

COFIQ Service Portfolio Management

## Example-Lights-API - Service: apiV1

# Services

# apiV1

<status: Planned>

functionality:

quality of service:

conditions:

## Operations

<i>code</i>	<i>request message</i>	<i>response message</i>	<i>fault message</i>	<i>description</i>
<b>DeleteLight</b>	<b>DeleteLightRequestV1</b>	<b>SuccesIndicatorV1</b>	-	-
<b>GetAllLights</b>	<b>GetAllLightsRequestV1</b>	<b>GetAllLightsResponseV1</b>	-	Gets a list of all lights in the system. A unique id is returned together with the name of the manufacturer.
<b>GetLightAttributesAndState</b>	<b>GetLightAttributesAndStateRequestV1</b>	<b>GetLightAttributesAndStateResponseV1</b>	-	Gets the attributes and state of a given light.
<b>GetNewLights</b>	<b>GetNewLightsRequestV1</b>	<b>GetNewLightsResponseV1</b>	-	Gets a list of lights that were discovered the last time a search for new lights was performed. The list of new lights is always deleted when a new search is started.

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**SearchNewLights****SearchNewLightsRequestV1****SuccesIndicatorV1**

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Starts a search for new lights. The bridge will search for one minute and will add a maximum of 15 new lights, the command needs to be send again after the search has completed. If a search is already active, it will be aborted and a new search will start. When the search has finished, new lights will be available using the get new lights command. In addition, the new lights will now be available by calling get all lights or by calling get group attributes on group 0. Group 0 is a special group that cannot be deleted and will always contain all lights known by the bridge.

<b>SetLightAttributes</b>	<b>SetLightAttributesRequestV1</b>	<b>SetLightAttributesResponseV1</b>	-	Used to rename lights. A light can have its name changed when in any state, including when it is reachable or not. If the name is already taken a space and number will be appended by the bridge e.g. 'Bedroom Light 1'. A response to a successful request contains confirmation of the arguments passed. If the new value is too large to return in the response due to internal memory constraints then a value of 'Updated' is returned.
<b>SetLightState</b>	<b>SetLightStateRequestV1</b>	<b>SetLightStateResponseV1</b>	-	Allows the user to turn the light on and off, modify the hue and effects.

# Messages

## DeleteLightRequestV1

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>username</b>	<b>user [1.0].name</b>	<b>1</b>	<b>1</b>		
<b>literal</b>	<b>lights</b>		<b>0</b>	<b>0</b>		
<b>field</b>	<b>id</b>	<b>light [2.0].id</b>	<b>1</b>	<b>1</b>		

## GetAllLightsRequestV1

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>username</b>	<b>user [1.0].name</b>	<b>1</b>	<b>1</b>		
<b>literal</b>	<b>lights</b>		<b>0</b>	<b>0</b>		



## GetAllLightsResponseV1

light [0..15] message: LightMainV1

| id[1] field: (light) id datatype: ID

| manufacturername[1] field: (light) manufacturername datatype: TEXT6-32

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
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<b>partmessage</b>	<b>light</b>	<b>LightMainV1</b>	<b>0</b>	<b>15</b>		
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## GetLightAttributesAndStateRequestV1

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
field	username	user [1.0].name	1	1		
literal	lights		0	0		
field	id	light [2.0].id	1	1		

## GetLightAttributesAndStateResponseV1

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status [1] message: LightStateV1
| alert[1] field: (light_state) alert datatype: ALERT_CODE
| bri[1] field: (light_state) bri datatype: INTEGER1-254
| colormode[0..1] field: (light_state) colormode datatype: COLOR_MODE
| ct[1] field: (light_state) ct datatype: INTEGER153-500
| effect[1] field: (light_state) effect datatype: EFFECT_CODE
| hue[1] field: (light_state) hue datatype: INTEGER0-65535
| on[1] field: (light_state) on datatype: BOOLEAN
| reachable[1] field: (light_state) reachable datatype: BOOLEAN
| sat[1] field: (light_state) sat datatype: INTEGER0-254
| xy[1] field: (light_state) xy datatype: CIE_COLOR_SPACE
name[1] field: (light) name datatype: MAX32TEXT
modelid[0..1] field: (light) modelid datatype: TEXT6
uniqueid[0..1] field: (light) uniqueid datatype: MAC_ADDRESS
  
```

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>id</b>	<b>light [2.0].id</b>	<b>1</b>	<b>1</b>		
<b>partmessage</b>	<b>status</b>	<b>LightStateV1</b>	<b>1</b>	<b>1</b>		
<b>field</b>	<b>name</b>	<b>light [2.0].name</b>	<b>1</b>	<b>1</b>		
<b>field</b>	<b>modelid</b>	<b>light [2.0].modelid</b>	<b>0</b>	<b>1</b>		
<b>field</b>	<b>uniqueid</b>	<b>light [2.0].uniqueid</b>	<b>0</b>	<b>1</b>		

## GetNewLightsRequestV1

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>username</b>	<b>user [1.0].name</b>	<b>1</b>	<b>1</b>		
<b>literal</b>	<b>lights</b>		<b>0</b>	<b>0</b>		
<b>literal</b>	<b>new</b>		<b>0</b>	<b>0</b>		

## GetNewLightsResponseV1

light [0..15] message: LightIDNameV1

| id[1] field: (light) id datatype: ID

| name[1] field: (light) name datatype: MAX32TEXT

lastscan [1] datatype: TIMESTAMP

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>partmessage</b>	<b>light</b>	<b>LightIDNameV1</b>	<b>0</b>	<b>15</b>		
<b>datatype</b>	<b>lastscan</b>	<b>TIMESTAMP [1.0]</b>	<b>1</b>	<b>1</b>		

## LightIDNameV1

id[1] field: (light) id datatype: ID

name[1] field: (light) name datatype: MAX32TEXT

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
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<b>field</b>	<b>id</b>	<b>light [2.0].id</b>	<b>1</b>	<b>1</b>		
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<b>field</b>	<b>name</b>	<b>light [2.0].name</b>	<b>1</b>	<b>1</b>		
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# LightMainV1

id[1] field: (light) id datatype: ID

manufacturername[1] field: (light) manufacturername datatype: TEXT6-32

## Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>id</b>	<b>light [2.0].id</b>	<b>1</b>	<b>1</b>		
<b>field</b>	<b>manufacturername</b>	<b>light [2.0].manufacturername</b>	<b>1</b>	<b>1</b>		

## LightStateV1

alert[1] field: (light\_state) alert datatype: ALERT\_CODE  
bri[1] field: (light\_state) bri datatype: INTEGER1-254  
colormode[0..1] field: (light\_state) colormode datatype: COLOR\_MODE  
ct[1] field: (light\_state) ct datatype: INTEGER153-500  
effect[1] field: (light\_state) effect datatype: EFFECT\_CODE  
hue[1] field: (light\_state) hue datatype: INTEGER0-65535  
on[1] field: (light\_state) on datatype: BOOLEAN  
reachable[1] field: (light\_state) reachable datatype: BOOLEAN  
sat[1] field: (light\_state) sat datatype: INTEGER0-254  
xy[1] field: (light\_state) xy datatype: CIE\_COLOR\_SPACE

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
field	alert	light_state [1.0].alert	1	1		
field	bri	light_state [1.0].bri	1	1		
field	colormode	light_state [1.0].colormode	0	1		
field	ct	light_state [1.0].ct	1	1		
field	effect	light_state [1.0].effect	1	1		
field	hue	light_state [1.0].hue	1	1		
field	on	light_state [1.0].on	1	1		
field	reachable	light_state [1.0].reachable	1	1		
field	sat	light_state [1.0].sat	1	1		
field	xy	light_state [1.0].xy	1	1		



# SearchNewLightsRequestV1

## Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>username</b>	<b>user [1.0].name</b>	<b>1</b>	<b>1</b>		
<b>literal</b>	<b>lights</b>		<b>0</b>	<b>0</b>		

## SetLightAttributesRequestV1

name[1] field: (light) name datatype: MAX32TEXT

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>username</b>	<b>user [1.0].name</b>	<b>1</b>	<b>1</b>		
<b>literal</b>	<b>lights</b>		<b>0</b>	<b>0</b>		
<b>field</b>	<b>id</b>	<b>light [2.0].id</b>	<b>1</b>	<b>1</b>		
<b>field</b>	<b>name</b>	<b>light [2.0].name</b>	<b>1</b>	<b>1</b>		

## SetLightAttributesResponseV1

successIndicator [1] message: SuccesIndicatorV1  
| successIndicator [0..\*] datatype: SUCCES\_INDICATOR

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>partmessage</b>	<b>successIndicator</b>	<b>SuccesIndicatorV1</b>	<b>1</b>	<b>1</b>		

## SetLightStateRequestV1

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state [1] message: LightStateV1
| alert[1] field: (light_state) alert datatype: ALERT_CODE
| bri[1] field: (light_state) bri datatype: INTEGER1-254
| colormode[0..1] field: (light_state) colormode datatype: COLOR_MODE
| ct[1] field: (light_state) ct datatype: INTEGER153-500
| effect[1] field: (light_state) effect datatype: EFFECT_CODE
| hue[1] field: (light_state) hue datatype: INTEGER0-65535
| on[1] field: (light_state) on datatype: BOOLEAN
| reachable[1] field: (light_state) reachable datatype: BOOLEAN
| sat[1] field: (light_state) sat datatype: INTEGER0-254
| xy[1] field: (light_state) xy datatype: CIE_COLOR_SPACE
```

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>field</b>	<b>username</b>	<b>user [1.0].name</b>	<b>1</b>	<b>1</b>		
<b>literal</b>	<b>lights</b>		<b>0</b>	<b>0</b>		
<b>field</b>	<b>id</b>	<b>light [2.0].id</b>	<b>1</b>	<b>1</b>		
<b>partmessage</b>	<b>state</b>	<b>LightStateV1</b>	<b>1</b>	<b>1</b>		

# SetLightStateResponseV1

successIndicator [1] message: SuccesIndicatorV1  
| successIndicator [0..\*] datatype: SUCCES\_INDICATOR

## Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>partmessage</b>	<b>successIndicator</b>	<b>SuccesIndicatorV1</b>	<b>1</b>	<b>1</b>		

## SuccessIndicatorV1

successIndicator [0..\*] datatype: SUCCES\_INDICATOR

### Message Parts

<i>type</i>	<i>name</i>	<i>reference</i>	<i>min</i>	<i>max</i>	<i>XOR</i>	<i>description</i>
<b>datatype</b>	<b>successIndicator</b>	<b>SUCCES_INDICATOR</b>	<b>[1.0]</b>	<b>0</b>	<b>*</b>	

# Classes

## light [2.0]

-

### Attributes

<i>code</i>	<i>type</i>	<i>defined in</i>	<i>description</i>
<b>id</b>	<b>ID [1.0]</b>		
<b>name</b>	<b>MAX32TEXT [1.0]</b>		
<b>modelid</b>	<b>TEXT6 [1.0]</b>		The hardware model of the light.
<b>uniqueid</b>	<b>MAC_ADDRESS [1.0]</b>		Unique id of the device. The MAC address of the device with a unique endpoint id.
<b>manufacturername</b>	<b>TEXT6-32 [1.0]</b>		The manufacturer name.
<b>swversion</b>	<b>TEXT8 [1.0]</b>		An identifier for the software version running on the light.

### Relations

*cardinality source name cardinality target name description*



## light\_state [1.0]

### Attributes

<i>code</i>	<i>type</i>	<i>defined in</i>	<i>description</i>
<b>on</b>	<b>BOOLEAN [1.0]</b>		On/off state of the light. On=true, Off=false
<b>bri</b>	<b>INTEGER1-254 [1.0]</b>		Brightness of the light. This is a scale from the minimum the light is capable of, 1, to the maximum capable brightness, 254.
<b>hue</b>	<b>INTEGER0-65535 [1.0]</b>		Hue of the light. This is a scale between 0 and 65535. Both 0 and 65535 are red, 25500 is green and 46920 is blue.
<b>sat</b>	<b>INTEGER0-254 [1.0]</b>		Saturation of the light. 254 is the most saturated (colored) and 0 is the least saturated (white).
<b>xy</b>	<b>CIE_COLOR_SPACE [1.0]</b>		
<b>ct</b>	<b>INTEGER153-500 [1.0]</b>		The Mired Color Temperature ( <a href="http://en.wikipedia.org/Mired">http://en.wikipedia.org/Mired</a> ) of the light. 2012 connected lights are capable of 153 (6500K) to 500 (2000K).
<b>alert</b>	<b>ALERT_CODE [1.0]</b>		
<b>effect</b>	<b>EFFECT_CODE [1.0]</b>		
<b>colormode</b>	<b>COLOR_MODE [1.0]</b>		Indicates the color mode in which the light is working, this is the last command type it received. This parameter is only present when the light supports at least one of the values.
<b>reachable</b>	<b>BOOLEAN [1.0]</b>		Indicates if a light can be reached by the bridge.

### Relations

*cardinality source name cardinality target name description*

## user [1.0]

-

### Attributes

<i>code</i>	<i>type</i>	<i>defined in</i>	<i>description</i>
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<b>name</b>	MAX32TEXT	[1.0]	
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### Relations

<i>cardinality</i>	<i>source</i>	<i>name</i>	<i>cardinality</i>	<i>target</i>	<i>name</i>	<i>description</i>
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# Data Types

<i>code</i>	<i>basetype</i>	<i>description</i>
<b>ALERT_CODE [1.0]</b>	<i>string</i>	The alert effect, which is a temporary change in the bulb's state.

<b>V a l u e s</b>		
<b>lselect</b>		The light is performing breathe cycles for 1 seconds or until an alert 'none' command is received.
<b>none</b>		The light is not performing an alert effect.
<b>select</b>		The light is performing one breathe cycle.

<b>BOOLEAN [1.0]</b>	<i>boolean</i>	-
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<b>CIE_COLOR_SPACE [1.0]</b>	<i>string</i>	The x and y coordinates of a color in CIE color space. The first entry is the x coordinate and the second entry is the y coordinate. Both x and y are between 0 and 1.
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<b>F a c e t s</b>	
<b>pattern</b>	\[0.[0-9]{4},0.[0-9]{4}\]

<b>COLOR_MODE [1.0]</b>	<i>string</i>	Indicates the color mode in which the light is working.
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<b>V a l u e s</b>		
<b>ct</b>		Color Temperature.
<b>hs</b>		Hue.
<b>xy</b>		XY.

<b>EFFECT_CODE [1.0]</b>	<i>string</i>	The dynamic effect of a light.
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<b>V a l u e s</b>		
<b>colorloop</b>		
<b>none</b>		

<b>ID [1.0]</b>	<i>long</i>	-
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<b>F a c e t s</b>	
<b>minInclusive</b>	1

<b>INTEGER0-254 [1.0]</b>	<i>integer</i>	Integer minimum 0, maximum 254.
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<b>F a c e t s</b>	
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**maxInclusive**

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254  
minInclusive 0

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**INTEGER0-65535 [1.0]** *integer* Integer minimum 0, maximum 65535.

**Facets**

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maxInclusive 65535  
minInclusive 0

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**INTEGER1-254 [1.0]** *integer* Integer minimum 1, maximum 254.

**Facets**

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maxInclusive 254  
minInclusive 1

---

**INTEGER153-500 [1.0]** *integer* Integer minimum 153, maximum 500.

**Facets**

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maxInclusive 500  
minInclusive 153

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**MAC\_ADDRESS [1.0]** *string* -

**Facets**

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pattern `([0-9A-Fa-f]{2}[:-]){5}([0-9A-Fa-f]{2})`

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**MAX32TEXT [1.0]** *string* String with maximum length of 35 characters.

**Facets**

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maxLength 32  
minLength 1

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**SUCCESS\_INDICATOR [1.0]** *string* -

**Values**

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failed  
success

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**TEXT6 [1.0]**                      *string*   -

**Facets**

length 6

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**TEXT6-32 [1.0]**                      *string*   -

**Facets**

maxLength 32

minLength 6

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**TEXT8 [1.0]**                      *string*   -

**Facets**

length 8

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**TIMESTAMP [1.0]**                      *dateTime*   -