

# 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](http://www.youtube.com/watch?v=oS1Ta_pxc2Y)

# Regular TALQ Members

		
KMW Inc.		
Schröder S.A.		
		Zumtobel AG

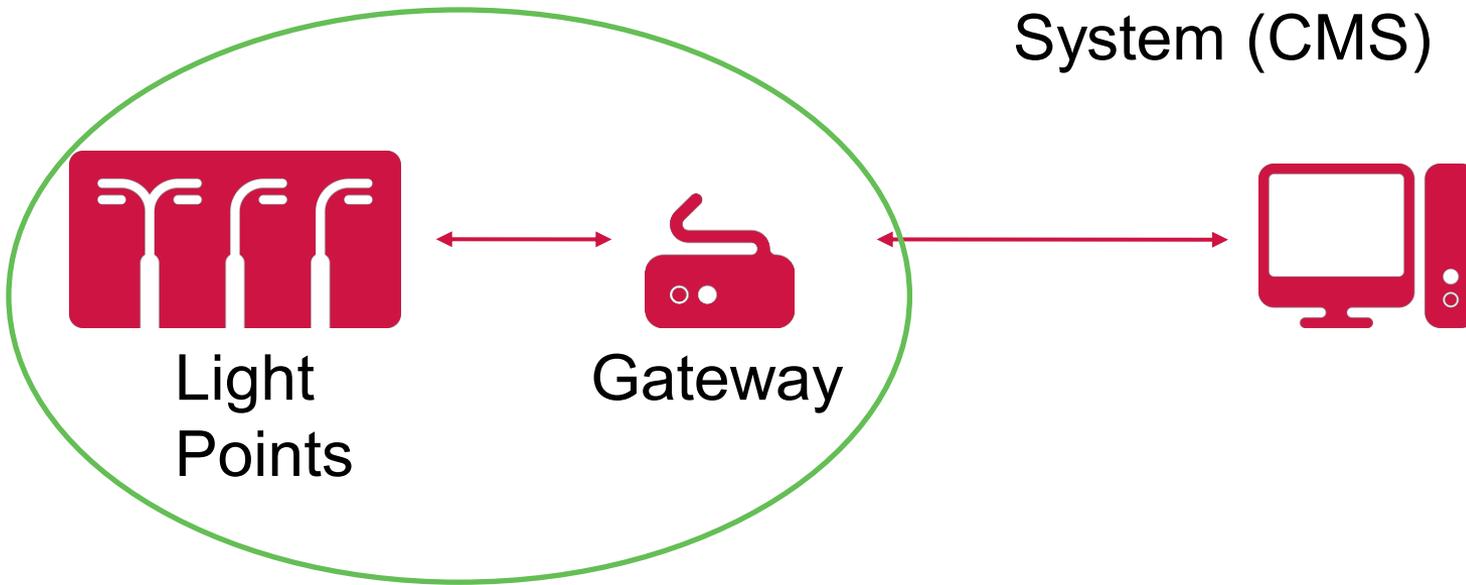
# ASSOCIATE TALQ MEMBERS

Bouygues Energies et Services		Cisco Systems (India)
		Edelcom
Hubbell Building Automation		LuxSave AS
	Paradox Engineering S.A.	Silver Spring Networks
SOGEXI		

# Definitions

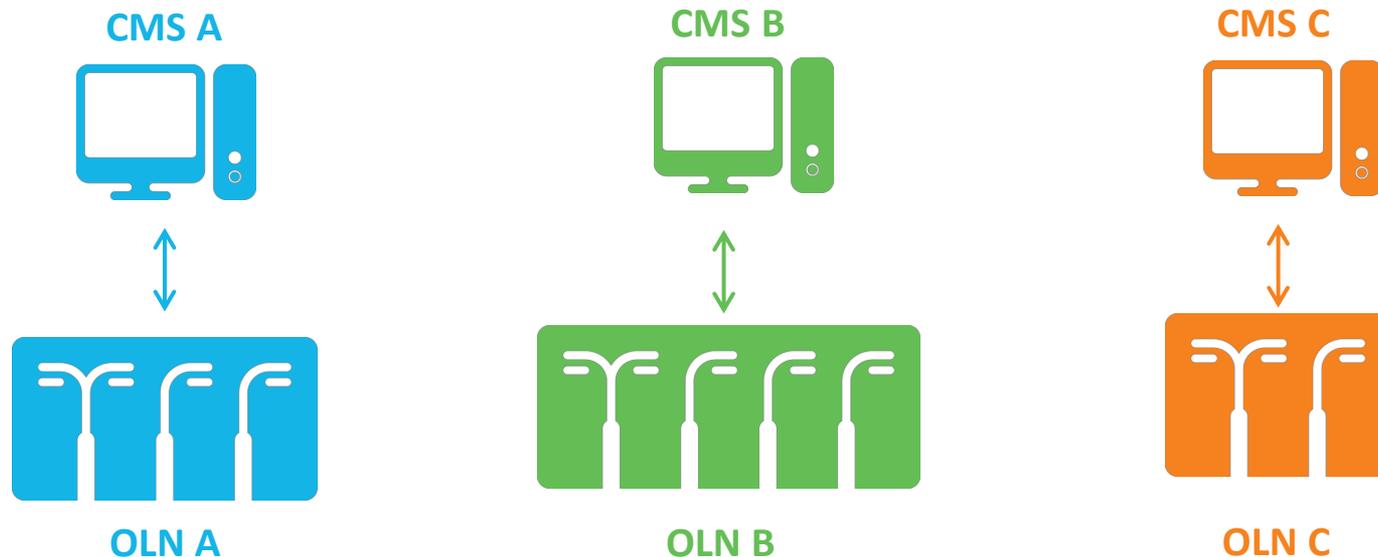
Outdoor Lighting Networks (OLN)

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”



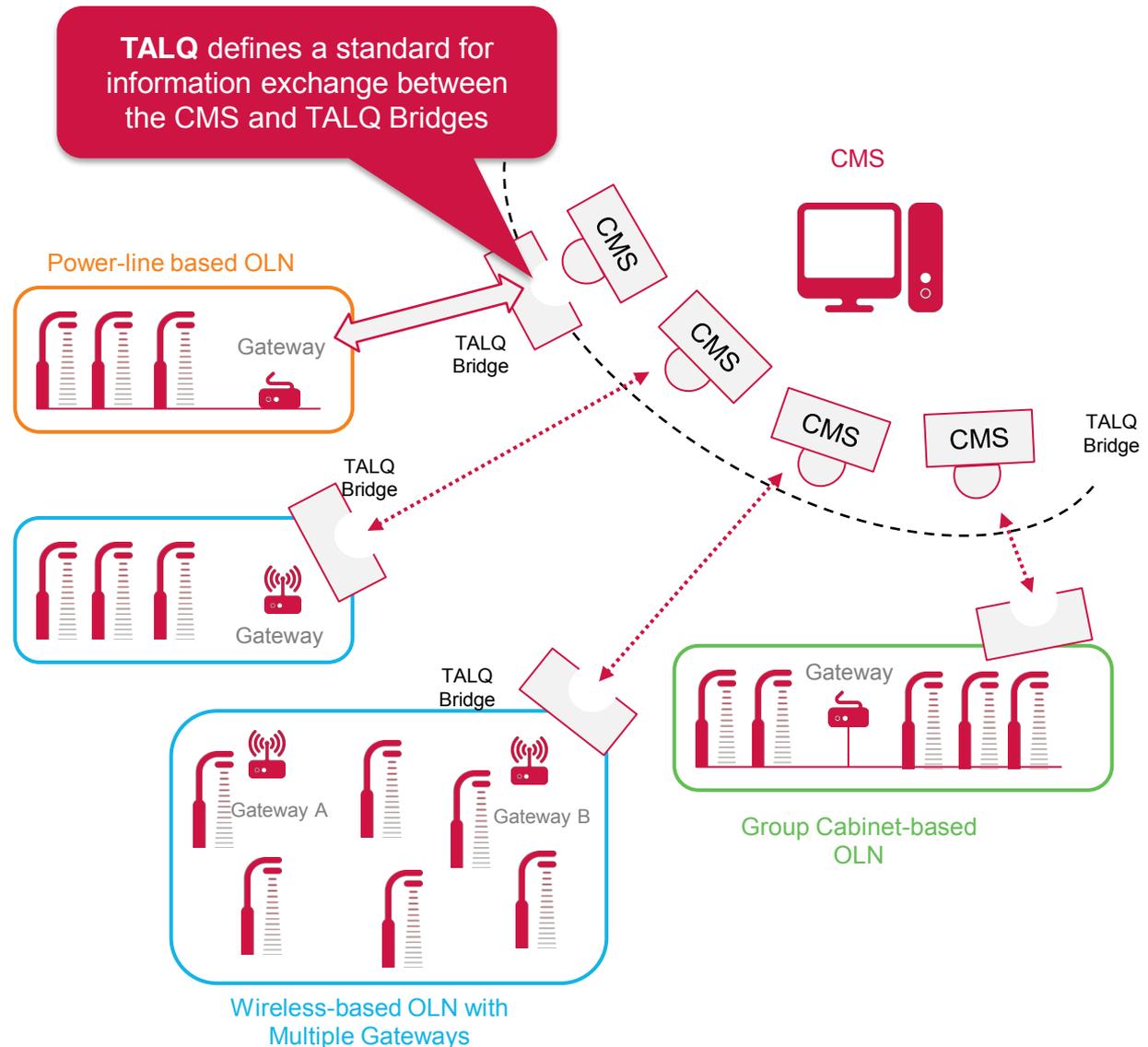
# Requirements (compare to printer drivers)



- 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



# 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

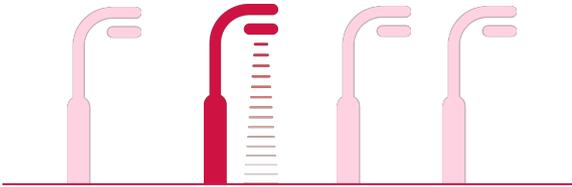
# TALQ Services

- 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

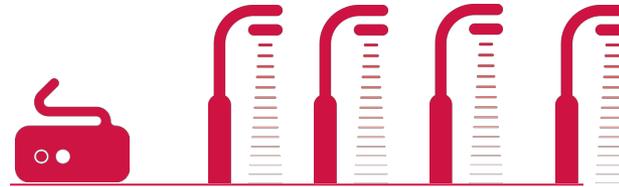


# Multi-level Lighting Control

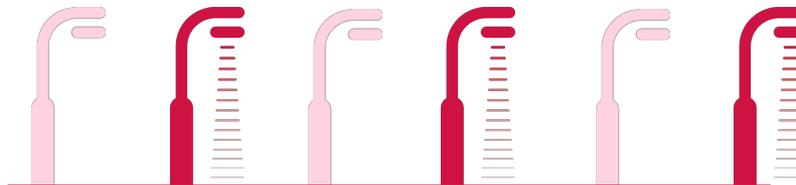
Light point based control



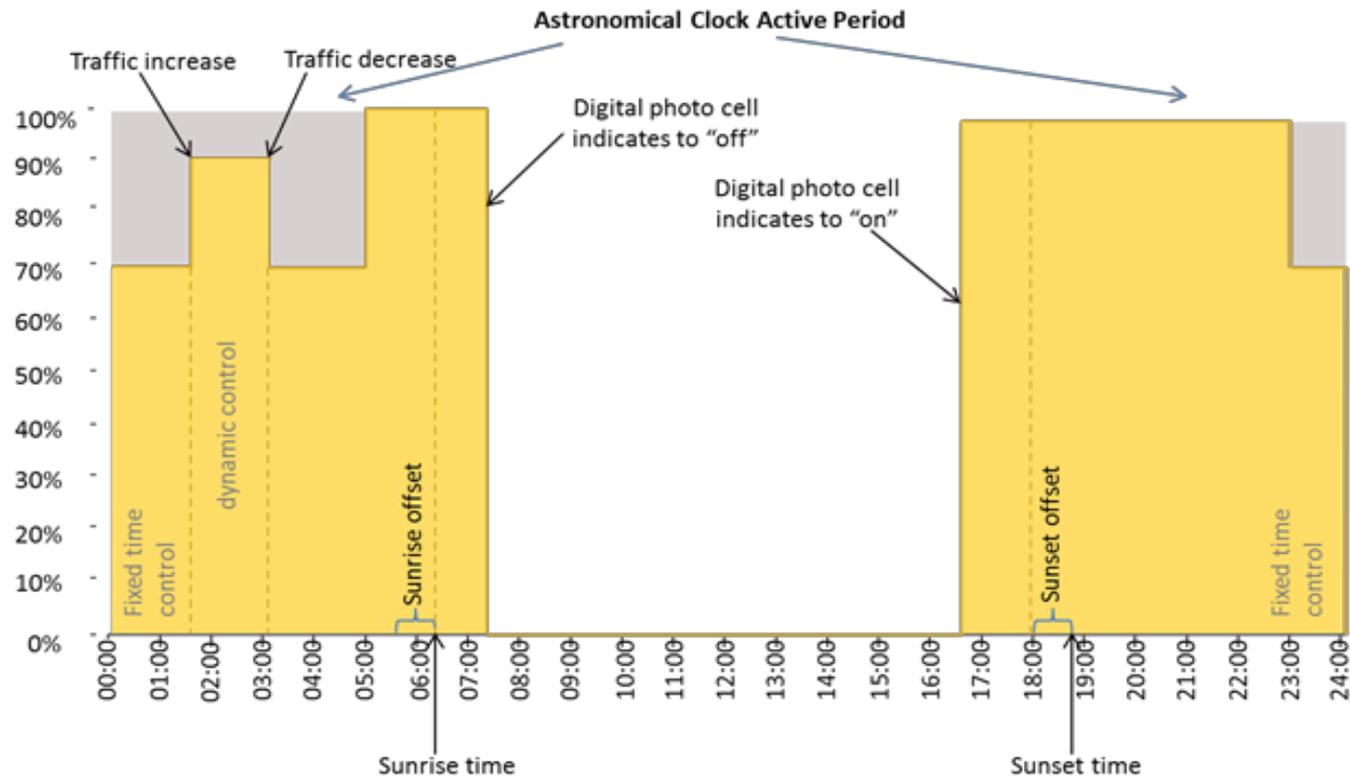
Segment/Group control



Flexibility to define logical groups



# Example adaptive lighting program



# Feature Classification



## Vendor specific

Not specified in TALQ,  
format defined

Unique vendor functions and features  
TALQ gives guidelines for implementation

## Optional

Vendor can make choose from  
the optional TALQ functionality

Some examples of optional functionality:

- Metering
- CLO, maintenance factor, scenes
- Vendor-specific data transfer,
- .....

## 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

# Requirement for Certification



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

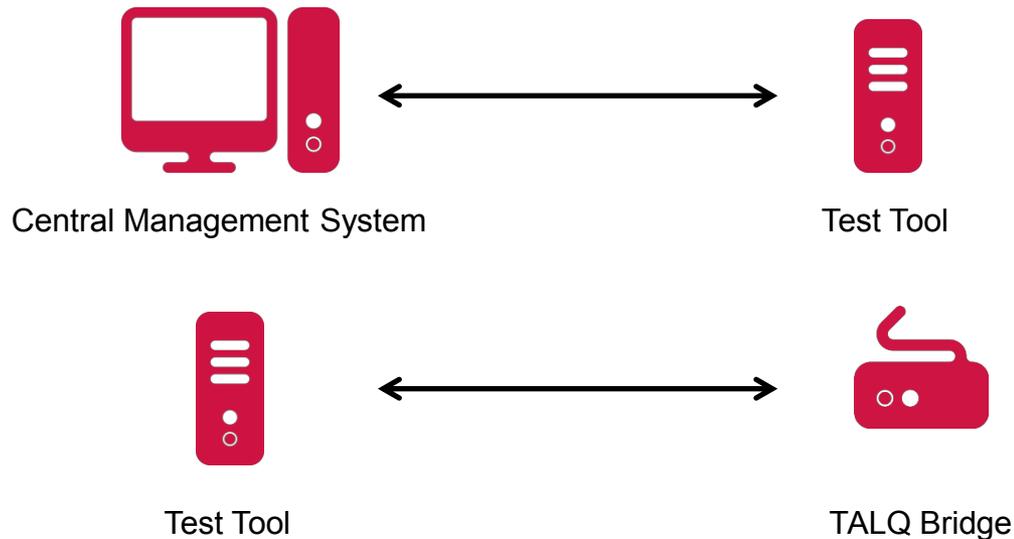
TALQ Certification means:

- 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

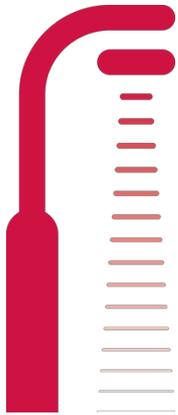
To test interoperability of products from different manufacturers, correct communication between Central Management Systems and Outdoor Lighting Network 'TALQ Bridge' interfaces is tested

- On communication command level
- And on feature level

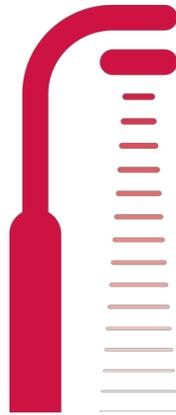
Results of the plugfest will be logged and kept by the TALQ consortium

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

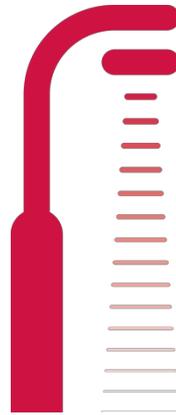
# Timing



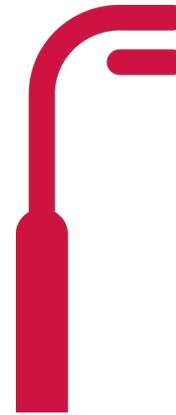
TALQ Spec  
ready  
Aug  
2013



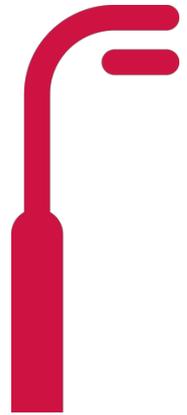
Test Proc  
ready  
Dec  
2013



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 OLN's from multiple vendors.
- The TALQ Specification includes a complete features set to operate and manage OLN's 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 OLN's and CMS implementation.

# Contact

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