

elitedali™
smart lighting controls

cns-enocean™
wireless | energy harvesting

Niagara Smart IoT Convergent Controls

FULHAM®
Lighting... Global. Intelligent. Sustainable.



Open Interoperable Standards



Products & Solutions



Control Networks



What does Fulham Controls Sell, today?

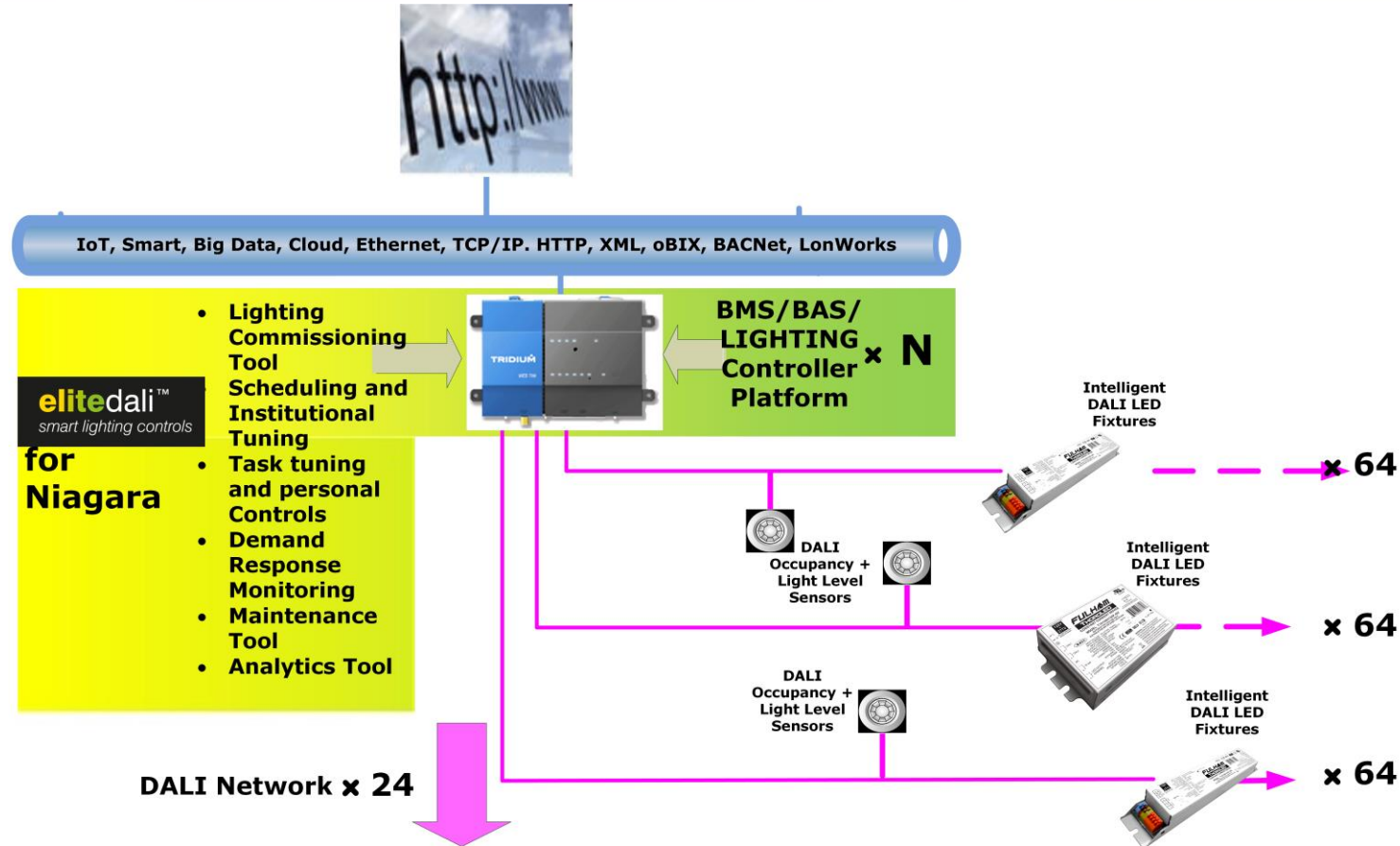
elitedali™
smart lighting controls

- A licensed instance of software + a DALI® interface card per DALI network. Enables **any** suitable Tridium Niagara technology BMS, BAS, BEMS, BACS platform to become a smart IoT convergent lighting commissioning & controls solution.

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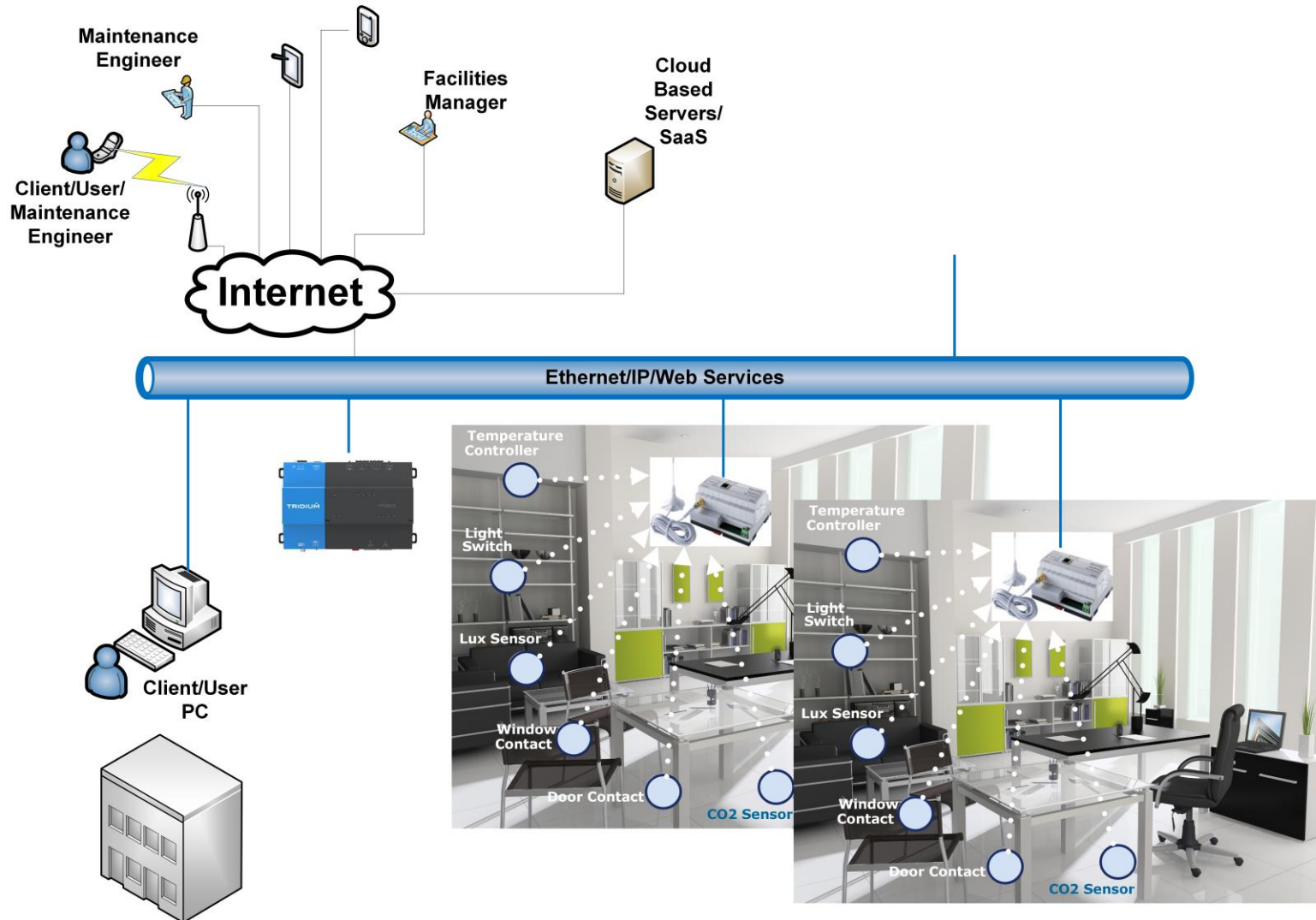
- A licensed instance of software + an EnOcean® wireless Ethernet transceiver per EnOcean wireless network. Enables **any** suitable Tridium Niagara technology BMS, BAS, BEMS, BACS platform to become a smart IoT convergent EnOcean wireless commissioning & controls solution.

elitedali for Niagara looks like this!



Delivering cost-effective, seamless, real-time, value-added data-enabled, highly flexible and vendor independent smart light control.

EnOcean for Niagara looks like this!



Or in other words?

Smart IoT (Internet of Things) Convergent lighting and building controls products and solutions.

Smart - beyond intelligent

IoT - seamless real-time access to all device data beyond just one device, one network, one building, one campus, one city, one State or one country

Convergent – Think smart mobile benefits

Convergent technology?



Convergent technology?

Building Controls Example:



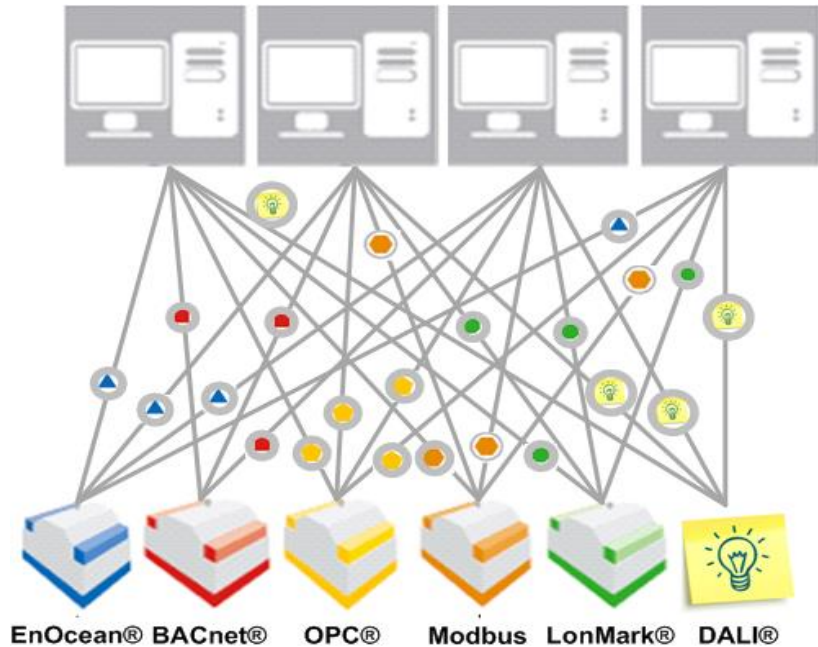
Tridium's Niagara®!

- World's de-facto standard convergent web technology platform.
- In essence, a software framework for building device-to-enterprise applications and Internet-enabled products.
- A unified platform to easily build Internet-enabled products and software applications for controlling and managing diverse "smart" devices across an enterprise in real time.
- 30,000+ certified Niagara engineers, 1,000s of organisations
- 400+ global OEMs producing building management, automation and energy management solutions based upon Niagara installed in 600,000+ buildings. See www.tridium.com.

Why Tridium's Niagara?

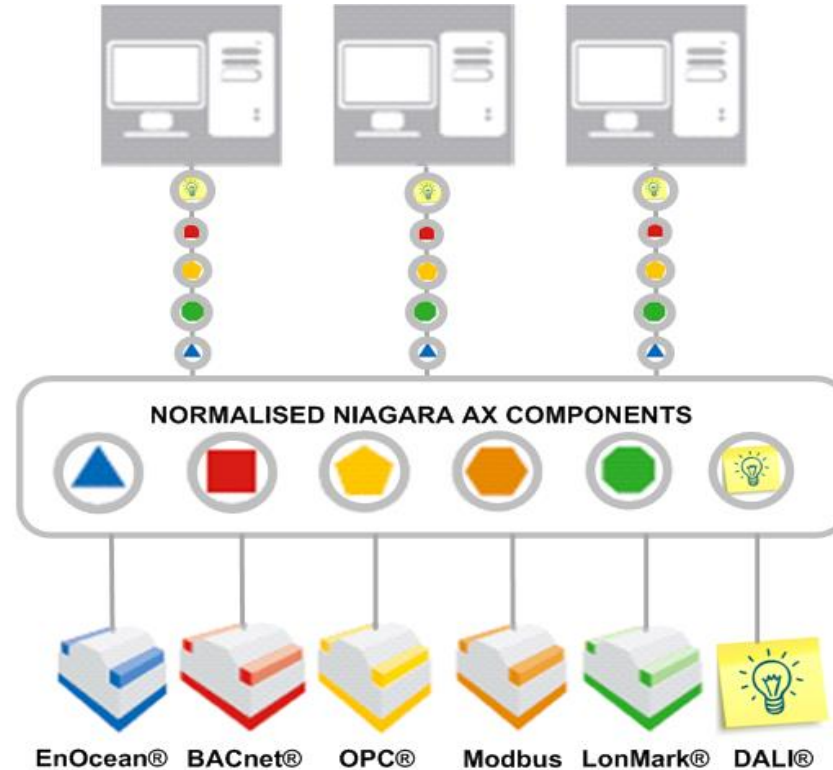
N to N

Lots of Connections, Complexity and Cost
Creates a Barrier to Deployment of Solutions



N to 1

Information representation
is normalised



Why DALI®?

- ▶ **The only Global Open standard for intelligent networkable lighting automation, IEC 62386**
- ▶ **1M DALI devices produced monthly**
- ▶ **100s of DALI device manufacturers**
- ▶ **DALI ballast costs equal or less than non DALI digital ballasts**
- ▶ **Any Open standards input control products i.e. LonWorks, KNX, BACnet, EnOcean or Smart devices**

Important: Existing DALI published IEC standards only applies to ballast, LED drivers and Emergency inverters. There is NO DALI standard for input controls products such as switches or sensors!

Why are we special, different?

Fulham delivers –

- ▀ **Choice**
- ▀ **Simple**
- ▀ **Convergence**
- ▀ **Information**
- ▀ **Energy saving**
- ▀ **Flexibility – to be in real control!**
- ▀ **Higher building ratings**

Traditional Players deliver –

- ▀ **Proprietary**
- ▀ **Complex**
- ▀ **Costly**
- ▀ **Limited data**
- ▀ **Energy savings?**
- ▀ **Inflexible**
- ▀ **Higher building ratings**

How do we sell?

- Via the global “Niagara Community” – System Integrators, Distributors and Original Equipment Manufacturers (OEM), who are looking to leverage new business opportunities in cloud based, real-time operations & maintenance (O&M), analytics for buildings.
- Via Fulham’s OEM channels and customers – Who are looking to address the growing demand for solutions not just parts!

How Are We doing Globally?

- Represented in almost every region of the world via our Certified **elitedali**[™] Partners (CeP[™]).
- More than 150,000 DALI light fixtures commissioned & controlled with **elitedali**
- More than 1,000,000sq mtrs (10,000,000 sq ft) of buildings including –
hospitals, data centres, schools, universities, factories, offices, warehouses, hotels, car parks, banks, sports halls.....

- 🔹 **Web:** elitedali.com
- 🔹 **Twitter:** twitter.com/elitedali
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