUS_MONITOR_ENABLE_CFM

Table 95 - GW_HOUSE_STATUS_MONITOR_ENABLE_CFM frame format.

8.2.3 GW_HOUSE_STATUS_MONITOR_DISABLE_REQ

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Table 96 - GW_HOUSE_STATUS_MONITOR_DISABLE_REQ frame format.

8.2.4 GW_HOUSE_STATUS_MONITOR_DISABLE_CFM

Table 97 - GW_HOUSE_STATUS_MONITOR_DISABLE_CFM frame format.

8.3 Node information

8.3.1 GW_GET_NODE_INFORMATION_REQ

Table 98 - GW_GET_NODE_INFORMATION_REQ frame format

8.3.1.1 NodeID

8.3.2 GW_GET_NODE_INFORMATION_CFM

Table 99 - GW_GET_NODE_INFORMATION_CFM frame format


8.3.2.1 Status

Table 100 - Status parameter

8.3.2.2 NodeID

8.3.3 GW_GET_NODE_INFORMATION_NTF

Table 101 - GW_GET_NODE_INFORMATION_NTF frame format

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8.3.3.1 NodeID

8.3.3.2 Order

8.3.3.3 Placement

8.3.3.4 Name

8.3.3.5 Velocity

	<i>DEFAULT</i>	
	<i>SILENT</i>	
	<i>FAST</i>	
	-	
	<i>VELOCITY_NOT_AVAILABLE</i>	

Table 102 - Velocity parameter

8.3.3.6 NodeTypeSubType

8.3.3.7 ProductType


8.3.3.8 NodeVariation

	<i>NOT_SET</i>	
	<i>TOPHUNG</i>	
	<i>KIP</i>	
	<i>FLAT_ROOF</i>	
	<i>SKY_LIGHT</i>	

Table 103 - NodeVariation parameter

8.3.3.9 PowerMode

Table 104 - State parameter

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8.3.3.10 SerialNumber

8.3.3.11 State

Table 105 - State parameter

8.3.3.12 CurrentPosition

8.3.3.13 Target

8.3.3.14 FP1CurrentPosition

8.3.3.15 BuildNumber

8.3.3.16 FP2CurrentPosition

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8.3.3.17
FP3CurrentPosition

8.3.3.18
FP4CurrentPosition

8.3.3.19
RemainingTime

8.3.3.20
TimeStamp

8.3.3.21
NbrOfAlias

8.3.3.22
Alias

Table 106 - Frame format of the parameter Alias.

Table 107 - Alias structure.


8.3.3.22.1
Type

8.3.3.22.2
Value

8.3.4
GW_SET_NODE_VARIATION_REQ

Table 108 - GW_SET_NODE_VARIATION_REQ frame format

8.3.4.1
NodeID

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8.3.4.2 NodeVariation

	NOT_SET	
	TOPHUNG	
	KIP	
	FLAT_ROOF	
	SKY_LIGHT	

Table 109 - NodeVariation parameter

8.3.5 GW_SET_NODE_VARIATION_CFM

Table 110 - GW_SET_NODE_VARIATION_CFM frame format

8.3.5.1 Status

Table 111 - Status parameter

8.3.5.2 NodeID

8.3.6 GW_SET_NODE_NAME_REQ

Table 112 - GW_SET_NODE_NAME_REQ frame format

8.3.6.1 NodeID


8.3.6.2 Name

8.3.7 GW_SET_NODE_NAME_CFM

Table 113 - GW_SET_NODE_NAME_CFM frame format

8.3.7.1 Status

Table 114 - Status parameter

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8.3.7.2 NodeID

8.3.8 GW_NODE_INFORMATION_CHANGED_NTF

Table 115 - GW_NODE_INFORMATION_CHANGED_NTF frame format.

8.3.8.1 Parameter description

8.3.9 GW_NODE_STATE_POSITION_CHANGED_NTF

Table 116 - GW_NODE_INFORMATION_CHANGED_NTF frame format.

8.3.10 GW_GET_ALL_NODES_INFORMATION_REQ


Table 117 - GW_GET_ALL_NODES_INFORMATION_REQ frame format.

8.3.11 GW_GET_ALL_NODES_INFORMATION_CFM

Table 118 - GW_GET_ALL_NODES_INFORMATION_CFM

8.3.11.1 Status

Table 119 - Status parameter

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8.3.12 GW_GET_ALL_NODES_INFORMATION_NTF

Table 120 - GW_GET_ALL_NODES_INFORMATION_NTF frame format.

8.3.12.1 Parameter description

8.3.13 GW_GET_ALL_NODES_INFORMATION_FINISHED_NTF

Table 121 - GW_GET_ALL_NODES_INFORMATION_CFM frame format.

8.3.14 GW_SET_NODE_ORDER_AND_PLACEMENT_REQ

Table 122 - GW_SET_NODE_ORDER_AND_PLACEMENT_REQ frame format.

8.3.14.1 NodeID

8.3.14.2 Order

8.3.14.3 Placement


8.3.15 GW_SET_NODE_ORDER_AND_PLACEMENT_CFM

Table 123 - GW_SET_NODE_ORDER_AND_PLACEMENT_CFM frame format

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8.3.15.1 Status

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8.4.3.1 GroupID

8.4.3.2 Order

8.4.3.3 Placment

8.4.3.4 Name

8.4.3.5 Velocity

	<i>DEFAULT</i>	
	<i>SILENT</i>	
	<i>FAST</i>	
	-	

Table 129 – Velocity parameter.

8.4.3.6 NodeVariation

	<i>NOT_SET</i>	
	<i>TOPHUNG</i>	
	<i>KIP</i>	
	<i>FLAT_ROOF</i>	
	<i>SKY_LIGHT</i>	

Table 130 – NodeVariation parameter.


8.4.3.7 GroupType

	<i>USER_GROUP</i>	
	<i>ROOM</i>	
	<i>HOUSE</i>	

Table 131 – GroupType parameter.

8.4.3.8 NbrOfObjects

8.4.3.9 ActuatorBitArray

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8.4.3.10 Revision

8.4.4 GW_NEW_GROUP_REQ

Table 132 – GW_NEW_GROUP_REQ frame format.

8.4.4.1 GroupType

	<i>USER_GROUP</i>	
	<i>ROOM</i>	
	<i>HOUSE</i>	
	<i>ALL-GROUP</i>	

Table 133 – GroupType parameter.

Note:

8.4.4.2 Parameter description for remaining parameters


8.4.5 GW_NEW_GROUP_CFM

Table 134 – GW_NEW_GROUP_CFM frame format.

8.4.5.1 Status

Table 135 – Status parameter description.

8.4.5.2 GroupID

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8.4.6 GW_SET_GROUP_INFORMATION_REQ

Table 136 – GW_SET_GROUP_INFORMATION_REQ frame format.

8.4.6.1 GroupID

8.4.6.2 GroupType

8.4.6.3 Parameter description for remaining parameters

8.4.7 GW_SET_GROUP_INFORMATION_CFM

Table 137 – GW_SET_GROUP_INFORMATION_CFM frame format.

8.4.7.1 Status


Table 138 – Status parameter.

8.4.7.2 GroupID

8.4.8 GW_DELETE_GROUP_REQ

Table 139 – GW_DELETE_GROUP_REQ frame format.

8.4.8.1 GroupID

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8.4.9 GW_DELETE_GROUP_CFM

Table 140 – GW_DELETE_GROUP_CFM frame format.

8.4.9.1 GroupID

8.4.9.2 Status

Table 141 – Status parameter.

8.4.10 GW_GROUP_DELETED_NTF

Table 142 – GW_GROUP_DELETED_NTF frame format.

8.4.11 GW_GET_ALL_GROUPS_INFORMATION_REQ

Table 143 – GW_GET_ALL_GROUPS_INFORMATION_REQ frame format.

8.4.11.1 UseFilter

8.4.11.2 GroupType

	USER_GROUP	
	ROOM	
	HOUSE	


Table 144 – GroupType parameter.

8.4.12 GW_GET_ALL_GROUPS_INFORMATION_CFM

Table 145 – GW_GET_ALL_GROUPS_INFORMATION_CFM frame format.

8.4.12.1 Status

Table 146 – Status parameter description

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8.4.13 GW_GET_ALL_GROUPS_INFORMATION_NTF

Table 147 - GW_GET_ALL_GROUPS_INFORMATION_NTF frame format.

8.4.13.1 Parameter description

8.4.14 GW_GET_ALL_GROUPS_INFORMATION_FINISHED_NTF

Table 148 - GW_GET_ALL_GROUPS_INFORMATION_FINISHED_NTF frame format.

8.4.15 GW_GROUP_INFORMATION_CHANGED_NTF


Table 149 - GW_GROUP_INFORMATION_CHANGED_NTF frame format when a group is deleted.

Table 150 - GW_GROUP_INFORMATION_CHANGED_NTF frame format when group information has changed.

8.4.15.1 ChangeType

Table 151 - ChangeType value description

8.4.15.2 Parameter description

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9 Activation Log

9.1.1 GW_GET_ACTIVATION_LOG_HEADER_REQ

Table 152 - GW_GET_ACTIVATION_LOG_HEADER_REQ frame format.

9.1.2 GW_GET_ACTIVATION_LOG_HEADER_CFM

Table 153 - GW_GET_ACTIVATION_LOG_HEADER_CFM frame format.

9.1.2.1 MaxLineCount parameter

9.1.2.2 LineCount parameter

9.1.3 GW_CLEAR_ACTIVATION_LOG_REQ

Table 154 - GW_CLEAR_ACTIVATION_LOG_REQ frame format.

9.1.4 GW_CLEAR_ACTIVATION_LOG_CFM

Table 155 - GW_CLEAR_ACTIVATION_LOG_CFM frame format.

9.1.5 GW_GET_ACTIVATION_LOG_LINE_REQ

Table 156 - GW_GET_ACTIVATION_LOG_LINE_REQ frame format.


9.1.5.1 Line parameter

9.1.6 GW_GET_ACTIVATION_LOG_LINE_CFM

Table 157 - GW_GET_ACTIVATION_LOG_LINE_CFM frame format.

9.1.6.1 TimeStamp parameter

9.1.6.2 Parameter Data 5 to 17

 VELUX A/S Accessories		

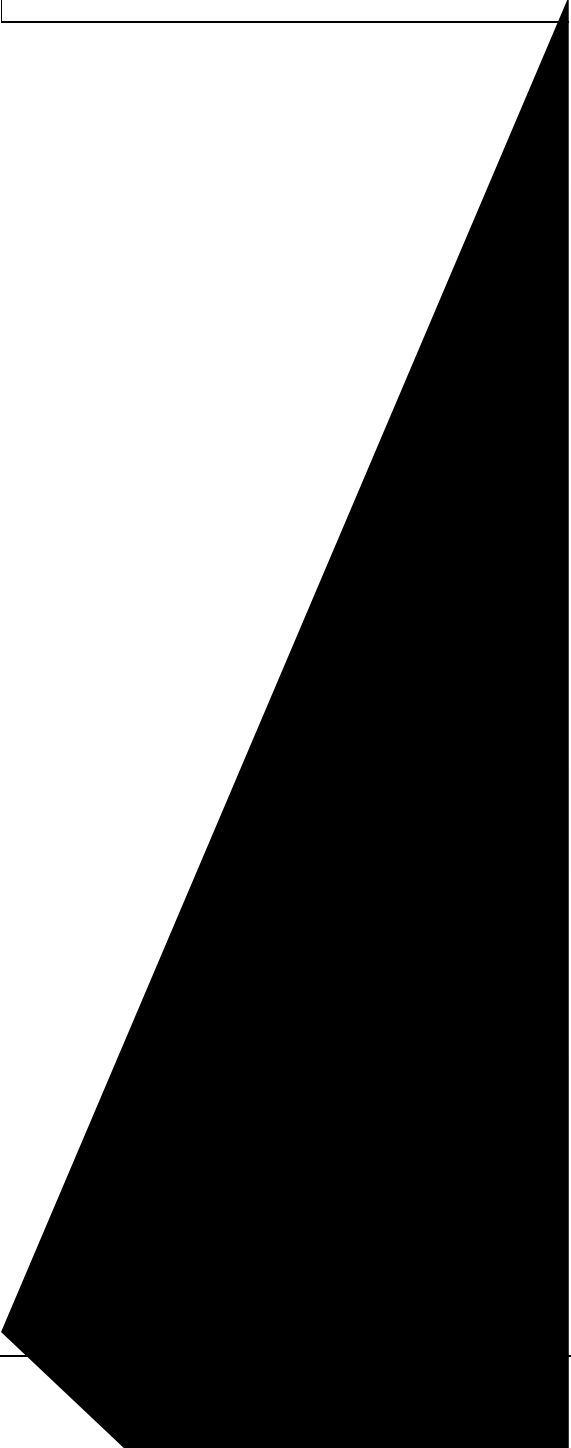
9.1.7 GW_GET_MULTIPLE_ACTIVATION_LOG_LINES_REQ

Table 158 - GW_GET_MULTIPLE_ACTIVATION_LOG_LINES_REQ frame format.

9.1.7.1 Timestamp parameter

9.1.8 GW_GET_MULTIPLE_ACTIVATION_LOG_LINES_MTF

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10 Command Handler

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10.1 Send activating command

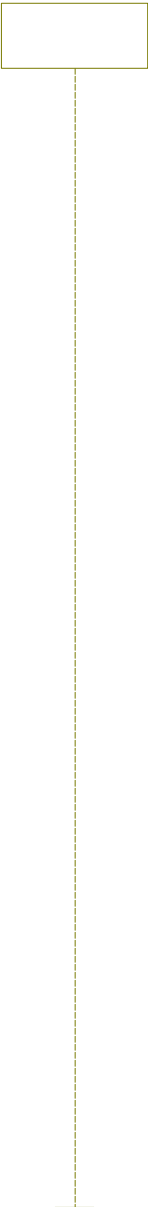


Figure 15 - Sequence diagram, Send activating command.

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10.1.1 GW_COMMAND_SEND_REQ

Table 163 - GW_COMMAND_SEND_REQ frame format.

10.1.1.1 SessionID parameter

10.1.1.2 CommandOriginator parameter

Table 164 - CommandOriginator parameter description

10.1.1.3 PriorityLevel parameter

⑩

is level can be used in combination with a lock
er levels of priority, allowing an exclusive
ors control. e.g. two children different

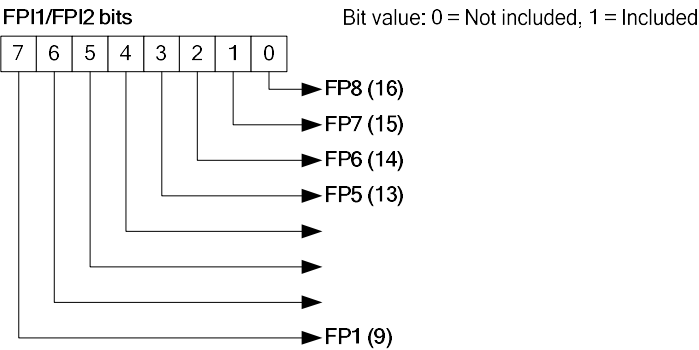
s level can be used in ~~with~~ with a lock
 er levels of priority ~~giving~~ giving an exclusive
 ors control. e.g. ~~children~~ children different

Sex and Class.

Interactive part

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10.1.1.5 FPI1 and FPI2 parameters




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Table 167 - PriorityLevelLock parameter

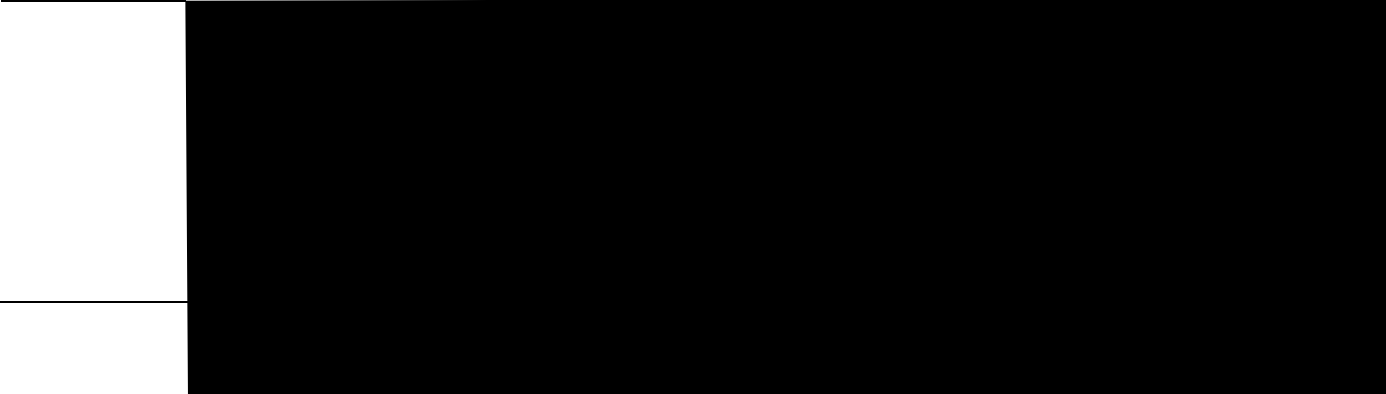
10.1.1.10 **PLI_0_3 and PLI_4_7 parameters**
Priority level information

Table 168 - Priority Level Information numbers.

Priority Level Lock Information Bytes

Table 169 - Priority level lock bytes.

10.1.1.11 **LockTime parameter**




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Table 171 - GW_COMMAND_SEND_CFM frame format.

10.1.2.1 Status parameter

Table 172 - Status parameter description.

10.1.2.2 SessionID parameter

10.1.3 GW_COMMAND_RUN_STATUS_NTF


Table 173 - GW_COMMAND_RUN_STATUS_NTF frame format.

10.1.3.1 SessionID parameter

10.1.3.2 StatusID parameter

Table 174 - StatusID parameter description.

10.1.3.3 Index parameter

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10.1.3.4 NodeParameter parameter

	MP	
	FP1	
	FP2	
	FP3	
	FP4	
	FP5	
	FP6	
	FP7	
	FP8	
	FP9	
	FP10	
	FP11	
	FP12	
	FP13	
	FP14	
	FP15	
	FP16	
	NOT_USED	

Table 175 - NodeParameter description.

10.1.3.5 ParameterValue parameter


10.1.3.6 RunStatus parameter

	EXECUTION_COMPLETED	
	EXECUTION_FAILED	
	EXECUTION_ACTIVE	

Table 176 - RunStatus parameter description.


10.1.3.7 StatusReply parameter

	UNKNOWN_STATUS_REPLY	
	COMMAND_COMPLETED_OK	
	NO_CONTACT	
	MANUALLY_OPERATED	
	BLOCKED	
	WRONG_SYSTEMKEY	
	PRIORITY_LEVEL_LOCKED	
	REACHED_WRONG_POSITION	
	ERROR_DURING_EXECUTION	
	NO_EXECUTION	
	CALIBRATING	
	POWER_CONSUMPTION_TOO_HIGH	

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	<i>POWER_CONSUMPTION_TOO_LOW</i>	
	<i>LOCK_POSITION_OPEN</i>	
	<i>MOTION_TIME_TOO_LONG__</i> <i>COMMUNICATION_ENDED</i>	
	<i>THERMAL_PROTECTION</i>	
	<i>PRODUCT_NOT_OPERATIONAL</i>	
	<i>FILTER_MAINTENANCE_NEEDED</i>	
	<i>BATTERY_LEVEL</i>	
	<i>TARGET_MODIFIED</i>	
	<i>MODE_NOT_IMPLEMENTED</i>	
	<i>COMMAND_INCOMPATIBLE_TO_MOVEMENT</i>	
	<i>USER_ACTION</i>	
	<i>DEAD_BOLT_ERROR</i>	
	<i>AUTOMATIC_CYCLE_ENGAGED</i>	
	<i>WRONG_LOAD_CONNECTED</i>	
	<i>COLOUR_NOT_REACHABLE</i>	
	<i>TARGET_NOT_REACHABLE</i>	
	<i>BAD_INDEX_RECEIVED</i>	
	<i>COMMAND_OVERRULED</i>	
	<i>NODE_WAITING_FOR_POWER</i>	
	<i>INFORMATION_CODE</i>	
	<i>PARAMETER_LIMITED</i>	
	<i>LIMITATION_BY_LOCAL_USER</i>	
	<i>LIMITATION_BY_USER</i>	
	<i>LIMITATION_BY_RAIN</i>	
	<i>LIMITATION_BY_TIMER</i>	
	<i>LIMITATION_BY_UPS</i>	
	<i>LIMITATION_BY_UNKNOWN_DEVICE</i>	
	<i>LIMITATION_BY_SAAC</i>	
	<i>LIMITATION_BY_WIND</i>	
	<i>LIMITATION_BY_MYSELF</i>	
	<i>LIMITATION_BY_AUTOMATIC_CYCLE</i>	
	<i>LIMITATION_BY_EMERGENCY</i>	

Table 177 - StatusReply parameter description.

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10.1.3.8 InformationCode parameter

10.1.4 GW_COMMAND_REMAINING_TIME_NTF

Table 178 - GW_COMMAND_REMAINING_TIME_NTF frame format.

10.1.4.1 SessionID parameter

10.1.4.2 Index parameter

10.1.4.3 NodeParameter parameter

10.1.4.4 Seconds parameter

10.1.5 GW_SESSION_FINISHED_NTF

Table 179 - GW_SESSION_FINISHED_NTF frame format.

10.1.5.1 SessionID parameter

10.1.6 GW_COMMAND_SEND_REQ frame examples



Table 182 - GW_COMMAND_SEND_REQ example 3.

[illegible]

Table 183 - GW_COMMAND_SEND_REQ example 4.

[illegible]

Table 184 - GW_COMMAND_SEND_REQ example 5.

10.2 STOP

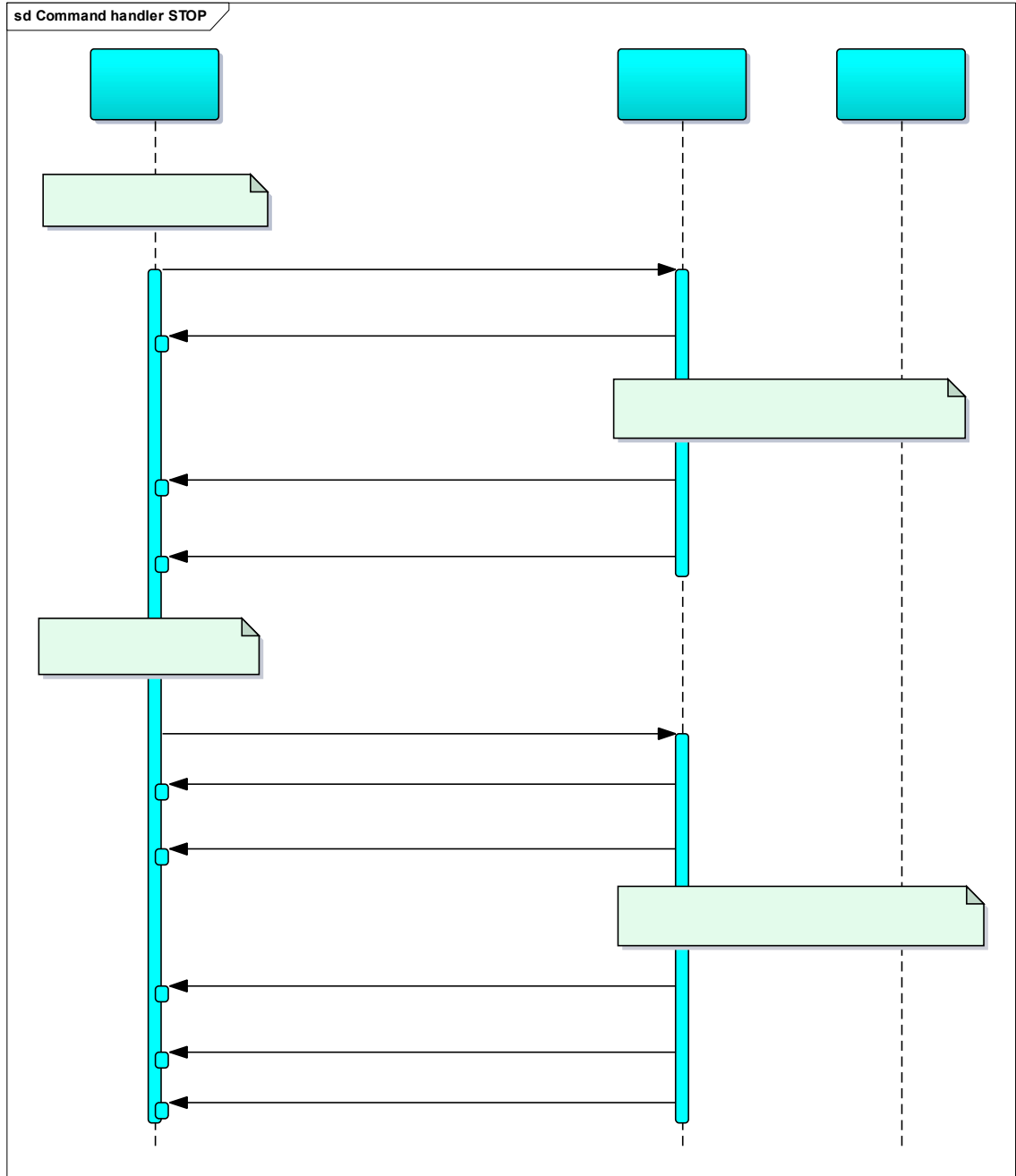


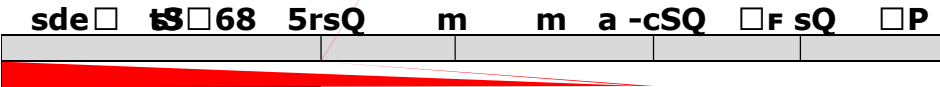
Figure 17 - Sequence diagram, Stop activated node.


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10.3 Status request

Figure 18 - Sequence diagram, Status request

10.3.1 GW_STATUS_REQUEST_REQ



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Table 186 - StatusType parameter.

10.3.1.4.1 Target position

10.3.1.4.2 Current position

10.3.1.4.3 Remaining time

10.3.1.4.4 Main info.

10.3.1.5 FPI1 and FPI2 parameters

10.3.2 GW_STATUS_REQUEST_CFM

Table 187 - GW_STATUS_REQUEST_CFM frame format.

10.3.2.1 Status parameter

10.3.2.2 SessionID parameter

10.3.3 GW_STATUS_REQUEST_NTF

Table 188 - GW_STATUS_REQUEST_NTF frame format, when StatusType = "Target Position" or "Current Position" or "Remaining Time".


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Table 189 - GW_STATUS_REQUEST_NTF frame format, when StatusType = "Main Info".

10.3.3.1 SessionID parameter

10.3.3.2 bStatusID parameter

Table 190 - StatusID parameter description.

10.3.3.3 NodeIndex parameter

10.3.3.4 RunStatus parameter

10.3.3.5 StatusReply parameter

10.3.3.6 StatusType parameter

10.3.3.7 StatusCount parameter

10.3.3.8 ParameterData parameter


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Table 191 - ParameterData entry format.

10.3.3.8.1 NodeParameter parameter

10.3.3.8.2 ParameterValue parameter

10.3.3.9 TargetPosition parameter


10.3.3.10 CurrentPosition parameter

10.3.3.11 RemainingTime parameter

10.3.3.12 LastMasterExecutionAddress parameter

10.3.3.13 LastCommandOriginator parameter

10.3.4 GW_SESSION_FINISHED_NTF

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10.4.1.5 WinkTime parameter

Table 194 - bWinkTime parameter description.

10.4.1.6 IndexArrayCount parameter

10.4.1.7 IndexArray parameter

10.4.2 GW_WINK_SEND_CFM

Table 195 - GW_WINK_SEND_CFM frame format.

10.4.2.1 Status parameter

Table 196 - Status parameter description.

10.4.3 GW_COMMAND_RUN_STATUS_NTF

10.4.4 GW_WINK_SEND_NTF

Table 197 - GW_WINK_SEND_NTF frame format.

10.5 Limitation

10.5.1 Set limitation

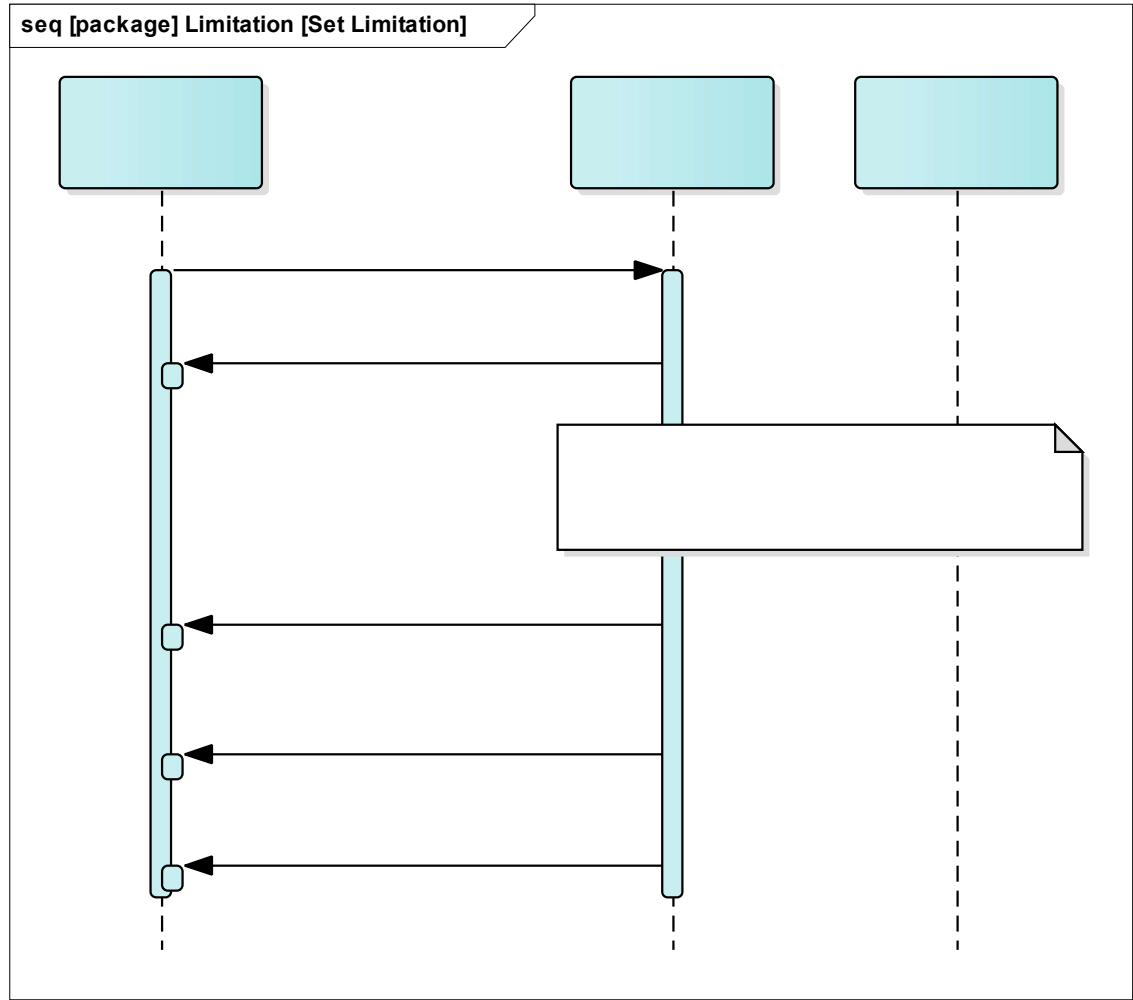


Figure 20 - Sequence diagram, Set limitation. Note: GW_LIMITATION_STATUS_NTF is only send if the limitation is set successfully.

10.5.2 GW_SET_LIMITATION_REQ

Table 198 - GW_SET_LIMITATION_REQ frame format.

10.5.2.1 SessionID parameter

10.5.2.2 CommandOriginator parameter

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10.5.4.4 MinValue parameter

10.5.4.5 MaxValue parameter

10.5.4.6 LimitationOriginator parameter

10.5.4.7 LimitationTime parameter

10.5.5 GW_COMMAND_RUN_STATUS_NTF

10.5.6 GW_SESSION_FINISHED_NTF

10.5.7 Get limitation

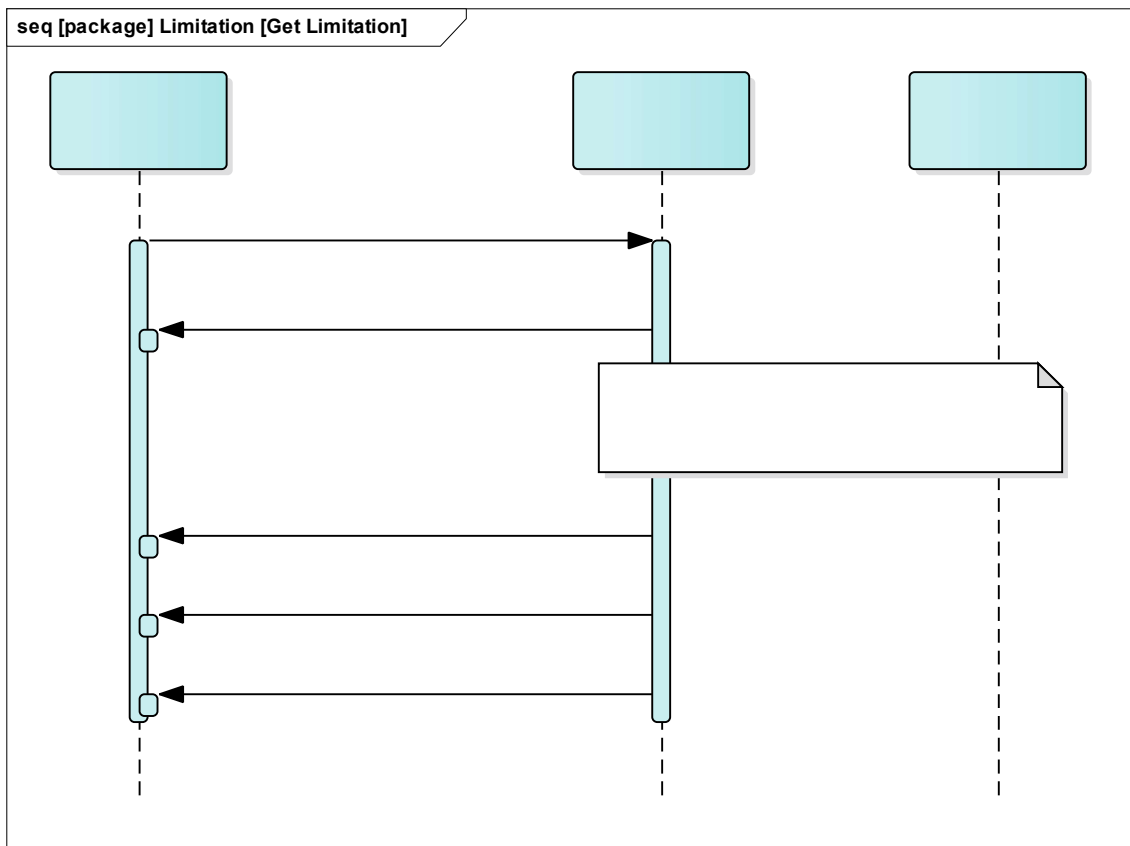



Figure 21 - Sequence diagram , Get limitation.

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10.5.8 **GWE_GET_FET_LIMITATION_STATUS_REQ** MI ☐

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10.5.12 GW_SESSION_FINISHED_NTF

10.6 Mode

10.6.1 GW_MODE_SEND_REQ

Table 208 - GW_MODE_SEND_REQ frame format.

SessionID, COmmandOriginator, PriorityLevel, IndexArrayCount, IndexArray, PriorityLevelLock, PL-0_3, PL_4_7 LockTime

10.6.1.1 ModeNumber parameter

10.6.1.2 ModeParameter parameter

10.6.2 GW_MODE_SEND_CFM

Table 209 - GW_MODE_SEND_CFM frame format.

10.6.2.1 Status parameter

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Table 210 - Status parameter description.

10.6.2.2 SessionID parameter

10.6.3 GW_COMMAND_RUN_STATUS_NTF

10.6.4 GW_COMMAND_REMAINING_TIME_NTF

10.6.5 GW_SESSION_FINISHED_NTF

10.7 Product Group Activation

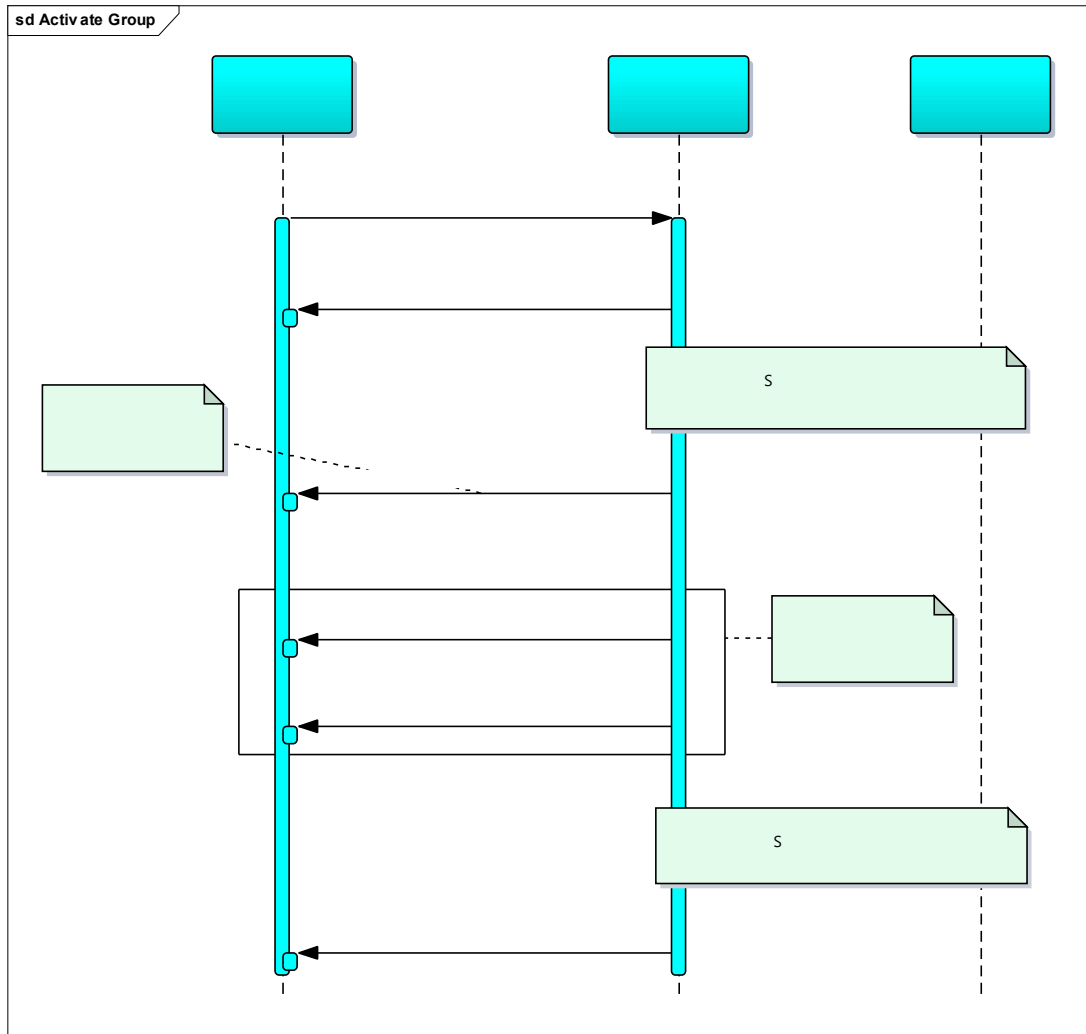



Figure 22 – Activate group sequence diagram.



Figure 23 – Activate group with wrong ID sequence diagram.

10.7.1 GW_ACTIVATE_PRODUCTGROUP_REQ

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Table 211 - GW_ACTIVATE_PRODUCTGROUP_REQ frame format.

10.7.1.1 SessionID parameter


10.7.1.2 CommandOriginator parameter

10.7.1.3 PriorityLevel parameter

10.7.1.4 ProductGroupID parameter

10.7.1.5 ParameterID parameter

10.7.1.6 Position parameter

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10.7.1.7 Velocity parameter

	<i>DEFAULT</i>	
	<i>SILENT</i>	
	<i>FAST</i>	
	-	

Table 212 - Velocity parameter description.

10.7.1.8 PriorityLevelLock parameter

Table 213 - PriorityLevelLock parameter

10.7.1.9 PL_0_3 and PL_4_7 parameters

Priority level information

Table 214 - Priority Level Information numbers.

Priority Level Lock Information Bytes

Table 215 - Priority level lock bytes.

10.7.1.10 LockTime parameter


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Table 216 - LockTime parameter description.

10.7.2 GW_ACTIVATE_PRODUCTGROUP_CFM

Table 217 - GW_ACTIVATE_PRODUCTGROUP_CFM frame format.

10.7.2.1 SessionID parameter

10.7.2.2 Status parameter

Table 218 - Status parameter description.

11 Scenes

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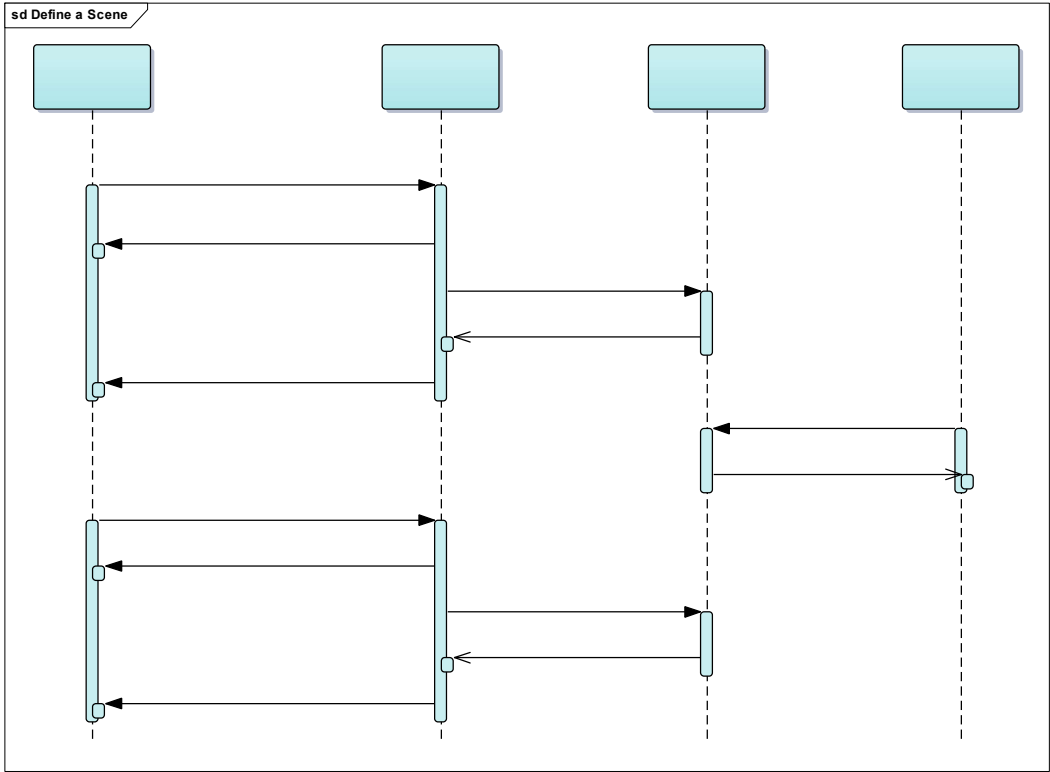


Figure 24 - Sequence diagram show how a scene is defined.

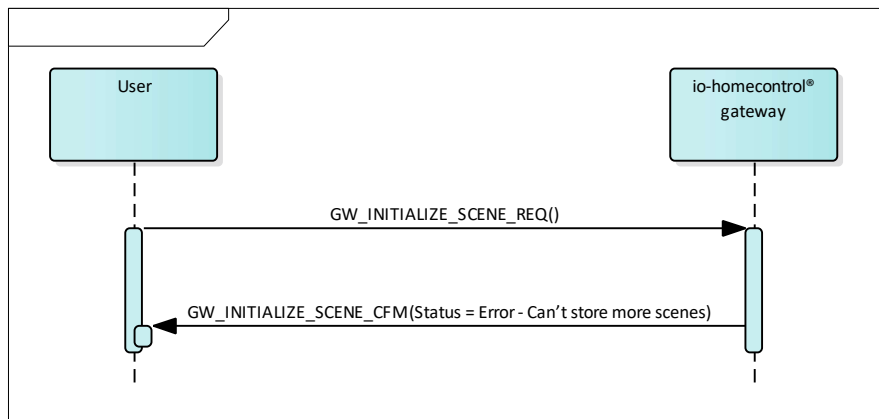


Figure 25 - Sequence diagram show when out of memory for scene slot.

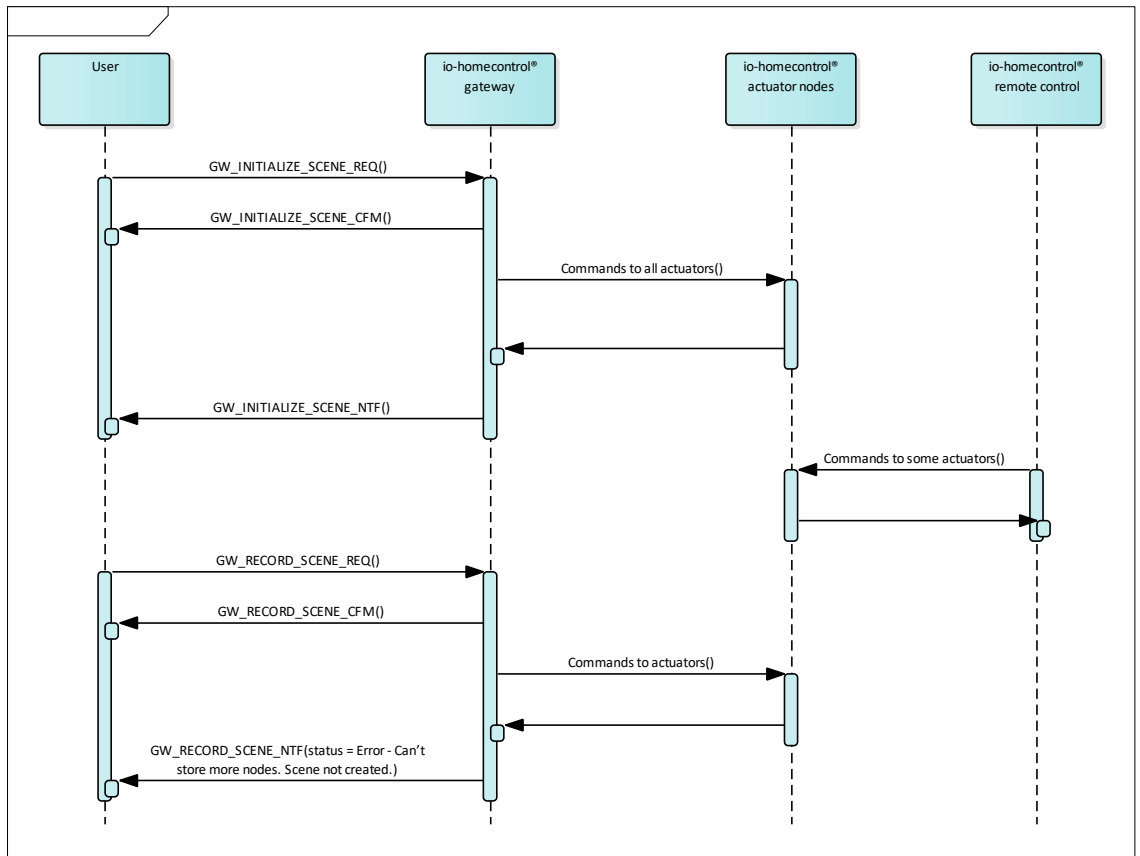



Figure 26 - Sequence diagram show when out of memory for node slot.

11.1 Define a new scene

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11.1.1 Prepare Gateway and io-homecontrol® nodes

11.1.2 GW_INITIALIZE_SCENE_REQ

Table 219 - GW_INITIALIZE_SCENE_REQ frame format.

11.1.3 GW_INITIALIZE_SCENE_CFM

Table 220 - GW_INITIALIZE_SCENE_CFM frame format.

11.1.3.1 Status

Table 221 - Status parameter description.

11.1.4 GW_INITIALIZE_SCENE_NTF

Table 222 - GW_INITIALIZE_SCENE_NTF frame format.

11.1.4.1 Status

Table 223 - Status parameter description.

11.1.4.2 NodeState

11.2 Initialize scene Cancel command set

11.2.1 GW_INITIALIZE_SCENE_CANCEL_REQ


Table 224 - GW_INITIALIZE_SCENE_CANCEL_REQ frame format.

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11.4.3.1 Status

Table 231 – Status parameter description.

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11.5.2.1 Status

Table 234 - Status parameter description.

11.5.2.2 SceneID

11.6 Rename a scene

11.6.1 GW_RENAME_SCENE_REQ

Table 235 - GW_RENAME_SCENE_REQ frame format.

11.6.1.1 SceneID parameter

11.6.1.2 SceneName parameter

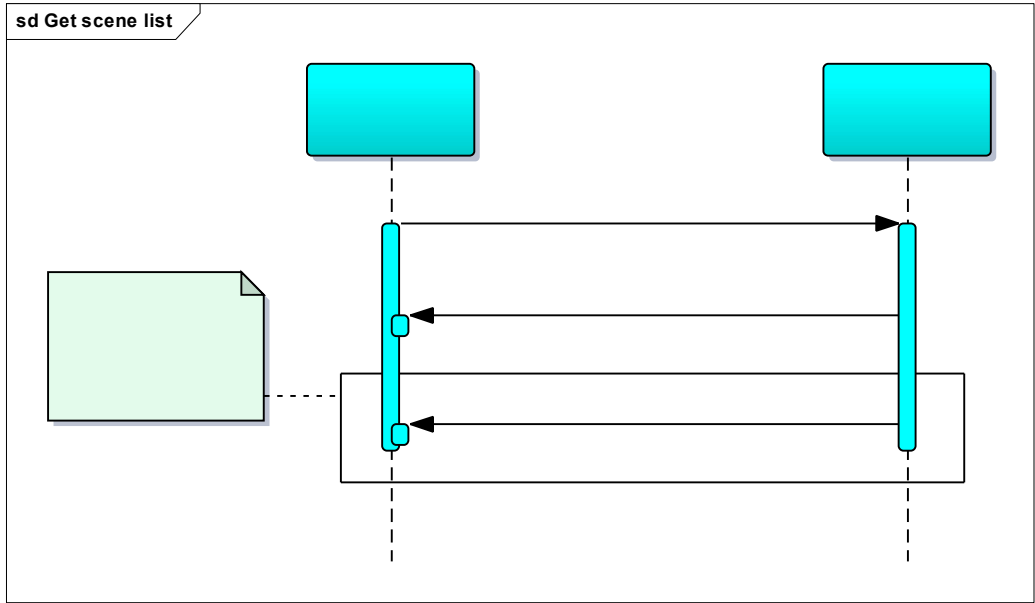
Table 236 - GW_RENAME_SCENE_CFM frame format.

11.6.1.3 Status

Table 237 - Status parameter description.

11.6.1.4 SceneID

11.7 Get a list of scenes



11.7.1 GW_GET_SCENE_LIST_REQ

Table 238 - GW_GET_SCENE_LIST_REQ frame format.

11.7.2 GW_GET_SCENE_LIST_CFM

Table 239 - GW_GET_SCENE_LIST_CFM frame format.

11.7.2.1 TotalNumberOfObjects

11.7.3 GW_GET_SCENE_LIST_NTF

Table 240 - GW_GET_SCENE_LIST_NTF frame format. Note n ∈ {65; 130; 195}.

Table 241 - GW_GET_SCENE_LIST_NTF frame format for empty scene list.

11.7.3.1 NumberOfObject parameter

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11.7.3.2 SceneListObjects parameter

Table 242 - Frame format of the parameter SceneListObjects.

Table 243 - Scene list object structure.

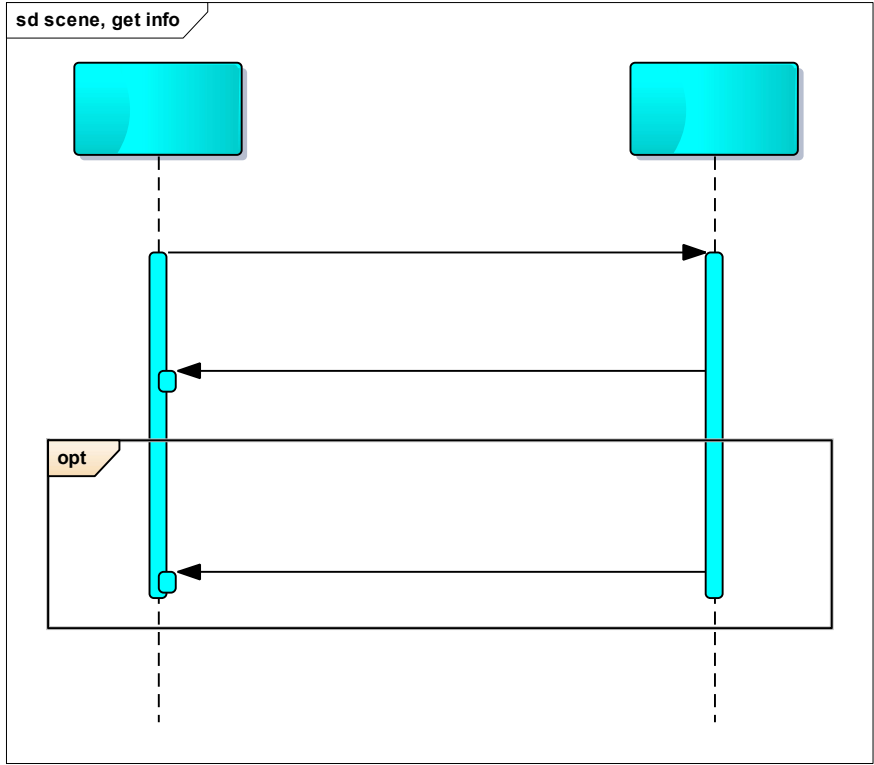
11.7.3.3 SceneID parameter


11.7.3.4 SceneName parameter

11.7.3.5 RemainingNumberOfObject parameter

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11.8 Get information of one scene



 VELUX A/S Accessories		

11.8.1 GW_GET_SCENE_INFOAMATION_REQ

Table 244 - GW_GET_SCENE_INFOAMATION_REQ frame format.

11.8.1.1 SceneID parameter

11.8.2 GW_GET_SCENE_INFORMATION_CFM

Table 245 - GW_GET_SCENE_INFOMRATION_CFM frame format.

11.8.2.1 Status

Table 246 - Status parameter description.

11.8.2.2 SceneID

11.8.3 GW_GET_SCENE_INFORMATION_NTF

Table 247 - GW_GET_SCENE_INFORMATION_NTF frame format. Note $n \in \{70; 74; 78; \dots; 246\}$.

11.8.3.1 NumberOfNodesObjects

11.8.3.2 NodeObjects

Table 248 - One NodeObject instance.

11.8.3.3 RemaningNodeObjects

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11.9 Scene information change notification

11.9.1 GW_SCENE_INFORMATION_CHANGED_NTF

Table 249 - GW_SCENE_INFORMATION_CHANGED_NTF frame format.

11.9.1.1 ChangeType

11.10 Activate a scene

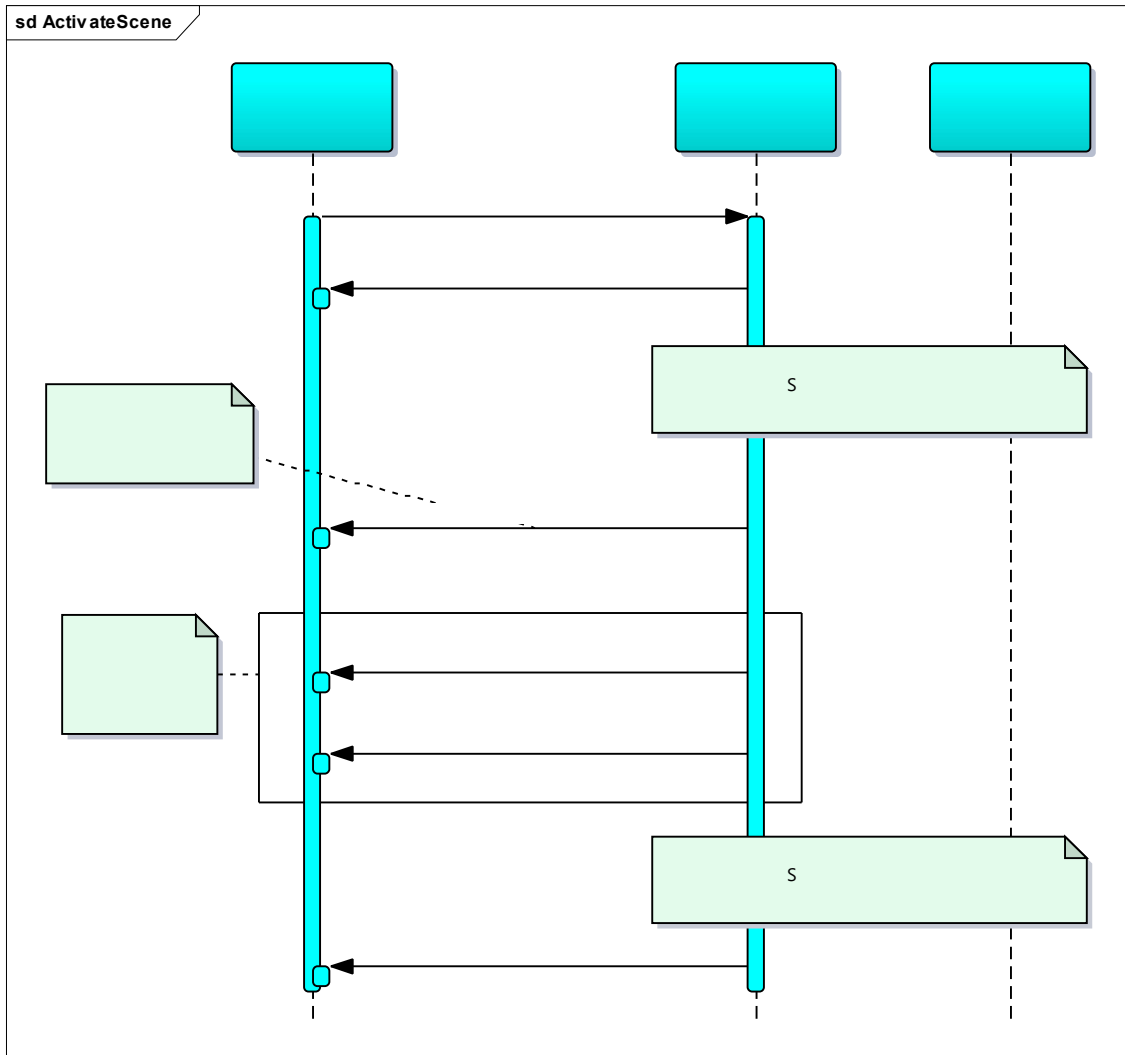


Figure 28 – Activate scene sequence diagram.

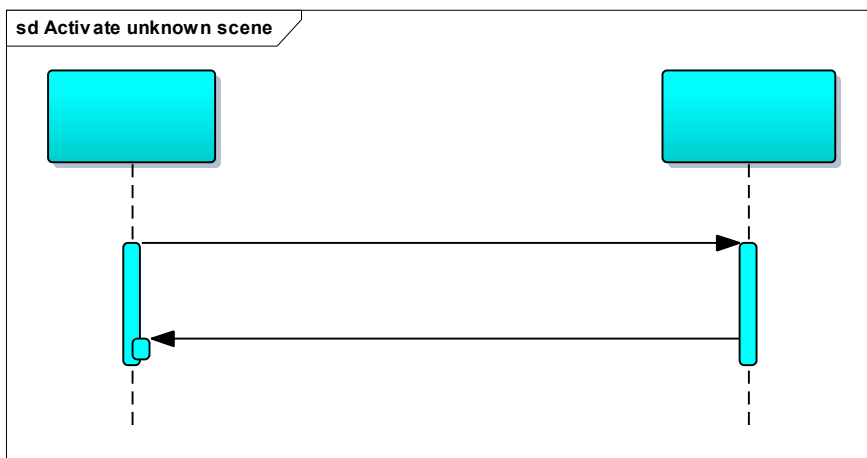



Figure 29 – Activate unknown scene sequence diagram.

 VELUX A/S Accessories		

11.10.1 GW_ACTIVATE_SCENE_REQ

Table 251 - GW_ACTIVATE_SCENE_REQ frame format.

11.10.1.1 SessionID parameter

11.10.1.2 CommandOriginator parameter

11.10.1.3 PriorityLevel parameter

11.10.1.4 SceneID parameter

11.10.1.5 Velocity parameter

	<i>DEFAULT</i>	
	<i>SILENT</i>	
	<i>FAST</i>	
	-	

Table 252 - Velocity parameter description.


11.10.2 GW_ACTIVATE_SCENE_CFM

Table 253 - GW_ACTIVATE_SCENE_CFM frame format.

11.10.2.1 Status

Table 254 - Status parameter description.

11.10.2.2 SessionID

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11.10.3 GW_COMMAND_RUN_STATUS_NTF

11.10.4 GW_COMMAND_REMAINING_TIME_NTF

11.10.5 GW_SESSION_FINISHED_NTF

11.11 Stop an activated scene

11.11.1 GW_STOP_SCENE_REQ

Table 255 - GW_STOP_SCENE_REQ frame format.

11.11.1.1 SessionID parameter

11.11.1.2 CommandOriginator parameter

11.11.1.3 PriorityLevel parameter

11.11.1.4 SceneID parameter

11.11.2 GW_STOP_SCENE_CFM

Table 256 - GW_STOP_SCENE_CFM frame format.

11.11.2.1 Status

Table 257 - Status parameter description.

11.11.2.2 SessionID

11.11.3 GW_SESSION_FINISHED_NTF

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12 Contact input interface

12.1.1 GW_SET_CONTACT_INPUT_LINK_REQ

Table 258 - GW_SET_CONTACT_INPUT_LINK_REQ frame format for empty scene list.

12.1.1.1 ContactInputID parameter

12.1.1.2 ContactInputAssignment parameter

Table 259 - ContactInputAssignment value description.

12.1.1.3 ActionID parameter

12.1.1.4 ParameterID parameter

12.1.1.5 Position parameter

12.1.1.6 Velocity parameter


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Table 260 - Velocity parameter description.

12.1.1.7 CommandOriginator parameter

Table 261 - CommandOriginator parameter description


12.1.1.8 PriorityLevel parameter

12.1.1.9 LockPriorityLevel parameter

Table 262 – LockPriorityLevel parameter description.

12.1.1.10 PLI_3, PLI_4, PLI_5, PLI_6 and PLI_7 parameters

Table 263 - PLI_3, PLI_4, PLI_5, PLI_6 and PLI_7 parameter value description.

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12.1.1.11 SuccessOutputID parameter

Table 264 – SuccessOutputID parameter value description.

12.1.1.12 ErrorOutputID parameter

Table 265 - ErrorOutputID parameter value description.

12.1.2 GW_SET_CONTACT_INPUT_LINK_CFM

Table 266 - GW_SET_CONTACT_INPUT_LINK_CFM frame format for empty scene list.

12.1.2.1 Status parameter

Table 267 - Status parameter

12.1.3 GW_REMOVE_CONTACT_INPUT_LINK_REQ

Table 268 - GW_REMOVE_CONTACT_INPUT_LINK_REQ frame format for empty scene list.

12.1.4 GW_REMOVE_CONTACT_INPUT_LINK_CFM


Table 269 - GW_REMOVE_CONTACT_INPUT_LINK_CFM frame format.

12.1.4.1 Status parameter

Table 270 - Status parameter

12.1.5 GW_GET_CONTACT_INPUT_LINK_LIST_REQ

Table 271 - GW_GET_CONTACT_INPUT_LINK_LIST_REQ frame format.

 VELUX A/S Accessories		

13 Appendix 1: Standard Parameter definition

Relative			
Percent+-			
Target			
Current			
Default			
Ignore			

Table 275 - Access Methods.

13.1 Relative

13.2 Percent+-


13.3 Target

13.4 Current











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13.5 Default

13.6 Ignore

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14 Appendix 2: List of actuator types and their use of Main Parameter and Functional Parameters

					Generic Function: MP Speed	Generic Function: Tilting Speed	Generic Function: Tilting
 1		Interior Venetian Blind					
 2		Roller Shutter					
 2.1			Adjustable slats rolling shutter				
2.2			With projection				
 3		Vertical Exterior Awning					
 4		Window opener					
 4.1			Window opener with integrated rain sensor				
 5		Garage door opener					
●/○ 5.58							
 6		Light					
●/○ 6.58			Light only supporting on/off				
 7		Gate opener					
●/○ 7.58							
 9		Door lock					
9.1		Window lock					

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











 10		Vertical Interior Blinds					
 13		Dual Roller Shutter					
 15		On/Off switch					
 16		Horizontal awning					
 17		Exterior Venetian blind					
 18		Louver blind					
 19		Curtain track					
 20		Ventilation point					
 20.1			Air inlet				
 20.2			Air transfer				
 20.3			Air outlet				
 21		Exterior heating					
 21.58							
 24		Swinging Shutters					
24.1			Swinging Shutter with independent handling of the leaves				

Table 276 - Actuator list.

[illegible]

[illegible]

[illegible]

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Table 278 - List of KLF 200 API commands.