CHIPKIN
Toll Free: 1 866 383-1657
3381 Cambie St., #211 Vancouver, BC Canada V5Z 4R3

Chipkin™ CAS 2700 HTTP Push
USER MANUAL

VERSION: 0.08
PRODUCT NUMBER: CAS-2700
DOCUMENT REVISION: 1

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

COPYRIGHT & TRADEMARKS

DISCLAIMER

Chipkin Automation Systems™ has limited its liability for damages incurred by the customer or its personnel in the contractual documents pursuant to which the product is provided to the customer. The information and specifications contained throughout this user manual are up to date at the time of publication. Chipkin Automation Systems has used, and continues to use, its best efforts to maintain this user manual to reflect the most current configuration of the product. Chipkin Automation Systems reserves the right to change the contents of this user manual at any time without notice and assumes no liability for its accuracy. In the preparation of this user manual, Chipkin Automation Systems has incorporated, and/or compiled service information and maintenance procedures sourced from manufacturers and vendors of parts and components used in the manufacturing of this product. Therefore, Chipkin Automation Systems shall not be liable for omissions or missing data. It is not the intension of this user manual to instruct service technicians in using common sense, basic skills and rules of service repair.

CONFIDENTIALITY

The information contained in this document is the intellectual property of Chipkin Automation Systems and is Commercially Confidential. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Chipkin Automation Systems.

DOCUMENT REVISION HISTORY

REVISION	DATE	AUTHOR	NOTE
1	2019-Mar-12	ACF	Document created

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 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.

SALES AND CUSTOMER SUPPORT
TOLL FREE: 1-866-383-1657
FAX: 1-416-915-4024
EMAIL: salesgroup1@chipkin.com

GENERAL
TOLL FREE: 1-866-383-1657
FAX: 1-416-915-4024
EMAIL: support@chipkin.com

SHIPPING ADDRESS
3381 Cambie St., #211
Vancouver, BC, Canada V5Z 4R3

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.

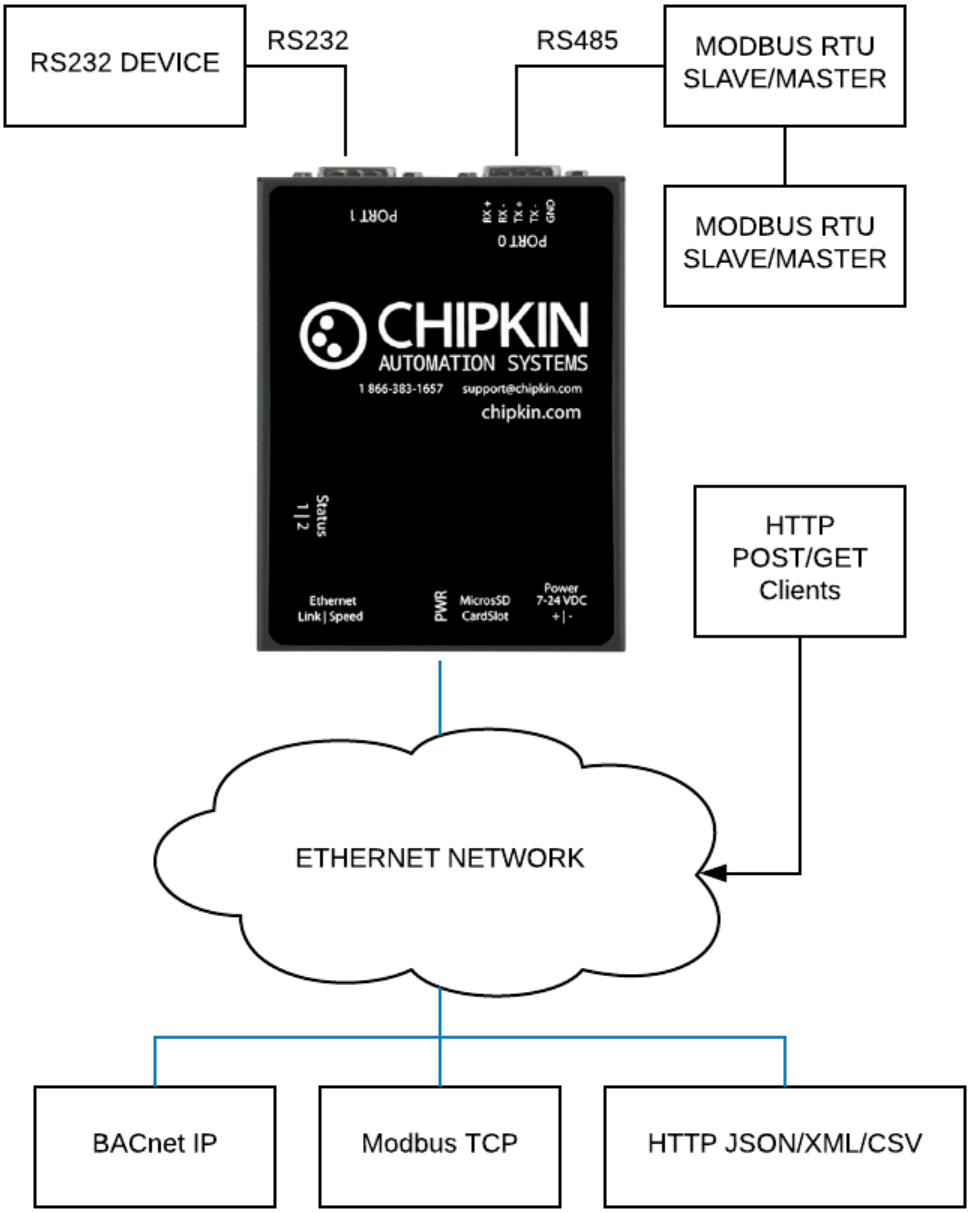


Figure 2.1-1. Network Connections Block Diagram

2.2 COMUNCATION PORTS

The Gateway uses the following ports for communication:

Protocol	Port	Notes
HTTP	TCP 80	Web server.
BACnet IP	UDP 47808	Default port, can be configured.
Modbus TCP	TCP 502	Default port, can be configured.
Syslog	UDP 514	Can be disabled.
FTP	TCP 21	Can be disabled.

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:

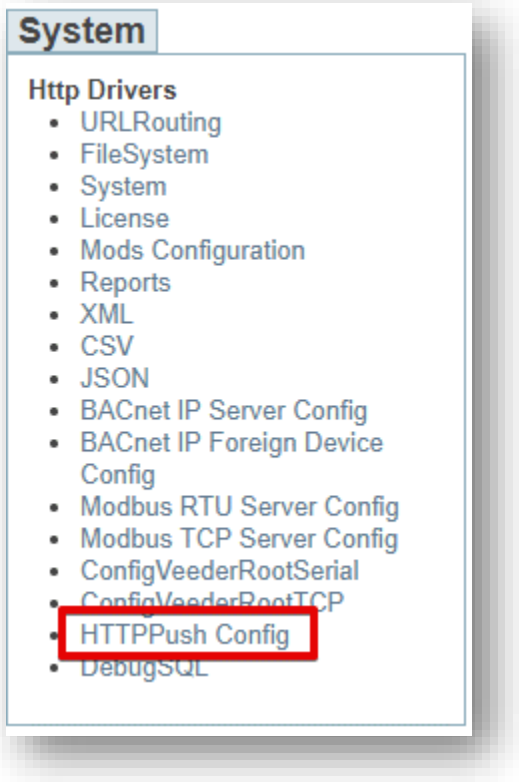


Figure 3-2.2-1 HTTP Push Config Link

You will see the following page:

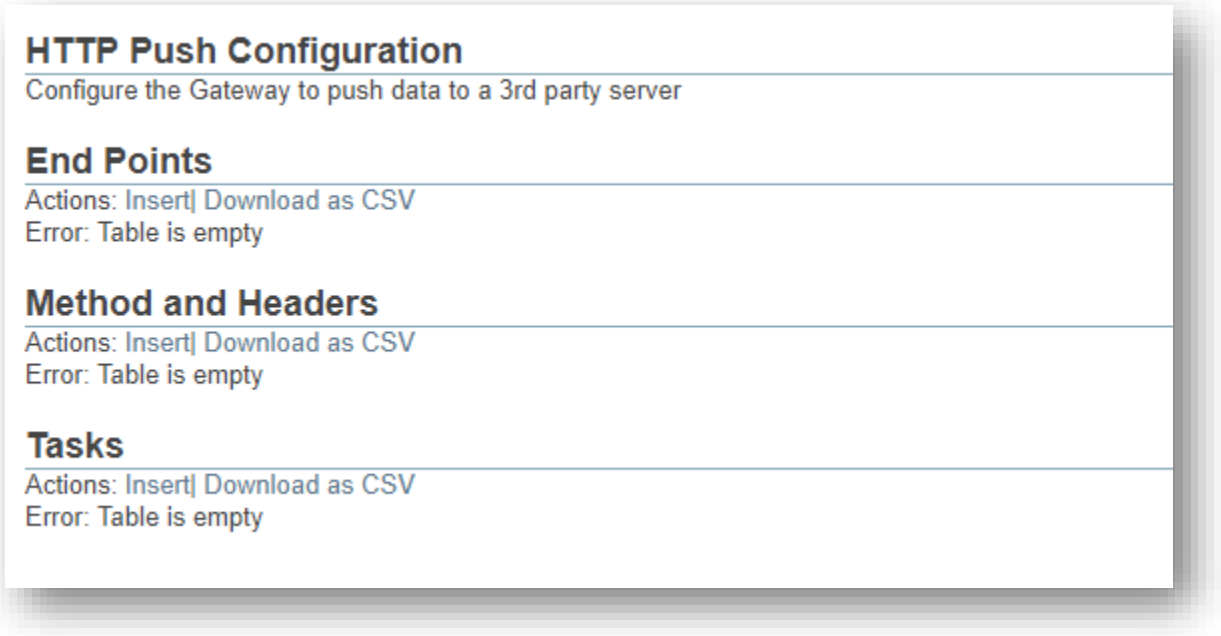


Figure 3-2.2-2 HTTP Push Config

3.1 End Point Configuration

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

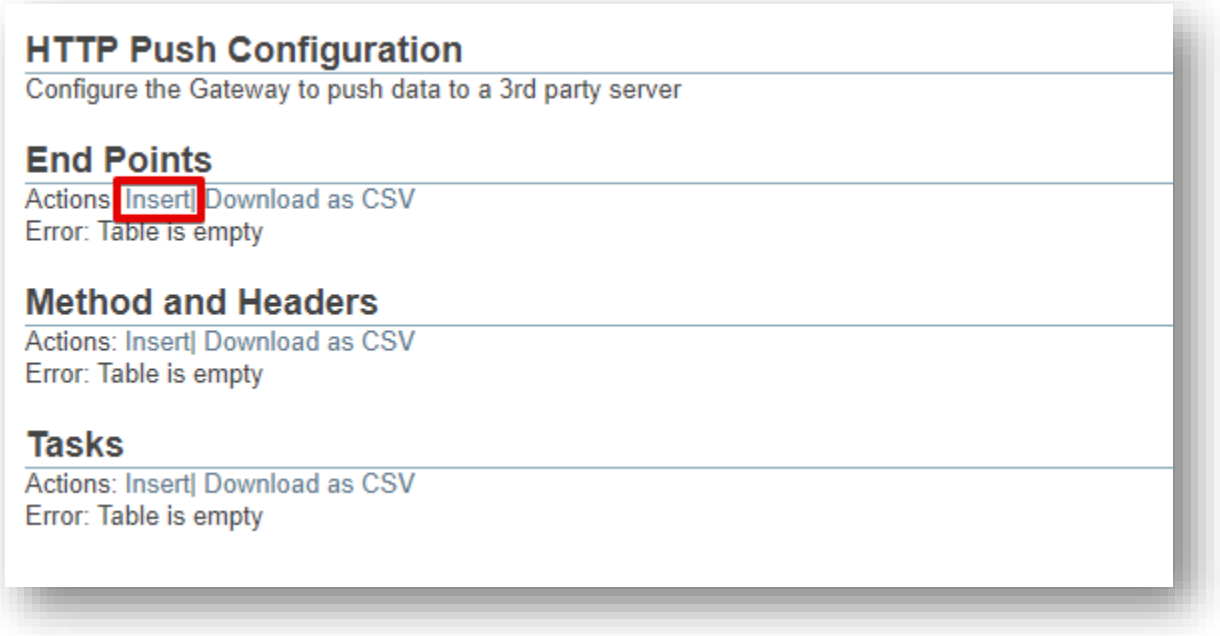


Figure 3.1-1 End Point Insert Link

You will see the following form:

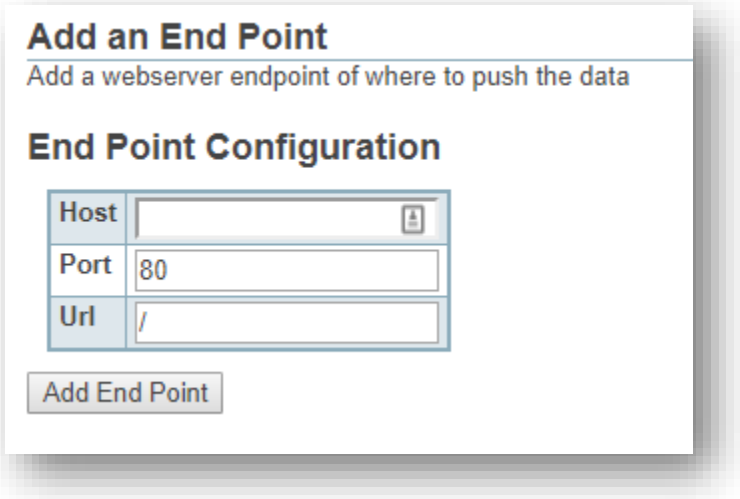


Figure 3.1-2 End Point Form

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:

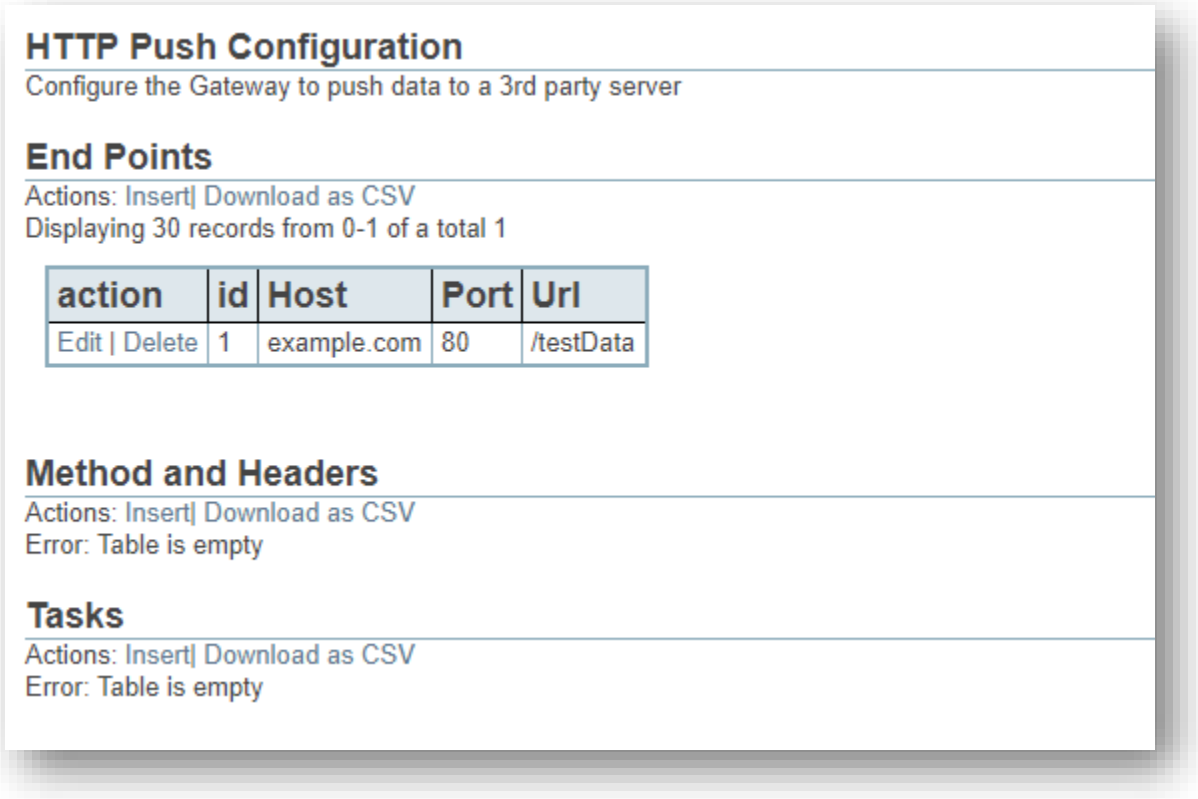


Figure 3.1-3 End Point added successfully

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.

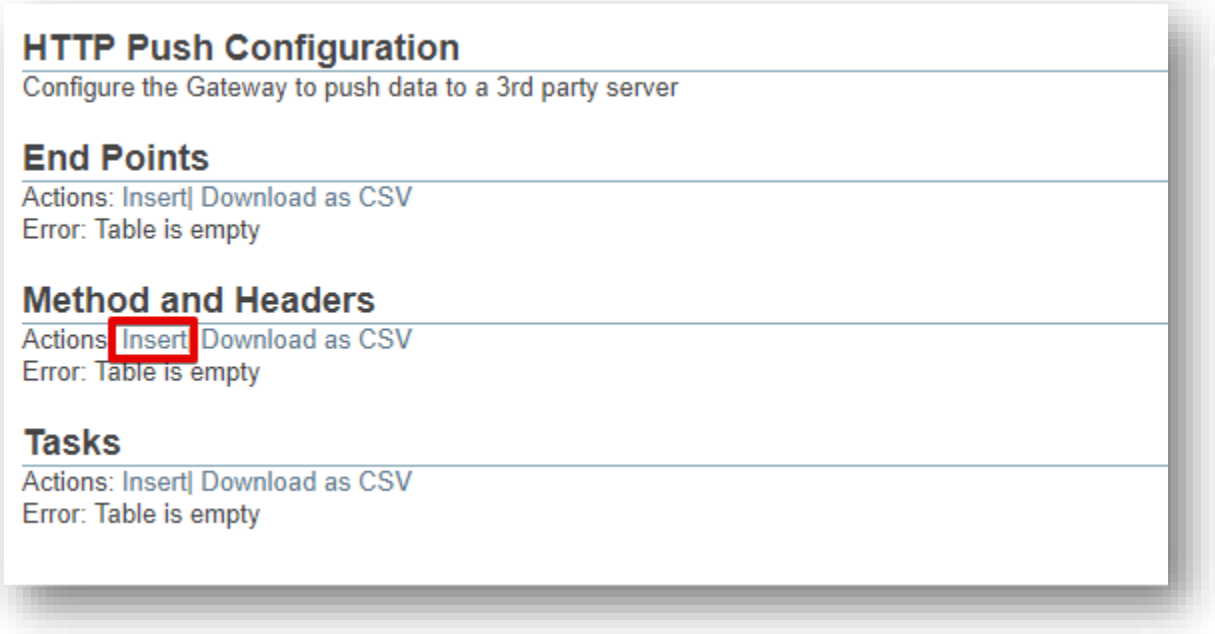


Figure 3.2-1 Method and Headers Insert Link

You will see the following form:

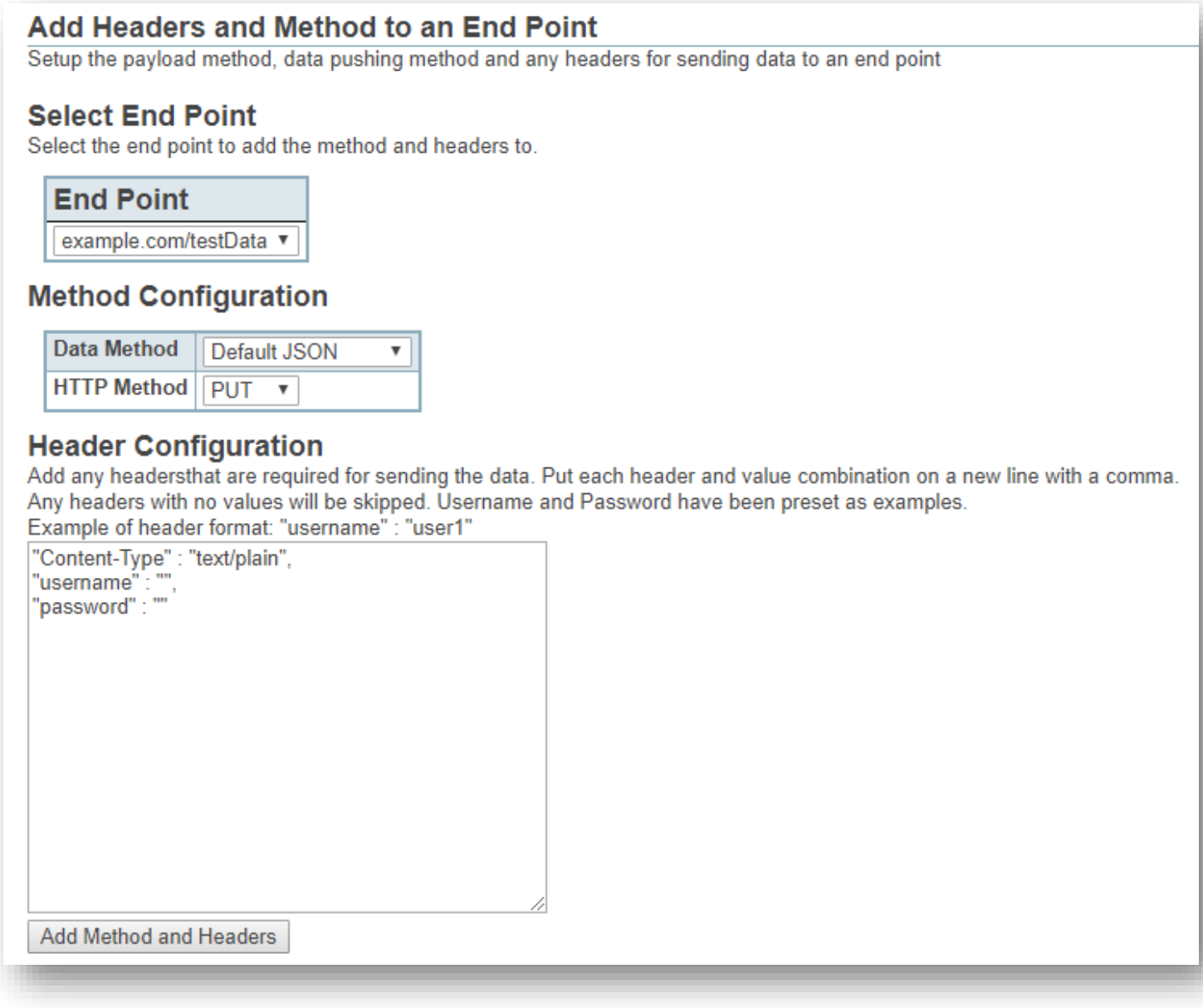


Figure 3.2-2 Method and Headers Form

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.

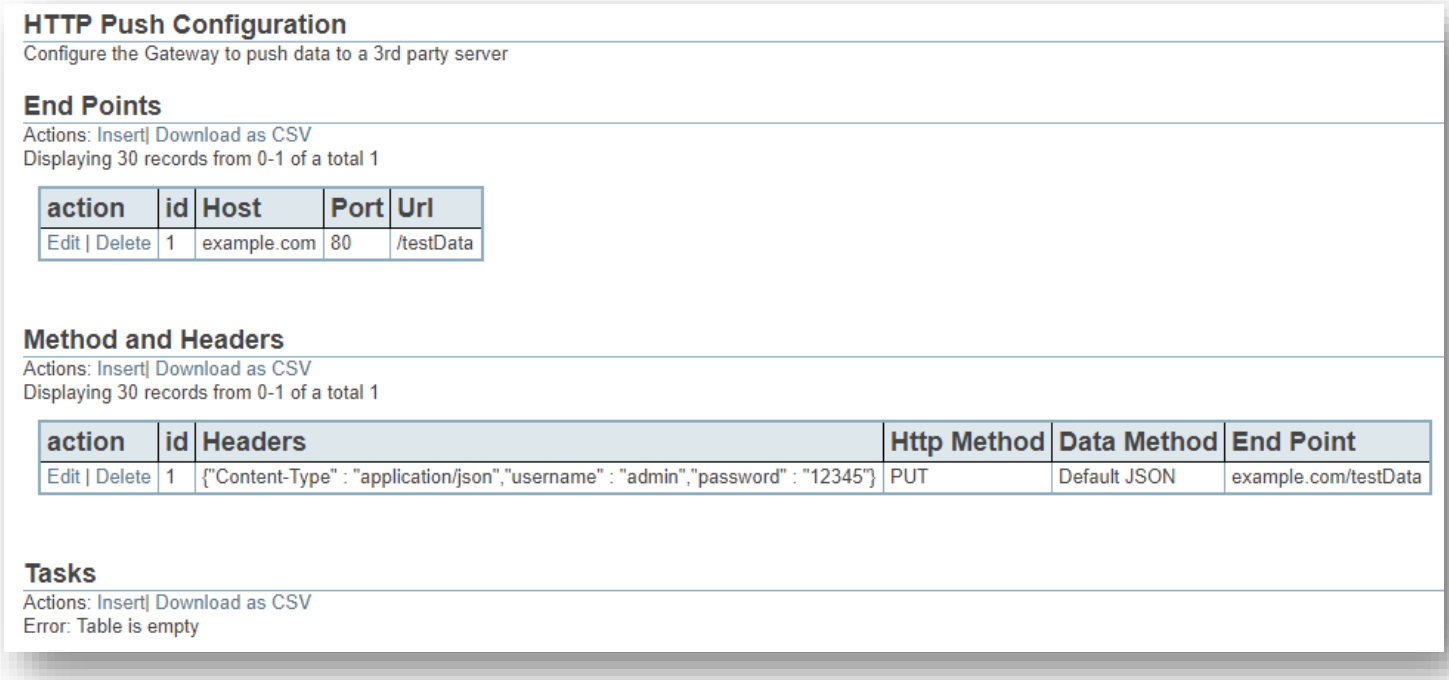
For authorization, use username and password headers. Note that these are all lower case:

Here is an example of some headers:

```
"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:



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

action	id	Host	Port	Url
Edit | Delete	1	example.com	80	/testData

Method and Headers

Actions: Insert| Download as CSV

Displaying 30 records from 0-1 of a total 1

action	id	Headers	Http Method	Data Method	End Point
Edit | Delete	1	{"Content-Type" : "application/json","username" : "admin","password" : "12345"}	PUT	Default JSON	example.com/testData

Tasks

Actions: Insert| Download as CSV

Error: Table is empty

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:

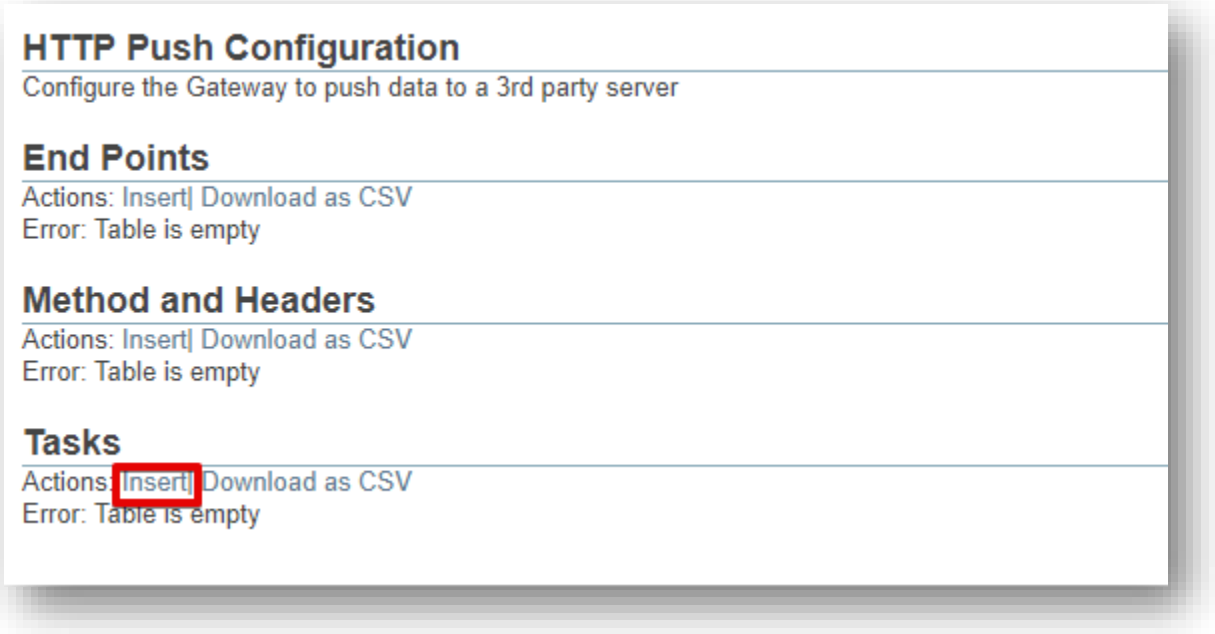


Figure 3.3-1 Tasks Insert Link

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:

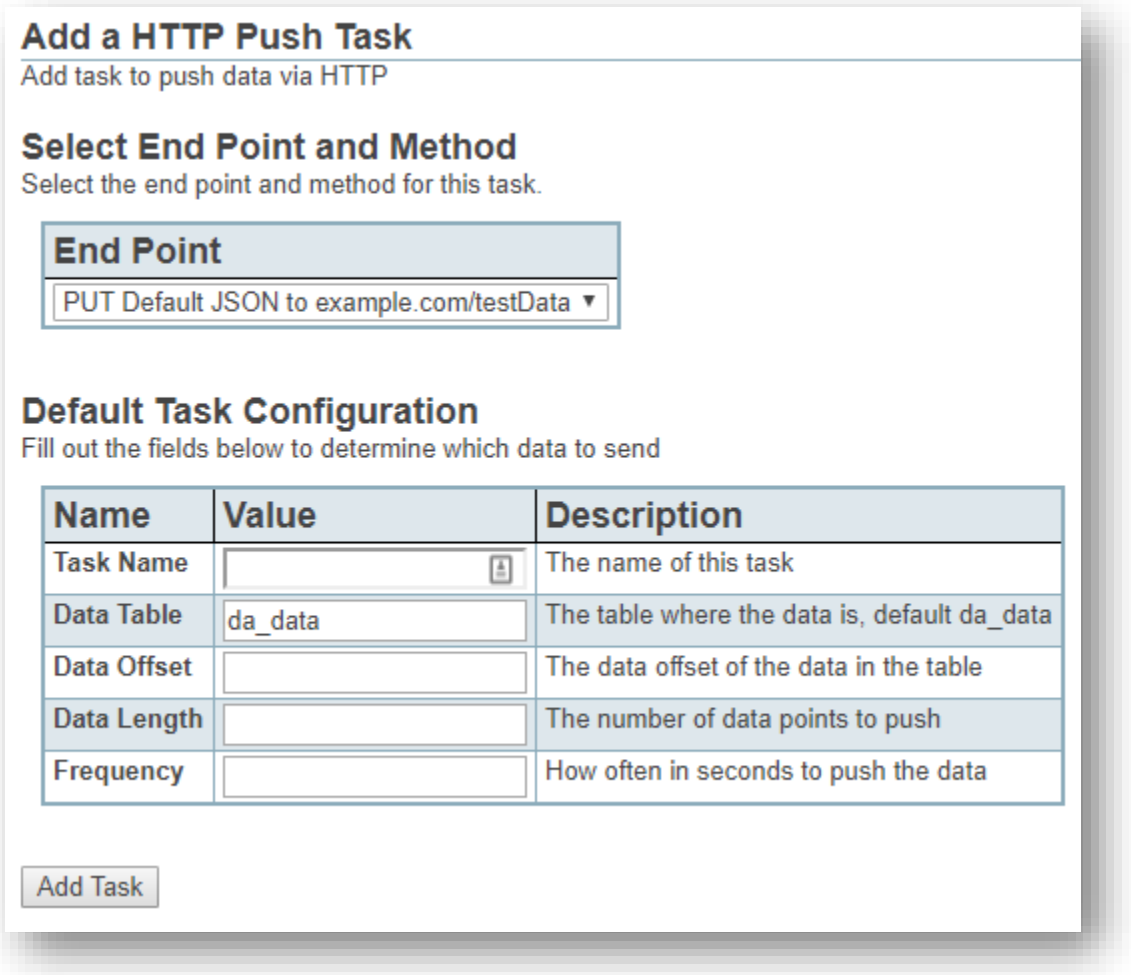


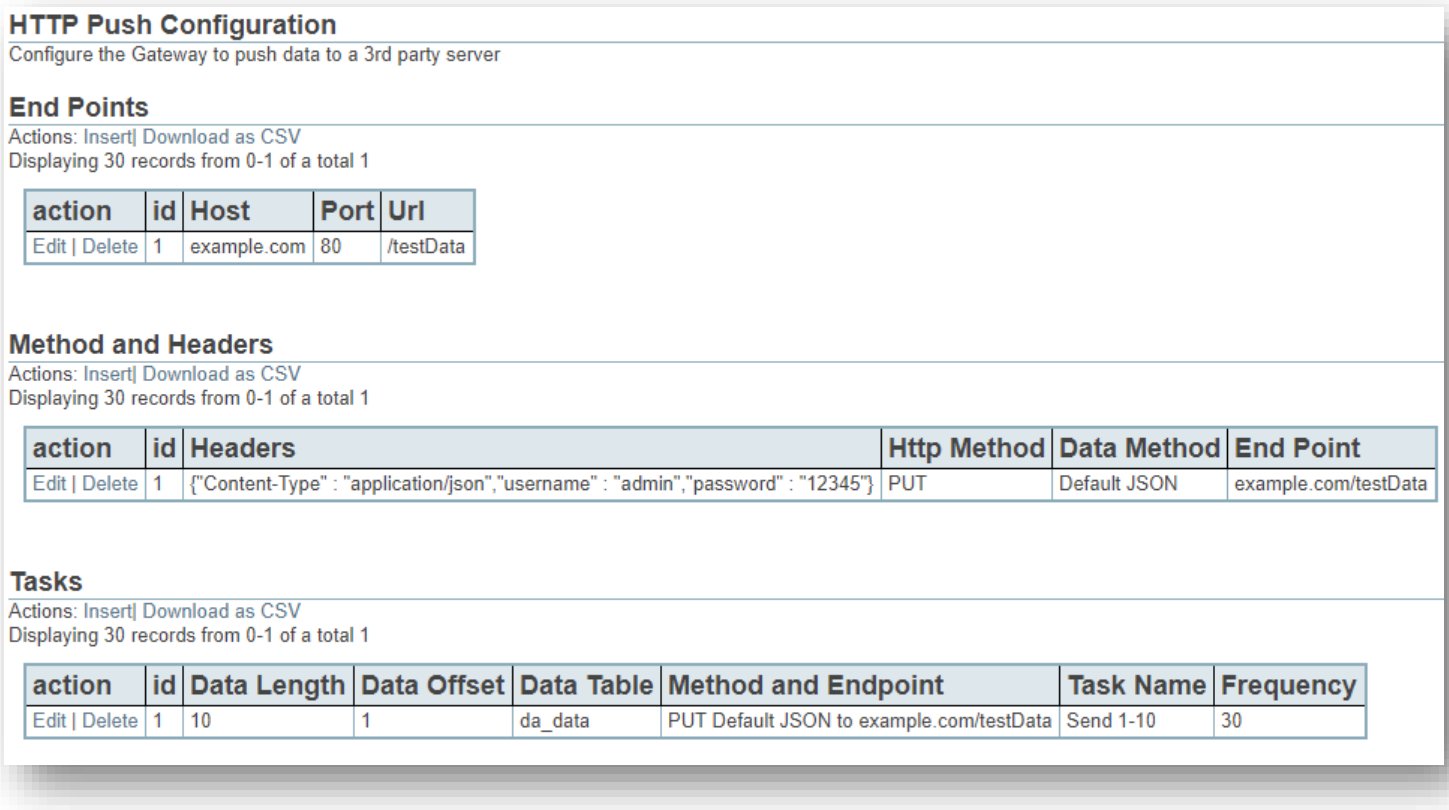
Figure 3.3-2 Default JSON Form

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:



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

action	id	Host	Port	Url
Edit | Delete	1	example.com	80	/testData

Method and Headers

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

action	id	Headers	Http Method	Data Method	End Point
Edit | Delete	1	{"Content-Type" : "application/json","username" : "admin","password" : "12345"}	PUT	Default JSON	example.com/testData

Tasks

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

action	id	Data Length	Data Offset	Data Table	Method and Endpoint	Task Name	Frequency
Edit | Delete	1	10	1	da_data	PUT Default JSON to example.com/testData	Send 1-10	30

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:

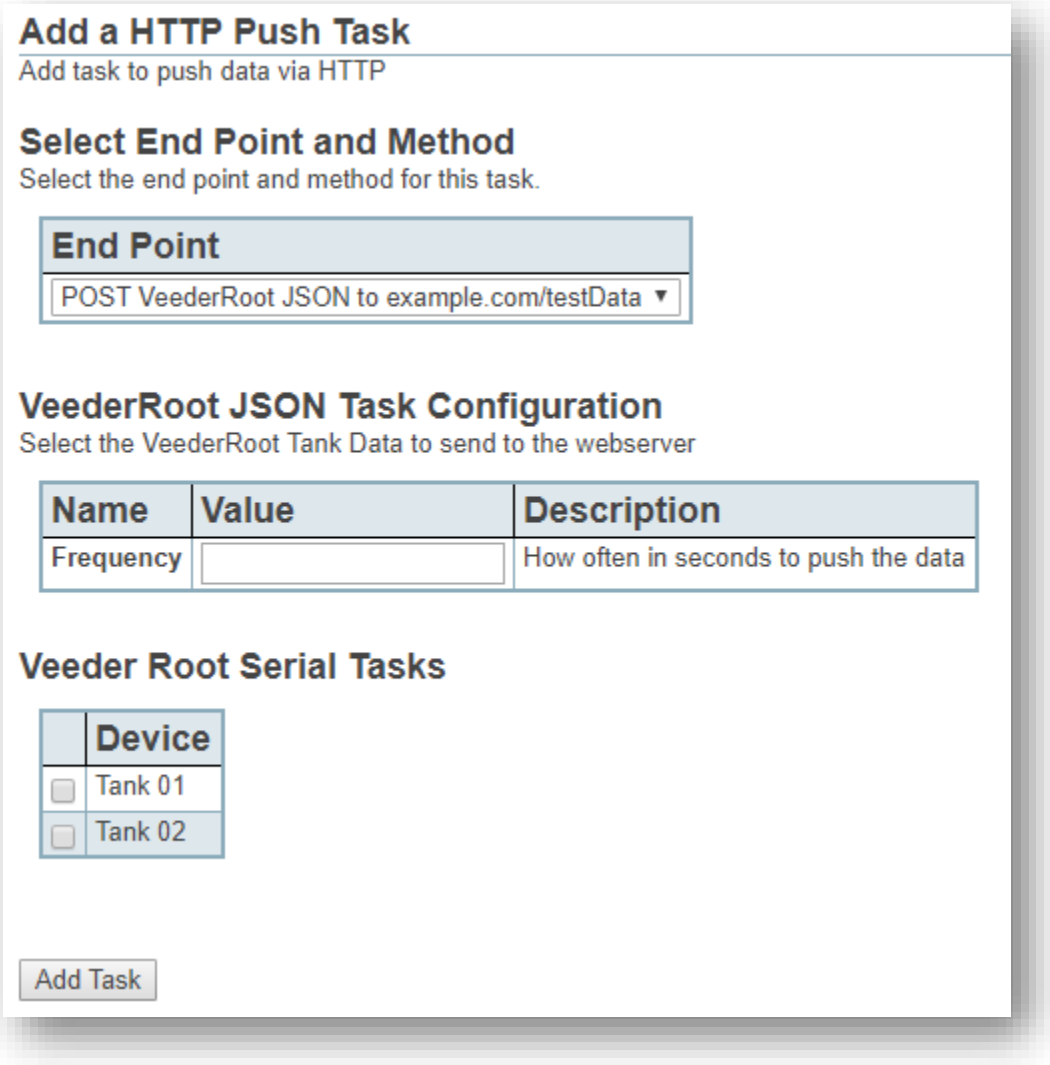


Figure 3.3-4 VeederRoot JSON Form

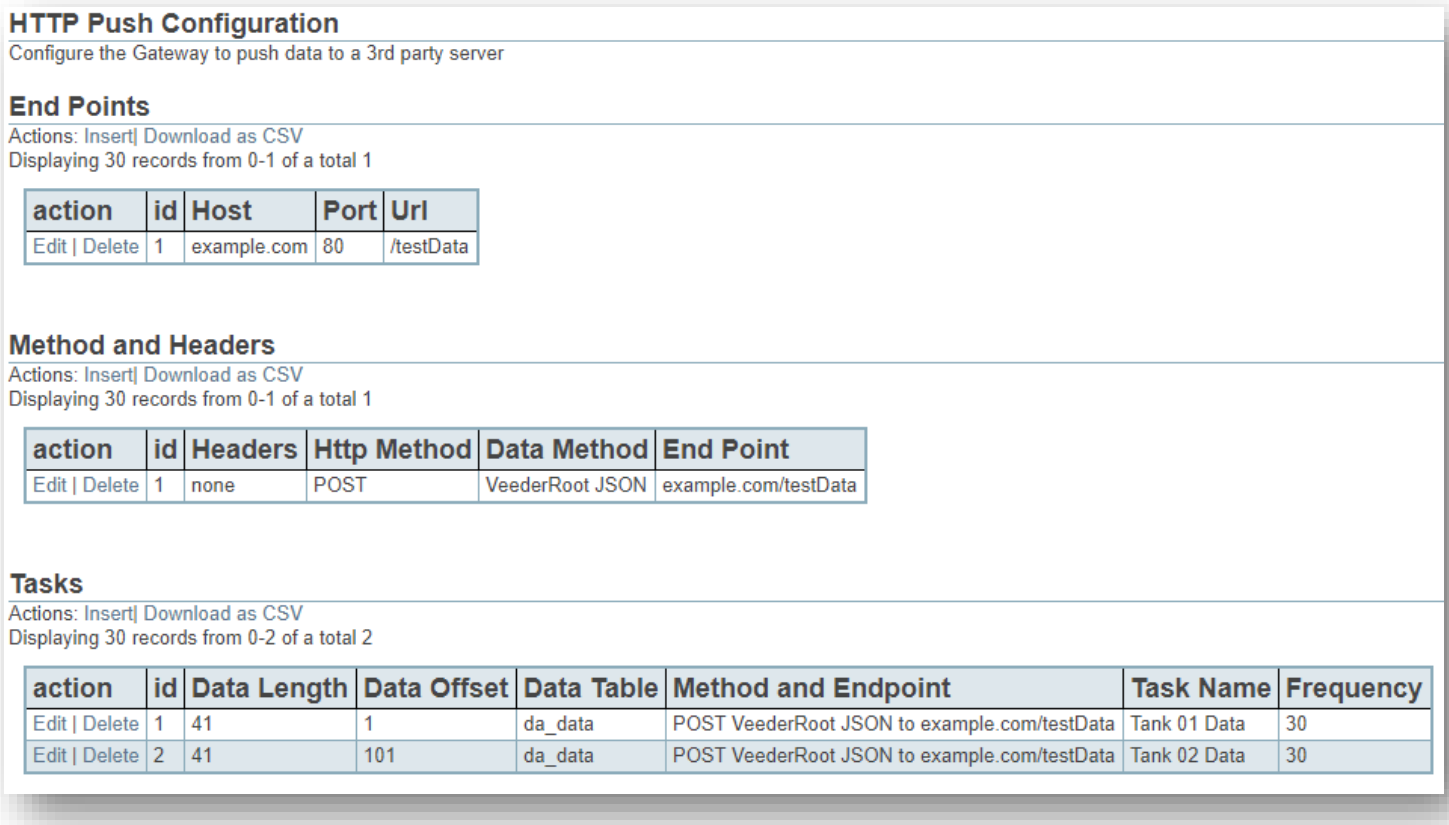
First, select the End Point and Method of where the data will be pushed.

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

action	id	Host	Port	Url
Edit | Delete	1	example.com	80	/testData

Method and Headers

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

action	id	Headers	Http Method	Data Method	End Point
Edit | Delete	1	none	POST	VeederRoot JSON	example.com/testData

Tasks

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

action	id	Data Length	Data Offset	Data Table	Method and Endpoint	Task Name	Frequency
Edit | Delete	1	41	1	da_data	POST VeederRoot JSON to example.com/testData	Tank 01 Data	30
Edit | Delete	2	41	101	da_data	POST VeederRoot JSON to example.com/testData	Tank 02 Data	30

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.

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 we will select the most appropriate solution for your application.

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!

Sales and Customer Service
Toll free: 1-866-383-1657
Email: salesgroup1@chipkin.com