Current Time Service (CTS)

Bluetooth® Implementation Conformance Statement (ICS) Proforma

- **Revision**: CTS.ICS.1.1.1 edition 2
- **Revision Date**: 2019-11-25
- **Group Prepared By**: BTI
- **Feedback Email**: bti-main@bluetooth.org
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2 References

3 Revision History and Contributors
1 Identification of the Implementation

Identification of the Implementation Under Test (IUT) shall be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma shall be named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

1.1 Implementation Under Test (IUT) Identification

IUT Name:

IUT Version (Hardware/Software ID):

IUT Supplier:
1.2 Specification Version

Table 0: Specification Version

<table>
<thead>
<tr>
<th>Item</th>
<th>Version</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CTS v1.0</td>
<td>[4]</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>CTS v1.1</td>
<td>[6]</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory to support one and only one service version.

1.3 Transport Requirements

Table 1: Transport Requirements

<table>
<thead>
<tr>
<th>Item</th>
<th>Transport</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Service supported over BR/EDR</td>
<td>[3] GAP 0/1</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Service supported over LE</td>
<td>[3] GAP 0/2 or 0/3</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF CTS 0/1 “CTS v1.0” is supported, otherwise Mandatory to support at least one transport.
C.2: Mandatory IF CTS 0/1 “CTS v1.0” is supported, otherwise Mandatory to support at least one transport.

1.4 Sources that can Change Server’s Local Time

Table 2: Sources that can Change Server’s Local Time

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Time Zone change</td>
<td>[6] 3.1.2, [4] 3.1.1</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory to support at least one source.

1.5 Service Requirements

The table below lists the feature requirements of a device supporting Current Time service. This section should be completed by all suppliers.

Table 3: Service Requirements – Current Time Service

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Current Time Service</td>
<td>[6], [4] 2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>Item</td>
<td>Capability</td>
<td>Reference</td>
<td>Status</td>
<td>Support</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>2</td>
<td>Current Time Characteristic</td>
<td>[6], [4] 3</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Client Characteristic Configuration Descriptor for Current Time</td>
<td>[6], [4] 3.1</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Read Current Time</td>
<td>[6], [4] 3.1.1</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>5</td>
<td>Local Time Information Characteristic</td>
<td>[6], [4] 3.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>6</td>
<td>Read Local Time Information Characteristic</td>
<td>[6] 3.2.1, [4] 3.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Reference Time Information Characteristic</td>
<td>[6], [4] 3.3</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>8</td>
<td>Read Reference Time Information Characteristic</td>
<td>[6], [4] 3.3</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>12</td>
<td>Current Time Characteristic, Notify by Time Zone Change</td>
<td>[6] 3.1.2.3, [4] 3.1.1.3</td>
<td>C.4</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>13</td>
<td>Current Time Characteristic, Notify by DST Change</td>
<td>[6] 3.1.2.4, [4] 3.1.1.4</td>
<td>C.5</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>16</td>
<td>Current Time Characteristic Write</td>
<td>[6] 3.1.3</td>
<td>C.7</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>17</td>
<td>Local Time Information Characteristic Write</td>
<td>[6] 3.2.2</td>
<td>C.7</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF CTS 3/5 “Local Time Information Characteristic” is supported, otherwise Excluded.
C.2: Mandatory IF CTS 3/7 “Reference Time Information Characteristic” is supported, otherwise Excluded.
C.3: Mandatory IF CTS 2/1 “Manual Setting” is supported, otherwise Excluded.
C.4: Mandatory IF CTS 2/3 “Time Zone Changes” is supported, otherwise Excluded.
C.5: Mandatory IF CTS 2/4 “DST offset change” is supported, otherwise Excluded.
C.6: Mandatory IF CTS 2/2 “External Reference Time update” is supported, otherwise Excluded.
C.7: Excluded IF CTS 0/1 “CTS v1.0” is supported, otherwise Optional.
C.8: Optional IF CTS 2/2 “Reference Time Update Service” is supported, otherwise Excluded.

1.6  GATT Requirements

Table 4: GATT Requirements

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Generic Attribute Profile Server</td>
<td>[2] GATT 1/2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[6], [4] 1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[6], [4] 1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Read Client Characteristic Configuration Descriptor</td>
<td>[2] GATT 4/19</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[6], [4] 1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Write Client Characteristic Configuration Descriptor</td>
<td>[2] GATT 4/21</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[6], [4] 1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Write Characteristic Value</td>
<td>[2] GATT 4/14</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
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<td></td>
<td></td>
<td>[6], [4] 1.4</td>
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<td></td>
</tr>
</tbody>
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C.1: Excluded IF CTS 0/1 “CTS v1.0” is supported, otherwise Optional.

1.7  SDP Requirements

Table 5: SDP Requirements

Prerequisite: CTS 1/1

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Support for server role</td>
<td>[5] SDP 1b/1</td>
<td>M</td>
<td>○ Yes ○ No</td>
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<tr>
<td>2</td>
<td>ProtocolDescriptorList</td>
<td>[5] SDP 9/2</td>
<td>M</td>
<td>○ Yes ○ No</td>
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<tr>
<td>3</td>
<td>BrowseGroupList</td>
<td>[5] SDP 9/5</td>
<td>M</td>
<td>○ Yes ○ No</td>
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2 References

[1] Specification of the Bluetooth System, Version 4.0 or later
[2] ICS Proforma for Generic Attribute Profile (GATT)
3 Revision History and Contributors

Revision History

<table>
<thead>
<tr>
<th>Revision History</th>
<th>Date</th>
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<tr>
<td>1.0.0</td>
<td>2011-09-15</td>
<td>Adopted by the Bluetooth SIG Board of Directors</td>
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<tr>
<td>1.0.1r0</td>
<td>2011-12-13</td>
<td>TSE 4549: Table 1, Table 2 updates</td>
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<td>TSE 4574: Table 3 footnote updates</td>
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<td>1.0.1</td>
<td>2012-03-30</td>
<td>Prepare for publication</td>
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<tr>
<td>1.1.0</td>
<td>2014-10-07</td>
<td>BoD Approval of CTS 1.1</td>
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<tr>
<td>1.1.1r00</td>
<td>2015-05-10</td>
<td>TSE 6128: Added new conditional C.8 to Table 3 and updated item 15 to point to it.</td>
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<tr>
<td>1.1.1</td>
<td>2015-07-14</td>
<td>Prepared for TCRL 2015-1 publication.</td>
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<td>1.1.1 edition 2r00</td>
<td>2018-11-21</td>
<td>Editorial changes only. Template updated. Revision History and Contributors tables moved to the end of the document.</td>
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<tr>
<td>1.1.1 edition 2</td>
<td>2019-11-25</td>
<td>Updated copyright page and confidentiality markings to support new Documentation Marking Requirements, performed minor formatting updates, and accepted all tracked changes to prepare for edition 2 publication.</td>
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Contributors

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sadao Nagashima</td>
<td>Casio</td>
</tr>
<tr>
<td>Frank Berntsen</td>
<td>Nordic Semiconductor</td>
</tr>
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