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GSTN: 24AGWPV2400P1ZR
ABN: 36516184264

Driver Code: 109 / 113

XML & JSON

Description

ProtoConvert Gateways have extensive support for XML and JSON protocols. It is possible to serve XML or JSON as per project requirements. It is possible to parse XML and JSON data with extraction and pass it over to other protocol drivers like Modbus/BACnet/SNMP using ProtoConvert Gateway's data arrays. However, such implementations vary from one project to another hence additional development time and cost will be involved depending on the complexity of the 3rd party API. The gateway can also be readily program as a JSON/XML server and 3rd party client applications can easily exchange data using our existing API mentioned below.

The gateway is readily programmable as a JSON/XML server. Additional development time/cost will be involved if we are required to implement/work with a 3rd party JSON API

It is possible to integrate field devices to various cloud-based applications using the XML/JSON driver. Please contact our sales team with details on your cloud API and we will implement it for you.

We support SSL for secure communication.

Formal Driver Type

- Ethernet
- Client or Server

Connection Types

Mode	Nodes	Comments
Client	1	Supports multiple client connections to different URLs, with associated decoding map descriptors linked to an active GET URL request
Server	1	This mode is always enabled within the JSON driver, and as requested by "http://<ip address>/Json API" where <JSON API> corresponds to the Shubham's address.

JSON API (Structure & Syntax)

ProtoConvert JSON REST API supports SSL for secure communication and provides direct access to the gateways data arrays using basic authentication. The user Id and password are set using the web interface of the gateway after logging in as admin.

The JSON API is as follows:

1) Get Data from data arrays:

Format of the request:

End Point : https://<IP_ADDRESS_OF_GATEWAY>/getValuesFromDataArray
Method : GET
Header : - Authorization: Basic {{ base_64(USERNAME:PASSWORD) }}

JSON/Payload:

```
{
    "DataArrayName":"DA_AI_01",
```

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```
    "Start_Offset":"00",
    "Length":"05"
}
```

Valid Response:

```
{
      'Status': Ok',
      'Length': '05',

'Values': ['1.200000+Online', '45.550000+Online', '0.000000+Offline', '0.000000+Unused',
'0.000000+Unused'],
      'Start_Offset': 00',
      'DataArrayName': DA_AI_01'
}
```

Error Response:

```
{
      'Status': 'Error',
      'Length': '05',
'Values': [],
      'Start_Offset': 00',
      'DataArrayName': DA_AI_01'
}
```

2) Sending a command to the ProtoConvert Gateway:

Format of the request:

End Point : https://<IP_ADDRESS_OF_GATEWAY>/setValueForDataArray
Method : POST
Header : - Authorization: Basic {{ base_64(USERNAME:PASSWORD) }}
JSON/Payload:

```
{
      "DataArrayName":"DA_AI_01",
      "Offset":"00",
      "Value":"05"
}
```

Valid Response:

```
{
       'Status': Ok',
```

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"DataArrayName":"DA_AI_01",
"Offset":"00",
"Value":"05"
}

The XML API is as follows:

1) Get Data from data arrays:

Format of the request:

End Point : https://<IP_ADDRESS_OF_GATEWAY>/getValuesFromDataArrayXML
Method : GET
Header : - Authorization: Basic {{ base_64(USERNAME:PASSWORD) }}

XML:

```
<Data_Request>
   <DataArrayName>DA_AI_01</DataArrayName>
   < Start_Offset > 00</Start_Offset>
   <Length>05</Length>
</Data_Request>
```

Valid Response:

```
<Data_Response>
      <Status>Ok</Status>
      <Length>05</Length>
      <Data>1.200000+Online 45.550000+Online 0.000000+Offline 0.000000+Unused
      0.000000+Unused</Data>
      <Start_Offset>00</Start_Offset>
      <DataArrayName>DA_AI_01</DataArrayName>
</Data_Response>
```

Error Response:

```
<Data_Response>
      <Status>Error</Status>
      <Length>05</Length>
      <Data></Data>
      <Start_Offset>00</Start_Offset>
      <DataArrayName>DA_AI_01</DataArrayName>
</Data_Response>
```

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2) Sending a command to the ProtoConvert Gateway:

Format of the request:

End Point : https://<IP_ADDRESS_OF_GATEWAY>/setValueForDataArray
Method : POST
Header : - Authorization: Basic {{ base_64(USERNAME:PASSWORD) }}

XML/Payload:

```
<Command_Request>
      <DataArrayName>DA_AI_01</DataArrayName>
      <Offset>00</Offset>
      <Value>05</Value>
</Command_Request>
```

Valid Response:

```
<Command_Response>
        <Status>Ok</Status>
        <DataArrayName>DA_AI_01</DataArrayName>
        <Offset>00</Offset>
        <Value>05</Value>
</Command_Response>
```