



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 15:26:54.339 +0000.

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

The tool has successfully performed 37 tests.

Product details

Product Name Tegis

Company Lacroix City

Type GATEWAY

Notes

Generated on 2021-08-27 15:26:54.339 +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],end[/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
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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
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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
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Events

#	Event type	Description
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- | | | |
|---|-------------|--|
| ✓ | 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.
✓	totalIVA	Sum of the apparent power consumed on phase 1, 2 and 3, or just the apparent power for a single phase meter.
✓	totalIVAR	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
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Generic Actuator

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

Attributes

#	Attribute	Description
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Events

#	Event type	Description
✓	stateChange	The state has changed.

Services

Configuration Service

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

Options

#	Option	Value	Description
✓	commissioningSupported*		This ODN can support commissioning from the CMS side.
✓	devicesPaginationSupported*		This ODN can support pagination of devices.

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	<ul style="list-style-type: none"> AbsoluteActivePeriod ccDate* ccDay* 	Control Program and calendar options supported are defined by announcing support for the given modes
✓	maxSwitchPointsPerProgram		Maximum number of switching points per control program
✓	dayOffset	<ul style="list-style-type: none"> 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
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- ✓ supportedModes
- EventRecordingMode
 - VendorRecordingMode
 - ImmediateReportingMode
- Recording and Reporting modes supported

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

Group Management Service

This service provides the mechanisms to define and manage groups

Options

#	Option	Value	Description
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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
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- ✓ **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 ().

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