# BACnet® TESTING LABORATORIES ADDENDA

# Addendum chk1 to BTL Test Package 26.0

### Revision final
### Revised 8/12/2025

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**[This foreword and the "Overview" on the following pages are not part of this Test Package. They are merely informative and do not contain requirements necessary for conformance to the Test Package.]**

## FOREWORD

The purpose of this addendum is to present current changes being made to the BTL Test Package. These modifications are the result of change proposals made pursuant to the continuous maintenance procedures and of deliberations within the BTL-WG Committee. The changes are summarized below.

In the following document, language to be added to existing clauses within the BTL Test Package 26.0 is indicated through the use of *italics*, while deletions are indicated by ~~strikethrough~~. Where entirely new subclauses are proposed to be added, plain type is used throughout.

In contrast, changes to BTL Specified Tests also contain a <mark>yellow</mark> highlight to indicate the changes made by this addendum. When this addendum is applied, all highlighting will be removed. Change markings on tests will remain to indicate the difference between the new test and an existing 135.1 test. If a test being modified has never existed in 135.1, the applied result should not contain any change markings. When this is the case, square brackets will be used to describe the changes required for this test.

Each addendum can stand independently unless specifically noted via dependency within the addendum. If multiple addenda change the same test or section, each future released addendum that changes the same test or section will note in square brackets whether or not those changes are reflected.

**BTL-26.0 chk1-1: Clean Up Checklist Footnotes [BTLWG-1702]**

**Overview:**

Cleaning up BTL Checklist footnotes.  No new sections added.

**Changes:**

## Checklist Changes

[Note: If the section is not included, no changes have been made to that section by this work item.]

# 1    Basic BACnet Functionality

| Support | Listing | Option |
|---|---|---|
| | | **Basic Functionality (applies to all BACnet devices)** |
| X | R | Base Requirements |
| X | R | EPICS Consistency Tests |
| X | R | Supports DS-RP-B |
| | C[1] | Uses Who-Is and I-Am services for router address discovery |
| | C[1] | Uses Who-Is-Router-to-Network (any network) for router address discovery |
| | C[1] | Uses Who-Is-Router-to-Network (specific network) for router address discovery |
| | C[1] | Uses MAC broadcasts for router discovery |
| | *C[1,2]*~~N~~ | Uses static router address configuration |
| | *C[3]*~~BTL C[2]~~ | Supports DM-DDB-B |
| | *C[3]*~~C[2,3]~~ | Supports DM-DOB-B |
| | ~~C O~~ | Initiates Confirmed Requests |
| | | [1] At least one of these options must be supported if the device is capable of *initiating* ~~transmitting~~ any unicast service requests besides COV notifications~~, including unicast service requests containing remote or global broadcasts~~. <br> [2] *Other forms of router address discovery must also be supported.* <br> ~~3~~[2] Required unless the device is an MS/TP *subordinate* ~~slave~~ device. <br> ~~[3] Required if the device implements protocol revision 5 or higher.~~ |
| | ... | |

# 2    Objects

| Support | Listing | Option |
|---|---|---|
| | ... | |
| | | **Device Object** |
| X | R | Base Requirements |
| | R | Supports configurable device name and instance |
| | *R*~~C[1]~~ | Supports Database_Revision property |
| | *C[1]*~~C[2]~~ | Supports Time_Synchronization_Recipients |
| | *C[1]*~~C[2]~~ | Supports UTC_Time_Synchronization_Recipients |
| | O | Contains a writable Local_Date property |
| | O | Contains a writable Local_Time property |
| | O | Supports UTC_Offset property |

| Support | Listing | Option |
|---|---|---|
| | *O²*O³ | Supports configurable Reliability_Evaluation_Inhibit property |
| | O | Supports intrinsic reporting |
| | | ~~[1] Required if the device implements protocol revision 2 or higher.~~<br>*[12]* ~~For devices claiming Protocol_Revision 7 or higher, if~~ *If* either Time_Synchronization_Recipients or UTC_Time_Synchronization_Recipients properties are supported then both shall be supported. ~~For devices claiming Protocol_Revision 7 through 13, this is a BTL requirement; for those claiming 14 and above, this is required by the standard.~~<br>*[23]* Protocol_Revision 13 or higher must be claimed. IUT shall not claim this functionality if the only method of generating a fault condition is by writing to the Reliability property. |
| ... | | |
| **Lighting Output Object** | | |
| | R | Base Requirements |
| | R | Supports command prioritization |
| | R | Supports all BACnetLightingOperations |
| | S | Supports configurable Out_Of_Service property |
| | O | Supports blink-warn |
| | O | Supports Transition property |
| | O | Supports Feedback_Value property |
| | O | Supports Min_Actual_Value and Max_Actual_Value properties |
| | O | Supports the value source mechanism. |
| | O[1,3] | Supports Color_Reference property |
| | O[1] | Supports color override |
| | *O¹*O[1,2] | Supports High_End_Trim or Low_End_Trim properties |
| | O[2] | Supports intrinsic reporting |
| | O[4] | Supports configurable Reliability_Evaluation_Inhibit property |
| | | [1] Protocol_Revision 24 or higher must be claimed<br>[2] Protocol_Revision 21 or higher must be claimed<br>[3] Must be claimed if the IUT supports color override<br>[4] Protocol_Revision 13 or higher must be claimed. IUT shall not claim this functionality if the only method of generating a fault condition is by writing to the Reliability property. |
| ... | | |
| **Lift Object** | | |
| | R[1] | Base Requirements |
| | S | Supports configurable Out_Of_Service property |
| | O | Supports Energy_Meter_Ref and Energy_Meter properties |
| | O[2] | Supports configurable Reliability_Evaluation_Inhibit property |
| | O | Supports intrinsic reporting |
| | | ~~[1] Protocol_Revision 18 or higher must be claimed~~<br>*[1] Protocol_Revision 18 or higher must be claimed*<br>[2] Protocol_Revision 13 or higher must be claimed. IUT shall not claim this functionality if the only method of generating a fault condition is by writing to the Reliability property. |
| ... | | |

# 4      Data Sharing BIBBs

| Support | Listing | Option |
|---|---|---|
| **Data Sharing - ReadProperty - A** | | |
| | R | Base Requirements |
| | C[1] | Can read non-array properties |

| Support | Listing | Option |
|---|---|---|
| | C[1] | Can read array elements |
| | C[1] | Can read the size of an array |
| | C[1] | Can read whole arrays |
| | O | Can read list properties |
| | *C[2]*~~O~~ | Can read NULL property values |
| | *C[2]*~~O~~ | Can read BOOLEAN property values |
| | *C[2]*~~O~~ | Can read Enumerated property values |
| | *C[2]*~~O~~ | Can read INTEGER property values |
| | *C[2]*~~O~~ | Can read Unsigned property values |
| | *C[2]*~~O~~ | Can read REAL property values |
| | *C[2]*~~O~~ | Can read Double property values |
| | *C[2]*~~O~~ | Can read Time property values |
| | *C[2]*~~O~~ | Can read Date property values |
| | *C[2]*~~O~~ | Can read Character String property values |
| | *C[2]*~~O~~ | Can read Octet String property values |
| | *C[2]*~~O~~ | Can read Bit String property values |
| | *C[2]*~~O~~ | Can read BACnetObjectIdentifier property values |
| | *C[2]*~~O~~ | Can read constructed property values |
| | *C[2]*~~O~~ | Can read proprietary property values of basic data types |
| | | [1] At least one of these options is required in order to claim conformance to this BIBB. |
| | | *[2] At least one of these options is required in order to claim conformance to this BIBB.* |
| … | | |
| **Data Sharing - ReadPropertyMultiple - A** | | |
| | R | Base Requirements |
| | BTL-R | Supports DS-RP-A |
| | C[1] | Can read multiple properties from a single object |
| | C[1] | Can read a single property from multiple objects |
| | C[1] | Can read multiple properties from multiple objects |
| | C[1] | Can read using the special ALL property identifier |
| | C[1] | Can read using the special OPTIONAL property identifier |
| | C[1] | Can read using the special REQUIRED property identifier |
| | BTL-C[2] | Can fallback to ReadProperty based on Protocol_Services_Supported |
| | BTL-C[2] | Can fallback to ReadProperty upon receipt of UNRECOGNIZED_SERVICE |
| | O | Can read a single property from a single object |
| | O | Can read non-array properties |
| | O | Can read array elements |
| | O | Can read the size of an array |
| | O | Can read whole arrays |
| | O | Can read list properties |
| | *C[3]*~~O~~ | Can read NULL property values |
| | *C[3]*~~O~~ | Can read BOOLEAN property values |
| | *C[3]*~~O~~ | Can read Enumerated property values |
| | *C[3]*~~O~~ | Can read INTEGER property values |
| | *C[3]*~~O~~ | Can read Unsigned property values |
| | *C[3]*~~O~~ | Can read REAL property values |
| | *C[3]*~~O~~ | Can read Double property values |
| | *C[3]*~~O~~ | Can read Time property values |
| | *C[3]*~~O~~ | Can read Date property values |
| | *C[3]*~~O~~ | Can read Character String property values |
| | *C[3]*~~O~~ | Can read Octet String property values |
| | *C[3]*~~O~~ | Can read Bit String property values |
| | *C[3]*~~O~~ | Can read BACnetObjectIdentifier property values |
| | *C[3]*~~O~~ | Can read constructed property values |
| | *C[3]*~~O~~ | Can read proprietary property values of basic data types |

| Support | Listing | Option |
|---|---|---|
| | | [1] At least one of these options is required in order to claim conformance to this BIBB. <br> [2] At least one of these options is required in order to claim conformance to this BIBB. <br> *[3] At least one of these options is required in order to claim conformance to this BIBB.* |
| | ... | |
| **Data Sharing - Change Of Value - B** | | |
| | R | Base Requirements |
| | R | Supports Lifetimes up to 8 hours in duration |
| | *R*~~R[2]~~ | Supports 5 concurrent COV subscribers |
| | C[1] | Supports COV for Analog Input objects |
| | C[1] | Supports COV for Analog Output objects |
| | C[1] | Supports COV for Analog Value objects |
| | C[1] | Supports COV for Binary Input objects |
| | C[1] | Supports COV for Binary Output objects |
| | C[1] | Supports COV for Binary Value objects |
| | C[1] | Supports COV for Life Safety Point objects |
| | C[1] | Supports COV for Life Safety Zone objects |
| | C[1] | Supports COV for Loop objects |
| | C[1] | Supports COV for Multi-state Input objects |
| | C[1] | Supports COV for Multi-state Output objects |
| | C[1] | Supports COV for Multi-state Value objects |
| | C[1] | Supports COV for CharacterString Value objects |
| | C[1] | Supports COV for Date Value objects |
| | C[1] | Supports COV for Date Pattern Value objects |
| | C[1] | Supports COV for DateTime Value objects |
| | C[1] | Supports COV for DateTime Pattern Value objects |
| | C[1] | Supports COV for Integer Value objects |
| | C[1] | Supports COV for Large Analog Value objects |
| | C[1] | Supports COV for Positive Integer Value objects |
| | C[1] | Supports COV for Time Value objects |
| | C[1] | Supports COV for Time Pattern Value objects |
| | C[1] | Supports COV for OctetString Value objects |
| | C[1] | Supports COV for Pulse Converter objects |
| | C[1] | Supports COV for Access Door objects |
| | C[1] | Supports COV for Load Control objects |
| | C[1] | Supports COV for Access Point objects |
| | C[1] | Supports COV for Credential Data Input objects |
| | C[1] | Supports COV for Lighting Output objects |
| | C[1] | Supports COV for Binary Lighting Output objects |
| | C[1] | Supports COV for Staging objects |
| | C[1] | Supports COV for other standard object types |
| | O | Supports COV for proprietary objects |
| | S | Will accept infinite COV subscriptions |
| | | [1] At least one of these options is required in order to claim conformance to this BIBB. <br> ~~[2] BTL_R if the IUT claims a revision before Protocol_Revision 4.~~ |
| | ... | |
| **Data Sharing - Change Of Value Property - A** | | |
| | R | Base Requirements |
| | R | Subscribes with lifetimes up to 8 hours in duration |
| | C[1] | Can subscribe for confirmed notifications |
| | C[1] | Can subscribe for unconfirmed notifications |
| | C[2] | Can subscribe to non-array properties |
| | C[2] | Can subscribe to array elements |
| | C[2] | Can subscribe to the size of an array |
| | C[2] | Can subscribe to whole arrays |

| Support | Listing | Option |
|---|---|---|
| | O | Can subscribe to list properties |
| | O | Can subscribe with a COV Increment |
| | *C³O³* | Can subscribe to NULL property values |
| | *C³O³* | Can subscribe to BOOLEAN property values |
| | *C³O³* | Can subscribe to Enumerated property values |
| | *C³O³* | Can subscribe to INTEGER property values |
| | *C³O³* | Can subscribe to Unsigned property values |
| | *C³O³* | Can subscribe to REAL property values |
| | *C³O³* | Can subscribe to Double property values |
| | *C³O³* | Can subscribe to Time property values |
| | *C³O³* | Can subscribe to Date property values |
| | *C³O³* | Can subscribe to CharacterString property values |
| | *C³O³* | Can subscribe to OctetString property values |
| | *C³O³* | Can subscribe to BitString property values |
| | *C³O³* | Can subscribe to BACnetObjectIdentifier property values |
| | *C³O³* | Can subscribe to constructed property values |
| | *C³O³* | Can subscribe to proprietary property values of basic data types |
| | *C³O³* | Can subscribe to DateTime property values |
| | O | Can cancel subscriptions |
| | *C³O³* | Can subscribe to Value  Source properties |
| | [1] At least one of these options is required in order to claim conformance to this BIBB. [2] At least one of these options is required in order to claim conformance to this BIBB. [3] At least one of these options is required in order to claim conformance to this BIBB. | |
| … | | |
| **Data Sharing - Access Control User Configuration - A** | | |
| | R | Base Requirements |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R¹*~~R~~ | Supports DM-OCD-A |
| | *[1] Object creation and deletion of Access Rights, Access User, and Access Credential objects is required.* | |
| **Data Sharing - Access Control User Configuration - B** | | |
| | R | Base Requirements |
| | R | Supports DS-WP-B |
| | BTL-C[1] | Supports Access User objects with writable configuration properties |
| | BTL-C[1] | Supports Access Rights objects with writable configuration properties |
| | BTL-C[1] | Supports Access Credential objects with writable configuration properties |
| | [1] At least one of these options is required in order to claim conformance to this BIBB. | |
| **Data Sharing - Access Control Site Configuration - A** | | |
| | R | Base Requirements |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R¹*~~R~~ | Supports DM-OCD-A |
| | *[1] Object creation and deletion of Access Point, Access Zone, Access Door, and Credential Data Input objects is required.* | |
| … | | |

# 5 Alarm and Event Management BIBBs

| Support | Listing | Option |
|---|---|---|
| **Alarm and Event Management - Notification - A** | | |
| | R | Base Requirements |
| | R | Executes ConfirmedEventNotifications |
| | R | Executes UnconfirmedEventNotifications |
| | R | Processes intrinsically generated notifications |
| | R | Processes algorithmically generated notifications |
| | R | Processes CHANGE_OF_BITSTRING notifications |
| | R | Processes CHANGE_OF_STATE notifications |
| | R | Processes CHANGE_OF_VALUE notifications |
| | R | Processes COMMAND_FAILURE notifications |
| | R | Processes FLOATING_LIMIT notifications |
| | R | Processes OUT_OF_RANGE notifications |
| | R | Processes UNSIGNED_RANGE notifications |
| | R | Processes notifications that convey a proprietary Event Type |
| | R | Processes event notifications with timestamps of the BACnetDateTime form |
| | R | Processes event notifications with timestamps of the Time form |
| | R | Processes event notifications with timestamps of the Sequence Number form |
| | R | Processes EXTENDED notifications that convey a proprietary set of Event Values |
| | $R$~~$R^1$~~ | Processes DOUBLE_OUT_OF_RANGE notifications |
| | $R$~~$R^1$~~ | Processes SIGNED_OUT_OF_RANGE notifications |
| | $R$~~$R^1$~~ | Processes UNSIGNED_OUT_OF_RANGE notifications |
| | $R$~~$R^1$~~ | Processes CHANGE_OF_CHARACTERSTRING notifications |
| | $R$~~$R^2$~~ | Processes CHANGE_OF_STATUS_FLAGS notifications |
| | $C^1$~~$R^3$~~ | Processes CHANGE_OF_RELIABILITY notifications |
| | $C^2$~~$R^4$~~ | Processes CHANGE_OF_DISCRETE_VALUE notifications |
| | $C^3$~~$R^5$~~ | Processes CHANGE_OF_TIMER notifications |
| | $C^2$~~$R^4$~~ | Processes CHANGE_OF_RELIABILITY - FAULT_OUT_OF_RANGE notifications |
| | O | Processes CHANGE_OF_LIFE_SAFETY notifications |
| | O | Processes ACCESS_EVENT notifications |
| [1] ~~Required if the device implements protocol revision 10 or higher.~~ <br> [2] ~~Required if the device implements protocol revision 11 or higher.~~ <br> [1]~~[3]~~ Required if the device *claims*~~implements~~ protocol revision 13 or higher. <br> [2]~~[4]~~ Required if the device *claims*~~implements~~ protocol revision 16 or higher. <br> [3]~~[5]~~ Required if the device *claims*~~implements~~ protocol revision 17 or higher. | | |
| **Alarm and Event Management - Notification - Internal - B** | | |
| | R | Base Requirements |
| | R | Supports AE-INFO-B |
| | R | Supports the Notification Class Object |
| | $C^1$ | Supports AE-ACK-B |
| | $C^2$ | Implements intrinsic alarming |
| | $C^2$ | Supports the Event Enrollment object |
| | $C^3$ | Implements the CHANGE_OF_BITSTRING algorithm |
| | $C^3$ | Implements the CHANGE_OF_STATE algorithm |
| | $C^3$ | Implements the numeric form of the CHANGE_OF_VALUE algorithm |
| | $C^3$ | Implements the Bit String form of the CHANGE_OF_VALUE algorithm |
| | $C^3$ | Implements the COMMAND_FAILURE algorithm |
| | $C^3$ | Implements the FLOATING_LIMIT algorithm |
| | $C^3$ | Implements the OUT_OF_RANGE algorithm |
| | $C^3$ | Implements a proprietary algorithm using complex notifications |
| | $C^3$ | Implements a standard or proprietary algorithm using extended notifications |

| Support | Listing | Option |
|---|---|---|
| | C[4] | Generates event notifications with timestamps of the BACnetDateTime form |
| | *N[4]*N[4,10] | Generates event notifications with timestamps of the Time form |
| | C[4] | Generates event notifications with timestamps of the Sequence Number form |
| | O | Implements intrinsic alarming in an Analog object |
| | O | Supports writable Event_Parameters properties |
| | C[3] | Implements the DOUBLE_OUT_OF_RANGE algorithm |
| | C[3] | Implements the SIGNED_OUT_OF_RANGE algorithm |
| | C[3] | Implements the UNSIGNED_OUT_OF_RANGE algorithm |
| | C[3] | Implements the CHANGE_OF_CHARACTERSTRING algorithm |
| | C[3] | Implements the CHANGE_OF_STATUS_FLAGS algorithm |
| | C[3] | Implements the UNSIGNED_RANGE algorithm |
| | O | Supports Event_Message_Texts property |
| | O | Supports Event_Message_Texts_Config property |
| | O | Implements intrinsic alarming in an Integer object |
| | C[3,9] | Implements the CHANGE_OF_RELIABILITY - NONE |
| | C[3,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_CHARACTERSTRING algorithm |
| | C[3,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_EXTENDED algorithm |
| | C[3,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_LIFE_SAFETY algorithm |
| | C[3,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_STATE algorithm |
| | C[3,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_STATUS_FLAGS algorithm |
| | C[3,8,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_LISTED algorithm |
| | C[3,9] | Supports CHANGE_OF_RELIABILITY in the Event Enrollment Object |
| | C[3, 6] | Implements the CHANGE_OF_DISCRETE_VALUE algorithm |
| | C[3,7] | Implements the CHANGE_OF_TIMER algorithm |
| | C[3,6,9] | Implements the CHANGE_OF_RELIABILITY - FAULT_OUT_OF_RANGE algorithm |
| | O[5] | Implements the Reliability_Evaluation_Inhibit property with Fault Reporting |

[1] Required if EventNotifications with service parameter AckRequired = True can be issued.

[2] *At least one of these options is required in order to claim conformance to this BIBB.* At least one of these options must be supported to claim support for this BIBB.

[3] *At least one of these options is required in order to claim conformance to this BIBB.* At least one of these options must be supported to claim support for this BIBB. It is recommended that a standard BACnet algorithm be used instead of a proprietary algorithm whenever possible.

[4] At least one of these options must be supported to claim support for this BIBB. The BACnetDateTime form of the timestamp is the recommended option.

[5] Protocol_Revision 13 or higher must be claimed. IUT shall not claim this functionality if the only method of generating a fault condition is by writing to the Reliability property.

[6] Protocol_Revision 16 or higher must be claimed.

[7] Protocol_Revision 17 or higher must be claimed.

[8] Protocol_Revision 18 or higher must be claimed.

[9] A device shall support CHANGE_OF_RELIABILITY in any object which generates event notifications and in which the Reliability property can take on a value other than NO_FAULT_DETECTED.

[10] This option may only be selected for devices at Protocol_Revision 20 or lower.

**Alarm and Event Management - Notification - External - B**

| Support | Listing | Option |
|---|---|---|
| | R | Base Requirements |
| | R | Supports AE-N-I-B |
| | R | Supports DS-RP-A for retrieving monitored values |
| | R | Supports the Event Enrollment object |
| | C[1] | Implements the CHANGE_OF_BITSTRING algorithm |
| | C[1] | Implements the CHANGE_OF_STATE algorithm |
| | C[1] | Implements the numeric form of the CHANGE_OF_VALUE algorithm |
| | C[1] | Implements the Bit String form of the CHANGE_OF_VALUE algorithm |

| Support | Listing | Option |
|---|---|---|
| | C[1] | Implements the COMMAND_FAILURE algorithm |
| | C[1] | Implements the FLOATING_LIMIT algorithm |
| | C[1] | Implements the OUT_OF_RANGE algorithm |
| | C[1] | Implements the DOUBLE_OUT_OF_RANGE algorithm |
| | C[1] | Implements the SIGNED_OUT_OF_RANGE algorithm |
| | C[1] | Implements the UNSIGNED_OUT_OF_RANGE algorithm |
| | C[1] | Implements the CHANGE_OF_CHARACTERSTRING algorithm |
| | C[1] | Implements the CHANGE_OF_STATUS_FLAGS algorithm |
| | C[1] | Implements the UNSIGNED_RANGE algorithm |
| | C[1,6] | Implements the CHANGE_OF_RELIABILITY - NONE |
| | C[1,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_CHARACTERSTRING algorithm |
| | C[1,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_EXTENDED algorithm |
| | C[1,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_LIFE_SAFETY algorithm |
| | C[1,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_STATE algorithm |
| | C[1,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_STATUS_FLAGS algorithm |
| | C[1,5,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_LISTED algorithm |
| | C[1,6] | Supports CHANGE_OF_RELIABILITY in the Event Enrollment object |
| | C[1,3] | Implements the CHANGE_OF_DISCRETE_VALUE algorithm |
| | C[1,4] | Implements the CHANGE_OF_TIMER algorithm |
| | C[1,3,6] | Implements the CHANGE_OF_RELIABILITY - FAULT_OUT_OF_RANGE algorithm |
| | C[1] | Implements a proprietary algorithm |

[1] *At least one of these options is required in order to claim conformance to this BIBB.* ~~At least one of these options must be supported to claim support for this BIBB.~~ It is recommended that a standard BACnet algorithm be used instead of a proprietary algorithm whenever possible.

[3] Protocol_Revision 16 or higher must be claimed.

[4] Protocol_Revision 17 or higher must be claimed.

[5] Protocol_Revision 18 or higher must be claimed.

[6] A device shall support CHANGE_OF_RELIABILITY in any object which generates event notifications and in which the Reliability property can take on a value other than NO_FAULT_DETECTED.

| | | |
|---|---|---|
| **Alarm and Event Management - Acknowledge - A** | | |
| | R | Base Requirements |
| | BTL-R[1] | Generates AcknowledgeAlarm requests with acknowledge timestamps of the BACnetDateTime form |
| | N[1] | Generates AcknowledgeAlarm requests with acknowledge timestamps of the Time form |
| | N[1] | Generates AcknowledgeAlarm requests with acknowledge timestamps of the Sequence Number form |

[1] At least one of these options is required in order to claim conformance to this BIBB. *The BACnetDateTime form of the timestamp is the only form allowed as the Time of Acknowledgement as of Protocol_Revision 21.*

| | | |
|---|---|---|
| … | | |
| **Alarm and Event Management - Event Log View and Modify - A** | | |
| | R | Base Requirements |
| | *BTL-R*~~R~~ | Supports AE-ELV-A |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | | |
| … | | |
| **Alarm and Event Management - Advanced View Modify - A** | | |
| | R | Base Requirements |
| | R | Supports DS-RP-A |

| Support | Listing | Option |
|---|---|---|
| | R | Supports DS-WP-A |
| | *R¹*R̶ | Supports DM-OCD-A |
| | | ¹ *Object creation and deletion of Event Enrollment, Notification Class, and Notification Forwarder objects is required.* |
| … | | |
| **Alarm and Event Management - LifeSafety - A** | | |
| | R | Base Requirements |
| | C¹ | Initiates LifeSafetyOperation requests targeting a single object |
| | C¹ | Initiates LifeSafetyOperation requests targeting all life safety objects in a device |
| | R | Executes ConfirmedEventNotifications |
| | R | Executes UnconfirmedEventNotifications |
| | R | Processes intrinsically generated notifications |
| | R | Processes algorithmically generated notifications |
| | R | Processes event notifications with timestamps of the BACnetDateTime form |
| | R | Processes event notifications with timestamps of the Time form |
| | R | Processes event notifications with timestamps of the Sequence Number form |
| | R | Supports AE-ACK-A |
| | R | Supports AE-AS-A |
| | | ¹ *At least one of these options is required in order to claim conformance to this BIBB.*A̶t̶ ̶l̶e̶a̶s̶t̶ ̶o̶n̶e̶ ̶o̶f̶ ̶t̶h̶e̶s̶e̶ ̶o̶p̶t̶i̶o̶n̶s̶ ̶m̶u̶s̶t̶ ̶b̶e̶ ̶s̶u̶p̶p̶o̶r̶t̶e̶d̶ |
| **Alarm and Event Management - LifeSafety - B** | | |
| | R | Base Requirements |
| | R | Supports the Notification Class Object |
| | R | Supports AE-INFO-B |
| | C¹ | Implements intrinsic alarming |
| | C¹ | Supports the Event Enrollment object using the CHANGE_OF_LIFE_SAFETY algorithm |
| | C² | Supports AE-ACK-B |
| | C³ | Generates event notifications with timestamps of the BACnetDateTime form |
| | *N³*C̶³ | Generates event notifications with timestamps of the Time form |
| | *C³* | Generates event notifications with timestamps of the Sequence Number form |
| | O | Supports mode transition when Event State is maintained |
| | O | Supports Event_Message_Texts property |
| | O | Supports Event_Message_Texts_Config property |
| | O | Supports Re-alerting CHANGE_OF_LIFE_SAFETY events |
| | | ¹ *At least one of these options is required in order to claim conformance to this BIBB.*A̶t̶ ̶l̶e̶a̶s̶t̶ ̶o̶n̶e̶ ̶o̶f̶ ̶t̶h̶e̶s̶e̶ ̶o̶p̶t̶i̶o̶n̶s̶ ̶m̶u̶s̶t̶ ̶b̶e̶ ̶s̶u̶p̶p̶o̶r̶t̶e̶d̶ ̶t̶o̶ ̶c̶l̶a̶i̶m̶ ̶s̶u̶p̶p̶o̶r̶t̶ ̶f̶o̶r̶ ̶t̶h̶i̶s̶ ̶B̶I̶B̶B̶.̶ |
| | | ² Required if EventNotifications with service parameter AckRequired = True can be issued. |
| | | ³ At least one of these options must be supported to claim support for this BIBB. The BACnetDateTime form of the timestamp is the recommended option. |
| … | | |
| **Alarm and Event Management - Notification Forwarder - Internal - B** | | |
| | R | Base Requirements |
| | O | Supports forwarding of events received from an external device |
| | C¹ | Supports non-configurable Process_Identifier_Filter Property |
| | C¹ | Supports configurable Process_Identifier_Filter Property |
| | | ¹ *At least one of these options is required in order to claim conformance to this BIBB.*A̶t̶ ̶l̶e̶a̶s̶t̶ ̶o̶n̶e̶ ̶o̶f̶ ̶t̶h̶e̶s̶e̶ ̶o̶p̶t̶i̶o̶n̶s̶ ̶m̶u̶s̶t̶ ̶b̶e̶ ̶s̶u̶p̶p̶o̶r̶t̶e̶d̶.̶ |
| … | | |
| **Alarm and Event Management - Life Safety Advanced View and Modify - A** | | |
| | R | Base Requirements |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R¹*R̶ | Supports DM-OCD-A |
| | R | Supports AE-AVM-A |

| Support | Listing | Option |
|---|---|---|
| | | [1] *Object creation and deletion of Event Enrollment, Notification Class, and Notification Forwarder objects is required.* |
| **…** | | |
| **Alarm and Event Management - Access Control - B** | | |
| | R | Base Requirements |
| | R | Supports AE-INFO-B |
| | R | Supports the Notification Class Object |
| | C[1] | Supports AE-ACK-B |
| | C[2] | Implements intrinsic alarming |
| | C[2] | Supports the Event Enrollment object |
| | C[3] | Generates Event Notifications with Timestamps of the BacnetDateTime Form |
| | *N[3]*C[3] | Generates Event Notifications with Timestamps of the Time Form |
| | C[3] | Generates Event Notifications with Timestamps of the Sequence Number Form |
| | O | Supports Event_Message_Texts Property |
| | O | Supports Event_Message_Texts_Config Property |
| | | [1] Required if EventNotifications with service parameter AckRequired = True can be issued. |
| | | [2] *At least one of these options is required in order to claim conformance to this BIBB.* At least one of these options must be supported to claim support for this BIBB. |
| | | [3] At least one of these options must be supported to claim support for this BIBB. |
| **…** | | |
| **Alarm and Event Management - Access Control Advanced View and Modify - A** | | |
| | R | Base Requirements |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R[1]*R | Supports DM-OCD-A |
| | R | Supports AE-AVM-A |
| | | [1] *Object creation and deletion of Event Enrollment, Notification Class, and Notification Forwarder objects is required.* |
| **…** | | |
| **Alarm and Event Management - Elevator Advanced View and Modify - A** | | |
| | R | Base Requirements |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R[1]*R | Supports DM-OCD-A |
| | R | Supports AE-AVM-A |
| | | [1] *Object creation and deletion of Event Enrollment, Notification Class, and Notification Forwarder objects is required.* |

# 6      Scheduling BIBBs

| Support | Listing | Option |
|---|---|---|
| **Scheduling - Advanced View Modify - A** | | |
| | R | Base Requirements |
| | *BTL-R*R | Supports SCHED-VM-A |
| | *R[1]*R | Supports DM-OCD-A |
| | | [1] *Object creation and deletion of Schedule, Calendar, and Timer objects is required.* |
| **…** | | |
| **Scheduling - Weekly Schedule - A** | | |
| | *R*R[1] | Base Requirements |

| Support | Listing | Option |
|---|---|---|
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | R | Is able to schedule any B-side device with a Protocol_Revision less than or equal to its own Protocol_Revision |
| | R | Is able to present and modify Weekly_Schedule of Enumerated type |
| | R | Is able to present and modify Weekly_Schedule of REAL type |
| | C[1]C[2] | Is able to present and modify Weekly_Schedule of BOOLEAN type |
| | C[1]C[2] | Is able to present and modify Weekly_Schedule of Unsigned type |
| | O | Is able to present and modify Weekly_Schedule of INTEGER (signed) type |
| | O | Is able to present and modify Weekly_Schedule of Double type |
| | O | Is able to present and modify Weekly_Schedule of Octet String type |
| | O | Is able to present and modify Weekly_Schedule of Character String type |
| | O | Is able to present and modify Weekly_Schedule of Bit String type |
| | O | Is able to present and modify Weekly_Schedule of Date type |
| | O | Is able to present and modify Weekly_Schedule of Time type |
| | O | Is able to present and modify Weekly_Schedule of BACnetObjectIdentifier type |
| | | [1] This BIBB can be claimed even if SCHED-VM-A is also claimed. <br> [1][2] Required if the IUT claims Protocol_Revision 20 or higher. |
| ... | | |
| | | |

# 7  Trending BIBBs

| Support | Listing | Option |
|---|---|---|
| **Trending - View - A** | | |
| | R | Base Requirements |
| | R | Initiates ReadRange |
| | R | Interoperates with Trend Logs |
| | R C[1,2] | Interoperates with Trend Log Multiple objects |
| | C[1]C[3] | Supports reading items by Time with a positive count |
| | C[1]C[3] | Supports reading items by Time with a negative count |
| | C[1]C[3] | Supports reading items by Position with a positive count |
| | C[1]C[3] | Supports reading items by Position with a negative count |
| | C[1]C[3] | Supports reading items by Sequence Number with a positive count |
| | C[1]C[3] | Supports reading items by Sequence Number with a negative count |
| | O | Supports reading items with no range |
| | O | Is able to present Double datatypes in trend logging objects |
| | O | Is able to present Octet String datatypes in trend logging objects |
| | O | Is able to present Character String datatypes in trend logging objects |
| | O | Is able to present Date datatypes in trend logging objects |
| | O | Is able to present Time datatypes in trend logging objects |
| | O | Is able to present BACnetObjectIdentifier datatypes in trend logging objects |
| | | [1] Must be able to present REAL, Unsigned, INTEGER, BOOLEAN, Bit String, Enumerated, and NULL datatypes. <br> [2] Required if the device claims support for Protocol_Revision 7 or higher. <br> [1][3] At least one of these options is required in order to claim conformance to this BIBB. |
| **Trending - Advanced View and Modify - A** | | |
| | R | Base Requirements |
| | *BTL-R*R | Supports T-V-A |

| Support | Listing | Option |
|---|---|---|
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R[1]*R̶ | Supports DM-OCD-A |
| | *[1] Object creation and deletion of Trend Log, Trend Log Multiple, Event Enrollment, and Notification Class objects is required.* | |
| **…** | | |
| **Trending - Automated Trend Retrieval - B** | | |
| | R | Base Requirements |
| | R | Supports T-VMT-I-B |
| | R | Supports the Notification Class Object |
| | C[1] | Implements intrinsic alarming |
| | C[1] | Implements algorithmic alarming |
| | *C[2]*S̶[2] | Generates event notifications with timestamps of the BACnetDateTime form |
| | N[2] | Generates event notifications with timestamps of the Time form |
| | N[2] | Generates event notifications with timestamps of the Sequence Number form |
| | [1] At least one of these options is required in order to claim conformance to this BIBB. | |
| | [2] At least one of these options must be supported to claim support for this BIBB. The BACnetDateTime form of the timestamp is the recommended option. | |
| **Trending - Viewing and Modifying Multiple Values - Internal - B** | | |
| | R | Base Requirements |
| | R | Supports all forms of ReadRange |
| | R | Executes ReadRange |
| | C[1] | Supports periodic logging (polling) |
| | C[1] | Supports triggered logging |
| | O | Supports clock-aligned logging |
| | O | Supports Start  Time and Stop  Time properties |
| | *C[2]*S̶ | Is able to trend REAL datatypes |
| | *C[2,3]*S̶[2] | Is able to trend Unsigned datatypes |
| | *C[2,3]*S̶[2] | Is able to trend INTEGER datatypes |
| | *C[2]*S̶ | Is able to trend BOOLEAN datatypes |
| | *C[2]*S̶ | Is able to trend Bit String datatypes |
| | *C[2,4]*S̶[3] | Is able to trend Enumerated datatypes |
| | *C[2]*S̶ | Is able to trend NULL datatypes |
| | [1] At least one of these options is required in order to claim conformance to this BIBB. | |
| | [2] At least one of these options is required in order to claim conformance to this BIBB. | |
| | [3]̶[2] Trending of 32 bit Unsigned and INTEGER values is minimally required. | |
| | [4]̶[3] Trending of 16-bit Enumerated values is minimally required. | |
| **Trending - Viewing and Modifying Multiple Values - External - B** | | |
| | R | Base Requirements |
| | R | Supports T-VMMV-I-B |
| | *C[1]*S̶ | Is able to trend REAL datatypes |
| | *C[1,2]*S̶[1] | Is able to trend Unsigned datatypes |
| | *C[1,2]*S̶[1] | Is able to trend INTEGER datatypes |
| | *C[1]*S̶ | Is able to trend BOOLEAN datatypes |
| | *C[1]*S̶ | Is able to trend Bit String datatypes |
| | *C[1,3]*S̶[2] | Is able to trend Enumerated datatypes |
| | *C[1]*S̶ | Is able to trend NULL datatypes |
| | *[1] At least one of these options is required in order to claim conformance to this BIBB.* | |
| | [2]̶[1] Trending of 32 bit Unsigned and INTEGER values is minimally required. | |
| | [3]̶[2] Trending of 16-bit Enumerated values is minimally required. | |
| **…** | | |
| **Trending - Automated Multiple Value Retrieval - B** | | |
| | R | Base Requirements |
| | R | Supports T-VMMV-I-B |

| Support | Listing | Option |
|---|---|---|
| | R | Supports the Notification Class object |
| | C[1] | Implements intrinsic alarming |
| | C[1] | Implements algorithmic alarming |
| | ~~C[2]~~S[2] | Generates event notifications with timestamps of the BACnetDateTime form |
| | N[2] | Generates event notifications with timestamps of the Time form |
| | N[2] | Generates event notifications with timestamps of the Sequence Number form |
| | [1] At least one of these options is required in order to claim conformance to this BIBB. [2] At least one of these options must be supported to claim support for this BIBB. The BACnetDateTime form of the timestamp is the recommended option. | |
| **Trending - Archival - A** | | |
| | R | Base Requirements |
| | R | Supports T-ATR-A |
| | R~~C[1]~~ | Supports T-AMVR-A |
| | ~~[1] Required if the device claims Protocol_Revision 7 or higher~~ | |
| **Trending - Viewing and Modifying Trends - A** | | |
| | N[1]~~R[1]~~ | Base Requirements |
| | [1] This BIBB *is deprecated but* can be claimed if T-V-A is claimed. | |
| **Trending - Viewing and Modifying Multiple Values - A** | | |
| | N[1]~~R[1]~~ | Base Requirements |
| | [1] This BIBB *is deprecated but* can be claimed if T-V-A is claimed. ~~and the IUT claims a Protocol_Revision 7 or higher~~ | |

# 8 Device Management BIBBs

| Support | Listing | Option |
|---|---|---|
| … | | |
| **Device Management - Time Synchronization - A** | | |
| | R | Base Requirements |
| | R~~R[1]~~ | Supports DM-UTC-A |
| | ~~[1] BTL-R if the IUT claims a revision before Protocol_Revision 15.~~ | |
| … | | |
| **Device Management - UTC Time Synchronization - A** | | |
| | R | Base Requirements |
| | R~~R[1]~~ | Supports DM-TS-A |
| | ~~[1] BTL-R if the IUT claims a revision before Protocol_Revision 15.~~ | |
| … | | |
| **Device Management - Device Communication Control - A** | | |
| | R | Base Requirements |
| | BTL-R | Supports sending a DeviceCommunicationControl service request with an arbitrary password |
| | R~~R[1]~~ | Supports sending a DeviceCommunicationControl service request with a finite timeout |
| | S | Supports DM-RD-A |
| | O | Supports sending a DeviceCommunicationControl service request with no password |
| | O | Supports sending a DeviceCommunicationControl service request with an infinite timeout |
| | ~~[1] BTL-R if the IUT claims a revision before Protocol_Revision 12.~~ | |
| **Device Management - Device Communication Control - B** | | |
| | R | Base Requirements |
| | C[1] | Supports receiving a DeviceCommunicationControl service request with a password |
| | C[1] | Supports receiving a DeviceCommunicationControl service request with no password |

| Support | Listing | Option |
|---|---|---|
| | R | Supports receiving a DeviceCommunicationControl service request with a finite duration |
| | O | Supports receiving a DeviceCommunicationControl service request with an indefinite duration |
| | O | Supports DM-RD-B |
| | *R*C̶[4] | Supports receiving a DeviceCommunicationControl service request specifying DISABLE_INITIATION. |

[1] At least one of these options is required in order to claim conformance to this BIBB.
[4] Required if device implements protocol revision 4 or higher.

| Support | Listing | Option |
|---|---|---|
| ... | | |
| **Device Management - Backup and Restore - B** | | |
| | R | Base Requirements |
| | C[1] | Supports password protected Backup |
| | C[1] | Supports non-password protected Backup |
| | C[2] | Supports password protected Restore |
| | C[2] | Supports non-password protected Restore |
| | O | Changes operational behavior during a Backup procedure |
| | O | Changes operational behavior during a Restore procedure |

[1] *At least one of these options is required in order to claim conformance to this BIBB.* At least one of these is required in order to claim conformance to this BIBB.
[2] *At least one of these options is required in order to claim conformance to this BIBB.* At least one of these is required in order to claim conformance to this BIBB.

| Support | Listing | Option |
|---|---|---|
| ... | | |
| **Device Management - Object Creation and Deletion - A** | | |
| | R | Base Requirements |
| | *R*B̶T̶L̶ ̶R̶ | Can create objects using Object_Identifier with no initial values |
| | *S*S̶[1] | Can create objects using Object_Type with no initial values |
| | S | Can create objects by Object_Identifier with initial values which includes Object_Name |
| | *S*S̶[1] | Can create objects by Object_Type with initial values which includes Object_Name |
| | *C[1]*C̶[2] | Can create and delete Accumulator objects |
| | *C[1]*C̶[2] | Can create and delete Analog Input objects |
| | *C[1]*C̶[2] | Can create and delete Analog Output objects |
| | *C[1]*C̶[2] | Can create and delete Analog Value objects |
| | *C[1]*C̶[2] | Can create and delete Averaging objects |
| | *C[1]*C̶[2] | Can create and delete Binary Input objects |
| | *C[1]*C̶[2] | Can create and delete Binary Output objects |
| | *C[1]*C̶[2] | Can create and delete Binary Value objects |
| | *C[1]*C̶[2] | Can create and delete Calendar objects |
| | *C[1]*C̶[2] | Can create and delete Command objects |
| | *C[1]*C̶[2] | Can create and delete Event Enrollment objects |
| | *C[1,2]*C̶[2,3] | Can create and delete File objects |
| | *C[1]*C̶[2] | Can create and delete Group objects |
| | *C[1]*C̶[2] | Can create and delete Life Safety Point objects |
| | *C[1]*C̶[2] | Can create and delete Life Safety Zone objects |
| | *C[1]*C̶[2] | Can create and delete Loop objects |
| | *C[1]*C̶[2] | Can create and delete Multi State Input objects |
| | *C[1]*C̶[2] | Can create and delete Multi State Output objects |
| | *C[1]*C̶[2] | Can create and delete Multi State Value objects |
| | *C[1]*C̶[2] | Can create and delete Notification Class objects |
| | *C[1]*C̶[2] | Can create and delete Program objects |
| | *C[1]*C̶[2] | Can create and delete Pulse Converter objects |
| | *C[1]*C̶[2] | Can create and delete Schedule objects |
| | *C[1]*C̶[2] | Can create and delete Trend Log objects |
| | *C[1]*C̶[2] | Can create and delete Structured View objects |
| | *C[1]*C̶[2] | Can create and delete Load Control objects |

| Support | Listing | Option |
|---|---|---|
| | C[1,2] ~~C[2]~~ | Can create and delete Access Door objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Proprietary objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Event Log objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Trend Log Multiple objects |
| | C[1,2] ~~C[2]~~ | Can create and delete CharacterString Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete DateTime Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Large Analog Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete BitString Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete OctetString Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Time Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Integer Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Positive Integer Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Date Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete DateTime Pattern Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Time Pattern Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Date Pattern Value objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Network Security objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Global Group objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Access Point objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Access Zone objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Access User objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Access Rights objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Access Credential objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Credential Data objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Notification Forwarder objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Alert Enrollment objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Channel objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Lighting Output objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Binary Lighting Output objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Network Port objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Timer objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Elevator Group objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Lift objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Escalator objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Staging objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Audit Reporter objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Audit Log objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Color objects |
| | C[1,2] ~~C[2]~~ | Can create and delete Color Temperature objects |

[1] ~~For each object type where the IUT supports creation with the CreateObject service, the Object_Identifier form of CreateObject shall be supported.~~

[1,2] *At least one of these options is required in order to claim conformance to this BIBB.* ~~At least one of these is required in order to claim conformance to this BIBB.~~

[3] ~~IUT should not claim this functionality if the only method of creating a File object is by initiating the device restore procedure.~~

[2] *IUT shall not claim this BIBB if the only objects created are File objects for the purpose of initiating the device restore procedure.*

**Device Management - Object Creation and Deletion - B**

| Support | Listing | Option |
|---|---|---|
| | R | Base Requirements |
| | R | Supports object creation using Object_Type |
| | R | Supports object creation using Object_Identifier |
| | R | Supports object deletion for each object type that it supports creation of |
| | C[1] | Supports object creation and deletion of the Accumulator object |
| | C[1] | Supports object creation and deletion of the Analog Input object |

| Support | Listing | Option |
|---|---|---|
| | C[1] | Supports object creation and deletion of the Analog Output object |
| | C[1] | Supports object creation and deletion of the Analog Value object |
| | C[1] | Supports object creation and deletion of the Averaging object |
| | C[1] | Supports object creation and deletion of the Binary Input object |
| | C[1] | Supports object creation and deletion of the Binary Output object |
| | C[1] | Supports object creation and deletion of the Binary Value object |
| | C[1] | Supports object creation and deletion of the Calendar object |
| | C[1] | Supports object creation and deletion of the Command object |
| | C[1] | Supports object creation and deletion of the Event Enrollment object |
| | C[1] | Supports object creation and deletion of the File object |
| | C[1] | Supports object creation and deletion of the Group object |
| | C[1] | Supports object creation and deletion of the Life Safety Point object |
| | C[1] | Supports object creation and deletion of the Life Safety Zone object |
| | C[1] | Supports object creation and deletion of the Loop object |
| | C[1] | Supports object creation and deletion of the Multi State Input object |
| | C[1] | Supports object creation and deletion of the Multi State Output object |
| | C[1] | Supports object creation and deletion of the Multi State Value object |
| | C[1] | Supports object creation and deletion of the Notification Class object |
| | C[1] | Supports object creation and deletion of the Program object |
| | C[1] | Supports object creation and deletion of the Pulse Converter object |
| | C[1] | Supports object creation and deletion of the Schedule object |
| | C[1] | Supports object creation and deletion of the Trend Log object |
| | C[1] | Supports object creation and deletion of the Structured View object |
| | C[1] | Supports object creation and deletion of the Load Control object |
| | C[1] | Supports object creation and deletion of the Access Door object |
| | C[1] | Supports object creation and deletion of Proprietary objects |
| | C[1] | Supports object creation and deletion of the Event Log object |
| | C[1] | Supports object creation and deletion of the Trend Log Multiple object |
| | C[1] | Supports object creation and deletion of the CharacterString Value object |
| | C[1] | Supports object creation and deletion of the DateTime Value object |
| | C[1] | Supports object creation and deletion of the Large Analog Value object |
| | C[1] | Supports object creation and deletion of the BitString Value object |
| | C[1] | Supports object creation and deletion of the OctetString Value object |
| | C[1] | Supports object creation and deletion of the Time Value object |
| | C[1] | Supports object creation and deletion of the Integer Value object |
| | C[1] | Supports object creation and deletion of the Positive Integer Value object |
| | C[1] | Supports object creation and deletion of the Date Value object |
| | C[1] | Supports object creation and deletion of the DateTime Pattern Value object |
| | C[1] | Supports object creation and deletion of the Time Pattern Value object |
| | C[1] | Supports object creation and deletion of the Date Pattern Value object |
| | C[1] | Supports object creation and deletion of the Network Security object |
| | C[1] | Supports object creation and deletion of the Global Group object |
| | C[1] | Supports object creation and deletion of the Access Point object |
| | C[1] | Supports object creation and deletion of the Access Zone object |
| | C[1] | Supports object creation and deletion of the Access User object |
| | C[1] | Supports object creation and deletion of the Access Rights object |
| | C[1] | Supports object creation and deletion of the Access Credential object |
| | C[1] | Supports object creation and deletion of the Credential Data object |
| | C[1] | Supports object creation and deletion of the Notification Forwarder object |
| | C[1] | Supports object creation and deletion of the Alert Enrollment object |
| | C[1] | Supports object creation and deletion of the Channel object |
| | C[1] | Supports object creation and deletion of the Lighting Output object |
| | C[1,2] | Supports object creation and deletion of the Binary Lighting Output object |
| | C[1,3] | Supports object creation and deletion of the Network Port object |

| Support | Listing | Option |
|---|---|---|
| | $C^{1,3}$ | Supports object creation and deletion of the Timer object |
| | $C^{1,4}$ | Supports object creation and deletion of the Elevator Group object |
| | $C^{1,4}$ | Supports object creation and deletion of the Lift object |
| | $C^{1,4}$ | Supports object creation and deletion of the Escalator object |
| | $C^{1,5}$ | Supports object creation and deletion of the Staging object |
| | $C^{1,5}$ | Supports object creation and deletion of the Audit Reporter object |
| | $C^{1,5}$ | Supports object creation and deletion of the Audit Log object |
| | $C^{1,6}$ | Supports object creation and deletion of the Color object |
| | $C^{1,6}$ | Supports object creation and deletion of the Color Temperature object |
| | | [1] ==*At least one of these options is required in order to claim conformance to this BIBB.*== ~~At least one of these is required in order to claim conformance to this BIBB.~~ |
| | | [2] Protocol_Revision 16 or higher must be claimed. |
| | | [3] Protocol_Revision 17 or higher must be claimed. |
| | | [4] Protocol_Revision 18 or higher must be claimed. |
| | | [5] Protocol_Revision 20 or higher must be claimed. |
| | | [6] Protocol_Revision 24 or higher must be claimed. |
| **Device Management - List Manipulation - A** | | |
| | R | Base Requirements |
| | $C^1$ | Supports adding and removing Notification Class / Recipient_List entries |
| | $C^1$ | Supports adding and removing Schedule / List_Of_Object_Property_References entries |
| | $C^1$ | Supports adding and removing Calendar / Date_List entries |
| | $C^1$ | Supports adding and removing Device / Time_Synchronization_Recipients entries |
| | $C^1$ | Supports adding and removing Device / UTC_Time_Synchronization_Recipients entries |
| | $C^1$ | Supports adding and removing Device / Restart_Notification_Recipients entries |
| | $C^1$ | Supports adding and removing Device / Manual_Slave_Address_Binding entries |
| | $C^1$ | Supports adding and removing Group / List_Of_Group_Members entries |
| | $C^1$ | Supports adding and removing Life Safety Point / Life_Safety_Alarm_Values entries |
| | $C^1$ | Supports adding and removing Life Safety Point / Alarm_Values entries |
| | $C^1$ | Supports adding and removing Life Safety Point / Fault_Values entries |
| | $C^1$ | Supports adding and removing Life Safety Point / Member_Of entries |
| | $C^1$ | Supports adding and removing Life Safety Zone / Life_Safety_Alarm_Values entries |
| | $C^1$ | Supports adding and removing Life Safety Zone / Alarm_Values entries |
| | $C^1$ | Supports adding and removing Life Safety Zone / Fault_Values entries |
| | $C^1$ | Supports adding and removing Life Safety Zone / Member_Of entries |
| | $C^1$ | Supports adding and removing Multi-State Input / Alarm_Values entries |
| | $C^1$ | Supports adding and removing Multi-State Input / Fault_Values entries |
| | $C^1$ | Supports adding and removing Multi-State Value / Alarm_Values entries |
| | $C^1$ | Supports adding and removing Multi-State Value / Fault_Values entries |
| | $C^1$ | Supports adding and removing entries in proprietary list properties of primitive datatypes |
| | $C^1$ | Supports adding and removing Global Group / COVU_Recipients entries |
| | $C^1$ | Supports adding and removing Device / VT_Classes_Supported entries |
| | $C^1$ | Supports adding and removing Device / Active_VT_Sessions entries |
| | $C^1$ | Supports adding and removing Life Safety Zone / Zone_Members entries |
| | $C^1$ | Supports adding and removing Notification Forwarder / Recipient_List entries |
| | $C^1$ | Supports adding and removing Notification Forwarder / Subscribed_Recipients entries |
| | $C^1$ | Supports adding and removing Access Door / Masked_Alarm_Values entries |
| | $C^1$ | Supports adding and removing Access Door / Alarm_Values entries |
| | $C^1$ | Supports adding and removing Access Door / Fault_Values entries |
| | $C^1$ | Supports adding and removing Access Point / Access_Alarm_Events entries |
| | $C^1$ | Supports adding and removing Access Point / Access_Transaction_Events entries |
| | $C^1$ | Supports adding and removing Access Point / Failed_Attempt_Events entries |
| | $C^1$ | Supports adding and removing Access Zone / Credentials_In_Zone entries |
| | $C^1$ | Supports adding and removing Access Zone / Entry_Points entries |
| | $C^1$ | Supports adding and removing Access Zone / Exit_Points entries |

| Support | Listing | Option |
|---|---|---|
| | $C^1$ | Supports adding and removing Access Zone / Alarm_Values entries |
| | $C^1$ | Supports adding and removing Access User / Members entries |
| | $C^1$ | Supports adding and removing Access User / Member_Of entries |
| | $C^1$ | Supports adding and removing Access User / Credentials entries |
| | $C^1$ | Supports adding and removing Access Credential / Authorization_Exemptions entries |
| | $C^1$ | Supports adding and removing Access Credential / Reason_For_Disable entries |
| | $C^{1,2}$ | Supports adding and removing Network Port / BBMD_Broadcast_Distribution_Table entries |
| | $C^{1,2}$ | Supports adding and removing Network Port / Manual_Slave_Address_Binding entries |
| | $C^{1,2}$ | Supports adding and removing Network Port / Virtual_MAC_Address_Table entries |
| | $C^{1,2}$ | Supports adding and removing Timer / List_Of_Object_Property_References entries |
| | $C^{1,2}$ | Supports adding and removing Timer / Alarm_Values entries |
| | $C^{1,3}$ | Supports adding and removing Lift / Fault_Signals entries |
| | $C^{1,3}$ | Supports adding and removing Escalator / Fault_Signals entries |
| | $C^{1,3}$ | Supports adding and removing Elevator Group / Landing_Calls entries |
| | | [1] *At least one of these options is required in order to claim conformance to this BIBB.* ~~At least one of these options must be supported to claim support for this BIBB.~~ <br> [2] Protocol_Revision 17 or higher must be claimed. <br> [3] Protocol_Revision 18 or higher must be claimed. |
| | … | |
| **Device Management - Text Message - A** | | |
| | R | Base Requirements |
| | $C^1$ | Supports initiation of ConfirmedTextMessage |
| | $C^1$ | Supports initiation of UnconfirmedTextMessage |
| | $C^2$ | Initiates text messages with no Message Class |
| | $C^2$ | Initiates text messages with an Unsigned Message Class |
| | $C^2$ | Initiates text messages with a CharacterString Message Class |
| | | [1] *At least one of these options is required in order to claim conformance to this BIBB.* ~~At least one of these options shall be supported.~~ <br> [2] *At least one of these options is required in order to claim conformance to this BIBB.* ~~At least one of these options shall be supported.~~ |
| | … | |
| **Device Management - Lighting Output Management - A** | | |
| | R | Base Requirements |
| | $R^1$~~R~~ | Supports DM-OCD-A |
| | | [1] *Object creation and deletion of Lighting Output, Binary Lighting Output, and Channel objects is required.* |

# 9 Data Link Layer

| Support | Listing | Option |
|---|---|---|
| **Data Link Layer - MS/TP - Master Node** | | |
| | R | Base Requirements |
| | $C^1$ | Supports writable Max_Master property |
| | $C^1$ | Supports read only Max_Master property |
| | $C^2$ | Contains configurable Max_Info_Frames property |
| | $C^2$ | Contains non-configurable Max_Info_Frames property |
| | O | Is a BACnet router |
| | $C^{3,4}$ | Supports extended MS/TP frames (over 501 octets) |
| | $C^5$ | Supports the Network Port object |

| Support | Listing | Option |
|---|---|---|
| | O[6] | Supports configurable Out_Of_Service property |
| | C[7] | Supports hierarchical Network Port objects |
| | C[7] | Supports Non-hierarchical Network Port objects |
| | C[6,8] | Supports writable Network_Number property |
| | O[6] | Supports the Routing_Table property |
| | O[6] | Supports the Network Port object Command property |
| | O[6,9] | Supports the DISCARD_CHANGES command |
| | O[6,9] | Supports the RESTART_SLAVE_DISCOVERY command |
| | O[6,9] | Supports the RESTART_AUTONEGOTIATION command |
| | O[6,9] | Supports the RESTART_PORT command |
| | O[9,10] | Supports the VALIDATE_CHANGES command |
| | [1] Exactly one of these options is required in order to claim conformance to this BIBB. [2] Exactly one of these options is required in order to claim conformance to this BIBB. [3] Protocol_Revision 16 or higher must be claimed. [4] Required if the device is a router and claims Protocol_Revision 16 or higher. [5] Required for devices which claim Protocol_Revision 17 or higher ~~and which support DS-WP-B~~. [6] Protocol_Revision 17 or higher must be claimed. [7] At least one of these options is required if the IUT claims Protocol_Revision 17 or higher. [8] Support for writable Network_Number properties is required in routers and other IUTs that need to know the network number in order to operate. [9] At least one of these options is required if the Network Port object Command property is supported. [10] Protocol_Revision 24 or higher must be claimed. | | |
| … | | |

# 10 Network Management

| Support | Listing | Option |
|---|---|---|
| … | | |
| **Network Management - Router Configuration - B** | | |
| | R | Base Requirements |
| | R | Supports Routing |
| | *C[1]*~~R[1]~~ | Supports DS-WP-B |
| [1] Required if the device *claims*~~implements~~ protocol revision 17 or higher. | | |
| … | | |
| **Network Management - BBMD Configuration - A** | | |
| | R | Base Requirements |
| | *C[1]*~~BTL-C[1]~~ | Is able to configure Network Port objects |
| [1] This option is required if the IUT claims Protocol_Revision 17 or higher. | | |
| … | | |

# 13    Audit Reporting BIBBs

| Support | Listing | Option |
|---|---|---|
| | **…** | |
| | **Audit Reporting - Reporter - B** | |
| | R | Base Requirements |
| | C[1] | Supports operation target auditing |
| | C[1] | Supports operation source auditing |
| | C[2] | Generates UnconfirmedAuditNotifications |
| | C[2] | Generates ConfirmedAuditNotifications |
| | O | Supports Delaying of Audit Notifications |
| | | [1] Required if the IUT is able to operate as a BACnet client. |
| | | [2] *At least one of these options is required in order to claim conformance to this BIBB.*~~At least one of these options must be supported.~~ |
| | **Audit Reporting - Reporter - Simple - B** | |
| | R | Base Requirements |
| | R | Supports operation target auditing |
| | C[1] | Supports operation source auditing |
| | C[2] | Generates UnconfirmedAuditNotifications |
| | C[2] | Generates ConfirmedAuditNotifications |
| | O | Supports Delaying of Audit Notifications |
| | | [1] Required if the IUT is able to operate as a BACnet client. |
| | | [2] *At least one of these options is required in order to claim conformance to this BIBB.*~~At least one of these options must be supported.~~ |
| | **…** | |
| | **Audit Reporting - View - A** | |
| | R | Base Requirements |
| | C[1] | Supports reading Audit Logs using AuditLogQuery |
| | C[1] | Supports reading Audit Logs using ReadRange |
| | | [1] *At least one of these options is required in order to claim conformance to this BIBB.*~~At least one of these options is required.~~ |
| | **Audit Reporting - Advanced View and Modify - A** | |
| | R | Base Requirements |
| | R | Supports reading Audit Logs using AuditLogQuery |
| | R | Supports reading Audit Logs using ReadRange |
| | R | Supports DS-RP-A |
| | R | Supports DS-WP-A |
| | *R[1]*~~R~~ | Supports DM-OCD-A |
| | | [1] *Object creation and deletion of Audit Reporter and Audit Log objects is required.* |

Note: The first "Supports operation target auditing" row under Reporter - B shows R in the Listing column.

## Test Plan Changes

None

## Specified Test Changes

**None**