Chipkin™ CAS 2700 HTTP Push
USER MANUAL

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DOCUMENT REVISION HISTORY

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<th>DATE</th>
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<tr>
<td>1</td>
<td>2019-Mar-12</td>
<td>ACF</td>
<td>Document created</td>
</tr>
</tbody>
</table>

*Table 1 - Document Revision History*
1. PREFACE

1.1 WELCOME
As a new owner of Chipkin Automation Systems™ (CAS) Gateway you have joined thousands of satisfied customers who use Chipkin’s protocol gateways, data clients and integration services to meet their building and industrial automation requirements. Our configuration expertise in this field combined with free BACnet and other tools ensure your success; and our customer support via phone, email and remote desktop tools means that we’re there when you need us. Thank you for choosing Chipkin’s products.

1.2 CHIPKIN
Chipkin offers expert solutions for your building and industrial automation requirements. We develop, configure, install and support gateways (protocol converters), data loggers, and remote monitor and controlling applications. Founded in October 2000, Chipkin provides expert solutions for converting BACnet®, Modbus®, and Lonworks®—to name just a few—and enabling interfaces for HVAC, fire, siren, intercom, lighting, transportation and fuel systems. The high-quality products we offer (including those from other vendors) interface with Simplex™, Notifier™, McQuay™, GE™ and many others—so you can rest assured that Chipkin will select the most appropriate solution for your application.

1.3 SAFETY WARNINGS
The CAS Gateway User Manual provides information on how to install and configure the gateway and is intended for engineers, project management consultants and building management services. Before you install the device, please observe the safety warnings described in this manual.

1.4 CUSTOMER SUPPORT
Chipkin is a small responsive company, and we live or die by the quality of our service—and with offices in two time-zones—we can provide support when you need it. For information on sales, service, obtaining documentation or submitting a service request, please call us toll free at 1-866-383-1657. Thanks for choosing Chipkin’s protocol gateways, data clients and integration services to meet your building and industrial automation requirements.
2. CONNECTIONS

2.1 NETWORK CONNECTIONS

This block diagram lists common network connections that can monitor and control data from HTTP devices using BACnet IP, Modbus RTU/TCP, etc.

Figure 2.1-1. Network Connections Block Diagram
2.2 COMUNICATION PORTS
The Gateway uses the following ports for communication:

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Port</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP</td>
<td>TCP 80</td>
<td>Web server.</td>
</tr>
<tr>
<td>BACnet IP</td>
<td>UDP 47808</td>
<td>Default port, can be configured.</td>
</tr>
<tr>
<td>Modbus TCP</td>
<td>TCP 502</td>
<td>Default port, can be configured.</td>
</tr>
<tr>
<td>Syslog</td>
<td>UDP 514</td>
<td>Can be disabled.</td>
</tr>
<tr>
<td>FTP</td>
<td>TCP 21</td>
<td>Can be disabled.</td>
</tr>
</tbody>
</table>

*Table 2 - Communication ports*
3. HTTP Push Configuration

This section contains instructions on how to configure the CAS Gateway CAS-2700 to send data as HTTP Put or HTTP Post payloads. The current driver contains only two options for payloads: Default JSON or Veeder JSON. These will be described in more detail below. If a specific format is required (JSON, XML, or other), please contact Chipkin to discuss.

To access the configuration page, open a web browser and type in the following url:

```
http://{ipaddress}/bin/httppush/config
```

where {ipaddress} is the IP Address of the CAS Gateway.

Or, from the main system page, click on the following link:

![Figure 3-2.2-1 HTTP Push Config Link](image-url)
## HTTP Push Configuration

Configure the Gateway to push data to a 3rd party server

### End Points

**Actions**: Insert| Download as CSV  
**Error**: Table is empty

### Method and Headers

**Actions**: Insert| Download as CSV  
**Error**: Table is empty

### Tasks

**Actions**: Insert| Download as CSV  
**Error**: Table is empty

*Figure 3-2.2-2 HTTP Push Config*
3.1 End Point Configuration

First add an end point. Click on the End Points “insert” link to add a new end point.

You will see the following form:

![End Point Insert Link](image)

Fill out the following fields:

- **Host** – The IP Address or Host domain of the server that will receive the data
• **Port** – The port to use when pushing data. Default: 80
• **Url** – The url end point of where to send the data payload.

Once the fields are filled, click the “Add End Point” button. If successful, you will see a new entry on the main configuration page as seen below:

![HTTP Push Configuration](image)

*Figure 3.1-3 End Point added successfully*
3.2 Method and Headers Configuration

Next, add a method and headers to the end point. Click on the Methods and Headers “insert” link to add a new one.

![Figure 3.2-1 Method and Headers Insert Link](image)

You will see the following form:
3.2.1 Select End Point
First, select the End Point to use from the drop-down box. This will include a list of all the end points that have been configured.

3.2.2 Method Configuration
Choose the Data and HTTP Methods to use
Data Methods

At the time of the writing of this manual, the HTTP Push driver only supports the following data methods:

- **Default JSON** – uses Chipkin's default JSON payload
- **VeederRoot JSON** – a specific payload for Veeder Root data

If you require a specific payload (JSON format, XML schema, CSV, etc), please contact Chipkin to discuss your requirements.

HTTP Methods

Select either PUT or POST as the HTTP Method for sending the data payload.

3.2.3 **Header Configuration**

Add any headers that are required for sending the data payload. These headers are stored as a JSON object and must conform to JSON spec. When adding additional headers, make sure each header is on a new line and that there is a trailing comma where needed.

Please note that all standard HTTP headers will use their specific formatting. For example: Content-Type etc.

For authorization, use username and password headers. Note that these are all lower case:

Here is an example of some headers:

```json
"Content-Type" : "application/json",
"username" : "admin",
"password" : "12345"
```

If you do not require any additional headers, simply delete any contents and keep the Header Configuration text area empty.

Click on the “Add Method and Headers” button to save the items. If successful, you will see a new entry in the Method and Headers section of the configuration page as seen below:
Figure 3.2-3 Method and Header added successfully
3.3 **Task Configuration**

Finally, add tasks that will package the data and send the payload.
To add a task, click on the Task Configuration “Insert” link as seen below:

![Figure 3.3-1 Tasks Insert Link](image)

Depending on what Data Method was selected in step 3.2, a different form is displayed.

3.3.1 **Default JSON**

If using the Default JSON data method, you will see the following Task form:
First, select the End Point and Method of where to send the data.

Next, fill out the form with the following fields:

- **Task Name** – The name of the task, this is used just for identification.
- **Data Table** – The data table where the data is stored. Default: da_data
- **Data Offset** – The index in the data table of the first data point to use.
- **Data Length** – The number of data points to push.
- **Frequency** – How often in seconds to push the data.

After filling out the fields, click the “Add Task” button to add the task. If successful, you will see the task in the configuration page as seen below:

![Figure 3.3-2 Default JSON Form](image)

---

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Name</td>
<td></td>
<td>The name of this task</td>
</tr>
<tr>
<td>Data Table</td>
<td>da_data</td>
<td>The table where the data is, default da_data</td>
</tr>
<tr>
<td>Data Offset</td>
<td></td>
<td>The data offset of the data in the table</td>
</tr>
<tr>
<td>Data Length</td>
<td></td>
<td>The number of data points to push</td>
</tr>
<tr>
<td>Frequency</td>
<td></td>
<td>How often in seconds to push the data</td>
</tr>
</tbody>
</table>
Figure 3.3-3 Default JSON Task added successfully

3.3.2 VeederRoot JSON
If using the VeederRoot JSON method you will see the following form:
First, select the End Point and Method of where the data will be pushed.

Next, fill out the Frequency field to specify how often in seconds to push the data.

Finally, select the Veeder Root Tank data to send.

Note: There must be a VeederRoot configuration completed for this method to work.

Once all the fields have been filled and selected, click the “Add Task” button. If successful, you will see new tasks added to the configuration page as seen below:
### HTTP Push Configuration

Configure the Gateway to push data to a 3rd party server.

**End Points**

Actions: Insert | Download as CSV
Displaying 30 records from 0-1 of a total 1

<table>
<thead>
<tr>
<th>action</th>
<th>id</th>
<th>Host</th>
<th>Port</th>
<th>Url</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>example.com</td>
<td>80</td>
<td>/testData</td>
</tr>
</tbody>
</table>

**Method and Headers**

Actions: Insert | Download as CSV
Displaying 30 records from 0-1 of a total 1

<table>
<thead>
<tr>
<th>action</th>
<th>id</th>
<th>Headers</th>
<th>Http Method</th>
<th>Data Method</th>
<th>End Point</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>none</td>
<td>POST</td>
<td>VeederRoot JSON</td>
<td>example.com/testData</td>
</tr>
</tbody>
</table>

**Tasks**

Actions: Insert | Download as CSV
Displaying 30 records from 0-2 of a total 2

<table>
<thead>
<tr>
<th>action</th>
<th>id</th>
<th>Data Length</th>
<th>Data Offset</th>
<th>Data Table</th>
<th>Method and Endpoint</th>
<th>Task Name</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>41</td>
<td>1</td>
<td>da_data</td>
<td>POST VeederRoot JSON to example.com/testData</td>
<td>Tank 01 Data</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>41</td>
<td>101</td>
<td>da_data</td>
<td>POST VeederRoot JSON to example.com/testData</td>
<td>Tank 02 Data</td>
<td>30</td>
</tr>
</tbody>
</table>

*Figure 3.3-5 VeederRoot JSON Task added successfully*
THANK YOU

Thanks for choosing Chipkin's protocol gateways, data clients and integration services to meet your building and industrial automation requirements!

Chipkin Automation Systems™ (Chipkin) is a building and industrial automation protocol expert. We develop, configure, install and support gateways (protocol converters), data loggers and remote monitor and controlling applications.

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With Chipkin you are buying a solution. Our configuration expertise in this field combined with free BACnet tools and other tools ensure your success; and our customer support via phone, email and remote desktop tools means that we're there when you need us. Chipkin is a small responsive company, and we live or die by the quality of our service—and with offices in two-time zones—we can provide support when you need it. Give us a call now!

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