

GATT

GENERIC ATTRIBUTE PROFILE

- Bluetooth Core Specification 4.2 defines Generic Attribute Profile (GATT).
- GATT defines two roles: Server and Client.
- A service is a collection of data and associated behaviors to accomplish a particular function or feature of a device or portions of a device.
 - There are two types of services: primary and secondary. A primary service is a service that provides the primary functionality of a device.
- All characteristics shall be contained in a primary service with the service UUID set to GATT Service. Only one instance of the GATT service shall be exposed on a GATT server.
- Bluetooth Core Version 4.2

<https://www.bluetooth.org/en-us/specification/adopted-specifications/>

GATT-BASED PROFILE HIERARCHY

- The GATT Profile specifies the structure in which profile data is exchanged.
- The top level of the hierarchy is a profile.
- A profile is composed of one or more services necessary to fulfill a use case.
- A service is composed of characteristics or references to other services.

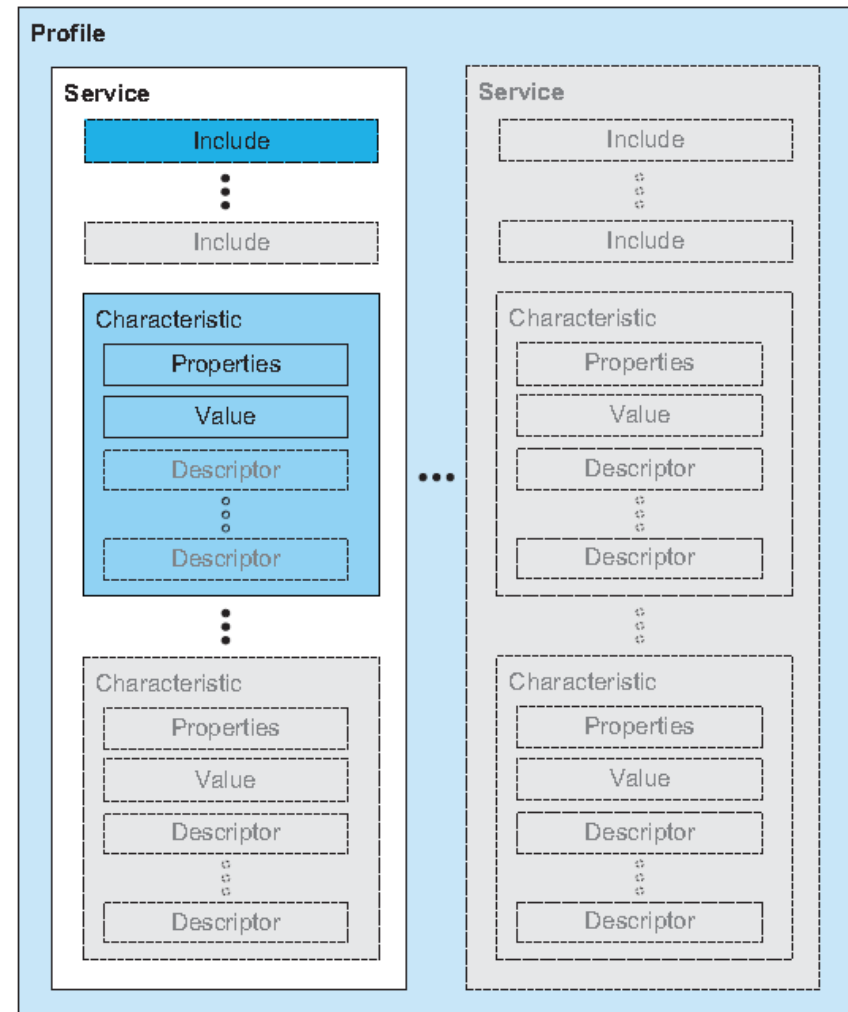


Figure 6.3: GATT-Based Profile Hierarchy

W3C Web Bluetooth Community Group

- Bluetooth 4.0 known as BLE provides most of its functionality through key/value pairs provided by the Generic Attribute Profile (GATT).
- A device acting in either the Peripheral or Central role can host a GATT Server, which exposes a hierarchy of Services, Characteristics, and Descriptors.
- The first version of this specification allows web pages, running on a UA in the Central role, to connect to GATT Servers over either a BR/EDR or LE connection.
- <https://webbluetoothcg.github.io/web-bluetooth/>