DEVICE INFORMATION SERVICE

Abstract:

This service exposes manufacturer information about a device.
Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date/yyyy-mm-dd</th>
<th>Comments</th>
</tr>
</thead>
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<tr>
<td>D09r00</td>
<td>2010-11-22</td>
<td>Initial Draft from Health Device Information UCRDD. Incorporated feedback from MindTree and Socket Mobile.</td>
</tr>
<tr>
<td>D09r02</td>
<td>2010-12-08</td>
<td>Version used for IOP.</td>
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<tr>
<td>D09r03</td>
<td>2010-12-11</td>
<td>Approved by BARB.</td>
</tr>
<tr>
<td>V10r00</td>
<td>2011-05-24</td>
<td>Adopted by the Bluetooth SIG Board of Directors</td>
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Document Terminology

The Bluetooth SIG has adopted Section 13.1 of the IEEE Standards Style Manual, which dictates use of the words "shall", "should", "may", and "can" in the development of documentation, as follows:

The word **shall** is used to indicate mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted (*shall equals is required to*).

The use of the word **must** is deprecated and shall not be used when stating mandatory requirements; **must** is used only to describe unavoidable situations.

The use of the word **will** is deprecated and shall not be used when stating mandatory requirements; **will** is only used in statements of fact.

The word **should** is used to indicate that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain course of action is deprecated but not prohibited (*should equals is recommended that*).

The word **may** is used to indicate a course of action permissible within the limits of the standard (*may equals is permitted*).

The word **can** is used for statements of possibility and capability, whether material, physical, or causal (*can equals is able to*).
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1 Introduction

The Device Information Service exposes manufacturer information about a device.

1.1 Conformance

If a device claims conformance to this service, all capabilities indicated as mandatory for this service shall be supported in the specified manner (process-mandatory). This also applies for all optional and conditional capabilities for which support is indicated. All mandatory capabilities, and optional and conditional capabilities for which support is indicated, are subject to verification as part of the Bluetooth qualification program.

1.2 Service Dependency

This service is not dependent upon any other services.

1.3 Bluetooth Specification Release Compatibility

This service is compatible with any Bluetooth core specification host [1] that includes the Generic Attribute Profile (GATT) and Low Energy Controller.

1.4 GATT Sub-Procedure Requirements

This service does not have any GATT Sub-Procedure requirements.

1.5 Transport Dependencies

This service may use GATT over an LE, BR/EDR, or HS transport.

1.6 Error Codes

This service does not define any application error codes.
2 Service Declaration

The Device Information Service shall be instantiated as a «Primary Service».
Only one instance of the Device Information Service shall be exposed on a device.
The service UUID shall be set to «Device Information». The UUID value assigned to «Device Information» is defined in [1].
3 Service Characteristics

The Device Information Service shall expose one or more of the characteristics shown in Table 3.1. Unless otherwise specified, only one instance of each characteristic shall be present.

<table>
<thead>
<tr>
<th>Characteristic Name</th>
<th>Characteristic Qualifier</th>
<th>Mandatory Properties</th>
<th>Optional Properties</th>
<th>Security Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer Name String</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Model Number String</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Serial Number String</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Hardware Revision String</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Firmware Revision String</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Software Revision String</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>System ID</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>IEEE 11073-20601 Regulatory Certification Data List</td>
<td>C.1</td>
<td>Read</td>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>

C.1: Mandatory to support at least one.

Table 3.1: Device Information Service characteristics

Notes:
- Security Permissions of “None” means that this service does not impose any requirements.
- Properties not listed as Mandatory or Optional are Excluded.

3.1 Manufacturer Name String

The Manufacturer Name String characteristic shall represent the name of the manufacturer of the device.

3.1.1 Characteristic Behavior

The Manufacturer Name String characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.2 Model Number String

The Model Number String characteristic shall represent the model number that is assigned by the device vendor.

3.2.1 Characteristic Behavior

The Model Number String characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.3 Serial Number String

The Serial Number String characteristic shall represent the serial number for a particular instance of the device.
3.3.1 Characteristic Behavior
The Serial Number String characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.4 Hardware Revision String
The Hardware Revision String characteristic shall represent the hardware revision for the hardware within the device.

3.4.1 Characteristic Behavior
The Hardware Revision String characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.5 Firmware Revision String
The Firmware Revision String characteristic shall represent the firmware revision for the firmware within the device.

3.5.1 Characteristic Behavior
The Firmware Revision String characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.6 Software Revision String
The Software Revision String characteristic shall represent the software revision for the software within the device.

3.6.1 Characteristic Behavior
The Software Revision String characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.7 System ID
The System ID characteristic shall represent a structure containing an Organizationally Unique Identifier (OUI) followed by a manufacturer-defined identifier and is unique for each individual instance of the product.

3.7.1 Characteristic Behavior
The System ID characteristic returns its value when read using the GATT Characteristic Value Read procedure.

3.8 IEEE 11073-20601 Regulatory Certification Data List
The IEEE 11073-20601 Regulatory Certification Data List characteristic shall represent regulatory and certification information for the product in a list defined in IEEE 11073-20601 [3].
3.8.1 Characteristic Behavior

The IEEE 11073-20601 Regulatory Certification Data List characteristic returns its value when read using the GATT *Characteristic Value Read* procedure.
## 4 SDP Interoperability

If this service is exposed over BR/EDR then it shall have the following SDP record.

<table>
<thead>
<tr>
<th>Item</th>
<th>Definition</th>
<th>Type</th>
<th>Value</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Class ID List</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Class #0</td>
<td>UUID</td>
<td>«Device Information»</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protocol Descriptor List</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protocol #0</td>
<td>UUID</td>
<td>L2CAP</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Parameter #0 for Protocol #0</td>
<td>PSM</td>
<td>Uint16</td>
<td>PSM = ATT</td>
<td>M</td>
</tr>
<tr>
<td>Protocol #1</td>
<td>UUID</td>
<td>ATT</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Parameter #0 for Protocol #1</td>
<td>GATT Start Handle</td>
<td>Uint16</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Parameter #1 for Protocol #1</td>
<td>GATT End Handle</td>
<td>Uint16</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>BrowseGroupList</td>
<td></td>
<td></td>
<td>PublicBrowseRoot*</td>
<td>M</td>
</tr>
</tbody>
</table>

*PublicBrowseRoot shall be present; however, other browse UUIDs may also be included in the list.

*Table 4.1: SDP Record*
5 Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronyms and Abbreviations</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATT</td>
<td>Attribute Protocol</td>
</tr>
<tr>
<td>BR/EDR</td>
<td>Basic Rate / Enhanced Data Rate</td>
</tr>
<tr>
<td>GAP</td>
<td>Generic Access Profile</td>
</tr>
<tr>
<td>GATT</td>
<td>Generic Attribute Profile</td>
</tr>
<tr>
<td>HS</td>
<td>High Speed</td>
</tr>
<tr>
<td>LE</td>
<td>Low Energy</td>
</tr>
<tr>
<td>OUI</td>
<td>Organizationally Unique Identifier</td>
</tr>
<tr>
<td>UUID</td>
<td>Universally Unique Identifier</td>
</tr>
</tbody>
</table>

Table 5.1: Acronyms and Abbreviations
6 References

[1] Bluetooth Core Specification v4.0
[2] Characteristic descriptions are accessible via the Bluetooth SIG Assigned Numbers.