Service Discovery

Bluetooth **Document**

Revision Date: 2021-05-14

Service Discovery

UUID Name	UUID
BASE_UUID	00000000-0000-1000-8000-00805F9B34FB

Protocol Identifiers

Protocol Name	UUID	Protocol Specification
SDP	0x0001	Bluetooth Core Specification
UDP	0x0002	[NO USE BY PROFILES]
RFCOMM	0x0003	RFCOMM with TS 07.10
TCP	0x0004	[NO USE BY PROFILES]
TCS-BIN	0x0005	Telephony Control Specification / TCS Binary [DEPRECATED]
TCS-AT	0x0006	[NO USE BY PROFILES]
ATT	0x0007	Attribute Protocol
OBEX	0x0008	IrDA Interoperability
IP	0x0009	[NO USE BY PROFILES]
FTP	0x000A	[NO USE BY PROFILES]
HTTP	0x000C	[NO USE BY PROFILES]
WSP	0x000E	[NO USE BY PROFILES]
BNEP	0x000F	Bluetooth Network Encapsulation Protocol (BNEP)
UPNP	0x0010	Extended Service Discovery Profile (ESDP) [DEPRECATED]
HIDP	0x0011	Human Interface Device Profile (HID)
HardcopyControlChannel	0x0012	Hardcopy Cable Replacement Profile (HCRP)
HardcopyDataChannel	0x0014	See Hardcopy Cable Replacement Profile (HCRP)
HardcopyNotification	0x0016	Hardcopy Cable Replacement Profile (HCRP)
AVCTP	0x0017	Audio/Video Control Transport Protocol (AVCTP)
AVDTP	0x0019	Audio/Video Distribution Transport Protocol (AVDTP)
CMTP	0x001B	Common ISDN Access Profile (CIP) [DEPRECATED]
MCAPControlChannel	0x001E	Multi-Channel Adaptation Protocol (MCAP)
MCAPDataChannel	0x001F	Multi-Channel Adaptation Protocol (MCAP)
L2CAP	0x0100	Bluetooth Core Specification
	(Max value 0xFFFF)	

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Service Class Name	UUID	Specification	Allowed Usage
ServiceDiscoveryServerServiceClassID	0x1000	Bluetooth Core Specification	Service Class
BrowseGroupDescriptorServiceClassID	0x1001	Bluetooth Core Specification	Service Class
SerialPort	0x1101	Serial Port Profile (SPP) NOTE: The example SDP record in SPP v1.0 does not include a BluetoothProfileDescriptorList attribute, but some implementations may also use this UUID for the Profile Identifier.	Service Class/ Profile
LANAccessUsingPPP	0x1102	LAN Access Profile [DEPRECATED] NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
DialupNetworking	0x1103	Dial-up Networking Profile (DUN) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
IrMCSync	0x1104	Synchronization Profile (SYNC) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
OBEXObjectPush	0x1105	Object Push Profile (OPP) NOTE: Used as both Service Class Identifier and Profile.	Service Class/ Profile
OBEXFileTransfer	0x1106	File Transfer Profile (FTP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
IrMCSyncCommand	0x1107	Synchronization Profile (SYNC)	
Headset	0x1108	Headset Profile (HSP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
CordlessTelephony	0x1109	Cordless Telephony Profile (CTP) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class/ Profile

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AudioSource	0x110A	Advanced Audio Distribution Profile (A2DP)	Service Class
AudioSink	0x110B	Advanced Audio Distribution Profile (A2DP)	Service Class
A/V_RemoteControlTarget	0x110C	Audio/Video Remote Control Profile (AVRCP)	Service Class
AdvancedAudioDistribution	0x110D	Advanced Audio Distribution Profile (A2DP)	Profile
A/V_RemoteControl	0x110E	Audio/Video Remote Control Profile (AVRCP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
A/V_RemoteControlController	0x110F	Audio/Video Remote Control Profile (AVRCP) NOTE: The AVRCP specification v1.3 and later require that 0x110E also be included in the ServiceClassIDList before 0x110F for backwards compatibility.	Service Class
Intercom	0x1110	Intercom Profile (ICP) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class
Fax	0x1111	Fax Profile (FAX) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class
Headset – Audio Gateway (AG)	0x1112	Headset Profile (HSP)	Service Class
WAP	0x1113	Interoperability Requirements for Bluetooth technology as a WAP, Bluetooth SIG [DEPRECATED]	Service Class
WAP_CLIENT	0x1114	Interoperability Requirements for Bluetooth technology as a WAP, Bluetooth SIG [DEPRECATED]	Service Class

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PANU	0x1115	Personal Area Networking Profile (PAN) NOTE: Used as both Service Class Identifier and Profile Identifier for PANU role.	Service Class / Profile
NAP	0x1116	Personal Area Networking Profile (PAN) NOTE: Used as both Service Class Identifier and Profile Identifier for NAP role.	Service Class / Profile
GN	0x1117	Personal Area Networking Profile (PAN) NOTE: Used as both Service Class Identifier and Profile Identifier for GN role.	Service Class / Profile
DirectPrinting	0x1118	Basic Printing Profile (BPP)	Service Class
ReferencePrinting	0x1119	See Basic Printing Profile (BPP)	Service Class
Basic Imaging Profile	0x111A	Basic Imaging Profile (BIP)	Profile
ImagingResponder	0x111B	Basic Imaging Profile (BIP)	Service Class
ImagingAutomaticArchive	0x111C	Basic Imaging Profile (BIP)	Service Class
ImagingReferencedObjects	0x111D	Basic Imaging Profile (BIP)	Service Class
Handsfree	0x111E	Hands-Free Profile (HFP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
HandsfreeAudioGateway	0x111F	Hands-free Profile (HFP)	Service Class
DirectPrintingReferenceObjectsService	0x1120	Basic Printing Profile (BPP)	Service Class

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ReflectedUI	0x1121	Basic Printing Profile (BPP)	Service Class
BasicPrinting	0x1122	Basic Printing Profile (BPP)	Profile
PrintingStatus	0x1123	Basic Printing Profile (BPP)	Service Class
HumanInterfaceDevice Service	0x1124	Human Interface Device (HID) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
HardcopyCableReplace ment	0x1125	Hardcopy Cable Replacement Profile (HCRP)	Profile
HCR_Print	0x1126	Hardcopy Cable Replacement Profile (HCRP)	Service Class
HCR_Scan	0x1127	Hardcopy Cable Replacement Profile (HCRP)	Service Class
Common_ISDN_Acces s	0x1128	Common ISDN Access Profile (CIP) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class / Profile
SIM_Access	0x112D	SIM Access Profile (SAP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
Phonebook Access – PCE	0x112E	Phonebook Access Profile (PBAP)	Service Class
Phonebook Access – PSE	0x112F	Phonebook Access Profile (PBAP)	Service Class

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Phonebook Access	0x1130	Phonebook Access Profile (PBAP)	Profile
Headset – HS	0x1131	Headset Profile (HSP) NOTE: See erratum #3507. 0x1108 and 0x1203 should also be included in the ServiceClassIDList before 0x1131 for backwards compatibility.	Service Class
Message Access Server	0x1132	Message Access Profile (MAP)	Service Class
Message Notification Server	0x1133	Message Access Profile (MAP)	Service Class
Message Access Profile	0x1134	Message Access Profile (MAP)	Profile
GNSS	0x1135	Global Navigation Satellite System Profile (GNSS)	Profile
GNSS_Server	0x1136	Global Navigation Satellite System Profile (GNSS)	Service Class
3D Display	0x1137	3D Synchronization Profile (3DSP)	Service Class
3D Glasses	0x1138	3D Synchronization Profile (3DSP)	Service Class
3D Synchronization	0x1139	3D Synchronization Profile (3DSP)	Profile
MPS Profile UUID	0x113A	Multi-Profile Specification (MPS)	Profile

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MPS SC UUID	0x113B	Multi-Profile Specification (MPS)	Service Class
CTN Access Service	0x113C	Calendar, Task, and Notes (CTN) Profile	Service Class
CTN Notification Service	0x113D	Calendar Tasks and Notes (CTN) Profile	Service Class
CTN Profile	0x113E	Calendar Tasks and Notes (CTN) Profile	Profile
PnPInformation	0x1200	Device Identification (DID) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
GenericNetworking	0x1201	N/A	Service Class
GenericFileTransfer	0x1202	N/A	Service Class
GenericAudio	0x1203	N/A	Service Class
GenericTelephony	0x1204	N/A	Service Class
UPNP_Service	0x1205	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
UPNP_IP_Service	0x1206	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class

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ESDP_UPNP_IP_PAN	0x1300	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
ESDP_UPNP_IP_LAP	0x1301	Enhanced Service Discovery Profile (ESDP)[DEPRECATED]	Service Class
ESDP_UPNP_L2CAP	0x1302	Enhanced Service Discovery Profile (ESDP)[DEPRECATED]	Service Class
VideoSource	0x1303	Video Distribution Profile (VDP)	Service Class
VideoSink	0x1304	Video Distribution Profile (VDP)	Service Class
VideoDistribution	0x1305	Video Distribution Profile (VDP)	Profile
HDP	0x1400	Health Device Profile	Profile
HDP Source	0x1401	Health Device Profile (HDP)	Service Class
HDP Sink	0x1402	Health Device Profile (HDP)	Service Class
	(Max value 0xFFFF)		

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Browse Group Identifiers

UUID Name	UUID	Specification
PublicBrowseRoot	0x1002	Bluetooth Core Specification
	(Max value 0xFFFF)	

Attribute Identifiers

Advanced Audio Distribution Profile (A2DP)

Applicable to Service Class UUIDs:
- AudioSource: 0x110A
- AudioSink: 0x110B

Attribute Name	Attribute ID
SupportedFeatures	0x0311

Audio/Video Remote Control Profile (AVRCP)

Applicable to Service Class UUIDs:
- A/V_RemoteControlTarget: 0x110C
- A/V_RemoteControl: 0x110E
- A/V_RemoteControlController: 0x110F

Attribute Name	Attribute ID
SupportedFeatures	0x0311

Basic Imaging Profile (BIP)

Applicable to Service Class UUIDs:
- ImagingResponder: 0x111B
- ImagingAutomaticArchive: 0x111C
- ImagingReferencedObjects: 0x111D

Attribute Name	Attribute ID
GoepL2capPsm (BIP v1.1 and later)	0x0200
SupportedCapabilities	0x0310
SupportedFeatures	0x0311
SupportedFunctions	0x0312
TotalImagingDataCapacity	0x0313

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Basic Printing Profile (BPP)

Applicable to Service Class UUIDs:
- Direct Printing: 0x1118
- ReferencePrinting: 0x1119
- DirectPrintingReferenceObjectsService: 0x1120
- ReflectedUI: 0x1121
- PrintingStatus: 0x1123

Attribute Name	Attribute ID
Document Formats Supported	0x0350
Character Repertoires Supported	0x0352
XHTML-Print Image Formats Supported	0x0354
Color Supported	0x0356
1284ID	0x0358
Printer Name	0x035A
Printer Location	0x035C
Duplex Supported	0x035E
Media Types Supported	0x0360
MaxMediaWidth	0x0362
MaxMediaLength	0x0364
Enhanced Layout Supported	0x0366
RUI Formats Supported	0x0368
Reference Printing RUI Supported	0x0370
Direct Printing RUI Supported	0x0372
Reference Printing Top URL	0x0374
Direct Printing Top URL	0x0376
Printer Admin RUI Top URL	0x0378
Device Name	0x037A

Bluetooth Core Specification: Universal Attributes

The following attribute IDs have the same meaning for all services. These attribute IDs shall be in the 0x0000 to 0x01FF range.

Attribute Name	Attribute ID
ServiceRecordHandle	0x0000
ServiceClassIDList	0x0001
ServiceRecordState	0x0002
ServiceID	0x0003
ProtocolDescriptorList	0x0004
BrowseGroupList	0x0005
LanguageBaseAttributeIDList	0x0006
ServiceInfoTimeToLive	0x0007
ServiceAvailability	0x0008
BluetoothProfileDescriptorList	0x0009
DocumentationURL	0x000A
ClientExecutableURL	0x000B
IconURL	0x000C
AdditionalProtocolDescriptorLists	0x000D
Reserved	0x000E – 0x01FF

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Bluetooth Core Specification: Service Discovery Service

Applicable to Service Class UUIDs:
- ServiceDiscoveryServerServiceClassID: 0x1000

Attribute Name	Attribute ID
VersionNumberList	0x0200
ServiceDatabaseState	0x0201

Bluetooth Core Specification: Browse Group Descriptor Service

Applicable to Service Class UUIDs:
- BrowseGroupDescriptorServiceClassID: 0x1001

Attribute Name	Attribute ID
GroupID	0x0200

Cordless Telephony Profile [DEPRECATED]

Applicable to Service Class UUIDs:
- CordlessTelephony: 0x1001

Attribute Name	Attribute ID
External Network	0x0301

Device Identification Profile

Applicable to Service Class UUIDs:
- PnPInformation: 0x1200

Attribute Name	Attribute ID
SpecificationID	0x0200
VendorID	0x0201
ProductID	0x0202
Version	0x0203
PrimaryRecord	0x0204
VendorIDSource	0x0205

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Fax Profile [DEPRECATED]

Applicable to Service Class UUIDs:

- Fax: 0x1111

Attribute Name	Attribute ID
Fax Class 1 Support	0x0302
Fax Class 2.0 Support	0x0303
Fax Class 2 Support(vendor-specific class)	0x0304
Audio Feedback Support	0x0305

File Transfer Profile

Applicable to Service Class UUIDs:

- OBEXFileTransfer: 0x1106

Attribute Name	Attribute ID
GoepL2capPsm(FTP v1.2 and later)	0x0200

Generic Object Exchange Profile

Attribute Name	Attribute ID
GoepL2capPsm(GOEP v2.0 and later)	Must be defined separately for each GOEP-based service.

Global Navigation Satellite System Profile (GNSS)

Applicable to Service Class UUIDs:

- GNSS Service: 0x1136

Attribute Name	Attribute ID
SupportedFeatures	0x0200

Hands-Free Profile

Applicable to Service Class UUIDs:

- Handsfree: 0x111E
- HandsfreeAudioGateway: 0x111F

Attribute Name	Attribute ID
Network	0x0301
SupportedFeatures	0x0311

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Hardcopy Replacement Profile

Applicable to Service Class UUIDs:
- HCR_Print: 0x1126
- HCR_Scan: 0x1127

Attribute Name	Attribute ID
1284ID	0x0300
Device Name	0x0302
Friendly Name	0x0304
Device Location	0x0306

Headset Profile

Applicable to Service Class UUIDs:
- Headset: 0x1108
- Headset – Audio Gateway (AG): 0x1112
- Headset: 0x1131

Attribute Name	Attribute ID
Remote Audio Volume Control	0x0302

Health Device Profile

Applicable to Service Class UUIDs:
- HDP Source: 0x1401
- HDP Sink: 0x1402

Attribute Name	Attribute ID
SupportFeaturesList	0x0200
DataExchangeSpecification	0x0301
MCAP Supported Procedures	0x0302

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Human Interface Device Profile

Applicable to Service Class UUIDs:
- HumanInterfaceDeviceService: 0x1124

Attribute Name	Attribute ID
HIDDeviceReleaseNumber (Deprecated)	0x0200
HIDParserVersion	0x0201
HIDDeviceSubclass	0x0202
HIDCountryCode	0x0203
HIDVirtualCable	0x0204
HIDReconnectInitiate	0x0205
HIDDescriptorList	0x0206
HIDLANGIDBaseList	0x0207
HIDSDPDisable (Deprecated)	0x0208
HIDBatteryPower	0x0209
HIDRemoteWake	0x020A
HIDProfileVersion	0x020B
HIDSupervisionTimeout	0x020C
HIDNormallyConnectable	0x020D
HIDBootDevice	0x020E
HIDSSRHostMaxLatency	0x020F
HIDSSRHostMinTimeout	0x0210
Reserved for HID Attributes	0x0211-0x03FF
Available for HID Language Strings	0x0400-0xFFFF

Interoperability Requirements for Bluetooth technology as a WAP Bearer [DEPRECATED]

Applicable to Service Class UUIDs:
- WAP: 0x1113
- WAP_CLIENT: 0x1114

Attribute Name	Attribute ID
NetworkAddress	0x0306
WAPGateway	0x0307
HomePageURL	0x0308
WAPStackType	0x0309

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Message Access Profile

Applicable to Service Class UUIDs:
- Message Access Server: 0x1132
- Message Notification Server: 0x1133

Attribute Name	Attribute ID
GoepL2capPsm (MAP v1.2 and later)	0x0200
MASInstanceID	0x0315
SupportedMessageTypes	0x0316
MapSupportedFeatures (MAP v1.2 and later)	0x0317

Object Push Profile

Applicable to Service Class UUIDs:
- OBEXObjectPush: 0x1105

Attribute Name	Attribute ID
GoepL2capPsm (OPP v1.2 and later)	0x0200
Service Version	0x0300
Supported Formats List	0x0303

Personal Area Networking Profile

Applicable to Service Class UUIDs:
- PANU: 0x1115
- NAP: 0x1116
- GN: 0x1117

Attribute Name	Attribute ID
IpSubnet (Not used in PAN v1.0)	0x0200
SecurityDescription	0x030A
NetAccessType	0x030B
MaxNetAccessrate	0x030C
IPv4Subnet	0x030D
IPv6Subnet	0x030E

Phone Book Access Profile

Applicable to Service Class UUIDs:
- Phonebook Access – PCE: 0x112E
- Phonebook Access – PSE: 0x112F

Attribute Name	Attribute ID
GoepL2capPsm (PBAP v1.2 and later)	0x0200
SupportedRepositories	0x0314
PbapSupportedFeatures (PBAP v1.2 and later)	0x0317

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Synchronization Profile

Applicable to Service Class UUIDs:

- IrMCSync: 0x1104

Attribute Name	Attribute ID
Supported Data Stores List	0x0301

Attribute ID Offsets for Strings

Attribute ID Offset Name	Attribute ID Offset	Reference
ServiceName	0x0000	Bluetooth Core Specification
ServiceDescription	0x0001	Bluetooth Core Specification
ProviderName	0x0002	Bluetooth Core Specification
	(Max value 0xFFFF)	

Protocol Parameters

Protocol	Parameter Name	Parameter Index
L2CAP	PSM	1
RFCOMM	Channel	1
TCP	Port	1
UDP	Port	1
BNEP	Version	1
BNEP	Supported Network Packet Type List	2

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Multi-Profile

Applicable to Service Class UUIDs:

- MPS SC UUID: 0x113B

Attribute Name	Attribute ID
MPSD Scenarios	0x0200
MPMD Scenarios	0x0201
Supported Profiles & Protocols	0x0202

Calendar Tasks and Notes

Applicable to Service Class UUIDs:

- CTN Service Class: 0x113C
- CTN Notification Service: 0x113D

Attribute Name	Attribute ID
CASInstanceID	0x0315
CTNSupportedFeatures	0x0317