

BACnet Protocol Implementation Conformance Statement

Products

Product	Model Number	Protocol Revision	Software Version	Firmware Version
WinCC Open Architecture BACnet		Vers. 1 Rev. 19	V 3.20	6.0

Vendor Information

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Product Description

WinCC OA BACnet is a BACnet-Client for Windows and Linux.
It comprises the WinCC OA base product and the WinCC OA BACnet AddOn

BACnet Standardized Device Profile

Product	Device Profile	Tested
WinCC OA BACnet	BACnet Advanced Operator Workstation (B-AWS)	

Supported BIBBs

Interoperability Area	Supported BIBBs	BIBB Name	
Data Sharing	DS-RP-A	Data Sharing-ReadProperty-A	
	DS-RP-B	Data Sharing ReadProperty-B	
	DS-RPM-A	Data Sharing-ReadPropertyMultiple-A	
	DS-RPM-B	Data Sharing ReadPropertyMultiple-B	
	DS-WP-A	Data Sharing-WriteProperty-A	
	DS-WP-B	Data Sharing-WriteProperty-B	
	DS-WPM-A	Data Sharing-WritePropertyMultiple-A	
	DS-AV-A	Data Sharing-Advanced View-A	
	DS-AM-A	Data Sharing-Advanced Modify-A	
	DS-COV-A	Data Sharing-Change of Value-A	
	DS-COVP-A	Data Sharing-Change of Value Property-A	
	DS-COVU-A	Data Sharing-COV-Unsolicited-A	
	DS-LSAV-A	Data Sharing-Life Safety Advanced View-A	
	DS-LSAM-A	Data Sharing-Life Safety Advanced Modify-A	
Alarm and Event Management	AE-N-A	Alarm and Event-Notification-A	
	AE-ACK-A	Alarm and Event-ACK-A	
	AE-AS-A	Alarm and Event-Alarm Summary View-A	
	AE-AVN-A	Alarm and Event-Advanced View Notification-A	
	AE-AVM-A	Alarm and Event-Advanced View and Modify-A	
	AE-ELVM-A	Alarm and Event Management-Event Log View and Modify-A	
	AE-LS-A	Alarm and Event-LifeSafety-A	
	AE-LSAVM-A	Alarm and Event Management-Life Safety Advanced View and Modify-A	
Scheduling	SCHEM-AVM-A	Scheduling-Advanced View and Modify-A	
Trending	T-ATR-A	Trending-Automated Trend Retrieval-A	
	T-AVM-A	Trending-Advanced View and Modify-A	
	T-AMVR-A	Trending-Automated Multiple Value Retrieval-A	
	T-A-A	Trending-Archival-A	
Device and Network Management	DM-DDB-A	Device Management-Dynamic Device Binding-A	
	DM-DDB-B	Device Management-Dynamic Device Binding-B	
	DM-DOB-B	Device Management-Dynamic Object Binding-B	
	DM-ANM-A	Device Management-Automatic Network Mapping-A	
	DM-ADM-A	Device Management-Automatic Device Mapping-A	
	DM-DCC-A	Device Management-DeviceCommunicationControl-A	
	DM-MTS-A	Device Management-Manual Time Synchronization-A	
	DM-RD-A	Device Management-ReinitializeDevice-A	
	DM-RD-B	Device Management-ReinitializeDevice-B	
	DM-OCD-A	Device Management-Object Creation and Deletion-A	
	DM-BR-A	Device Management-Backup and Restore-A	
	DM-LM-A	Device Management-List Manipulation-A	

Standard Object Types Supported

Since the WinCC OA BACnet is an AWS the following list contains the objects, which are supported by the AWS and not the objects which may be present in the WinCC OA BACnet AWS. The WinCC OA BACnet only contains a Device object and a Network Port object.

Object Type	Remark
Accumulator	
Alert Enrollment	
Analog Input	
Analog Output	
Analog Value	
Averaging	
Binary Input	
Binary Lighting Output	
Binary Output	
Binary Value	
BitStringValue	
Calendar	
Channel	
CharacterStringValue	
Command	
Credential Data Input	
DateValue	
DatePatternValue	
DateTimeValue	
DateTimePatternValue	
Device	
Event Enrollment	
Event Log	
File	
GlobalGroup	
Group	
IntegerValue	
LargeAnalogValue	
Life Safety Point	
Life Safety Zone	
Lighting Output	
Load Control	
Loop	
Multistate Input	
Multistate Output	
Multistate Value	
Network Port	
Network Security	
Notification Class	
Notification Forwarder	

OctetStringValue	
PositiveIntegerValue	
Program	
Pulse Converter	
Schedule	
Structured View	
TimeValue	
TimePatternValue	
Timer	
Trend Log	
Trend Log Multiple	

Standard Services Supported

In the following table the BACnet services initiated and executed by WinCC OA BACnet OWS are listed.

Service	Initiate	Execute
AcknowledgeAlarm	X	
ConfirmedCOVNotification		X
ConfirmedEventNotification		X
GetAlarmSummary	X	
GetEnrollmentSummary	X	
SubscribeCOV	X	
SubscribeCOVProperty	X	
AddListElement	X	
RemoveListElement	X	
CreateObject	X	
DeleteObject	X	
ReadProperty	X	X
ReadPropertyMultiple	X	X
WriteProperty	X	
WritePropertyMultiple	X	
DeviceCommunicationControl	X	
ReinitializeDevice	X	X
I-Am	X	X
I-Have	X	X
UnconfirmedCOVNotification		X
UnconfirmedEventNotification		X
TimeSynchronization	X	
Who-Has		X
Who-Is	X	X
ReadRange	X	
UTCTimeSynchronization	X	
LifeSafetyOperation	X	
GetEventInformation	X	
AtomicReadFile	X	
AtomicWriteFile	X	

ConfirmedTextMessage		X
UnconfirmdTextMessage	X	X

Data Link Layer Options

Product	Data Link	Options
WinCC OA BACnet	BACnet/IP V4	Can communicate as a Direct BACnet/IP device. Can register as a Foreign BACnet/IP device.
	BACnet Secure Connect	Node without hub function

Segmentation Capability

Product	Segmentation Type	Supported	Window Size (MS/TP product limited to 1)
WinCC OA BACnet	Able to transmit segmented messages	Yes	Configurable
	Able to receive segmented messages	Yes	Configurable

Device Address Binding

Product	Static Binding Supported
WinCC OA BACnet	Yes

Networking Options

Product	Options
WinCC OA BACnet	BACnet/IP Broadcast Management Device (BBMD)

Character Sets

Product	Character Sets supported
WinCC OA BACnet	ANSI X3.4 (UTF-8)
	ISO 8859-1

WinCC OA Device Object

Property Identifier	Property Datatype	WinCC OA
Object Identifier	BACnetObjectIdentifier	R
Object Name	CharacterString	R
Object Type	BACnetObjectType	R
System Status	BACnetDeviceStatus	R
Vendor Name	CharacterString	R
Vendor Identifier	Unsigned16	R
Model Name	CharacterString	R
Firmware Revision	CharacterString	R
Application_Software_Version	CharacterString	R
Location	CharacterString	R
Description	CharacterString	R
Protocol Version	Unsigned	R
Protocol Revision	Unsigned	R
Protocol_Services_Supported	BACnetServicesSupported	R
Protocol_Object_Types_Supported	BACnetObjectTypes Supported	R
Object_List	BACnetARRAY[N]of BACnetObjectIdentifier	R
Max_APDU_Length_Accepted	Unsigned	R
Segmentation_Supported	BACnetSegmentation	R
Max_Segments_Accepted	Unsigned	R
Local Time	Time	R
Local Date	Date	R
UTC Offset	INTEGER	R
Daylight_Savings_Status	BOOLEAN	R
APDU_Segment_Timeout	Unsigned	R
APDU Timeout	Unsigned	R
Number Of APDU Retries	Unsigned	R
Device Address Binding	List of BACnetAddressBinding	R
Database Revision	Unsigned	R
Last Restart Reason	BACnetRestartReason	R
Time of Device Restart	BACnetTimeStamp	R
Property_List	BACnetARRAY[N] of BACnetPropertyIdentifier	R

WinCC OA Network Port Object

Property Identifier	Property Datatype	WinCC OA
Object Identifier	BACnetObjectIdentifier	R
Object Name	CharacterString	R
Object Type	BACnetObjectType	R
Status Flags	BACnetStatusFlags	R
Reliability	BACnetReliability	R
Out Of Service	BOOLEAN	R
Network Type	BACnetNetworkType	R
Network Number	Unsigned16	R
Network Number Quality	BACnetNetworkNumberQuality	R
Changes Pending	BOOLEAN	R
Description	CharacterString	R
Protocol Level	BACnetProtocolLevel	R
MAC Address	OCTET STRING	R
APDU Length	Unsigned	R
Network Interface Name	CharacterString	R
BACnet IP Mode	BACnetIPMode	R
IP Address	OCTET STRING	R
BACnet IP UDP Port	Unsigned16	R
IP Subnet Mask	OCTET STRING	R
IP Default Gateway	OCTET STRING	R
IP DHCP Server	OCTET STRING	R
FD Subscription Lifetime	Unsigned16	W
FD BBMD Address	BACnetHostNPort	W
Profile Name	CharacterString	R
Link Speed	REAL	R
Command	BACnetNetworkPortCommand	R
Reference Port	Unsigned	R
Property List	BACnetARRAY[N] of BACnetPropertyIdentifier	R