

SYSTEM ARCHITECTURE

This illustration shows how each component is easily integrated into the Encelium Energy Control System. Each light fixture, sensor and lighting controller is daisy-chained back to the Energy Control Unit (ECU) using prefabricated "click & go" GreenBus™ communication cabling. ECUs typically control individual floors and are linked via an Ethernet Network. Internet or LAN connection allows Niagara^{AX} web-based control anywhere on the network. For reference, the component shown on this data sheet is highlighted. ■

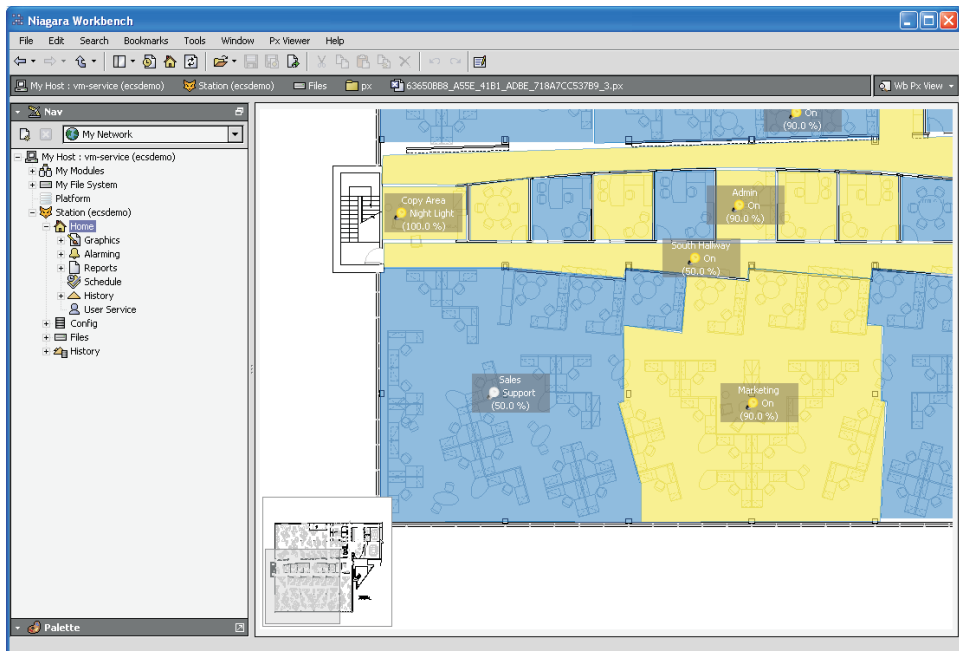
■ NIAGARA^{AX} DRIVER

The Niagara^{AX} Driver enables the integration of the Encelium Energy Control System (ECS) with Niagara^{AX} based building automation systems. ECS operates autonomously while lighting status, lighting levels and occupancy information are all shared and may be controlled via the Niagara^{AX} framework. Niagara^{AX} creates a common environment that connects to almost any embedded device to provide a seamless, uniform view of the device data. This interoperability with the Niagara^{AX} framework will enable easier integration of lighting with HVAC and other building systems thus contributing to lower operating costs and improved ROI.

The Niagara^{AX} Driver:

- Enables switching and dimming control from within the AX platform
- Provides load shedding control over the lighting energy load (including load shedding based on a demand response signal)
 - ECS provides information about the estimated amount of lighting energy load available for reduction, either by selected groups (Group Sheddable Load) or in total load (Sheddable Load). In turn, load shedding requests can be made for each selected group individually or ECS can initiate prioritized load shedding by predefined zones through a single request to reduce the total lighting energy load.
 - Both types of load shed requests can be defined in either Watts to achieve precise load reduction or by the common method of shedding by a percentage of the current lighting load.
- Notifies ECS of an emergency through a Tridium connected fire alarm input to turn all lights on
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- Shares occupancy information obtained by ECS to integrate HVAC control with occupancy
- Utilizes central Niagara^{AX} time schedules

■ NIAGARA^{AX} VIEW GENERATOR



The Niagara^{AX} View Generator tool assists in generating a floorplan-based user interface for supervision and control of the Encelium energy management and lighting control system, for easy integration into the overall web-based BAS interface presented to the end user. The tool automatically generates a navigation system and 'views', by scaling and downloading graphics into the Niagara^{AX} framework. It is easy to add the required 'proxy points' that bind the user interface 'devices' to the proxy points. A number of import options enable matching the automatically generated views with the general appearance to the user. Additionally, views may be manually altered and will retain the altered view upon a data synchronization with the Encelium ECS system.

CONNECTIONS

To communicate between the ECS system and the Tridium BAS system, one of the two connections is required:

- the Encelium network may reside as part of the Tridium BAS network or
- a connection from the Tridium BAS network to the tenant network card of any ECU is required.

Cat. # ERM - 600



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