# Reference Time Update Service (RTUS)

Bluetooth® Implementation Conformance Statement (ICS) Proforma

- Revision: RTUS.ICS.p3 edition 2
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# **1** General principles

## 1.1 Implementation Under Test (IUT) identification

Using the Bluetooth SIG qualification tool, the implementer is expected to declare details about what will be implemented.

## **1.2 Enforcement of inter-layer dependencies**

This ICS includes one or more tables with inter-layer dependencies (ILDs). ILDs are used for specification requirements that are dependent on other supporting specifications. ILDs can refer to an individual ICS item in a separate layer (individual ILD), or it can refer to the full layer (full-layer ILD).

ILDs residing in an X2Core layer will be enforced from the Bluetooth SIG qualification tool in the following conditions, depending on where the referred ILD is residing:

| Referred ILD resides in | Individual ILD  | Full-layer ILD   |
|-------------------------|---|--|
| Controller layer        | Core-Complete configuration, or<br>Referred layer is supported                                | N/A  |
| Lower HCI layer         | HCI is supported  | N/A  |
| Upper HCI layer         | Core-Host configuration, or<br>UHCI is supported  | N/A  |
| Host layer              | Core-Host configuration, or<br>Core-Complete configuration, or<br>Referred layer is supported | N/A  |
| X2Core layer            | Core-Host configuration, or<br>Core-Complete configuration, or<br>Referred layer is supported | Core-Host configuration, or<br>Core-Complete configuration |



# 2 ICS declarations

## 2.1 Versions

#### Table 0: X.Y Versions

| ltem | Version   | Reference | Status |
|------|-----------|-----------|--------|
| 1    | RTUS v1.0 | [1]       | М      |

## 2.2 Transports

#### Table 1: Transport Requirements

| ltem | Transport                     | Reference | Status   |
|------|-------------------------------|-----------|----------|
| 1    | Service supported over BR/EDR | [1] 1.5   | C.1      |
| 2    | Service supported over LE     | [1] 1.5   | C.2, C.3 |

C.1: Excluded for this Service.

C.2: Excluded for this Service IF CORE 41/1 "BR/EDR Core Configuration".

C.3: Mandatory for this Service.

### 2.3 Service requirements

#### **Table 2: Service Requirements**

| ltem | Capability                                     | Reference    | Status |
|------|--|--------------|--------|
| 1    | Reference Time Update Service                  | [1] 2        | Μ      |
| 2    | Time Update Control Point Characteristic       | [1] 3.1      | Μ      |
| 3    | Time Update State Characteristic               | [1] 3.2      | Μ      |
| 4    | Write Time Update Control Point Characteristic | [1] 3.1, 3.2 | М      |
| 5    | Read Time Update State Characteristic          | [1] 3.1, 3.2 | Μ      |

## 2.4 GATT requirements

#### **Table 3: GATT Requirements**

| Item | Capability             | Reference | Status | Inter-Layer<br>Dependency |
|------|------------------------|-----------|--------|---------------------------|
| 1    | GATT Server over LE    | [1] 3     | М      | [2] GATT 1a/3             |
| 2    | Write without Response | [1] 1.4   | Μ      | [2] GATT 4/12             |



# **3 References**

- [1] Reference Time Update Service Specification, Version 1.0
- [2] ICS Proforma for Generic Attribute Profile (GATT)



# 4 Revision history and acknowledgments

#### **Revision History**

| Publication<br>Number | Revision<br>Number    | Date       | Comments  |
|-----------------------|-----------------------|------------|---|
| 0                     | 1.0.0                 | 2011-09-15 | Adopted by the Bluetooth SIG Board of Directors   |
|                       | 1.0.1r0               | 2011-11-11 | TSE 4550: Table 1 change to align with LE Services/Profiles and BTI Standards   |
| 1                     | 1.0.1                 | 2012-03-30 | Prepare for publication.  |
|                       | 1.0.2r00              | 2016-10-05 | TSE 7546: New Table 0 added for Version RTUSv1.0;<br>In Table 3, "Reference" entries for "Generic Attribute<br>Profile Server" and "Write Without Response"<br>updated; In "References" entries for ICS Proforma for<br>Generic Attribute Profile (GATT) and Generic Access<br>Profile (GAP), v4.0.1 or later and v4.0.0.0 restrictions,<br>respectively, removed.  |
| 2                     | 1.0.2                 | 2016-12-13 | Approved by BTI. Prepared for TCRL 2016-2 publication.  |
|                       | 1.0.2 edition<br>2r00 | 2018-11-26 | Editorial changes only. Template updated. Revision<br>History and contributors moved to the end of the<br>document.   |
|                       | 1.0.2 edition<br>2    | 2020-01-09 | Updated copyright page and confidentiality markings<br>to support new Documentation Marking<br>Requirements, performed minor formatting updates,<br>and accepted all tracked changes to prepare for<br>edition 2 publication.   |
|                       | p3r00                 | 2022-10-27 | TSE 20359 (rating 3): Updated to align with current<br>ICS conventions/template. Removed Support<br>columns. In Table 0, updated the table title and<br>reference version title. In Table 1, updated the<br>references and C.1. In Table 2, updated the capability<br>and references. In Table 3, updated the capabilities<br>and references and added an ILD column. Updated<br>the references list. Added a Publication Number<br>column to the Revision History. Revised the document<br>numbering convention, setting the last release<br>publication of 1.0.2 as p2.<br>Performed additional template-related formatting fixes.<br>Replaced the Bluetooth logo in the footer and updated<br>the copyright page to align with v2 of the DNMD. |
| 3                     | р3                    | 2023-02-07 | Approved by BTI on 2022-12-28. Prepared for TCRL 2022-2 publication.  |
|                       | p3ed2r00              | 2025-01-29 | TSE 27097 (rating 1): Updated Table 0 title. Updated<br>Table 1 item 2 status value and added conditionals<br>C.2 and C.3. Updated Table 3 item 1 Capability and<br>Inter-Layer Dependency entries. Editorials to align the<br>document with the current ICS template.  |
|                       | p3 edition 2          | 2025-03-14 | Approved by BTI on 2025-03-11. Prepared for edition 2 publication.  |



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