# **ERD: Device Connection Configuration**

# **Emerson ROC Device Connection**

Device connection for Emerson ROC module can be configured via OPC UA configuration. Begin by selecting OPC UA Device Connections on the left as shown below:

← →	C	192.168.1.111:8088/web/config/?6	ជ	⊠ □ ≡
<b>A</b> Iome	On-Call Rosters Schedules	Config > System > Overview Trial Mode 1:51:47. We're lad you're test driving our software. Have fun.		Activate Ignitic
<b>.l.ı</b> tatus	TAGS History			9
🔹 onfig	Realtime			
	OPC CLIENT			
	OPC Connections			
	OPC Quick Client			
	OPC UA			
	Device Connections			
	Security			
	Server Settings			
	BACNET			
-	o Search			

This opens the configuration page as shown below:

ition	le locanost.soso/web/comig/c	pcua.uevices:50				⊥admin   <u>Sign</u>
nition					Help	Get Design
SYSTEM	Config > Opcua > Devices					
e Overview	Trial Mode 1:44:33 We're glad you're	test driving our software. Have fun.				Activate Ign
Backup/Restore	Name	Туре	Description	Enabled	Status	
Modules	No Devices					
Projects Redundancy Gateway Settings	→ Create new De	vice				
NETWORKING						
Web Server						
Email Settings						
SECURITY						
Auditing						
Users, Roles						
Service Security						
identity i forders						

A new Emerson ROC device can be created by following the 'Create new Device...' link and choosing 'EFM Emerson ROC' device as shown below and clicking 'Next' at the bottom of the page.

C' û	🛛 🗋 localhost:8088/web/config/opcua.devices?57 🖂 🏠	$\underline{+}$	»
Service Security	Config > Opcua > Devices		
Security Providers	Trial Mode 1:43:59 We're glad you're test dihing our software. Have fun.	Activate	Igni
DATABASES Connections Drivers	BACnet/IP Connect to devices that implement BACnet/IP.		
Store and Forward	ONP3 Driver Connect to a DNP3 outstation.		
General Journal Notification	EFM Emerson ROC Connect to EFM Emerson ROC devices		
Schedules	O Modbus RTU Connect to devices that implement the Modbus RTU protocol over a serial link.		
History Realtime	Modbus RTU over TCP Connect to devices that implement the Modbus RTU protocol over TCP.		
OPC CLIENT OPC Connections OPC Quick Client	Modbus TCP Connect to devices that implement the Modbus TCP protocol.		
<b>Q</b> Search	Omron FINS/TCP		

This opens the 'New Device' configuration page for EFM Emerson ROC Device. The configuration sections available are General, Connectivity, Security, D ate/Time, Records, Records Signature, Common File Exchange (CFX), Sparkplug and Advanced Settings.

### General

$\rightarrow$ C	🔿 嵹 192.168.1.111:8088	web/config/opcua.devices?10 ☆	
gnition Gateway			🕹 admin   Log Out
gnition		Help€	Get Designer
SYSTEM	🌣 Config > Opcua > De	vices	
Me Overview I Backup/Restore	Trial Mode 1:25:20 v	e're glad you're test driving our software. Have fun.	Activate Ignitic
Licensing	General		
fig Modules Projects Redundancy	Name		
Gateway Setting	5 Description		
NETWORKING	Enabled	✓ (default: true)	

- Name ° Device name
- Description Device description
- Enabled
  - $^{\circ}~$  Checkbox to enable/disable device. Selected by default

## Connectivity

- → C () ()	192.168.1.111:8088/web/config	/opcua.devices?10 ☆ 🛇 🗔 ≡
Web Server	🌣 Config > Opcua > Dev	vices
me Gateway Network	Trial Mode 1:24:33	Activate Ignition
Email Settings	Connectivity	
SECURITY General nfig Auditing	Protocol Type	Choose One
Users, Roles Service Security Identity Providers	Hostname	Hostname/IP address of the device.
Security Levels Security Zones	TCP Port	TCP Port of the device.
DATABASES Connections Drivers Store and Forward	Socket Timeout	10 TCP socket operation (i.e. connect and read) timeout (in seconds). A timeout of zero is interpreted as an infinite timeout. To use system default, set to -1. (default: 10)
ALARMING General Journal	ROC Unit Code	Station Address Unit Code of the ROC unit
Notification On-Call Rosters Schedules	ROC Group Code	Station Address Group Code of the ROC unit
TAGS History	Host Unit Code	Station Address Unit Code of the host (this driver)
Realtime OPC CLIENT	Host Group Code	Station Address Group Code of the host (this driver)
OPC Connections OPC Quick Client	Periodic Mapping	- none - The mapping of TLPs to Flowcal Meter Periodic Transactions
OPC UA Device Connections Security	Configuration Mapping	- none -  The mapping of TLPs to Flowcal Meter Configuration Transactions
Server Settings	Add All TLP	Automatically add all the TLP definitions configured within the

- Protocol Type

   Specific Protocol Type of the device
   Options are ROC and ROC\_PLUS
- $^{\circ}~$  Hostname or IP address of the device
- TCP Port TCP Port of the device
- Socket Timeout
  - TCP socket operation timeout in seconds. A timeout of zero is interpreted as an infinite timeout. To use the system default, set to -1. Default is 10 seconds.

- ROC Unit Code
- Station Address Unit Code of the ROC unit
- ROC Group Code
- Station Address Group Code of the ROC unit
- Host Unit Code
   Station Address Unit Code of the host (this driver)
- Host Group Code
- Station Address Group Code of the host (this driver)
- Periodic Mapping
  - Select a Periodic History Mapping if History polling will be enabled
- Configuration Mapping
  - Select a Configuration Mapping if any Configuration, Event, or History polling will be enabled
- Add All TLP Definitions
  - ° Checkbox to add all configured TLP definitions. De-selected by default
  - If selected, all TLP definitions configured within the module will be automatically added to this Device configuration. This is a convenient
    way to easily add TLP definitions to a Device without having to manually add them after the Device has been initially configured. If the
    module contains one or more TLP definitions that are not compatible with the device being configured, leave this option disabled and
    configure the TLP Definitions manually after the device has been configured.

#### Security

	⇒ C O	192.168.1.111:8088/w	eb/config/opcua.devices?10	☆	⊠ □
ł.	Server Settings	🌣 Config > Opcua > Devi	res		
me	· -	Trial Mode 1:23:44 We'r	e glad you're test driving our software. Have fun.		Activate Ignit
<b>III</b> itus	BACNET Local Devices	Security			
<b>x</b> nfig	ENTERPRISE ADMINISTRATION	Security Enabled	UWether security is enabled		
	Setup	Operator ID	LOI An operator identifier that is 3 characters long		
	Settings EFM ABB TOTALFLOW	Password	A numeric password of the range 0000 to 9999		
	Settings EFM EMERSON ROC	Password	Re-type password for verification.		
	Settings	Access Level Enabled	UWhether or not access level should be used		
	EFM EXPORT Settings	Access Level	0 Access Level to use if 'Access Level Enabled' is true		

- Security Enabled
- Checkbox to enabled security on the ROC device. De-selected by default
   Operator ID
- A three character operator ID. Default is "Lol"
- Password
- A four digit password
- Access Level Enabled
- Checkbox to enable Access Level for Operator ID on the ROC device. De-selected by default
   Access Level
  - The Access Level to use (0-5) if enabled. Default is 0

### Date/Time

	$ ightarrow {f G}$	0 🕹	192.168.1.111:8088/we	eb/config/opcua.devices?10	☆	⊚ □ ≡
	MQTT DISTRIBUTOR	\$	Config > Opcua > Devi	ces		
lome	Settings	Tri	al Mode 1:22:58 We'r	e glad you're test driving our software. Have fun.		Activate Ignition
	MQTT ENGINE		Date/Time			
Config	Settings		Date Time Offset	0 The date time offset of the ROC clock from the Ignition system running this driver in seconds		
	History Settings		Sync ROC RTC	Uhether or not to synchronize the RTC clock with local time from the Ignition system		
-	<b>9</b> Search		Sync Expression	0 0 0 * * ? The Quartz Cron expression to use to schedule the synchronization of the ROC RTC (default: 0 0 0 * * 7)		

- Date Time Offset
  - The offset, in seconds, to add to the Totalflow device clock to convert to UTC. For example, if your Totalflow device is set for CST, you
    would set this parameter to 7200 to convert any timestamps to UTC.
  - Default is 0
- Sync ROC RTC
  - ° Checkbox to synchronize the RTC clock with local time from the Ignition system. De-selected by default
- Sync Expression
  - The Quartz Cron expression to use to schedule the synchronization of the ROC RTC. Default is "0 0 0 \* \* ?"

#### Records

$\rightarrow C$	081	92.168.1.111:8088/w	ab/config/opcua devices?10	ŝ	
		02.100.1111.00000,m		Σ	
		onfig > Opcua > Devi	CES		Antion And Antibia
ine		Mode 1.22.41 We	e glad you re test uriving our soltware. Have iun.		Activate ignition
l us		Records			
fig		Alarm Scan Rate	-1 The rate in seconds that alarm records are scanned (default: -1)		
		Event Scan Rate	-1 The rate in seconds that event records are scanned (default: -1)		
		Minute History Scan Rate	-1 The rate in seconds that minute history records are scanned (default: -1)		
		Periodic History Scan Rate	-1 The rate in seconds that periodic history records are scanned (default: -1)		
		Daily History Scan Rate	-1 The rate in seconds that daily history records are scanned (default: -1)		

- Alarm Scan Rate
  - The rate in seconds that alarm records are scanned. Set to -1 to disable alarm scanning. Default is -1
- Event Scan Rate
- The rate in seconds that event records are scanned. Set to -1 to disable event scanning. Default is -1
- Minute History Scan Rate
- The rate in seconds that minute history records are scanned. Set to -1 to disable minute history scanning. Default is -1
   Periodic History Scan Rate
- The rate in seconds that periodic history records are scanned. Set to -1 to disable periodic history scanning. Default is -1
   Daily History Scan Rate
  - The rate in seconds that daily history records are scanned. Set to -1 to disable daily history scanning. Default is -1

#### **Records Signature**

$\leftrightarrow \rightarrow \mathbf{G}$	🔿 👌 192.168.1.111:8088/	web/config/opcua.devices?10	☆ ♡ □
A	Config > Opcua > De	vices	
ome	Trial Mode 1:22:26 w	e're glad you're test driving our software. Have fun.	Activate Igniti
lu atus	Records Signat	ure	
\$	Enable Signature	Enables a digital signature field on all Records	
onfig	Algorithm	Choose One  The hashing algorithm to use when generating the digital signature	
	Password	The password used to generate the PBE secret key for encrypting the digital signature	
	Password	Re-type password for verification.	

- Enable Signature
- ° Checkbox to enable a digital signature on all Records. De-selected by default
- Algorithm •
  - The hashing algorithm to use when generating the digital signature
     Options SHA\_1,SHA\_224, SHA\_256, SHA\_384 and SHA\_512
- Change Password?
   Otheckbox to allow new password generation. De-selected by default Password
  - <sup>o</sup> Password used to generate the PBE secret key for encrypting the digital signature

#### Common Exchange Format (CFX)

Available in release 4.0.15 or newer ∕!\

To view all the CFX parameters below, MQTT Transmission must be installed. ≙

MQTT Transmission is not required to create and maintain the CFX files for each meter. It is required to configure the CFX File Transfer and, if not installed, the "CFX Publish Time Expression", "CFX Cutoff Time Expression" and "CFX File Transfer" fields will not be available.

🗧 🔵 🔹 😒 🗹 Ignition-MA	NIN-SERVER - Ignition $ imes$ +			~
$\leftarrow \rightarrow C$	🔿 指 192.168.1.117:8088/w	eb/config/opcua.devices?13	☆	⊚ □ ≓
♠	✿ Config > Opcua > Devid	es		
Home	Common File Exc	sjad you're test driving our software. Have tun. hange (CFX)		Activate Ignition
Status Confe	Enable CFX	□ Enables the FLOWCAL Common File Exchange. To turn on CFX functionality, install the MQTT Transmission and restart the Emerson ROC module.		
Comg	Flow Computer Brand	The Brand of this flow computer		
	Flow Computer Model	The Model of this flow computer		
	Flow Computer Software Version	The version of this Flow Computer software		
	CFX Publish Time Expression	0 0 0/2 * * ? The Quartz Cron expression to schedule publishing of CFX files (default: 0 0 0/2 * * ?)		
	CFX Cutoff Time Expression	0 0 0 L * ? * The Quartz Cron expression to schedule a 'cutoff' (i.e. publish and reset) of CFX files (default: 0 0 0 L * ? *)		
▲ Search	CFX File Transfer	- none - v Select the Files Record to publish CFX files		

- Enable CFX
  - ° Enables/disables the FLOWCAL Common File Exchange.
  - When enabled, CFX and associated CFX.MD5 files will be created with a naming convention of meterid.cfx and meter\_id.cfx.md5. New Alarm, Event and PeriodicHistory records will be added to the file.
  - Files will be stored on the Ignition instance where the driver is installed under this filepath <ignition folder>/data/modules/com.cirrus-link /efmemersonroc/devices/<device id>/meters/<meter id>/
- Flow Computer Brand
  - Free form text field to identify flow computer brand included in the CFX file. Limit of 20 characters
- Flow Computer Model
  - Free form text field to identify flow computer model included in the CFX file. Limit of 20 characters
- Flow Computer Software Version
- Free form text field to identify the flow computer software version included in the CFX file. Limit of 20 characters
- CFX Publish Time Expression
  - This parameter is used when publishing the files with MQTT Transmission and defines the Quartz Cron expression used to schedule publishing of CFX files
  - This will trigger the CFX file to be copied to the "Publish File Path" configured for the MQTT Transmission File record selected in the "CFX File Transfer" parameter. This file can then be picked up and published automatically by MQTT Transmission and the CFX file remains in the source folder (under ~/data/modules) to be maintained.
  - Default is "0 0 0/2 \* \* ?". Reference the Cron Trigger Tutorial for details on this expression and Cron Expression Generator for configuring this expression
  - This expression can be empty to use the CFX Cutoff Time Expression only
- CFX Cutoff Time Expression
  - This parameter is used when publishing the files with MQTT Transmission and defines the Quartz Cron expression used to schedule publishing of CFX files
  - This will trigger the CFX file to be moved to the "Publish File Path" configured for the MQTT Transmission File record select in the "CFX File Transfer" parameter. This file can then be picked up and published automatically by MQTT Transmission and the EFM driver notified that it needs to collect meter configuration and generate a new set of CFX files.
  - Default is "0 0 0 L \* ? \*". Reference the Cron Trigger Tutorial for details on this expression and Cron Expression Generator for configuring this expression
  - The expression should never be empty to prevent the CFX file from becoming to large to publish

#### CFX File Transfer

- This parameter is used when publishing CFX files with MQTT Transmission and provides a dropdown containing all the File definitions fro m MQTT Transmission.
- A MQTT Transmission File definition defines a location for all the control tags required to publish files including the "Publish File Path".
- Default is none. CFX files will be created and maintained but will not be published. New Alarm, Event and PeriodicHistory records will be added to the file until the device connection is removed.

A The CFX Cutoff Time Expression should be greater than the CFX Publish Time Expression

### Sparkplug

$\leftarrow \rightarrow \mathbf{G}$	🔿 🚵 192.168.1.8	8088/web/config/opcua.devices?6	☆	🗢 🗆 එ =
<b>A</b>	🌣 Config > Opcu	> Devices		
lome	Trial Mode 1:5	1:18 We're glad you're test driving our software. Have fun.		Activate Ignitio
<b>.lu</b> Status	Sparkpl	g		
Config	Group ID	Group_dc70db0a-22b An ID representing a logical grouping of Edge Nodes and Devices.		
	Edge Noo	EdgeNode_c7d1ed60-add An ID representing an Edge or Network (EoN) Node.		
	Device ID	An ID representing a Device.		

To publish Records such as Alarms, Events or History, a configured MQTT Transmission Transmitter is used.

If you do not have a Transmitter configured, create an MQTT Transmitter and set the Sparkplug Settings to the unique Group and Edge Node ID values generated by the Device Connection configuration.

If a Transmitter already exists, for example to publish the polled/live data, you can edit the Group and Edge Node IDs to match the existing Sparkplug Edge Node created by the Transmitter.

- Group ID
- An ID representing a logical grouping of Edge Nodes and Devices
   Edge Node ID
- An ID representing an Edge or Network (EoN) Node
   Device ID
  - An ID representing a Device

#### Advanced

$ \rightarrow$ G	0 8	192.168.1.111:8088/we	b/config/opcua.devices?10	☆	
A .	1	🗘 Config > Opcua > Devi	es		
ome		rial Mode 1:21:54 We'r	: glad you're test driving our software. Have fun.		Activate Ignition
lii atus		Advanced			
<b>O</b> nfig		Serial Number	The serial number to include in Records for uniqueness. Can be manually configured (example: '0001234556') or a the device (example: '[15,0,14]').	TLP can be specified to b	be read from
		History Time Stamp	If enabled the history time stamp will be at the beginning of the period (leading), otherwise at the end of the pe (default: true)	riod (trailing)	
		Read Delay	0 The Polling Read Delay in milliseconds when polling response may be slow (recommend when using a terminal set (default: 0)	rver)	
		Poller Watchdog Rate	0 The rate in seconds that poller watchdog thread is executed to verify that polling threads are running. Set to 0 to d (default: 0)	isable poller watchdog.	

- Serial Number
  - The serial number to include in Records for uniqueness. Can be manually configured (example: '0001234556') or a TLP can be specified to be read from the device (example: '[15,0,14]').
- History Time Stamp
  - Checkbox to enable history time stamp. Selected by default.
  - ° If enabled the history time stamp will be at the beginning of the period (leading), otherwise at the end of the period (trailing)
- Read Delay
  - The Polling Read Delay in milliseconds when polling response may be slow (recommend when using a terminal server). Default is 0 milliseconds

- Poller Watchdog Rate
  - The rate in seconds that the poller watchdog thread is executed to verify polling threads are running. Set to 0 to disable the poller watchdog. Default is 0 seconds.

With the device now established you must configure the specific global TLP Definitions associated with the device, create TLP Templates and TLP Poll Groups to use.

- TLP Definitions provide human readable context to each TLP as well as the datatype and data length. The TLP Definition csv files are uploaded through the Emerson ROC Driver configuration.
- TLP Templates are groupings of T and P values which should be polled together.
- TLP Poll Groups attach an L value to a TLP Template along with a Tag Folder Path which defines where the polled data will be represented under the device in the Ignition OPC UA Server

Opcode Table support is now automatically enabled in release 4.0.15 and all 8 or 16 opcode tables (if using ROC or ROC\_PLUS respectively)
 will show up in the drop down selector of the poll groups section without the need to create TLP Templates.

## Specifying TLP Definitions for a Device

With the device now established the specific global TLP templates that are appropriate for this device must be associated with it. Do so by clicking the 'More' drop-down button and selecting 'TLP Definitions' as shown below.

	<u> </u>		52.100.1.111.0000/web/c					~	<b>U</b>
Ignitior	Gateway								Log Ou ⊥admin   Log Ou
gnit	ion							Help 🕜	Get Designer
A	SYSTEM	🌣 Cor	nfig > Opcua > <b>Devices</b>						
ome	Overview	Trial	Mode 1:53:30 We're gla	d you're test driving our software. Have fun.					Activate Igniti
lul atus	Backup/Restore								
A.	Ignition Exchange		Name	Туре	Description	Enabled	Status		
onfig	Modules		MyROC	EFM Emerson ROC		false	N/A	L.	More 👻 🛛 edit
	Projects Redundancy		Sample_Device	Programmable Device Simulator		true	Running	K	TLP Definitions
	Gateway Settings		- Create new Device						TLP Templates
	NETWORKING		<ul> <li>Create new Device.</li> </ul>						TLP Poll Groups
	Web Server								delete
	Gateway Network								

You should now see an empty list of TLP definitions (unless you used the "Add All TLP Definitions" setting).

$\leftrightarrow \rightarrow \mathbf{G}$	C	2 🔁 192.168.1.111:8088/web/config/opcua.de	vices?15	☆	∣ ⊂ =
Ignition Gateway					Ladmin   Log Out→
gnition				Help 🕜	Get Designer
SYSTEM		Config > Opcua > Devices			
ome Over	view	Trial Mode 1:49:53 We're glad you're test drivin;	g our software. Have fun.		Activate Ignition
I Back	up/Restore				
<sup>tus</sup> Igniti	ion Exchange	TI P Definition	TI P Definition Filename		
Licen	ising				
nfig Modu	ules	I nere are currently no TLP Definitions o	ontigured		
Redu	indancy				
Gate	way Settings	Add Row			
		< Back			
NETWOR	RKING				
Web	Server		Save		
Gate	way network				
Q S	earch				

Click the 'Add Row' link that is shown below. This will show a new TLP definition with a select box to allow you to select which global TLP definition you want to associate with this device. Add as many as are appropriate for your device as shown below.

← -	$\rightarrow$ C	O 👌 192.168.1.111:8088/web/config/opcua.devices?20	☆	⊚ □ ≡
/ Ignitic	on Gateway			Ladmin   Log Out →
lgni	tion		Help 🕻	Get Designer
<b>≜</b>	SYSTEM	Config > Opcua > Devices		
Jome	Overview	Trial Mode 1:48:34 We're glad you're test driving our software. Have fun.		Activate Ignition
հո	Backup/Restore			
tatus	Ignition Exchange	TIDD-field a		
\$	Licensing	TLP Definition	TLP Definition Filename	
onfig	Modules	UserProgram TLPs	UserProgram TLPs V1_0.cov	[delete]
	Projects		USEIFIORIAII-IEFS-V1_0.05V	[detete]
	Redundancy			
	Gateway Settings	FB107 TLPs	FB107-TLPs-V1_0.csv	[delete]
	NETWORKING			
	Web Server			
	o Search	Add Row		

When complete, save the list and you will be taken back to the Devices list.

# Creating TLP Templates for a Device

With the TLP definitions now defined for this device we can create some TLP templates to allow creation of TLP poll groups. To create a TLP template, click on the 'More' drop-down menu and select 'TLP Templates' as shown below.

÷ –	→ G	0 🛚 1	92.168.1.111:8088/web/c	onfig/opcua.devices?11				ដ	⊌
Ignitio	n Gateway								≗admin   Log Ou
gni	tion							Help 🕜	Get Designer
A I	SYSTEM	🌣 Co	onfig > Opcua > Devices						
me	Overview	Trial	Mode 1:53:30 We're gla	d you're test driving our software. Have fun.					Activate Ignit
<b>lıl</b> atus	Backup/Restore Ignition Exchange		Name	Туре	Description	Enabled	Status		
nfig	Licensing Modules		MyROC	EFM Emerson ROC		false	N/A		lore 👻 edit
	Redundancy Gateway Settings		Sample_Device	Programmable Device Simulator		true	Running		TLP Definitions
	NETWORKING		→ Create new Device.					C	TLP Templates
	Web Server Gateway Network								delete
	• Search								

To add a TLP template, click the 'Add Row' link shown below.

$\leftarrow \rightarrow \mathbf{G}$	🔿 🔒 192.168.1.111:8088/web/confi	g/opcua.devices?23	☆	⊚ 🛄 ≡
Ignition Gateway				≗admin   Log Out
gnition			Help 🕐	Get Designer
SYSTEM	Config > Opcua > Devices			
lome Overview	Trial Mode 1:45:00 We're glad you	're test driving our software. Have fun.		Activate Ignitio
Backup/Restore				
tatus Ignition Exchange	Prowoo No file selecte			
Licensing	Browse No file selecte	a.		
onfig Modules	Import Configuration			
Projects	in port comignation			
Redundancy	Expert Configuration			
Gateway Settings	Export configuration			
NETWORKING				
Web Server				
Gateway Network	Name	TLP Template		
Email Settings	There are currently no TLP	Templates configured		
SECURITY				
-	Add Row			
Q Search	- Pack			

Give the new TLP template a name that makes sense and then click the 'Edit TLP Template Contents' link next to the name field shown below.

→ C* W	U Ccalhost:8088/web/config/opcua.devices?133	© 17	<u>⊻</u> »
nition		Help 🕼	Get Designer
SYSTEM	Config > Opcua > Devices		
Overview	Trial Mode 1:30:49 We're glad you're test driving our software. Have fun.		Activate Ignitio
Backup/Restore			
Ignition Exchange	Browse No file selected.		
Licensing			
Projects	Import Configuration		
Redundancy			
Gateway Settings	Export Configuration		
NETWORKING			
Web Server			
Gateway Network	Name TLP Template	/	
Email Settings	My Template Edit TLP Templ	plate Contents [delete]	
SECURITY			
Auditing			
Users, Roles	Add Row		
Service Security			
Identity Providers	Save		
Q Search			

#### Add your new TLPs by clicking the 'Add Row' link shown below.

$\rightarrow$ C' $\bigstar$	0 Calhost:8088/web/config/opcua.devices?133	⊌ ☆	$\pm$ »
nition		Help 🕖	≗admin   Sign 0 Get Designe
SYSTEM Overview Backup/Restore Ignition Stchange Licensing Projects Redundancy Gateway Settings HETWORKING Web Server Gateway Network Email Settings SECURITY Auditing Users, Roles	Config > Opcus > Trial Mode 1:20:00 T P Access Data Type Parameter Name Tag Name There are currently no TLP Templates configured Add Row Save Ints	[delete]	Activate igni
Identity Providers	Save		

Note there are six fields available for each row of which only three can be modified. These are:

- T • P
- $^{\circ}~$  The 'T' parameter of the TLP
- $^{\circ}~$  The 'P' parameter of the TLP
- Tag Name
  - ° The tag name that will show up in Ignition for this TLP.
  - The default value comes from 'Parameter Abbreviation' of the global TLP definition CSV file. It can be changed here to any value.

The remaining fields are defined in the global TLP definition CSV file and cannot be modified here:

- Access
  - $^{\circ}~$  The access for this value either RO for 'read only' or RW for 'read/write'
- Data Type

   The data type for this TLP
- Parameter Name
  - ° The descriptive name of this TLP

The TLPs available to be added are based on the TLP definitions that have been made available to this specific device. Add as many templates that make sense to be grouped together in a logical group. When complete you should see something similar to what is shown below. Click the 'Save' button.

Ignition - Ignitio	on Gateway X +									
→ C' û	🗊 🗋 localhost:8088	8/web/config/opcu	a.devices?133						… ⊠ ☆	$\overline{\Lambda} \gg$
ion										≗admin   Sign C
ition									Help 🕑	Get Design
SYSTEM	🌣 Config > Opcua >									
Overview	Trial Mode 1:29:08							×		Activate Ign
Backup/Restore		т	Р	Access	Data Type	Parameter Name	Tag Name			
Ignition Exchange						10.15	NUTDOG	[delete]		
		46 *	23 *	RW	FL	N2 - Nitrogen	NITROG			
Projects								[delete]		
Redundancy		46 *	24 🔻	RW	FL	CO2 - Carbon Dioxide	CARBDI			
Gateway Settings								Irfeletel		
NETWORKING		46 🔻	25 🔻	RW	FL	H2S - Hydrogen Sulfide	HYDSUL			
Web Server										
Gateway Network		Add Daw								
Email Settings		Add Row						ints	[delete]	
SECURITY		Save								
Auditing										
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## Creating TLP Poll Groups for a Device

With TLP templates already defined you can now create TLP poll groups which will poll a group of TLPs via a TLP template at a specific logical number at a specified rate.

Do so by selecting 'TLP Poll Groups' via the 'More' drop-down as shown below.

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To add a TLP poll group, click the 'Add Row' link shown below.

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Email Settings	There are currently no TLP Poll Groups configured	
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Now you can give the new TLP poll group a name that makes sense. Then click the 'Edit TLP Poll Group Contents' link next to the name field shown below.

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Web Server Gateway Network	Name	TLP Poll Group		
Email Settings	My Poll Group	Edit TLP Poll Group Contents	[delete]	
SECURITY Auditing Users, Roles Service Security	Add Row <back< td=""><td></td><td></td><td></td></back<>			
Identity Providers		Save		

At this point you can create a poll group using one or more TLP templates as shown below. The parameters that must be set here are:

- TLP Template Name
  - The TLP template to use for this poll group
  - The TLP templates available to choose from are based on the TLP templates defined for this device
- Logical Number
- The 'L' parameter of this TLP template.
- Tag Folder Path
   ° The Tag Folder Path where the polled data will be represented under the device in the Ignition OPC UA Server
- Scan Rate
  - $^{\circ}~$  The rate (in seconds) at which to poll all of the TLPs in this TLP template.

When complete, click the 'Save' button to save the TLP poll group.

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Create as many TLP poll groups as you'd like as shown below. Once complete, click the 'Save' button at the bottom of the page below.

TLP Template Name	Logical Number	Tag Folder Path	Scan Rate (seconds)	
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Art_Template •	1	Logical_1	60	[delete]
Add Row Save				

×

Once the poll group has been saved, the Device Connection Status will change to Polling and the tags will be shown in Ignition similar to below:

