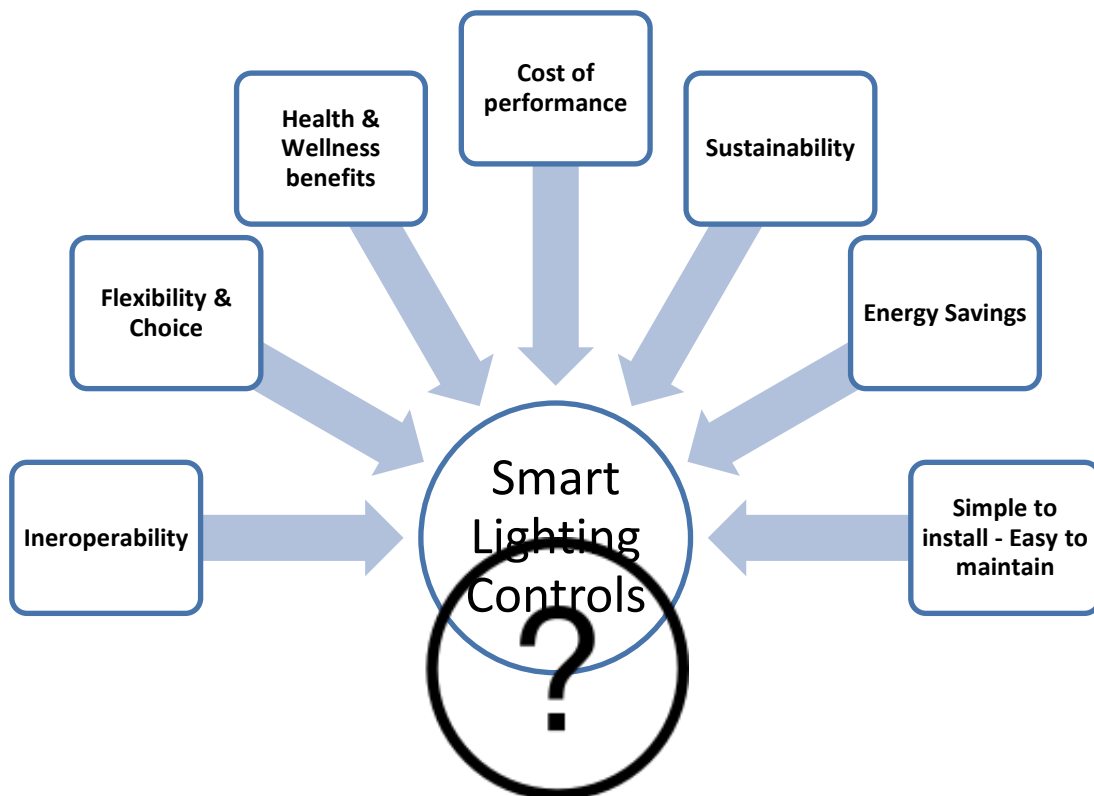


Introduction to Niagara Smart IoT Convergent DALI® Lighting Controls

How to achieve more from your investments in Lighting Controls with Smart IoT convergent solutions?

"Lighting is the most visible sign of how well you are running your business and your business's attitude towards the environment. In an instant it says more than any words can."

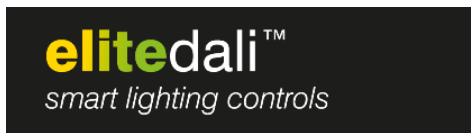
Lighting today is certainly beyond just illumination. While considering implementing smart lighting, it is also important to address,



It is increasingly such solutions be converged, in order to seamlessly inter-operate/ exchange data / controls with another sub-systems in the building like HVAC, Access Control, Fire and Security Systems etc.

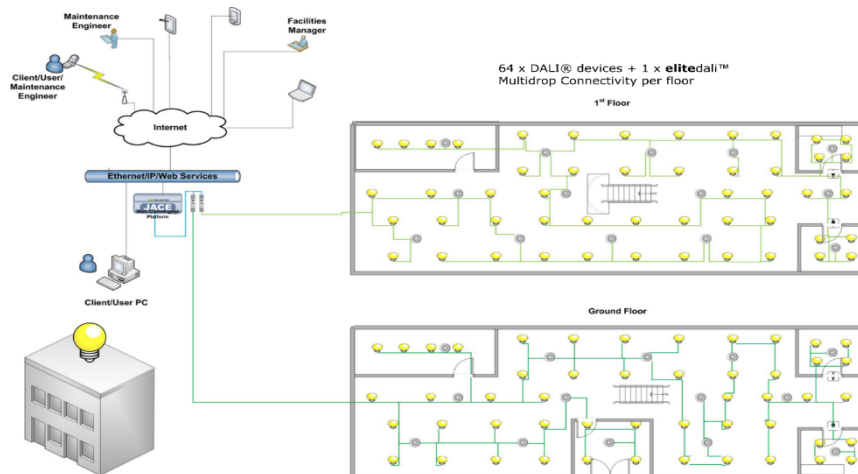
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INTRODUCING ELITEDALI - THE WORLD'S FIRST CONVERGENT IOT NIAGARA LIGHTING CONTROLS SOLUTION



elitedali Multidrop for Niagara, is the only web based smart IoT solution, globally available today, for smart lighting controls of DALI® intelligent addressable light fixtures.

elitedali Niagara software transforms any suitable Niagara platform into a commissioning, control, management, monitoring and analytics edge device of networks of intelligent DALI® light fixtures in real-time from anywhere.



DALI (Digital Addressable Lighting Interface) is the only

specialised international interoperable open published dedicated communication and control standard (IEC 62386) for professional digital lighting and lighting control.

The DALI standard ensures full interoperability between any DALI light fixtures manufacturers product or any DALI ballast or LED driver product.

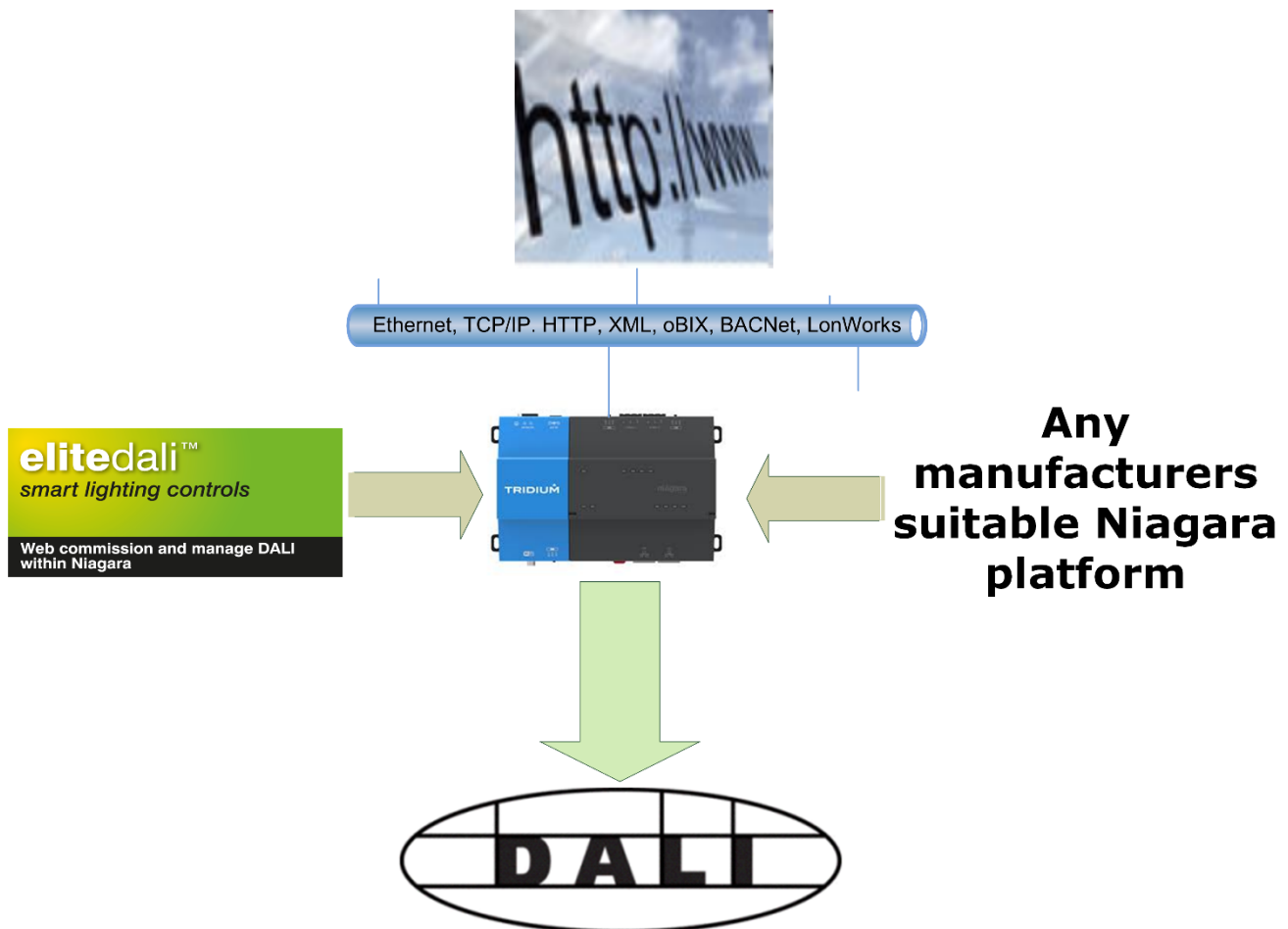


Tridium's Niagara Framework® is a

global convergent open web smart IoT technology. It seamlessly enables the commissioning, control, management, visualisation and analytics of disparate networked control devices in a web environment. This Framework can exist on many Original Equipment Manufacturers (OEM) hardware controls platforms. Such an example is the JACE™ (Java Application Control Engine)

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which is Tridium's hardware controller for the Niagara Framework.



This all that is required to directly connect DALI light fixture networks to smart IoT Building Management and Control multi-vendor platforms that use Tridium's Niagara Framework®, and be delivered, operated and maintained by suitably qualified Niagara System Integrators (SI).

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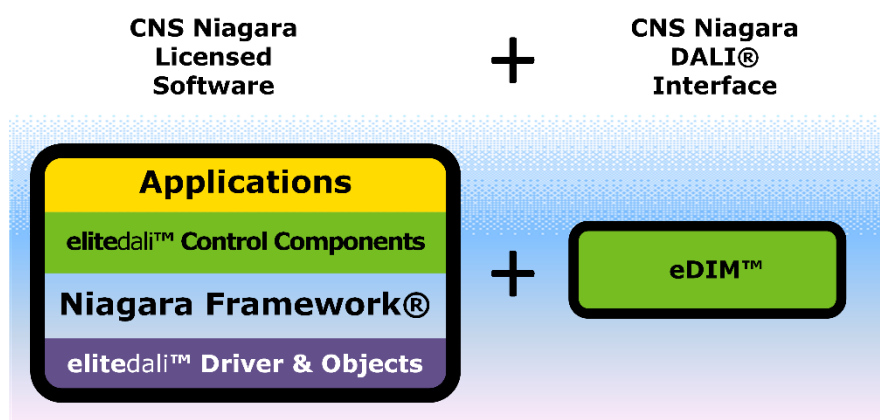
CNS's **elitedali** Multidrop Connectivity Kit is part of CNS's Niagara DALI lighting commissioning, control, maintenance and management products and solutions which comprise:-

- ◆ Licensed **elitedali** Multidrop Connectivity Kit for Niagara AX & N4 , (for details see elitedali Connectivity Kit datasheets) to access, [click here](#) for AX and [click here](#) for N4 versions.
- ◆ Compatible DALI control hardware, [click here](#) for more details.
- ◆ DALI Power Supplies, [click here](#) for more details.
- ◆ DALI network devices, [click here](#) for more details.
- ◆ DALI relay units, [click here](#) for more details.

For more details on the entire **elitedali** product and solution range visit www.elitedali.com.

ELITEDALI MULTIDROP CONNECTIVITY KIT CONCEPT

The **elitedali** Multidrop Connectivity kit transforms suitable control platforms running the Niagara Framework to seamlessly connect to DALI networks directly available RS-485 serial ports and comprises:-



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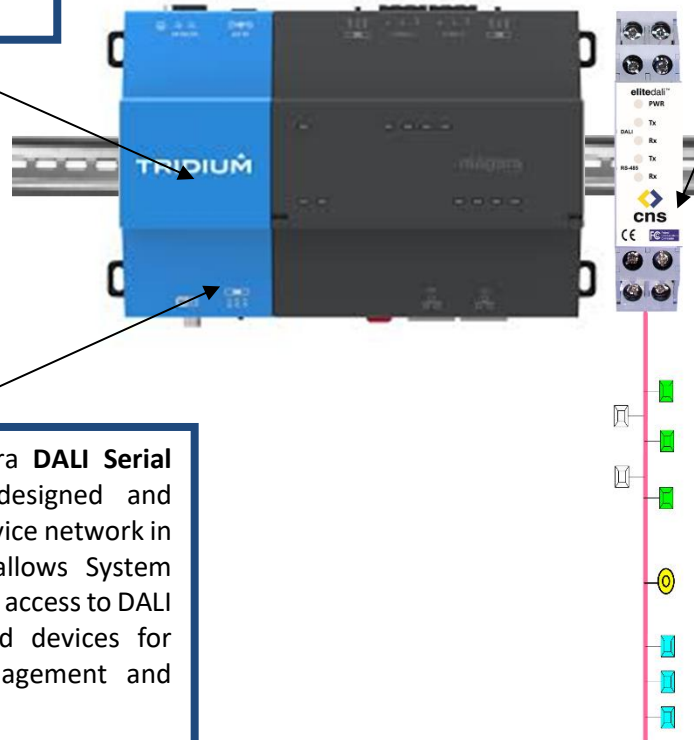
***elitedali** strictly conforms to the current published DALI Open standard

Each **elitedali** Multidrop Connectivity Kit comprises:-

A licensed library of native Niagara software **DALI** lighting **control components** including:-

- ◆ Constant Light
- ◆ Corridor Hold
- ◆ Switching & Dimming
- ◆ Absence Detect

The physical connection between a Niagara platform and a DALI lighting channel is achieved using **CNS's elitedali Interface Module (eDIM™)** that seamlessly connects a single DALI network to RS-485 serial ports.



A licensed instance of Niagara **DALI Serial driver software** which is designed and implemented as a standard device network in the Niagara Framework. It allows System Integrators seamless, real-time access to DALI lighting control networks and devices for commissioning, control, management and analytics

Providing the software and Niagara DALI interface to commission, control, maintain and manage a single 64 device open standard DALI network directly connected to a Niagara platform constituting the Building Control, Management, Automation or Energy solution.

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KEY FEATURES

Each licensed **elitedali** Multidrop Connectivity Kit enables –

- ◆ The connection of a single DALI channel, circuit or network of up to 64 DALI® devices
- ◆ Seamless connectivity between any suitable Niagara platform and DALI
- ◆ Full real-time Commissioning, Control, Maintenance, Management and Analytics of DALI networks and devices that conform to the open DALI standard from within Niagara.
- ◆ Up to **4** x **elitedali** Multidrop Connectivity Kits and therefore 4 x DALI lighting networks to be connected per single RS-485 JACE serial port*
- ◆ Up to **24** x **DALI networks** can be physically connected to a single JACE*
- ◆ Potential maximum of **1,536** open standard DALI devices manageable by a single JACE*
- ◆ Expandable across multiple JACES for large scale DALI lighting networks

***NB: Subject to available bandwidth and resources on the chosen Niagara N4 platform.**

WARNING: elitedali must only be installed and commissioned by suitably qualified Engineers and Technicians for more information on how to become a Certified elitedali Partner (CeP™) visit www.elitedali.com.

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BENEFITS OF NIAGARA LIGHTING CONTROLLERS WITH ELITEDALI

◆ Lower cost of installation –

Less hardware, leveraging N4 platform lower costs, better utilisation & ROI

◆ Simpler network architecture – *Less to go wrong*

◆ Easier & faster to commission –

Familiar Niagara environment, tools and methods, highly automated, easier to support and maintain, NO mapping, labelling or enumeration checking required, full DALI device addressing capability supported

◆ Future Proof –

Open standards based, highly vendor independent, multiple suppliers & installers globally

◆ Total Integration/Convergence –

Seamless native Niagara DALI solution guaranteeing total integration with all other sub-systems connected to the Niagara Framework, offering better user experience, lower energy costs and less equipment

◆ Seamless access to real-time data –

Enables complete control and management of assets in real-time both locally and remotely via smart mobile and cloud based tools

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SOLUTION DESCRIPTION

The **elitedali** Multidrop Connectivity Kit provides all the software and hardware you require to commission, control, maintain and manage a single interoperable open standard's DALI lighting network from within any suitable controller platform running the Niagara Framework.

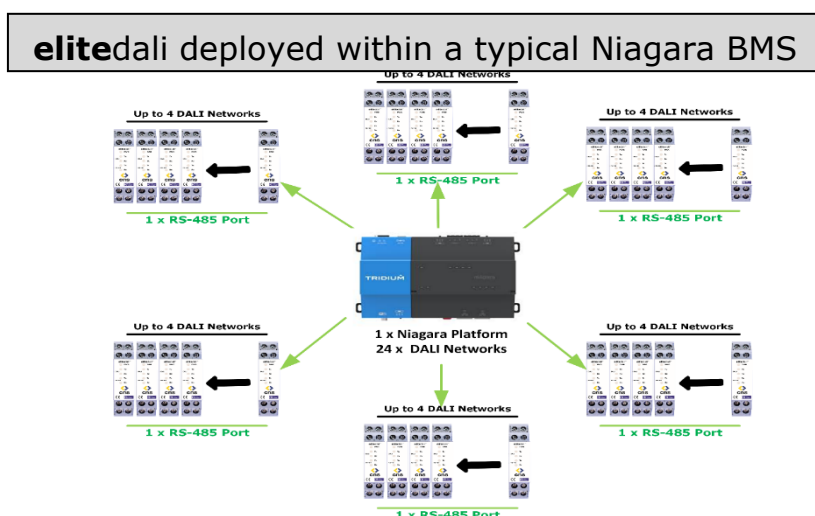
Furthermore it may be added to existing installed Niagara controller platforms which are being used in convergent smart IoT building control solutions to integrate other systems (HVAC, Access, Security, Energy etc).

These **elitedali** Connectivity Kits can be installed on one or many suitable Niagara controller platforms, in one room, across a floor plate or building, campus, town, city or the entire planet.

Once the networks of DALI light fixtures are connected to the Niagara controllers running **elitedali** each network's DALI devices are addressed and discovered into the Niagara database.

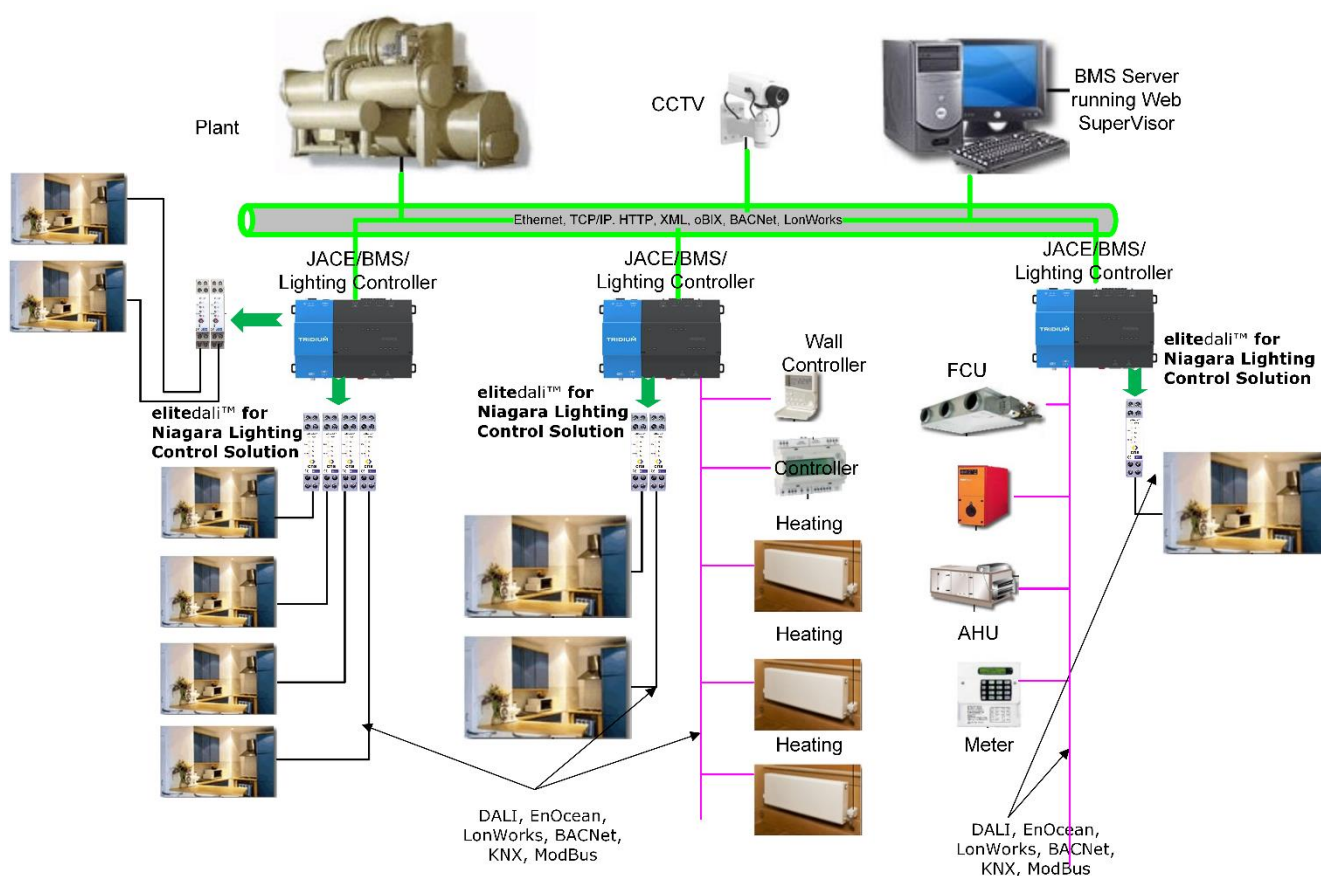
Immediately on Niagara's wiresheets appear the light device objects completely populated with all the required properties according to the DALI standard.

Seamless access to every addressable DALI light fixture's complete data points (according to the DALI IEC 62386 standard) is immediately available.



*This diagram shows maximum possible number of DALI networks per Niagara controllers based on Niagara4 based solution.

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The above image shows a typical multi Niagara BMS platform installation. Some Niagara platforms are dedicated to DALI lighting controls others are sharing these tasks with other sub-systems to which they are also connected.

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CONTACT DETAILS

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Control Network Solutions (cns), a Certified Tridium Developer, creates market disruptive SMART web based solutions for building and lighting controls.

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Facebook: [@CNSLTDUK](https://www.facebook.com/CNSLTDUK)

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