

## CAS-2700-53 Pulse to BACnet IP Gateway

### Description

The Pulse Driver allows the Gateway to poll a web server that uses the Pulse API for real time data. The driver uses HTTP GET requests with specific URLs to get the data as JSON packets.

The CAS Gateway is configured as a BACnet IP Server device and serves the Pulse data as BACnet objects.

The Gateway connects to the web server, requests the data, parses the response, and stores the data internally. When a remote system requests data, this data is then served in a form that is appropriate to the protocol, which for this driver is BACnet IP.

The driver is an Ethernet driver that uses Ethernet cables and a hub or switch to connect the CAS Gateway to the internet.

Please refer to the Features section for details on what portions of the Pulse API are used in this Gateway.

### Specifications (If Hardware)

- **UL and ULc approved**
- 10/100BaseT with RJ-45 connector
- 1x RS232 Port
- 1x RS485 Port (Different Models have additional ports)
- 2MBytes flash memory, 8MBytes of SDRAM
- Power: 5-24VDC
- Operating Temperature: 0 to 70 C
- Dimensions: 4.2" x 3.25" x 1"
- LEDs: Link, Speed/Data, Power

**Max Nodes Supported (If Applicable)**

Gateway Mode	Nodes	Comments
Client	*	<i>The Gateway can poll for values from multiple Pulse servers.</i>
Server	*	<i>The Gateway can receive BACnet IP requests from multiple BACnet IP Clients</i>

**Connection Information - Port 0: Modbus RTU Server Port – Not Used**

<b>Connection type:</b>	RS485 (Jumper change to RS232)
<b>Baud Rates:</b>	9600; 19200 Baud
<b>Data Bits:</b>	8
<b>Stop Bits:</b>	1
<b>Parity:</b>	None
<b>Hardware interface:</b>	N/A
<b>Multidrop Capability</b>	Yes

**Connection Information - Port 1 – Not Used**

<b>Connection type:</b>	RS232
<b>Baud Rates:</b>	Driver Supports : 1200, 2400, 4800, <b>9600</b> ; 19200Baud
<b>Data Bits:</b>	Driver Supports : 7, <b>8</b>
<b>Stop Bits:</b>	Driver Supports : 1,2
<b>Parity:</b>	Driver Supports : Odd, Even, <b>None</b>
<b>Hardware interface:</b>	N/A
<b>Multidrop Capability</b>	No

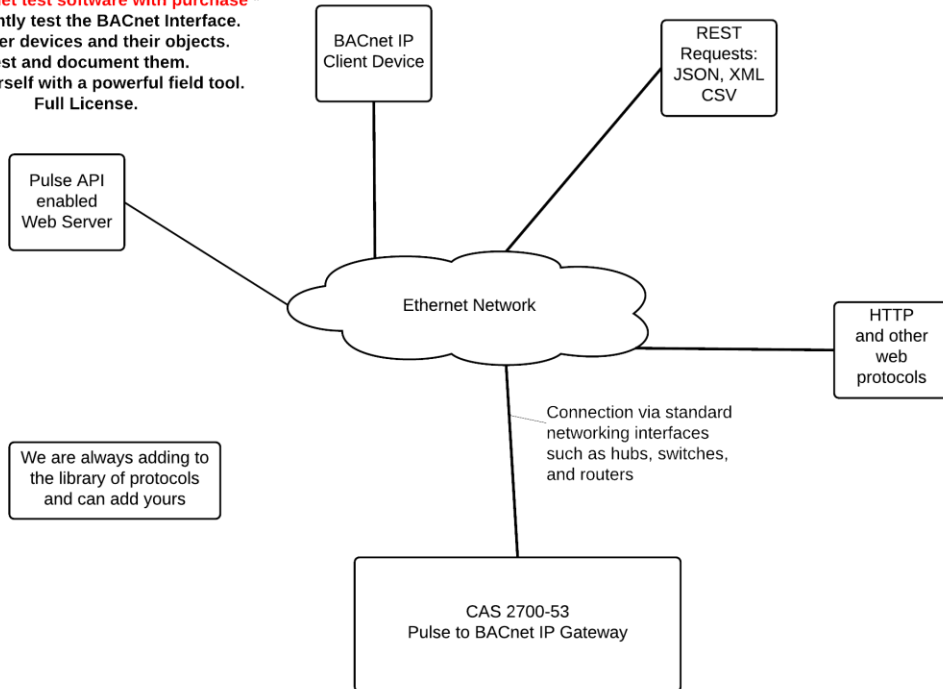
**Devices Tested**

Device	Tested (FACTORY, SITE)

**Connection Diagram**

**Monitor Pulse API enabled Web Servers  
using BACnet IP**

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## Driver Operation

The driver can be configured to execute any of the commands in the 'supported function' list. The data sent is stored internally in the Gateway and is made available to other protocols (BACnet IP and HTML).

The frequency with each data point is read is configurable. The driver retries on errors or timeouts.

The driver reports operating stats and issues on a web page, maintains a log that can be uploaded by HTTP or ftp.

## Configuration

Via Web Page:

Configure IP settings, URLs for polling, and polling frequencies. The names are used to form the names of the BACnet objects and populate the web page showing current values.

Use can specify

Pulse API: IP Address, Port, URL, poll frequency

BACnet: Device instance number, device name.

## Features

### **Supported Resources**

Not all Pulse data points are supported. The following functions are supported by the Web based configuration. For additional functions, please contact the Chipkin Sales Team.

### Resource Types

Spaces

### **Supported Parameters**

The driver supports polling using the following parameters for the spaces resource:

- Interval
- Resource
  - Electricity
- Quantity
  - Apparent Power

The driver will not send the next command until a response has been received from the previous or until a timeout has expired.

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**Support**

This driver was developed by Chipkin Automation Systems (CAS). CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

**Revision History**

Date	Resp	Format	Driver Ver.	Doc. Rev.	Comment
2015 Sep 29	ACF		0.01	0	Created