specifications

Service Discovery

Use Assigned Numbers in the Service Discovery Protocol (SDP) for searching for services, a browse group list, documentation URL, and an icon URL.

Service Discovery Protocol (SDP)

Universally Unique Identifier (UUID) short forms

The *Bluetooth*[®] Service Discovery Protocol (SDP) specification defines a way to represent a range of UUIDs (which are nominally 128 bits) in a shorter form. A reserved range of 2^32 values can be represented using 32 bits (denoted uuid32). Of these, a sub-range of 2^16 values can be represented using only 16 bits (denoted uuid16).

All values in the 2^32 range that are not assigned in this document are reserved pending future revisions of this document. In other words, no value in this range may be used except as specified in this or future revisions of this document. UUID values outside of this range can be allocated as described in [ISO-11578] for any purpose the allocator desires.

Base Universally Unique Identifier (UUID)

The Base UUID is used for calculating 128-bit UUIDs from "short UUIDs" (uuid16 and uuid32) as described in the SDP Specification. See Service Discovery Protocol (SDP) in the Bluetooth Core Specification.

NOTE: Currently all assigned short UUIDs are uuid16 types.

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

Protocol Identifiers

The UUIDs in the following table shall be used only in the ProfileDescriptorList attribute.

Protocol Name	UUID	Protocol Specification
SDP	0×0001	Bluetooth Core Specification
UDP	0×0002	[NO USE BY PROFILES]

RFCOMM	0×0003	
		RFCOMM with TS 07.10
TCP	0×0004	
		[NO USE BY PROFILES]
TCS-BIN	0×0005	
		Telephony Control Specification / TCS Binary [DEPRECATED]
TCS-AT	0×0006	
		[NO USE BY PROFILES]
ATT	0×0007	
		Attribute Protocol
OBEX	0×0008	
		IrDA Interoperability
IP	0×0009	
		[NO USE BY PROFILES]
FTP	0×000A	
		[NO USE BY PROFILES]
HTTP	0×000C	
		[NO USE BY PROFILES]
WSP	0×000E	
		[NO USE BY PROFILES]
BNEP	0×000F	
		Bluetooth Network Encapsulation Protocol (BNEP)
UPNP	0×0010	
		Extended Service Discovery Profile (ESDP) [DEPRECATED]
HIDP	0×0011	
		Human Interface Device Profile (HID)
HardcopyControlChannel	0×0012	
		Hardcopy Cable Replacement Profile (HCRP)
HardcopyDataChannel	0×0014	
		See Hardcopy Cable Replacement Profile (HCRP)
HardcopyNotification	0×0016	
		Hardcopy Cable Replacement Profile (HCRP)
AVCTP	0×0017	
		Audio/Video Control Transport Protocol (AVCTP)
AVDTP	0×0019	
		Audio/Video Distribution Transport Protocol (AVDTP)
CMTP	0×001B	
		Common ISDN Access Profile (CIP) [DEPRECATED]
MCAPControlChannel	0×001E	
		Multi-Channel Adaptation Protocol (MCAP)

MCAPDataChannel	0×001F	Multi-Channel Adaptation Protocol (MCAP)
L2CAP	0×0100	Bluetooth Core Specification
	(Max value 0xFFFF)	

Table 1: Protocol Identifiers and Names, Service Classes and Profile Identifiers

UUIDs in the following table, which have an allowed usage of Service Class may be used in the ServiceClassIDList universal attribute, but shall not be used in the BluetoothProfileDescriptorList attribute unless the Profile usage is also allowed per the table below. If a Service Class UUID is exposed in the SDP database of a product, then the product containing the SDP record shall comply with the specification that defines the service corresponding to the UUID.

UUIDs in the following table which have an allowed usage of Profile may be used in the BluetoothProfileDescriptorList universal attribute, but shall not be used in the ServiceClassIDList universal attribute unless the Service Class usage is also allowed per the table below.

For historical reasons, some UUIDs in Table 2 are used to identify profiles in a BluetoothProfileDescriptorList universal attribute as well as service classes in a ServiceClassIDList universal attribute. However, for new profiles, Service Class UUIDs shall not be used in a BluetoothProfileDescriptorList universal attribute and Profile UUIDs shall not be used in a ServiceClassIDList universal attribute.

Service Class Name	UUID	Specification	Allowed Usage
ServiceDiscoveryServerServiceClassID	0×1000	Bluetooth Core Specification	Service Class
BrowseGroupDescriptorServiceClassID	0×1001	Bluetooth Core Specification	Service Class
SerialPort	0×1101	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	0×1102	LAN Access Profile [DEPRECATED] NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
DialupNetworking	0×1103	Dial-up Networking Profile (DUN) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile

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IrMCSync	0×1104	Synchronization Profile (SYNC) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
OBEXObjectPush	0×1105	Object Push Profile (OPP) NOTE: Used as both Service Class Identifier and Profile.	Service Class/ Profile
OBEXFileTransfer	0×1106	File Transfer Profile (FTP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
IrMCSyncCommand	0×1107	Synchronization Profile (SYNC)	
Headset	0×1108	Headset Profile (HSP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
CordlessTelephony	0×1109	Cordless Telephony Profile (CTP) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class/ Profile
AudioSource	0×110A	Advanced Audio Distribution Profile (A2DP)	Service Class
AudioSink	0×110B	Advanced Audio Distribution Profile (A2DP)	Service Class
A/V_RemoteControlTarget	0×110C	Audio/Video Remote Control Profile (AVRCP)	Service Class
AdvancedAudioDistribution	0×110D	Advanced Audio Distribution Profile (A2DP)	Profile
A/V_RemoteControl	0×110E	Audio/Video Remote Control Profile (AVRCP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class/ Profile
A/V_RemoteControlController	0×110F	Audio/Video Remote Control Profile (AVRCP) NOTE: The AVRCP specification v1.3 and later require that 0×110E also be included in the ServiceClassIDList before 0×110F for backwards compatibility.	Service Class
Intercom	0×1110	Intercom Profile (ICP) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class
Fax	0×1111	Fax Profile (FAX) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class

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Headset - Audio Gateway (AG)	0×1112	Headset Profile (HSP)	Service Class
WAP	0×1113	Interoperability Requirements for Bluetooth technology as a WAP, Bluetooth SIG [DEPRECATED]	Service Class
WAP_CLIENT	0×1114	Interoperability Requirements for Bluetooth technology as a WAP, Bluetooth SIG [DEPRECATED]	Service Class
PANU	0×1115	Personal Area Networking Profile (PAN) NOTE: Used as both Service Class Identifier and Profile Identifier for PANU role.	Service Class / Profile
NAP	0×1116	Personal Area Networking Profile (PAN) NOTE: Used as both Service Class Identifier and Profile Identifier for NAP role.	Service Class / Profile
GN	0×1117	Personal Area Networking Profile (PAN) NOTE: Used as both Service Class Identifier and Profile Identifier for GN role.	Service Class / Profile
DirectPrinting	0×1118	Basic Printing Profile (BPP)	Service Class
ReferencePrinting	0×1119	See Basic Printing Profile (BPP)	Service Class
Basic Imaging Profile	0×111A	Basic Imaging Profile (BIP)	Profile
ImagingResponder	0×111B	Basic Imaging Profile (BIP)	Service Class
ImagingAutomaticArchive	0×111C	Basic Imaging Profile (BIP)	Service Class
ImagingReferencedObjects	0×111D	Basic Imaging Profile (BIP)	Service Class
Handsfree	0×111E	Hands-Free Profile (HFP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
HandsfreeAudioGateway	0×111F	Hands-free Profile (HFP)	Service Class
DirectPrintingReferenceObjectsService	0×1120	Basic Printing Profile (BPP)	Service Class

ReflectedUI	0×1121	Basic Printing Profile (BPP)	Service Class
BasicPrinting	0×1122	Basic Printing Profile (BPP)	Profile
PrintingStatus	0×1123	Basic Printing Profile (BPP)	Service Class
HumanInterfaceDeviceService	0×1124	Human Interface Device (HID) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
HardcopyCableReplacement	0×1125	Hardcopy Cable Replacement Profile (HCRP)	Profile
HCR_Print	0×1126	Hardcopy Cable Replacement Profile (HCRP)	Service Class
HCR_Scan	0×1127	Hardcopy Cable Replacement Profile (HCRP)	Service Class
Common_ISDN_Access	0×1128	Common ISDN Access Profile (CIP) NOTE: Used as both Service Class Identifier and Profile Identifier. [DEPRECATED]	Service Class / Profile
SIM_Access	0×112D	SIM Access Profile (SAP) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
Phonebook Access - PCE	0×112E	Phonebook Access Profile (PBAP)	Service Class
Phonebook Access - PSE	0×112F	Phonebook Access Profile (PBAP)	Service Class
Phonebook Access	0×1130	Phonebook Access Profile (PBAP)	Profile
Headset - HS	0×1131	Headset Profile (HSP) NOTE: See erratum #3507. 0×1108 and 0×1203 should also be included in the ServiceClassIDList before 0×1131 for backwards compatibility.	Service Class
Message Access Server	0×1132	Message Access Profile (MAP)	Service Class
Message Notification Server	0×1133	Message Access Profile (MAP)	Service Class

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Message Access Profile	0×1134	Message Access Profile (MAP)	Profile
GNSS	0×1135	Global Navigation Satellite System Profile (GNSS)	Profile
GNSS_Server	0×1136	Global Navigation Satellite System Profile (GNSS)	Service Class
3D Display	0×1137	3D Synchronization Profile (3DSP)	Service Class
3D Glasses	0×1138	3D Synchronization Profile (3DSP)	Service Class
3D Synchronization	0×1139	3D Synchronization Profile (3DSP)	Profile
MPS Profile UUID	0×113A	Multi-Profile Specification (MPS)	Profile
MPS SC UUID	0×113B	Multi-Profile Specification (MPS)	Service Class
CTN Access Service	0×113C	Calendar, Task, and Notes (CTN) Profile	Service Class
CTN Notification Service	0×113D	Calendar Tasks and Notes (CTN) Profile	Service Class
CTN Profile	0×113E	Calendar Tasks and Notes (CTN) Profile	Profile
PnPInformation	0×1200	Device Identification (DID) NOTE: Used as both Service Class Identifier and Profile Identifier.	Service Class / Profile
GenericNetworking	0×1201	N/A	Service Class
GenericFileTransfer	0×1202	N/A	Service Class
GenericAudio	0×1203	N/A	Service Class
GenericTelephony	0×1204	N/A	Service Class

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UPNP_Service	0×1205	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
UPNP_IP_Service	0×1206	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
ESDP_UPNP_IP_PAN	0×1300	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
ESDP_UPNP_IP_LAP	0×1301	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
ESDP_UPNP_L2CAP	0×1302	Enhanced Service Discovery Profile (ESDP) [DEPRECATED]	Service Class
VideoSource	0×1303	Video Distribution Profile (VDP)	Service Class
VideoSink	0×1304	Video Distribution Profile (VDP)	Service Class
VideoDistribution	0×1305	Video Distribution Profile (VDP)	Profile
HDP	0×1400	Health Device Profile	Profile
HDP Source	0×1401	Health Device Profile (HDP)	Service Class
HDP Sink	0×1402	Health Device Profile (HDP)	Service Class
	(Max value 0xFFFF)		

Table 2: Service Class Profile Identifiers

Browse Group Identifiers

The UUIDs in the following table may be used only in BrowseGroupList attribute.

UUID Name	UUID	Specification
PublicBrowseRoot	0×1002	Bluetooth Core Specification

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(Max value 0xFFFF)

Table 3: Browse Group Identifiers and Names

Attribute Identifiers

Advanced Audio Distribution Profile (A2DP)

Applicable to Service Class UUIDs:

- AudioSource: 0×110A

- AudioSink: 0×110B

Attribute Name	Attribute ID
SupportedFeatures	0×0311

Audio/Video Remote Control Profile (AVRCP)

Applicable to Service Class UUIDs:

- A/V_RemoteControlTarget: 0×110C

- A/V_RemoteControl: 0×110E

- A/V_RemoteControlController: 0×110F

Attribute Name	Attribute ID
SupportedFeatures	0×0311

Basic Imaging Profile (BIP)

Applicable to Service Class UUIDs:

- ImagingResponder: 0×111B

- ImagingAutomaticArchive: 0×111C

- ImagingReferencedObjects: 0×111D

Attribute Name	Attribute ID

GoepL2capPsm (BIP v1.1 and later)	0×0200
SupportedCapabilities	0×0310
SupportedFeatures	0×0311
SupportedFunctions	0×0312
TotalImagingDataCapacity	0×0313

Basic Printing Profile (BPP)

Applicable to Service Class UUIDs:

- Direct Printing: 0×1118

- ReferencePrinting: 0×1119

- DirectPrintingReferenceObjectsService: 0×1120

- ReflectedUI: 0×1121

- PrintingStatus: 0×1123

Attribute Name	Attribute ID
Document Formats Supported	0×0350
Character Repertoires Supported	0×0352
XHTML-Print Image Formats Supported	0×0354
Color Supported	0×0356
1284ID	0×0358
Printer Name	0×035A
Printer Location	0×035C
Duplex Supported	0×035E

Media Types Supported	0×0360
MaxMediaWidth	0×0362
MaxMediaLength	0×0364
Enhanced Layout Supported	0×0366
RUI Formats Supported	0×0368
Reference Printing RUI Supported	0×0370
Direct Printing RUI Supported	0×0372
Reference Printing Top URL	0×0374
Direct Printing Top URL	0×0376
Printer Admin RUI Top URL	0×0378
Device Name	0×037A

Bluetooth Core Specification: Universal Attributes

The following attribute IDs have the same meaning for all services. These attribute IDs shall be in the 0×0000 to 0×01FF range.

Attribute Name	Attribute ID
ServiceRecordHandle	0×0000
ServiceClassIDList	0×0001
ServiceRecordState	0×0002
ServiceID	0×0003
ProtocolDescriptorList	0×0004
BrowseGroupList	0×0005

LanguageBaseAttributeIDList	0×0006
ServiceInfoTimeToLive	0×0007
ServiceAvailability	0×0008
BluetoothProfileDescriptorList	0×0009
DocumentationURL	0×000A
ClientExecutableURL	0×000B
IconURL	0×000C
AdditionalProtocolDescriptorLists	0×000D
Reserved	0×000E – 0×01FF

Bluetooth Core Specification: Service Discovery Service

Applicable to Service Class UUIDs:

- ServiceDiscoveryServerServiceClassID: 0×1000

Attribute Name	Attribute ID
VersionNumberList	0×0200
ServiceDatabaseState	0×0201

Bluetooth Core Specification: Browse Group Descriptor Service

Applicable to Service Class UUIDs:

- BrowseGroupDescriptorServiceClassID: 0×1001

Attribute Name	Attribute ID
GroupID	0×0200

Cordless Telephony Profile [DEPRECATED]

Applicable to Service Class UUIDs:

- CordlessTelephony: 0×1001

Attribute Name	Attribute ID
External Network	0×0301

Device Identification Profile

Applicable to Service Class UUIDs:

- PnPInformation: 0×1200

Attribute Name	Attribute ID
SpecificationID	0×0200
VendorID	0×0201
ProductID	0×0202
Version	0×0203
PrimaryRecord	0×0204
VendorIDSource	0×0205

Fax Profile [DEPRECATED]

Applicable to Service Class UUIDs:

- Fax: 0×1111

Attribute Name	Attribute ID
Fax Class 1 Support	0×0302
Fax Class 2.0 Support	0×0303
Fax Class 2 Support(vendor-specific class)	0×0304

Attribute Name	Attribute ID
Audio Feedback Support	0×0305

File Transfer Profile

Applicable to Service Class UUIDs:

- OBEXFileTransfer: 0×1106

Attribute Name	Attribute ID
GoepL2capPsm(FTP v1.2 and later)	0×0200

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: 0×1136

Attribute Name	Attribute ID
SupportedFeatures	0×0200

Hands-Free Profile

Applicable to Service Class UUIDs:

- Handsfree: 0×111E

- HandsfreeAudioGateway: 0×111F

Attribute Name	Attribute ID
Network	0×0301
SupportedFeatures	0×0311

Hardcopy Replacement Profile

Applicable to Service Class UUIDs:

- HCR_Print: 0×1126

- HCR_Scan: 0×1127

Attribute Name	Attribute ID
1284ID	0×0300
Device Name	0×0302
Friendly Name	0×0304
Device Location	0×0306

Headset Profile

Applicable to Service Class UUIDs:

- Headset: 0×1108

- Headset - Audio Gateway (AG): 0×1112

- Headset: 0×1131

Attribute Name	Attribute ID
Remote Audio Volume Control	0×0302

Health Device Profile

Applicable to Service Class UUIDs:

- HDP Source: 0×1401

- HDP Sink: 0×1402

Attribute Name	Attribute ID
SupportFeaturesList	0×0200

DataExchangeSpecification	0×0301
MCAP Supported Procedures	0×0302

Human Interface Device Profile

Applicable to Service Class UUIDs:

- HumanInterfaceDeviceService: 0×1124

Attribute Name	Attribute ID
HIDDeviceReleaseNumber (Deprecated)	0×0200
HIDParserVersion	0×0201
HIDDeviceSubclass	0×0202
HIDCountryCode	0×0203
HIDVirtualCable	0×0204
HIDReconnectInitiate	0×0205
HIDDescriptorList	0×0206
HIDLANGIDBaseList	0×0207
HIDSDPDisable (Deprecated)	0×0208
HIDBatteryPower	0×0209
HIDRemoteWake	0×020A
HIDProfileVersion	0×020B
HIDSupervisionTimeout	0×020C
HIDNormallyConnectable	0×020D
HIDBootDevice	0×020E

HIDSSRHostMaxLatency	0×020F
HIDSSRHostMinTimeout	0×0210
Reserved for HID Attributes	0×0211-0×03FF
Available for HID Language Strings	0×0400-0xFFFF

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

Applicable to Service Class UUIDs:

- WAP: 0×1113
- WAP_CLIENT: 0×1114

Attribute Name	Attribute ID
NetworkAddress	0×0306
WAPGateway	0×0307
HomePageURL	0×0308
WAPStackType	0×0309

Message Access Profile

Applicable to Service Class UUIDs:

- Message Access Server: 0×1132
- Message Notification Server: 0×1133

Attribute Name	Attribute ID
GoepL2capPsm (MAP v1.2 and later)	0×0200
MASInstanceID	0×0315
SupportedMessageTypes	0×0316

MapSupportedFeatures (MAP v1.2 and later)	
	0×0317

Object Push Profile

Applicable to Service Class UUIDs:

- OBEXObjectPush: 0×1105

Attribute Name	Attribute ID
GoepL2capPsm (OPP v1.2 and later)	0×0200
Service Version	0×0300
Supported Formats List	0×0303

Personal Area Networking Profile

Applicable to Service Class UUIDs:

- PANU: 0×1115

- NAP: 0×1116

- GN: 0×1117

Attribute Name	Attribute ID
IpSubnet (Not used in PAN v1.0)	0×0200
SecurityDescription	0×030A
NetAccessType	0×030B
MaxNetAccessrate	0×030C
IPv4Subnet	0×030D
IPv6Subnet	0×030E

Phone Book Access Profile

Applicable to Service Class UUIDs:

- Phonebook Access - PCE: 0×112E

- Phonebook Access - PSE: 0×112F

Attribute Name	Attribute ID
GoepL2capPsm (PBAP v1.2 and later)	0×0200
SupportedRepositories	0×0314
PbapSupportedFeatures (PBAP v1.2 and later)	0×0317

Synchronization Profile

Applicable to Service Class UUIDs:

- IrMCSync: 0×1104

Attribute Name	Attribute ID
Supported Data Stores List	0×0301

Attribute ID Offsets for Strings

The following table contains Attribute ID Offsets that are added to the value contained in the LanguageBaseAttributeIDList attribute.

Attribute ID Offset Name	Attribute ID Offset	Reference
ServiceName	0×0000	Bluetooth Core Specification
ServiceDescription	0×0001	Bluetooth Core Specification
ProviderName	0×0002	Bluetooth Core Specification
	(Max value 0xFFFF)	

Table 5: Attribute Identifiers

The base offset as given by the LanguageBaseAttributeIDList attribute must be added to each ID value in this table. For the primary language, this shall be equal to 0×0100 as described in the SDP specification.

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

Table 6: Protocol Parameter

Multi-Profile

Applicable to Service Class UUIDs:

- MPS SC UUID: 0×113B

Attribute Name	Attribute ID
MPSD Scenarios	0×0200
MPMD Scenarios	0×0201
Supported Profiles & Protocols	0×0202

Table 7: Multi-Profile

Calendar Tasks and Notes

Applicable to Service Class UUIDs:

- CTN Service Class: 0×113C

- CTN Notification Service: 0×113D

Attribute Name	Attribute ID
CASInstanceID	0×0315
CTNSupportedFeatures	0×0317

Table 8: Calendar Tasks and Notes (CTN) Profile