

## 2.8 Class of Device

Referenced from the following:

- Bluetooth Core Specification [Vol 2] Part B, Section 6.5.1.4 [4].
- Supplement to the Bluetooth Core Specification Part A, Section 1.6.2 [22].

The Class of Device is composed of four fields: A Major Service Classes bitfield, a Major Device Class enumerated value, the Minor Device Class value, and a fixed value of 0b00 in the two least significant bits. The format of the Minor Device Class is determined by the Major Device Class value. The structure of the Class of Device is defined below:



Figure 2.2: Class of Device format

### 2.8.1 Major Service Classes

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Bit	Class of Device Major Service Class
13	Limited Discoverable Mode
14	LE audio
15	Reserved for Future Use
16	Positioning (Location identification)
17	Networking (LAN, Ad hoc, ...)
18	Rendering (Printing, Speakers, ...)
19	Capturing (Scanner, Microphone, ...)
20	Object Transfer (v-Inbox, v-Folder, ...)
21	Audio (Speaker, Microphone, Headset service, ...)
22	Telephony (Cordless telephony, Modem, Headset service, ...)
23	Information (WEB-server, WAP-server, ...)

## 2.8.2 Major Device Class

The "Miscellaneous" Major Device Class is used where a more specific Major Device Class code is not suitable. A device that does not have a Major Class Code assigned can use the "Uncategorized: device code not specified" code until classified.

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12	11	10	9	8	Major Device Class
0	0	0	0	0	Miscellaneous
0	0	0	0	1	Computer (desktop, notebook, PDA, organizer, ...)
0	0	0	1	0	Phone (cellular, cordless, pay phone, modem, ...)
0	0	0	1	1	LAN/Network Access Point
0	0	1	0	0	Audio/Video (headset, speaker, stereo, video display, VCR, ...)
0	0	1	0	1	Peripheral (mouse, joystick, keyboard, ...)
0	0	1	1	0	Imaging (printer, scanner, camera, display, ...)
0	0	1	1	1	Wearable
0	1	0	0	0	Toy
0	1	0	0	1	Health
1	1	1	1	1	Uncategorized (device code not specified)

### 2.8.2.1 Minor Device Class field – Computer Major Class

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7	6	5	4	3	2	Minor Device Class
0	0	0	0	0	0	Uncategorized (code for device not assigned)
0	0	0	0	0	1	Desktop Workstation
0	0	0	0	1	0	Server-class Computer
0	0	0	0	1	1	Laptop
0	0	0	1	0	0	Handheld PC/PDA (clamshell)
0	0	0	1	0	1	Palm-size PC/PDA
0	0	0	1	1	0	Wearable Computer (watch size)
0	0	0	1	1	1	Tablet

### 2.8.2.2 Minor Device Class field – Phone Major Class

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7	6	5	4	3	2	Minor Device Class
0	0	0	0	0	0	Uncategorized (code for device not assigned)
0	0	0	0	0	1	Cellular
0	0	0	0	1	0	Cordless
0	0	0	0	1	1	Smartphone
0	0	0	1	0	0	Wired Modem or Voice Gateway
0	0	0	1	0	1	Common ISDN Access