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BACnet TESTING LABORATORIES

INTERIM TEST CHECKLIST

To Be Used with Test Package 23.1

Version 1

September 5, 2023

Approved by the BTL Working Group August 17, 2023

Approved by the BTL Working Group Voting Members September 5, 2023.

Published onSeptember 7, 2023.

# Introduction

This checklist is in addition to the ***BTL Functionality Checklist*** and identifies the functionality beyond the Protocol\_Revision of the released test package or functionality not yet tested by the current test package.

Vendors who are planning to submit a device at a Protocol\_Revision beyond the Protocol\_Revision of the released test package or includes functionality not yet tested by the current test package shall also complete this checklist.

Please note, the functionality implemented in a specific device may result in changes to this document as well as new or updated tests in the interim test package. Please contact the BTL Manager before submitting your device for testing to ensure you are aware of all tests that will need to be applied to your device.

The updates to the checklist specified in this document are for interim testing only and may or may not be used when the final changes are applied to the next Test Package revision. Devices tested using this interim test document may be recalled for updated testing when the next revision of test package is released that includes the functionality covered here.

The Listing column indicates whether the option is required or not. The codes in the table are:

R = Required. Items marked with this listing code are required for a listing if the IUT implements the associated BIBB, object type, or functional category.

BTL-R = Required by BTL. Items marked with this listing code are required for a listing if the IUT implements the associated BIBB, object type, or functional category.

C = Conditionally Required. Items marked with this listing code may be required for a listing if the IUT implements the associated BIBB, object type, or functional category. The conditions under which the item will be required are identified in a footnote in the Checklist table.

BTL-C = Conditionally Required by BTL. Items marked with this listing code may be required for a listing if the IUT implements the associated BIBB, object type, or functional category. The conditions under which the item will be required are identified in a footnote in the Checklist table.

S = Suggested. The BTL suggests that all IUTs implement this option if they implement the associated BIBB, object type, or functional category.

O = Optional. Items marked with this listing code are optional.

N = Not recommended. The BTL recommends against IUTs implementing this option due to possible interoperability or performance problems related with the option.

# IUT Information

This section shall provide additional information about the IUT when the BTL Checklist is filled out.

|  |  |
| --- | --- |
| Fill out date |  |
| Vendor Name |  |
| Product Name |  |
| Product Model Number |  |
| BACnet Protocol Version | 1 |
| BACnet Protocol Revision |  |
| BACnet Device Profile |  |
| BACnet Firmware Revision |  |
| BACnet Application Software Version |  |
|  |  |
| Remarks |  |

# Objects

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Schedule Object** | | | | |
|  | R | | Base Requirements | |
|  | BTL-C1 | | Supports SCHED-I-B | |
|  | BTL-C1 | | Supports SCHED-WS-I-B | |
|  | BTL-C1 | | Supports SCHED-R-B | |
|  | O | | Supports resizable Exception\_Schedule property | |
|  | C2 | | Supports Write\_Every\_Scheduled\_Action property | |
| 1 You must support one of the listed scheduling BIBBs if your device contains a schedule object.  2 Protocol\_Revision 24 or higher must be claimed. | | | | |
| **File Object** | | | | |
|  | R | | Base Requirements | |
|  | C1 | | Supports DM-BR-B | |
|  | C1,2 | | Supports BACnet/SC Certificate Exchange | |
|  | C1 | | Supports a record-based File object for a purpose other than Backup and Restore or BACnet/SC Certificate Exchange | |
|  | C1 | | Supports a stream-based File object for a purpose other than Backup and Restore or BACnet/SC Certificate Exchange | |
|  | O | | Contains a writable stream-based File for a purpose other than Backup and Restore or BACnet/SC Certificate Exchange | |
| 1 At least one of these options is required if the IUT supports the File object type.  2 Protocol\_Revision 24 or higher must be claimed. | | | | |
| **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. | |
|  | O1 | | Supports Color\_Reference property | |
|  | O1 | | Supports Color\_Override property | |
|  | O1 | | Supports the Trim\_Fade\_Time property | |
|  | O2 | | Supports intrinsic reporting | |
| 1 Protocol\_Revision 24 or higher must be claimed.  2 Protocol\_Revision 21 or higher must be claimed. | | | | |
| **Binary Lighting Output Object** | | | | |
|  | R | | Base Requirements | |
|  | R | | Supports command prioritization | |
|  | S | | Supports configurable Out\_Of\_Service property | |
|  | O | | Supports blink-warn | |
|  | O | | Supports writable Polarity property | |
|  | O | | Supports strike count tracking | |
|  | O | | Supports elapsed active time tracking | |
|  | O | | Supports the value source mechanism. | |
|  | O1 | | Supports Color\_Reference property | |
|  | O1 | | Supports Color\_Override property | |
| 1 Protocol\_Revision 24 or higher must be claimed | | | | |
| **Network Port Object** | | | | |
|  | R1 | | Base Requirements | |
|  | C2 | | Supports writable Network\_Number property | |
|  | S | | Supports configurable Out\_Of\_Service property | |
|  | C3 | | Supports Non-hierarchical Network Port objects | |
|  | C3 | | Supports hierarchical Network Port objects | |
|  | O | | Supports the Command property | |
|  | O4 | | Supports the DISCARD\_CHANGES command | |
|  | O4 | | Supports the RENEW\_FD\_REGISTRATION command | |
|  | O4 | | Supports the RESTART\_SLAVE\_DISCOVERY command | |
|  | O4 | | Supports the RENEW\_DHCP command | |
|  | O4 | | Supports the RESTART\_AUTONEGOTIATION command | |
|  | O4 | | Supports the DISCONNECT command | |
|  | O4 | | Supports the RESTART\_PORT command | |
|  | O4,5 | | Supports the GENERATE\_CSR\_FILE command | |
|  | O4,5 | | Supports the VALIDATE\_CHANGES command | |
|  | O | | Supports the Routing\_Table property | |
| 1 Support for Network Port objects is required for devices claiming Protocol\_Revision 17 or higher.  2 Support for writable Network\_Number properties is required in routers and other devices that need to know the network number in order to operate.  3 At least one of these options is required.  4 At least one of these options is required if the Command property is supported.  5 Protocol\_Revision 24 or higher must be claimed. | | | | |
| **Color Object** | | | | |
|  | | R | | Base Requirements |
|  | | | | |
| **Color Temperature Object** | | | | |
|  | | R | | Base Requirements |
|  | | | | |

# Data Link Layer

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| --- | --- | --- |
| **Data Link Layer - Secure Connect** | | |
|  | R | Base Requirements |
|  | C1 | Is able to operate as a node without a local hub function |
|  | C1 | Is able to operate as a hub |
|  | O | Supports direct connections |
|  | O2 | Is able to accept direct connections |
|  | O2 | Is able to initiate direct connections |
|  | O | Supports configuration through Network Port object |
|  | C3 | Supports Procedure to Replace BACnet/SC Certificates |
| 1 At least one of these options must be supported.  2 At least one of these options must be supported if the device supports direct connections.  3 Required if the IUT claims Protocol\_Revision 24 or higher. | | |

# Network Management

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| --- | --- | --- |
| **Network Management - Communications Configuration - A** | | |
|  | R1 | Base Requirements |
| 1 Protocol\_Revision 24 or higher must be claimed | | |
| **Network Management - Secure Connect Certificate Management - A** | | |
|  | R1 | Base Requirements |
| 1 Protocol\_Revision 24 or higher must be claimed | | |

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change** |
| 1.0 | 7-Aug-2023 | Michael Osborne | * Initial Release. Supports Test Package 23.1. |