Case Study
EOS Lightmedia Gateway

Chipkin developed a custom driver for EOS Lighmedia to allow them to send control messages to Building Automation Systems using protocols like BACnet, Modbus, Rockwell … over 120 protocols.
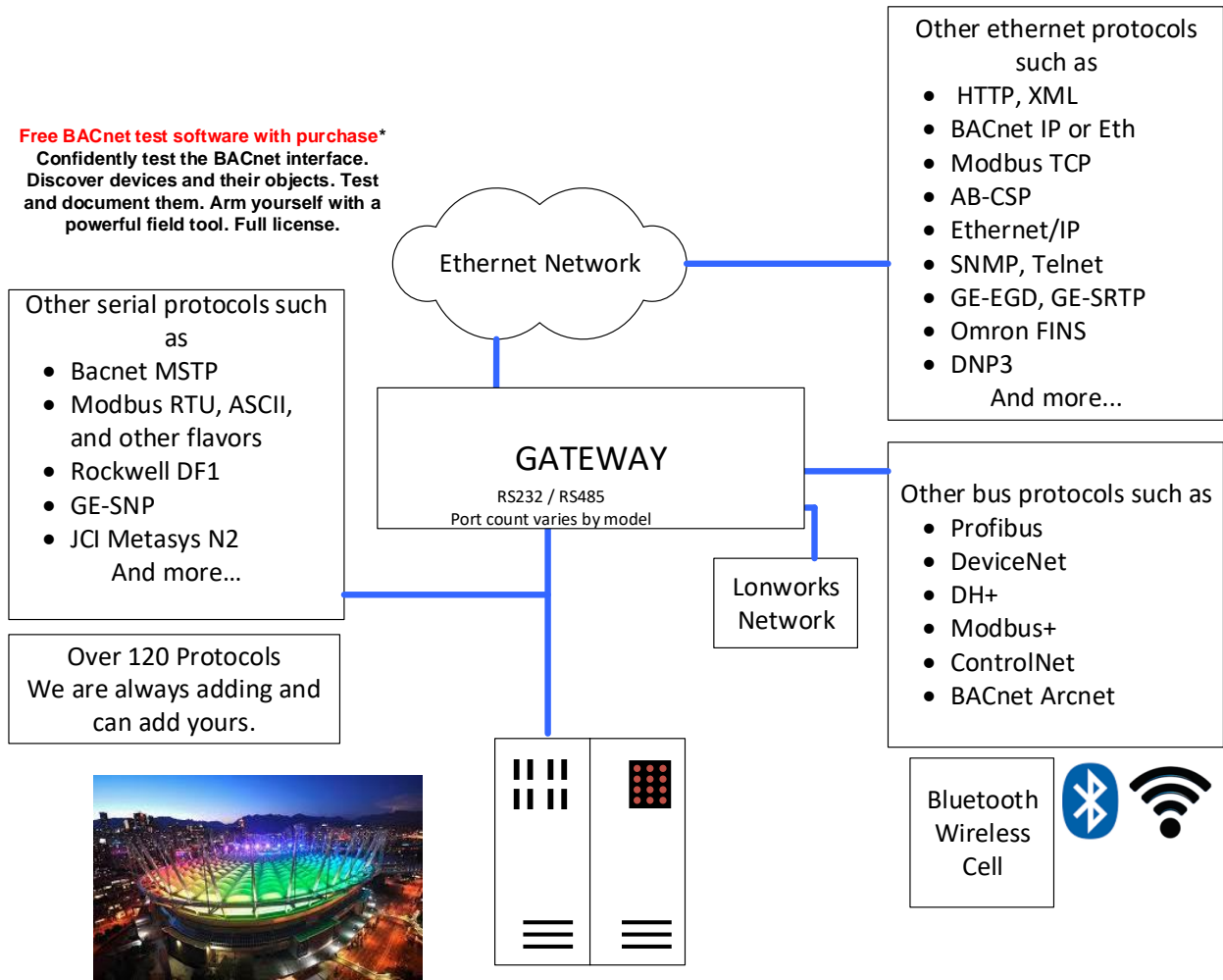
This general-purpose gateway for EOS was applied to a lighting control project in Edmonton in spring 2018 where the EOS system sends command messages to the Douglas Lighting BACnet enabled lighting control system.

Introduction

EOS Lightmedia implement stunning systems. They need interfaces to other lighting systems installed at the sites they work at as well as access to some other control elements in the Building Automation Systems. Working with Chipkin, a protocol was designed and implemented to control over relays, groups and pre-set scenes. This protocol is coupled with any of the other protocols in the FieldServer library to make gateway firmware.

Free BACnet test software with purchase*
**Confidently test the BACnet interface.
Discover devices and their objects. Test
and document them. Arm yourself with a
powerful field tool. Full license.**

Ethernet Network

Other ethernet protocols
such as
- HTTP, XML
- BACnet IP or Eth
- Modbus TCP
- AB-CSP
- Ethernet/IP
- SNMP, Telnet
- GE-EGD, GE-SRTP
- Omron FINS
- DNP3
  And more...

Other serial protocols such
as
- Bacnet MSTP
- Modbus RTU, ASCII,
  and other flavors
- Rockwell DF1
- GE-SNP
- JCI Metasys N2
  And more...

GATEWAY
RS232 / RS485
Port count varies by model

Lonworks
Network

Other bus protocols such as
- Profibus
- DeviceNet
- DH+
- Modbus+
- ControlNet
- BACnet Arcnet

Over 120 Protocols
We are always adding and
can add yours.

Bluetooth
Wireless
Cell

EOS Lightmedia Command Server

EOS LIGHTMEDIA

Chipkin Automation Systems

Protocol to protocol – Enabling the IOT Internet of Things

Products that support approx. 140 major protocols. If we don't have a solution for you, we will
make you one. More than a dozen customers a year have a custom driver developed for them.

Chipkin are highly regarded for their outstanding support. System integration isn't always trivial even if that is what they tell you.

The Chipkin BACnet stack comes with a 100% copyright infringement indemnity to make corporate lawyers happy. Customers get direct access to the stack developers for coaching and problem solving.

EOS Lightmedia

Eos Lightmedia is an award-winning lighting and media design firm with international experience in architecture, public spaces, building facades, themed attractions, museums, presentation centers, and public art installations.

Eos really lights up a room. We create immersive environments that attract and inspire audiences. Eos has evolved from an award-winning lighting and media design firm with over 25 years of international experience in architecture, themed attractions, exhibitions, museums, presentation centres, and public art installations.

Our services have expanded to include design, supply, install, and programming services of lighting and media systems, including their control technology. We love collaboration. Even if you're not sure where to start, we'd love to hear about your project, big or small.
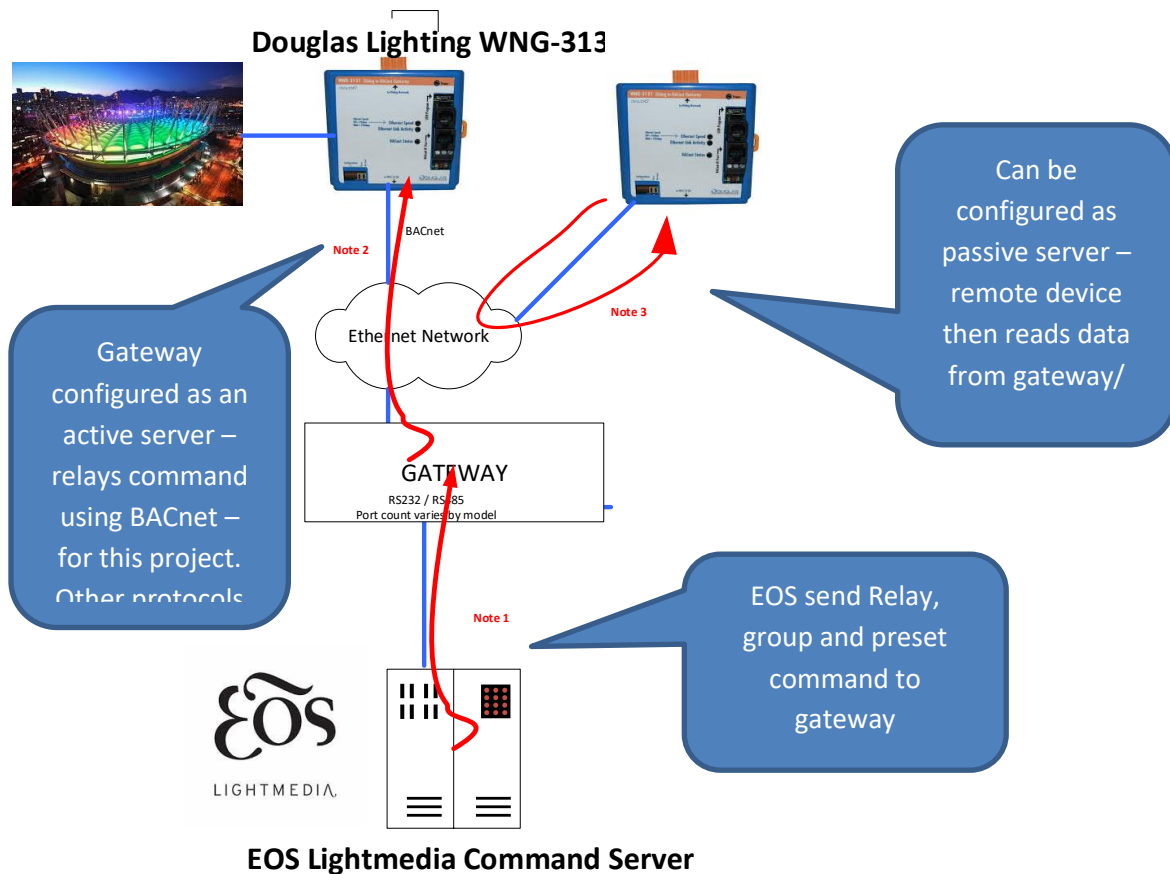
Cactus Club

Coal Harbour

Vancouver

Some Details

EOS commands to the gateway can be actively relayed to control points in remote devices. In other configurations, the command data can be made available in server mode using protocols like BACnet in which case the remote BACnet device must read the command data out of the gateway.

Douglas Lighting WNG-313

BACnet

Note 2

Ethernet Network

Note 3

Can be configured as passive server – remote device then reads data from gateway/

Gateway configured as an active server – relays command using BACnet – for this project. Other protocols

GATEWAY
RS232 / RS485
Port count varies by model

Note 1

EOS send Relay, group and preset command to gateway

LIGHTMEDIA

EOS Lightmedia Command Server

Examples of message formats

Relays

D1R2on<CR> = Device/Panel 1 Relay 2 command on

D142R1168off<CR> = Device/Panel 142 Relay 1168 command off

D12R1-4off<CR> = Device/Panel 12 Relay 1-4 command off (Sub relay command)

Groups

D1G2off<CR> = Device/Panel 1 Group 2 command off

D142G123on<CR> = Device/Panel 142 Group 123 command on

Pre-set Scenes

D1P123off<CR> = Device/Panel 1 Preset 123 command off

D142P1on<CR> = Device/Panel 142 Preset 1 command on

Keywords

Lighting Controls
Lighting Automation
EOS Lightmedia gateway
EOS Lightmedia automation
EOS Lightmedia integration
EOS Lightmedia BACnet
EOS Bacnet
EOS Modbus
Douglas Lighting WNG
Douglas Lighting BACnet
Protocol gateway
One protocol to another
BACnet/IP
Custom driver development
System integration
Lighting integration
Custom protocol development