TALQ Presentation

DOE Market Development Workshop
Detroit, November 2014

Presented by
Paul Dunn, Telensa
TALQ Introduction

Click on picture to open browser with TALQ video
http://www.youtube.com/watch?v=oS1Ta_pxc2Y
Regular TALQ Members

ASSOCIATE TALQ MEMBERS

- Bouygues Energies et Services
- CAOS
- Cisco Systems (India)
- Edelcom
- Hubbell Building Automation
- LED Roadway Lighting
- LuxSave AG
- Paradox Engineering S.A.
- Silver Spring Networks
- SOGEXI

KMW Inc.

PHILIPS

OSRAM

Schréder S.A.

energia sinapse

Telensaco

UVAX Technology In Action

Zumtobel AG
Definitions

Outdoor Lighting Networks (OLN)

Light Points

Gateway

Central Management System (CMS)
Current Situation – & why TALQ?

• Current lack of standards creating questions of interoperability and risk of “stranded assets”

• Interoperability question
  • How to manage multiple proprietary systems in one region/city
  • How to integrate for best cost and performance – NOT “one size fits all”
Requirements (compare to printer drivers)

• Enable seamless interoperation with multi-vendor installations
  • E.g. a single user interface for multiple OLNs

• Must Support
  • Scheduled and adaptive lighting, both light pole and group based control
  • System monitoring and data collection
  • Simplified configuration and upgrades

• Must be agnostic of underlying communication technology and applicable on IP networks (can be used with any wireless and power-line connectivity)

• Have a structured design with possibilities for future enhancements

• Be supported by a certification program to ensure interoperability and build confidence in the market
Flexible Design

- Supports multiple OLN architectures
- Enables multiple implementation options

TALQ defines a standard for information exchange between the CMS and TALQ Bridges

- Power-line based OLN
- Wireless-based OLN with Multiple Gateways
- Group Cabinet-based OLN
Scalability and Security

- The TALQ protocol is built on Internet protocols and security standards
  - XML/HTTP
  - TCP/IP
  - Transport Layer Security
- Integrated with the Web
- Scalable
- Future proof
- Independent of connectivity technology
TALQ Services

- Notification
- Configuration
- Lighting Control
- Data Collection (Monitoring, Measurement, Data Logging)
- On Demand Data Request
- Group Management
- Data Package Transfer
- Calendar and Programming Functionality
- User override
Multi-level Lighting Control

Light point based control

Segment/Group control

Flexibility to define logical groups
Example adaptive lighting program
Feature Classification

**Vendor specific**
Not specified in TALQ, format defined

**Optional**
Vendor can make choose from the optional TALQ functionality

**Mandatory**
Basic functionality needed for outdoor lighting operation to be acted upon by every TALQ compliant OLN/CMS

- Discovery and configuration
- Lighting control incl. schedules and calendars
- Data collection/logging/monitoring
- On demand data requests/events
- Group management
- Security

Some examples of optional functionality:
- Metering
- CLO, maintenance factor, scenes
- Vendor-specific data transfer
- ….

Unique vendor functions and features
TALQ gives guidelines for implementation
Requirement for Certification

To optimize the level of interoperability products need to be certified before they are allowed to carry the TALQ Symbol

TALQ Certification means:

• A product has passed the criteria set by the TALQ Consortium Certification Work Group which are considered sufficient to demonstrate compliance with the TALQ specification

• The TALQ interface is tested for the capability of sending and receiving the TALQ messages
Test Tool

The TALQ Test tools are software implementations designed specifically to test ‘standalone’ Central Management Systems or TALQ Bridge interfaces.

These perform a wide variety of tests to check compliance with the specification.
Plugfest
To test interoperability of products from different manufacturers, correct communication between Central Management Systems and Outdoor Lighting Network ‘TALQ Bridge’ interfaces is tested
• On communication command level
• And on feature level

Results of the plugfest will be logged and kept by the TALQ consortium

This way the consortium facilitates the confirmation of interoperability among vendors to minimize issues at the customer side
Timing

- TALQ Spec ready Aug 2013
- Test Proc ready Dec 2013
- Test Spec ready July 2014
- First Plugfest April 2015
- Certifications expected July 2015
Cooperation potential

To ensure the TALQ certification process meets the requirements of potential customers of TALQ certified products, we seek stakeholder input into this

TALQ Partner Program

This stakeholder outreach program is to facilitate discussions with municipalities and utilities on the adoption of the TALQ specification, the impact it may have on their tendering and operational processes, and keeping them up to date on the latest activities of the TALQ Consortium.

Partners will be
• able to evaluate the TALQ Specification and provide feedback
• be consulted to determine new specification requirements
Conclusions

• With TALQ, a customer can have a single CMS to manage OLNs from multiple vendors.

• The TALQ Specification includes a complete features set to operate and manage OLNs with different architectures, technologies and capabilities.

• The mandatory part of TALQ Specification focus on the minimal level of interoperability to meet customer needs, while the extended optional part allows the industry to differentiate on deployment, operation and management of OLNs and CMS implementation.
Contact

TALQ Consortium
445 Hoes Lane
Piscataway
NJ 08854 USA
+1 732 562 6037
www.talq-consortium.org

info@talq-consortium.org