TALQ

Certified Capability List

This Capability List is based on a certification session performed by the *TALQ Certification Tool (v2.3.0-update.9) on 2021-08-27 14:43:53.375 +0000.*

The Capability List is a consolidated list of TALQ features which are implemented in a product.

The tool has succesfully performed *37 tests*.

Product details

Product Name	Tegis
Company	Lacroix City
Type	GATEWAY
Notes	
Generated on	2021-08-27 14:43:53.375 +0000
Certification performed by app version:	2.3.0-update.9

Capability list

Security

Enabled ✔

Functions

Basic

The Basic function describes the properties related to the physical asset to which the logical device is associated, such as identification (assetId) and location information.

Attributes

#	Attribute	Description
✔	displayName	Display name of the asset.
✔	assetId	Customer identifier of the asset. If multiple devices have the same assetId it means they belong to the same asset.
✔	serial	Serial number of the device.
✔	hwType	Hardware type of the device.
✔	hwVersion	Hardware revision of the device.
✔	location	Latitude, Longitude and Altitude. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new LocationSensorFunction.location instead.]
✔	batteryMode	Device operating in battery mode.
✔	maintenanceMode	Device is undergoing maintenance, where maintenance may include hardware or software related maintenance actions.
✔	timeZone	Time zone of the device. Time zone may be expressed in two formats. <timezone> where <timezone> is a time zone as defined in the zone.tab of the IANA timezone database [IANA]; and stdoffset[dst[offset][,start[/time],en d[/time]]] as defined by the Open Group for posix systems [POSIX]. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new TimeFunction.timeZone instead.]

Events

#	Event type	Description
✔	deviceReset	The physical device containing the logical device was reset

Communication

The Communication Function contains attributes related to the communication within the ODN, and between ODN devices and Gateways. Although communication within the ODN is outside the scope of the TALQ Smart City Protocol, this Function enables access to a minimum set of configuration and state information of the ODN communication interface in order to facilitate system management from the CMS.

Attributes

#	Attribute	Description
✔	logicalAddress	Logical address for communication within the ODN scope (IP address, Short Address, ...).

Events

#	Event type	Description
✔	communicationFailure	This event is generated by the ODN when the communication function is not operating as expected

Gateway

The Gateway function includes the necessary attributes to enable the communication between the CMS and the Gateway according to the TALQ Specification.

Attributes

#	Attribute	Description

Lamp Actuator

The Lamp Actuator function includes attributes related to lighting control and it represents the smallest unit for control purposes. In practice, however, a Lamp Actuator function can control combinations of several lamps and control gear but all in the same way, as if they are all one individual unit.

Attributes

#	Attribute	Description

Events

#	Event type	Description
✔	lightStateChange	Light state has changed

Lamp Monitor

The Lamp Monitor function enables monitoring of lamp parameters. A Lamp Monitor function should be associated with a specific lamp/control gear combination. Multiple lamp monitor functions may be implemented by a single device.

Attributes

#	Attribute	Description

Events

#	Event type	Description
✔	lampFailure	The lamp is not operating as it is supposed to (e.g. the lamp is broken). This event shall be used to detect a situation where the lamp (or LED module(s)) should be lit, but produce no light. This could be detected by the current flowing or power consumed.

Electrical Meter

The electrical meter function supports electrical metering capabilities including measurements of voltage, current, power, energy, and power factor. This function may be associated with Luminaire Controllers, Cabinet Controllers or electrical meters installed in switch boxes. ODNs may implement both single phase and three phase meters. Typically meters within a control device will be single phase and stand-alone meters. A street side cabinet may have single phase or three phase meters.

Attributes

#	Attribute	Description
✔	totalPower	Sum of the active power consumed on phase 1, 2 and 3, or just the power for a single phase meter.
✔	totalVA	Sum of the apparent power consumed on phase 1, 2 and 3, or just the apparent power for a single phase meter.
✔	totalVAR	Sum of the reactive power consumed on phase 1, 2 and 3, or just the reactive power for a single phase meter.
✔	totalActiveEnergy	Total cumulative kWh measured by the meter since installation date (or counter reset).
✔	totalApparentEnergy	Total cumulative kVAh measured by the meter since installation date (or counter reset).
✔	totalPowerFactor	Total active power divided by total apparent power.

| ✔ | supplyLossCount | Incrementing count of supply losses. In the case of 3 phases the count of losses on all three phases together. The wrap around value is 2e32 - 1. |

Events

#	Event type	Description

Generic Actuator

The Generic Actuator function includes attributes related to generic control and it represents the smallest unit for control purposes.

Attributes

#	Attribute	Description

Events

#	Event type	Description
✔	stateChange	The state has changed.

Services

On Demand Data Request Service

This service provides the mechanism to access attributes in the logical devices by requesting attribute values from the ODN

Group Management Service

This service provides the mechanisms to define and manage groups

Options

#	Option	Value	Description

Test Service

This service provides a mechanism to reduce the human intervention during the certification tests, enabling the certification tests to maximise automation

Objects

Event log data

Event log data contains a single event, with eventType and value, in each single log entry. It also includes information about whether the log denotes the start or end of the event. Furthermore additional information can be added with the info attribute.

Properties

#	Property	Description
✔	eventType	Identifier of event reported
✔	srcAddress	Address of Logical device or function within a logical device which is the source of the event or to which this event applies

Command

A command defines a type of control action that can be applied to a function. Commands can be generated by a manual override action or by a control program.

Properties

#	Property	Description
✔	state	Light state to be applied to the lamp actuator
✔	cmsRefId	CMS reference, which can be used for data logging. The cmsRefId in a Command is a free text to be used by the CMS for any purpose, e.g: to differentiate contexts. It is a token that allows the CMS to match client requests to the original notification.

✳: The Certification Test Tool is designed to provide a high level of confidence that complementary systems can communicate successfully. As both the protocol and the test tool evolve, all mandatory and other core tests are confirmed by comparison with real-life scenarios (plug-fest or similar). Some tests of optional and more peripheral features may not yet have been confirmed in this way; such features are identified with an

asterisk (*).

Functional tests

The Functional Tests help the customers to understand what a TALQ-certified product is capable of. Each Functional Test is related to a set of required TALQ technical test cases.

Configuring

Support light point control features

The Gateway successfully connects to a CMS and transmits its capabilities for light point control features and services.

CFG-1

Discovery of the network of devices

The Gateway transmits all its devices to the CMS together with their configuration and asset information.

CFG-4

Initialize light point electrical alarm thresholds

The Gateway is able to receive the light point electrical alarm thresholds from the CMS, including Lamp Voltage Too High/Low, Lamp Current Too High/Low, Active Power Too High/Low and Power Factor Too Low

CFG-5

Initialize and change the cabinet control alarm thresholds

The Gateway is able to receive the cabinet control electrical alarm thresholds from the CMS, including < to be defined >

CFG-6

Initialize and change a group of luminaires

The Gateway is able to handle a command from the CMS to set or change a group of light points to assign them a control program.

CFG-8

Monitoring

Controlling

Manual control over a light point

The Gateway properly receives and handles a manual override command sent by the CMS for one single light point   **CTR-1**

Manual control over a group of light points

The Gateway properly receives and handles a manual override command sent by the CMS for a group of light points   **CTR-2**

Alarming

Report lighting alarms to the CMS

The Gateway can produce lighting alarms and send them to the CMS using one of the data logger services.   **ALR-1**

Report electrical alarms to the CMS

The Gateway can produce electrical alarms and send them to the CMS using one of the data logger services.   **ALR-2**

Request the status of the alarm

The Gateway can report the status of the alarms as a response to a request from the CMS   **ALR-5**

Programming

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