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DEVICE INFORMATION SERVICE

Abstract:

This service exposes manufacturer information about a device.

Revision History

Revision	Date(yyyy-mm-dd)	Comments
D09r00	2010-11-22	Initial Draft from Health Device Information UCRDD. Incorporated feedback from MindTree and Socket Mobile.
D09r02	2010-12-08	Version used for IOP.
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V10r00	2011-05-24	Adopted by the Bluetooth SIG Board of Directors

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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*).

Table of Contents

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.

Characteristic Name	Characteristic Qualifier	Mandatory Properties	Optional Properties	Security Permissions
Manufacturer Name String	C.1	Read		None
Model Number String	C.1	Read		None
Serial Number String	C.1	Read		None
Hardware Revision String	C.1	Read		None
Firmware Revision String	C.1	Read		None
Software Revision String	C.1	Read		None
System ID	C.1	Read		None
IEEE 11073-20601 Regulatory Certification Data List	C.1	Read		None

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.

Item	Definition	Type	Value	Status
Service Class ID List				M
Service Class #0		UUID	«Device Information»	M
Protocol Descriptor List				M
Protocol #0		UUID	L2CAP	M
Parameter #0 for Protocol #0	PSM	Uint16	PSM = ATT	M
Protocol #1		UUID	ATT	M
Parameter #0 for Protocol #1	GATT Start Handle	Uint16		M
Parameter #1 for Protocol #1	GATT End Handle	Uint16		M
BrowseGroupList			PublicBrowseRoot*	M

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

Table 4.1: SDP Record

5 Acronyms and Abbreviations

Acronyms and Abbreviations	Meaning
ATT	Attribute Protocol
BR/EDR	Basic Rate / Enhanced Data Rate
GAP	Generic Access Profile
GATT	Generic Attribute Profile
HS	High Speed
LE	Low Energy
OUI	Organizationally Unique Identifier
UUID	Universally Unique Identifier

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.
[3] IEEE Std 11073-20601™- 2008 Health Informatics - Personal Health Device Communication - Application Profile - Optimized Exchange Protocol - version 1.0 or later