



**BACnet[®] TESTING LABORATORIES
ADDENDA**

**Addendum Fix1 to
BTL Test Package 23.3**

**Revision final
Revised 3/25/2024**

Approved by the BTL Working Group on February 8, 2024.
Approved by the BTL Working Group Voting Members on March 20, 2024.
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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.

BTL-23.3 Fix1-1: B/SC Must Support Time Synchronization [BTLWG-1494]2

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

In contrast, changes to BTL Checklist, BTL Test Plan, and BTL Specified Tests contain a **yellow** 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 shall 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-23.3 Fix1-1: B/SC Must Support Time Synchronization [BTLWG-1494]

Overview:

A B/SC must maintain accurate time. See Clause AB.7.4 and AB.7.5.1. The standard does not explicitly require a B/SC device to support either DM-TS-B or DM-UTC-B so other methods are allowed.

Changes:

Checklist Changes

9 Data Link Layer

[Modify Section 9 - Data Link Layer]

Support	Listing	Option
...		
Data Link Layer - Secure Connect		
	R	Base Requirements
	C ¹	Is able to operate as a node without a local hub function
	C ¹	Is able to operate as a hub
	O	Supports direct connections
	O ²	Is able to accept direct connections
	O ²	Is able to initiate direct connections
	O	Supports configuration through Network Port object
	C ^{3,4}	Supports Data Attributes as of Protocol Revision 25
	C ⁵	Supports DM-TS-B
	C ⁵	Supports DM-UTC-B
	C ⁵	Supports Time Synchronization by Some Other Method
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 25 or higher. ⁴ Contact BTL for interim tests for this functionality. ⁵ At least one of these options must be supported.		
...		

Test Plan Changes

[Add Clause 9.9.9]

9.9.9 Supports DM-TS-B

The IUT supports DM-TS-B.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for DM-TS-B.
	Testing Hints	

[Add Clause 9.9.10]

9.9.10 Supports DM-UTC-B

The IUT supports DM-UTC-B.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for DM-UTC-B.
	Testing Hints	

[Add Clause 9.9.11]

9.9.11 Supports Time Synchronization by Some Other Method

The IUT supports time synchronization by some other method.

BTL - 12.5.X.1 - Verify Time Synchronization Test		
	Test Conditionality	Must be executed.
	Test Directives	
	Testing Hints	

Specified Test Changes

[Add BTL - 12.5.X.1]

12.5.X.1 Verify Time Synchronization Test

Purpose: To maintain IUT time accuracy, verify the IUT supports time synchronization by some means other than either TimeSynchronization or UTCTimeSynchronization services.

Test Concept: Read the Device object's (D1) Local_Date and Local_Time. Make the IUT time change. Verify the Local_Date and Local_Time change to the new time. Power cycle the IUT and validate Local_Date and Local_Time.

Configuration Requirements: None.

Test Steps:

1. READ time1 = D1, Local_Time
2. READ date1 = D1, Local_Date
3. MAKE(IUT time change by some value t)
4. READ time2 = D1, Local_Time
5. READ date2 = D1, Local_Date
6. VERIFY time2 ~= time1 + t
7. VERIFY date2 = date1 + t
8. MAKE (the IUT power cycle)
9. VERIFY D1, Local_Time ~= time2 + the time the IUT requires to reboot
10. VERIFY D1, Local_Date = date2