TALQ

Certified Capability List

This Capability List is based on a certification session performed by the *TALQ Certification Tool (v2.3.0-update.15) on 2021-12-14 15:28:56.646 +0100.*

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

The tool has succesfully performed *30 tests*.

Product details

Product Name	GTW
Company	Requea
Type	GATEWAY
Notes	
Generated on	2021-12-14 15:28:56.646 +0100
Supported profiles	• Lighting
API version certified:	2.3.0
Certification performed by app version:	2.3.0-update.15

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.
✔	swVersion	Software version installed on 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.]
✔	currentTime	Current time of the device defined as local time with time zone designator. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new TimeFunction.currentTime instead.]

Events

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

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
✔	cmsUri	Base URI for TALQ communication that allows the Gateway to access the CMS. Must be an absolute URI. Other URI's for accessing CMS can be relative to this base.

✔	cmsAddress	CMS UUID address
✔	gatewayUri	Base URI for TALQ communication that allows the CMS to access the Gateway. Must be an absolute URI. Other URI's for accessing Gateway can be relative to this base.
✔	gatewayAddress	Gateway UUID address
✔	retryPeriod	Time duration before the Gateway retransmits a message for which expected response has not been received. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new GatewayFunction.gatewayRetryPeriod instead.]
✔	crlUrn	URI where the Gateway can obtain the Certification Revocation List (CRL).
✔	vendor	Vendor identification.

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
✔	outputPort	Identifier of the output port that is controlled by the lamp actuator.
✔	defaultLightState	Sets the default light output for the lamp actuator. This shall be applicable if no other command is active. This attribute shall be set to 100% as default value.
✔	targetLightCommand	Latest command for the lamp actuator.
✔	feedbackLightCommand	This attribute reflects the command in effect and it might deviate from the actualLightState due to propagation time or due to internal ODN specific mechanisms to handle the priority of the requests.
✔	actualLightState	This attribute should reflect the physical state of the light source as much as possible, including factors such as CLO. It may be calculated or measured, depending on the specific ODN implementation, which is outside the scope of this specification.

✔	calendarID	TALQ Address of the calendar controlling this lamp actuator. If this attribute is empty, the behavior shall be determined by the ODN. If the attribute is invalid, the ODN shall trigger a generic invalid address event and the behavior shall be determined by the ODN.
✔	lightStateChange	Light state has changed.

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
✔	supplyType	Supply type of the lamp. Accepted values are: AC, DC.
✔	numberOfLamps	Number of lamps being monitored by the lamp monitor function.
✔	supplyVoltage	RMS supply volts when supplyType is AC, supply voltage (V) when supplyType is DC.
✔	supplyCurrent	RMS supply current (A) when supplyType is AC, supply current (A) when supplyType is DC.
✔	activePower	Active power.
✔	apparentPower	Apparent Power.
✔	activeEnergy	Cumulative active energy (since installation or counter reset).
✔	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.

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
✔	totalPowerHighThreshold	Power above which the totalPowerTooHigh event is triggered.
✔	totalPowerLowThreshold	Power below which the totalPowerTooLow event is triggered.
✔	supplyVoltageHighThreshold	Supply voltage above which the supplyVoltageTooHigh event is triggered.
✔	supplyVoltageLowThreshold	Supply voltage below which the supplyVoltageTooLow event is triggered.
✔	totalCurrentHighThreshold	RMS current above which the currentTooHigh event is triggered.
✔	totalCurrentLowThreshold	RMS current below which the currentTooLow event is triggered.
✔	totalPower	Sum of the active power consumed on phase 1, 2 and 3, or just the power for a single phase meter.
✔	frequency	Frequency on the line.
✔	supplyVoltage	Average between Phase1 RMS Voltage, Phase2 RMS Voltage and Phase3 RMS Voltage, or in the case of a single phase meter just the RMS supply voltage.
✔	phase1Voltage	RMS Voltage between phase 1 and neutral.
✔	phase2Voltage	RMS Voltage between phase 2 and neutral.
✔	phase3Voltage	RMS Voltage between phase 3 and neutral.
✔	totalCurrent	Sum of the RMS currents on phase 1, 2 and 3.

✔	phase1Current	RMS current on phase 1.
✔	phase2Current	RMS current on phase 2.
✔	phase3Current	RMS current on phase 3.
✔	totalPowerTooHigh	Indicates total power is above the totalPowerHighThreshold.
✔	totalPowerTooLow	Indicates total power is below the totalPowerLowThreshold.
✔	supplyVoltageTooHigh	Indicates supply voltage is above the supplyVoltageHighThreshold.
✔	supplyVoltageTooLow	Indicates supply voltage is below the supplyVoltageLowThreshold.
✔	totalCurrentTooHigh	Indicates the current is above the totalCurrentHighThreshold.
✔	totalCurrentTooLow	Indicates the current is below the totalCurrentLowThreshold.

Events

#	Event type	Description

Services

Configuration Service

The TALQ Configuration Service enables discovery and configuration of devices and services

Options

#	Option	Value	Description

Control Service

The Control service describes the mechanisms to operate the actuator functions in order to enable schedule based and override control

Options

#	Option	Value	Description
✔	supportedTypes	• AbsoluteActivePeriod • AstroClockActivePeriod • ccDate* • ccDay*	Control Program and calendar options supported are defined by announcing support for the given modes
✔	dayOffset	• 1 • 2	Offset of start of day
✔	ccDateSupport		Indicates the ccDate options supported
✔	ccDaySupport		Indicates the ccDay options supported
✔	programSecondsSupported*		Indicates whether the field of seconds is supported in programs.

Events

#	Event Type	Description
✔	invalidCalendar	An invalid calendar has been provided by the CMS to the ODN
✔	invalidProgram	A control program has been provided by the CMS, which cannot be implemented by the ODN

Data Collection Service

The TALQ Data Collection Service is a provision to configure how ODN measurements, status information and events are logged, and when or under what conditions the logged data is transferred to the CMS

Options

#	Option	Value	Description
✔	supportedModes	• VendorRecordingMode • EventRecordingMode • ImmediateReportingMode	Recording and Reporting modes supported

✔	attributeScopeSupported	Indicates whether the ODN supports filtering attributes by scope (attributeScope); for a data logger in periodic or vendor recording mode.

Events

#	Event Type	Description
✔	invalidLoggerConfig	The CMS has provided a data logger configuration that cannot be implemented by the ODN

On Demand Data Request Service

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

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 (*).

This Capability List is based on a certification session performed by the TALQ Certification Tool (v2.3.0-update.15) on 2021-12-14 15:28:56.646 +0100.

《《》》 and **TALQ** are trademarks owned by the TALQ Consortium.

Ⓒ TALQ Consortium

《《》》 **TALQ**