## **BACnet Protocol Implementation Conformance Statement**

(BACnet Testing Laboratories Version)

Date: July 29, 2013

**Vendor Name:** <u>Samsung SDS</u> **Product Name:** <u>SDC-100</u>

**Product Model Number:** <u>SDC-100-X</u>

Applications Software Version: N/A Firmware Revision: V1.0.3

**BACnet Protocol Revision:** Revision 7 (135-2008)

#### **Product Description:**

The SDC Controller is a BACnet Advanced Application Controller(B-AAC) for building management system and provides programmable functionality optimized for building automation and control. In addition to its control capability, the SDC controller supports a full set of building automation features and functions for buildings and IT infrastructures.

#### List all BACnet Interoperability Building Blocks supported (see Annex L in BACnet 2008):

DS-RP-A

DS-RP-B

DS-RPM-B

DS-WP-A

DS-WP-B

DS-WPM-B

AE-N-I-B

AE-ACK-B

AE-INFO-B

SCHED-I-B

DM-DDB-A

DM-DDB-B

DM-DOB-B

DM-DCC-B

DM-TS-B

DM-RD-B

#### Which of the following device binding methods does the product support? (check one or more)

dress
l

## **Standard Object Types Supported:**

Type	Object-	Supp	Dynamically	Dynamically	Optional Properties	Writable Properties
Analog Ves Yes Ves Pes Pescription, Min Pres Value, Time Delay, Notification Class, High Limit, Low Limit, Deadhand, Limit Enable, Event Enable, Acked Transitions, Notify Type, Event Time Stamps, Reliability Pesc Value, Min Pres Value, Min Min Min Min Value, Min	-	Сирр				Wilmere Troperties
Analog Yes Ves Yes Pes Description, Min Pres Value, Max Pres Value, Time Delay, Notification Class, High Limit, Low Limit, Deadband, Limit Enable, Event Enable, Acked Transitions, Notify Type, Event Time Stamps, Reliability Present Value, Out of Service, Units, Relinquish Default, Limit Enable, Event Enable, Acked Transitions, Notify Type, Event Time Stamps, Notify Type, Event Time Reset, Priority Array, Relinquish Default, Time Delay, Notification Class, Lake Alam Value, Event Enable, Notify Type, Event Time Reset, Priority Array, Relinquish Default, Time Delay, Notification Class, Alam Value, Event Enable, Notify Type, Event Time Reset, Priority Array, Relinquish Default, Time Delay, Notification Class, Alam Value, Event Enable, Notify Type, Event Time Reset, Priority Array, Relinquish Default, Time Delay, Notification Class, Alam Value, Event Enable, Notify Type, Event Time Stamps, Notify Type, Event Enable, Notify Type, Event Enable, Notify Type, Event Enable, Notify Type, Event Enable, Notify Type, Eve	Analog	Yes	Yes	Yes	Description, Min Pres Value, Max Pres Value, Time Delay, Notification Class, High Limit, Low Limit, Deadband, Limit Enable, Event Enable, Acked Transitions, Notify Type, Event Time Stamps,	Present Value(conditional), Out of Service, Units, Min Pres Value, Max Pres Value, Time Delay, Notification Class, High Limit, Low Limit, Deadband, Limit
Value   Valu	Output				Description, Min Pres Value, Max Pres Value, Time Delay, Notification Class, High Limit, Low Limit, Deadband, Limit Enable, Event Enable, Acked Transitions, Notify Type, Event Time Stamps, Reliability	Object Name, Description, Present Value, Out of Service, Units, Relinquish Default, Min Pres Value, Max Pres Value, Time Delay, Notification Class, High Limit, Low Limit, Deadband, Limit Enable, Event Enable, Notify Type
Input		Yes	Yes	Yes	Notification Class, High Limit, Low Limit, Deadband, Limit Enable, Event Enable, Acked Transitions,	Present Value, Out of Service, Units, Relinquish Default, Time Delay, Notification Class, High Limit, Low Limit, Deadband, Limit Enable, Event Enable,
Binary Output  Ves Ves Ves Ves Ves Ves Ves Ves Ves Description, Inactive Text, Active Text, Change Of State Time, Change Of State Count, Time Of Active Time, Time Of State Count, Time Of Active Time, Time Of State Count, Time Delay, Notification Class, Alarm Value, Event Enable, Acked Transitions, Notify Type, Tobject Name, Description, Max Master, APDU Timeout, Notification Class, Alarm Values, Fault Values, Fault Values, Fault Values, Fault Values, Fault Calass, Notification Class, Alarm Values, Fault Values, Event Enable, Notify Type	•	Yes	Yes	Yes	Active Text, Change Of State Time, Change Of State Count, Time Of State Count Reset, Elapsed Active Time, Time Of Active Time Reset, Time Delay, Notification Class, Alarm Value, Event Enable, Acked Transitions, Notify Type,	Present Value(conditional), Out of Service, Polarity, Inactive Text, Active Text, Change Of State Count, Elapsed Active Time, Time Delay, Notification Class, Alarm Value,
Value  Active Text, Change Of State Time, Change Of State Count, Time Of State Count, Elapsed Active Time, Time Of Active Time, Relinquish Default, Time Delay, Notification Class, Alarm Value, Event Enable, Acked Transitions, Notify Type, Event Time Stamps  Calendar Yes Yes Yes Description Object Name, Description, Date List  Device Yes N/A N/A Description, Max Master, Max Info Frames, Local Time, Local Date Number of APDU Retires, Object Name, Description, Max Master, APDU Timeout, Number of APDU Retires, Object Name, Description, Priority Array, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Acked Transitions, Notify Type, Event Time Stamps  Active Text, Change Of State Count, Elapsed Active Time, Lohange Of State Count, Elapsed Active Time, Delay, Notification Class, Alarm Value, Event Enable, Notify Type  Present Value, Out of Service, Inactive Text, Change Of State Count, Elapsed Active Time, Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Notify Type  Present Value, Out of Service, Inactive Text, Change Of State Count, Elapsed Active Time, Lohange Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count, Elapsed Active Time, Inactive Text, Change Of State Count,	•	Yes	Yes	Yes	Description, Inactive Text, Active Text, Change Of State Time, Change Of State Count, Time Of State Count Reset, Elapsed Active Time, Time Of Active Time Reset, Time Delay, Notification Class, Feedback Value, Event Enable, Acked Transitions, Notify Type,	Present Value, Out of Service, Polarity, Inactive Text, Active Text, Change Of State Count, Elapsed Active Time, Relinquish Default, Time Delay, Notification Class, Event Enable,
Device Yes N/A N/A Description, Max Master, Object Name, Description, Max Info Frames, Local Time, Local Date Multi-State Yes Yes Yes Description, Reliability, State Text, Priority Array, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Acked Transitions, Notify Type, Event Time Stamps  List  Description, Max Master, Object Name, Description, Max Master, APDU Timeout, Number of APDU Retires, Object Name, Description, Present Value, Out of Service, Priority Array, Relinquish Default, Present Value, Out of Service, Notification Class, Alarm Values, Fault Values, Event Enable, Notify Type, Event Time Stamps	Value				Description, Inactive Text, Active Text, Change Of State Time, Change Of State Count, Time Of State Count Reset, Elapsed Active Time, Time Of Active Time Reset, Priority Array, Relinquish Default, Time Delay, Notification Class, Alarm Value, Event Enable, Acked Transitions, Notify Type, Event Time Stamps	Present Value, Out of Service, Inactive Text, Active Text, Change Of State Count, Elapsed Active Time, Relinquish Default, Time Delay, Notification Class, Alarm Value, Event Enable, Notify Type
Device Yes N/A N/A Description, Max Master, Max Info Frames, Local Time, Local Date Number of APDU Retires,  Multi- state Value  Value  Multi- state Value  Max Master, APDU Timeout, Number of APDU Retires,  Object Name, Description, Present Value, Out Of Service, Priority Array, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Acked Transitions, Notify Type, Event Time Stamps Notify Type	Calendar	Yes	Yes	Yes	Description	
state Value Priority Array, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Acked Transitions, Notify Type, Event Time Stamps Present Value, Out Of Service, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Notify Type	Device	Yes	N/A	N/A	Max Info Frames, Local Time,	Object Name, Description, Max Master, APDU Timeout,
	state	Yes	Yes	Yes	Priority Array, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable, Acked Transitions,	Object Name, Description, Present Value, Out Of Service, Relinquish Default, Time Delay, Notification Class, Alarm Values, Fault Values, Event Enable,
	Notificati	Yes	Yes	Yes	Description	Object Name, Description, Priority,

on Class					Ack Required, Recipient List
Schedule	Yes	Yes	Yes	Description, Weekly Schedule,	Object Name, Description,
				Exception Schedule	Present Value(conditional),
					Effective Period, Weekly Schedule,
					Exception Schedule,
					Schedule Default,
					List of Object Property Reference,
					Priority for Writing, Out of Service

### **Range Restrictions:**

Object-Type	Property	Range Restriction
Analog Input, Analog Output	Min Pres Value, Max Pres Value	Max Pres Value >= Min Pres Value
Analog Input, Analog Output, Analog Value	Low Limit, High Limit	High Limit >= Low Limit
Binary Input, Binary Output, Binary Value	Change Of State Count, Elapsed Active Time	Accepts writes of value of zero only
Device	APDU Timeout,	1000 <= APDU Timeout <= 10000
	Number Of APDU Retries,	1 <= Number Of APDU Retries <= 5
	Max Master	1 <= Max Master <= 127
	Description, Object Name	Length string <= 47
Analog Output	Present Value	Min Pres Value <= Present Value <= Max
		Pres Value
Multi State Value	Present Value	1 <= Present Value <= Number Of State

# Data Link Layer Options (check all that are supported): ☐ BACnet IP, (Annex J) ☐ Able to register as a Foreign Device ☐ ISO 8802-3, Ethernet (Clause 7) ☐ ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8) ☐ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) ☑ MS/TP master (Clause 9), baud rate(s): <u>9600</u>, <u>19200</u>, <u>38400</u>, <u>76800</u> ☐ MS/TP slave (Clause 9), baud rate(s): \_\_\_\_\_ ☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s): \_\_\_\_\_ ☐ Point-To-Point, modem, (Clause 10), baud rate(s): □ LonTalk, (Clause 11), medium: \_\_\_\_\_ □ Other: \_\_\_\_\_ **Networking Options (check all that are supported):** □ Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.: ☐ Annex H.3, BACnet Tunneling Router over UDP/IP ☐ BACnet/IP Broadcast Management Device (BBMD) Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No ■ MS/TP Slave Proxy Segmentation Capability (check all that apply): ☐ Able to transmit segmented messages Window Size 1 ☐ Able to receive segmented messages Window Size 1 Character Sets Supported (check all that apply): Indicating support for multiple character sets does not imply that they can all be supported simultaneously. ☐ IBM<sup>™</sup>/Microsoft<sup>™</sup> DBCS ☐ ISO 10646 (ICS-4) ☐ ISO 8859-1 ✓ ANSI X3.4 ☐ ISO 10646 (UCS-2) ☐ ISO 10646 (ICS-4) □ JIS C 6226 If this product is a communication gateway, describe the non-BACnet equipment/network(s) that the gateway supports: Include any addition information about the product's BACnet capabilities relevant to interoperability: