1 BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

Date: February 2014
BACnet Vendor Name: Sierra Monitor Corporation
BACnet Vendor ID: 37
Product Name: FieldServer, QuickServer, ProtoCessor, ProtoCarrier, ProtoNode
Product Model Number: FieldServer FS-B30 Series, QuickServer (FS-QS-1XYZ), QuickServer (PS-QS-1XYZ), ProtoNode (FPC-N3X), ProtoCarrier (FPC-C3X), ProtoCessor FFP (FPC-FD2 + FPC-ED2)
Product Description: This software product will provide bi-directional communication between various RTU, DCS, SCADA and PLC using most common protocols and a BACnet system. The FieldServer can perform protocol conversion (as opposed to routing) between the different BACnet Data Link Layer options. This is arranged by way of static mappings.
Protocol Conversions: See FieldServer Technologies list of protocol drivers to determine available protocol conversions.
BACnet Protocol Version: Version 1 Revision 12

1.1 BACnet Standardized Device Profile (Annex L) – [Note: Field Server is a gateway device]

- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)
- BACnet Application Specific Controller (B-ASC)

1.2 BACnet Interoperability Building Blocks Supported (Annex K):

- K.1.1 BIBB - Data Sharing - ReadProperty-A (DS-RP-A)*
- K.1.2 BIBB - Data Sharing - ReadProperty-B (DS-RP-B)
- K.1.3 BIBB - Data Sharing - ReadPropertyMultiple-A (DS-RPM-A)*
- K.1.4 BIBB - Data Sharing - ReadPropertyMultiple-B (DS-RPM-B)
- K.1.7 BIBB - Data Sharing - WriteProperty-A (DS-WP-A)
- K.1.8 BIBB - Data Sharing - WriteProperty-B (DS-WP-B)
- K.1.9 BIBB - Data Sharing - WritePropertyMultiple-A (DS-WPM-A)*
- K.1.10 BIBB - Data Sharing - WritePropertyMultiple-B (DS-WPM-B)
- K.1.11 BIBB - Data Sharing - COV-A (DS-COV-A) *
- K.1.12 BIBB - Data Sharing - COV-B (DS-COV-B)
- K.2.2 BIBB - Alarm and Event-Notification Internal-B (AE-N-I-B)
- K.2.5 BIBB - Alarm and Event-ACK-B (AE-ACK-B)
- K.2.11 BIBB - Alarm and Event-Information-B (AE-INFO-B)
- K.4.2 BIBB - Trending – Viewing and Modifying Trends Internal-B (T-VMT-I-B)
- K.4.5 BIBB - Trending – Automated Trend Retrieval-B (T-ATR-B)
- K.5.1 BIBB - Device Management - Dynamic Device Binding-A (DM-DDB-A)
- K.5.2 BIBB - Device Management - Dynamic Device Binding-B (DM-DDB-B)
- K.5.3 BIBB - Device Management - Dynamic Object Binding-A (DM-DOB-A)*
- K.5.4 BIBB - Device Management - Dynamic Object Binding-B (DM-DOB-B)
- K.5.6 BIBB - Device Management - DeviceCommunicationControl-B (DM-DCC-B)
- K.5.12 BIBB - Device Management - TimeSynchronization-B (DM-TS-B)
- K.5.16 BIBB - Device Management - ReinitializeDevice-B (DM-RD-B)
- K.5.20 BIBB - Device Management- Restart-B (DM-R-B)
- K.5.22 BIBB - Device Management – List Manipulation-B (DM-LM-B)

* Client functionality not part of B-ASC profile tested by BTL.
Version: 2.12 / Rev. 0

1.3 Segmentation Capability

None

1.4 Object Types and Optional Properties Supported

<table>
<thead>
<tr>
<th>Object Type</th>
<th>Optional Properties Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Object</td>
<td>Location, Description, UTC Offset, Active COV Subscriptions, Database Revision, Reliability</td>
</tr>
<tr>
<td>Analog Input</td>
<td>Description, Reliability, Description, Max_Pres_Value, Min_Pres_Value, Reliability</td>
</tr>
<tr>
<td>Analog Output</td>
<td>Description, Reliability, Description, Active_Text, Inactive_Text, Reliability</td>
</tr>
<tr>
<td>Analog Value</td>
<td>Description, Reliability, Description, Active_Text, Inactive_Text, Reliability</td>
</tr>
<tr>
<td>Binary Input</td>
<td>Description, Reliability, Description, Active_Text, Inactive_Text, Reliability</td>
</tr>
<tr>
<td>Binary Output</td>
<td>Description, Reliability, Description, Active_Text, Inactive_Text, Reliability</td>
</tr>
<tr>
<td>Binary Value</td>
<td>Description, Reliability, Description, Active_Text, Inactive_Text, Reliability</td>
</tr>
<tr>
<td>Multi State Input</td>
<td>Description, Reliability, Description, State_Text, Reliability</td>
</tr>
<tr>
<td>Multi State Output</td>
<td>Description, Reliability, Description, State_Text, Reliability</td>
</tr>
<tr>
<td>Multi State Value</td>
<td>Description, Reliability, Description, State_Text, Reliability</td>
</tr>
<tr>
<td>Notification Class Object</td>
<td>Description, Log_Interval</td>
</tr>
<tr>
<td>Trend Log</td>
<td>Description</td>
</tr>
</tbody>
</table>

1.5 Unsupported Properties and Restrictions

1. Does not support BACnet CreateObject
2. Does not support BACnet DeleteObject
3. Does not support any optional properties
4. No additional writeable properties exist
5. No proprietary properties exist
6. No range restrictions exist
7. Client Driver can only read Present Value property

1.6 Data Link Layer Options

| X | BACnet IP, (Annex J) |
| X | ANSI/ATA 878.1, 2.5 Mb, ARCNET (Clause 8) |
| X | Point-to-Point, EIA 232 (Clause 10), baud rate up to 57.6 Kbps |
| X | ISO 8802-3, Ethernet (Clause 7) |
| X | MS/TP master (Clause 9), baud rate up to 76.8 Kbps |

1.7 Device Address Binding

Not supported

1.8 Networking Options

- Router, Clause 6 – List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
- Annex H, BACnet Tunneling Router over IP
- Annex H.2, Multiple “Virtual” BACnet Devices in a Single Physical Device
- BACnet/IP Broadcast Management Device (BBMD)
- Registrations by Foreign Devices

1.9 Character Sets Supported

Where support for multiple character sets is indicated, this does not imply that they can all be supported simultaneously.
1.10 Unsupported functions of the BACnet Driver-BACnet/IP as a Client:

- Registering the FieldServer as a foreign device on a remote BBMD

1.11 Non-BACnet equipment/networks supported

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports

- Modbus RTU
- Modbus TCP
- LonWorks
- Metasys N2
- SNMP
- DNP 3.0 serial and Ethernet
- XML
- GE-EGD
- GE-SRTP
- OPC
- Allen Bradley DF1
- Allen Bradley CSP
- Canatal
- Carrier
- Caterpillar MSX
- ControlNet
- DataAire
- DeviceNet
- EST3 ECP
- EST QuickStart
- Fike Cheetah
- Gamewell-FCI
- GE-SNP
- JBus
- Lutron
- McQuay
- Mircom
- Notifier Fire Panels
- Profibus
- Russelectric
- Secutron
- Siemens Fire Safety
- Silent Knight
- SimplexGrinnell
- Spectronics
- Stulz
- TAC I/Net
- Veeder-Root
- YorkTalk