

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.

1.3 Segmentation Capability

None

1.4 Object Types and Optional Properties Supported

Object Type	Optional Supported Properties
<input checked="" type="checkbox"/> Device Object	Location Description UTC Offset Active COV Subscriptions Database Revision
<input checked="" type="checkbox"/> Analog Input	Reliability Description
<input checked="" type="checkbox"/> Analog Output	Reliability Description Max_Pres_Value Min_Pres Value
<input checked="" type="checkbox"/> Analog Value	Reliability Description
<input checked="" type="checkbox"/> Binary Input	Reliability Description Active_Text Inactive_Text
<input checked="" type="checkbox"/> Binary Output	Reliability Description Active_Text Inactive_Text
<input checked="" type="checkbox"/> Binary Value	Reliability Description Active_Text Inactive_Text
<input checked="" type="checkbox"/> Multi State Input	Reliability Description State_Text
<input checked="" type="checkbox"/> Multi State Output	Reliability Description State_Text
<input checked="" type="checkbox"/> Multi State Value	Reliability Description State_Text
<input checked="" type="checkbox"/> Notification Class Object	
<input checked="" type="checkbox"/> Trend Log	Description Log_Interval

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

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

1.7 Device Address Binding

Not supported

1.8 Networking Options

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | Router, Clause 6 – List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc. |
| <input type="checkbox"/> | Annex H, BACnet Tunneling Router over IP |
| <input checked="" type="checkbox"/> | Annex H.2, Multiple “Virtual” BACnet Devices in a Single Physical Device |
| <input checked="" type="checkbox"/> | BACnet/IP Broadcast Management Device (BBMD) |
| <input checked="" type="checkbox"/> | 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.

<input checked="" type="checkbox"/>	ANSI X3.4/UTF-8.
<input type="checkbox"/>	ISO 10646 (UCS-2).
<input type="checkbox"/>	IBM/Microsoft DBCS
<input type="checkbox"/>	ISO 10646 (ICS-4)
<input type="checkbox"/>	ISO 8859-1
<input type="checkbox"/>	JIS C

- 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

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