**移动端的蓝牙通讯**

**1.1整体结构**

蓝牙以server分组。

每个server有多个characteristic（特征值）。

蓝牙的通讯：就是对特征值的读写操作。

蓝牙

Server

Server

Server

Characteristic

Characteristic

**1.2数据结构**

其中的一个server的数据结构。

|  |
| --- |
| BluetoothService {  uuid: 6e400001 - b5a3 - f393 - e0a9 - e50e24dcca9e,  deviceId: C9: AA: FE: 37: 90: 1 A,  isPrimary: true,  includedServices: [],  characteristics: [  BluetoothCharacteristic {  uuid: 6e400002 - b5a3 - f393 - e0a9 - e50e24dcca9e,  deviceId: C9: AA: FE: 37: 90: 1 A,  serviceUuid: 6e400001 - b5a3 - f393 - e0a9 - e50e24dcca9e,  secondaryServiceUuid: null,  properties: CharacteristicProperties {  broadcast: false,  read: false,  writeWi  thoutResponse: true,  write: true,  notify: false,  indicate: false,  authenticatedSignedWrites: false,  extendedProperties: false,  n  otifyEncryptionRequired: false,  indicateEncryptionRequired: false  },  descriptors: [],  value: []  },  BluetoothCharacteristic {  uuid: 6e  400003 - b5a3 - f393 - e0a9 - e50e24dcca9e,  deviceId: C9: AA: FE: 37: 90: 1 A,  serviceUuid: 6e400001 - b5a3 - f393 - e0a9 - e50e24dcca9e,  secondarySer  viceUuid: null,  properties: CharacteristicProperties {  broadcast: false,  read: false,  writeWithoutResponse: false,  write: false,  n  otify: true,  indicate: false,  authenticatedSignedWrites: false,  extendedProperties: false,  notifyEncryptionRequired: false,  indi  cateEncryptionRequired: false  },  descriptors: [BluetoothDescriptor {  uuid: 00002902 - 0000 - 1000 - 8000 - 00805 f9b34fb,  deviceId: C9: AA: FE: 37: 90: 1 A,  serviceUuid: 6e400001 - b5a3 - f393 - e0a9 - e50e24dcca9e,  characteristicUuid: 6e400003 - b5a3 - f393 - e0a9 - e50e24dcca9e,  value: []  }],  value: []  }  ]  } |

**1.3 蓝牙UUID**

这里的UUID主要对server的UUID进行概括。

蓝牙的server的UUID默认、常用UUID分为以下内容。

注意：当然UUID可以跟硬件商家制定好，（server）服务的UUID和要用于通讯的（characteristic）特征值的UUID。

**#蓝牙串口服务**

SerialPortServiceClass\_UUID = '{00001101-0000-1000-8000-00805F9B34FB}'

LANAccessUsingPPPServiceClass\_UUID = '{00001102-0000-1000-8000-00805F9B34FB}'

**#拨号网络服务**

DialupNetworkingServiceClass\_UUID = '{00001103-0000-1000-8000-00805F9B34FB}'

**#信息同步服务**

IrMCSyncServiceClass\_UUID = '{00001104-0000-1000-8000-00805F9B34FB}'

SDP\_OBEXObjectPushServiceClass\_UUID = '{00001105-0000-1000-8000-00805F9B34FB}'

**#文件传输服务**

OBEXFileTransferServiceClass\_UUID = '{00001106-0000-1000-8000-00805F9B34FB}'

IrMCSyncCommandServiceClass\_UUID = '{00001107-0000-1000-8000-00805F9B34FB}'

SDP\_HeadsetServiceClass\_UUID = '{00001108-0000-1000-8000-00805F9B34FB}'

CordlessTelephonyServiceClass\_UUID = '{00001109-0000-1000-8000-00805F9B34FB}'

SDP\_AudioSourceServiceClass\_UUID = '{0000110A-0000-1000-8000-00805F9B34FB}'

SDP\_AudioSinkServiceClass\_UUID = '{0000110B-0000-1000-8000-00805F9B34FB}'

SDP\_AVRemoteControlTargetServiceClass\_UUID='{0000110C-0000-1000-8000-00805F9B34FB}'

SDP\_AdvancedAudioDistributionServiceClass\_UUID='{0000110D-0000-1000-8000-00805F9B34FB}'

SDP\_AVRemoteControlServiceClass\_UUID = '{0000110E-0000-1000-8000-00805F9B34FB}'

VideoConferencingServiceClass\_UUID = '{0000110F-0000-1000-8000-00805F9B34FB}'

IntercomServiceClass\_UUID = '{00001110-0000-1000-8000-00805F9B34FB}'

**#蓝牙传真服务**

FaxServiceClass\_UUID = '{00001111-0000-1000-8000-00805F9B34FB}'

HeadsetAudioGatewayServiceClass\_UUID = '{00001112-0000-1000-8000-00805F9B34FB}'

WAPServiceClass\_UUID = '{00001113-0000-1000-8000-00805F9B34FB}'

WAPClientServiceClass\_UUID = '{00001114-0000-1000-8000-00805F9B34FB}'

**#个人局域网服务**

PANUServiceClass\_UUID = '{00001115-0000-1000-8000-00805F9B34FB}'

**#个人局域网服务**

NAPServiceClass\_UUID = '{00001116-0000-1000-8000-00805F9B34FB}'

**#个人局域网服务**

GNServiceClass\_UUID = '{00001117-0000-1000-8000-00805F9B34FB}'

DirectPrintingServiceClass\_UUID = '{00001118-0000-1000-8000-00805F9B34FB}'

ReferencePrintingServiceClass\_UUID = '{00001119-0000-1000-8000-00805F9B34FB}'

ImagingServiceClass\_UUID = '{0000111A-0000-1000-8000-00805F9B34FB}'

ImagingResponderServiceClass\_UUID = '{0000111B-0000-1000-8000-00805F9B34FB}'

ImagingAutomaticArchiveServiceClass\_UUID = '{0000111C-0000-1000-8000-00805F9B34FB}'

ImagingReferenceObjectsServiceClass\_UUID = '{0000111D-0000-1000-8000-00805F9B34FB}'

SDP\_HandsfreeServiceClass\_UUID = '{0000111E-0000-1000-8000-00805F9B34FB}'

HandsfreeAudioGatewayServiceClass\_UUID = '{0000111F-0000-1000-8000-00805F9B34FB}'

DirectPrintingReferenceObjectsServiceClass\_UUID='{00001120-0000-1000-8000-00805F9B34FB}'

ReflectedUIServiceClass\_UUID = '{00001121-0000-1000-8000-00805F9B34FB}'

BasicPringingServiceClass\_UUID = '{00001122-0000-1000-8000-00805F9B34FB}'

PrintingStatusServiceClass\_UUID = '{00001123-0000-1000-8000-00805F9B34FB}'

**#人机输入服务**

HumanInterfaceDeviceServiceClass\_UUID = '{00001124-0000-1000-8000-00805F9B34FB}'

HardcopyCableReplacementServiceClass\_UUID'{00001125-0000-1000-8000-00805F9B34FB}'

**#蓝牙打印服务**

HCRPrintServiceClass\_UUID = '{00001126-0000-1000-8000-00805F9B34FB}'

HCRScanServiceClass\_UUID = '{00001127-0000-1000-8000-00805F9B34FB}'

CommonISDNAccessServiceClass\_UUID = '{00001128-0000-1000-8000-00805F9B34FB}'

VideoConferencingGWServiceClass\_UUID = '{00001129-0000-1000-8000-00805F9B34FB}'

UDIMTServiceClass\_UUID = '{0000112A-0000-1000-8000-00805F9B34FB}'

UDITAServiceClass\_UUID = '{0000112B-0000-1000-8000-00805F9B34FB}'

AudioVideoServiceClass\_UUID = '{0000112C-0000-1000-8000-00805F9B34FB}'

SIMAccessServiceClass\_UUID = '{0000112D-0000-1000-8000-00805F9B34FB}'

PnPInformationServiceClass\_UUID = '{00001200-0000-1000-8000-00805F9B34FB}'

GenericNetworkingServiceClass\_UUID = '{00001201-0000-1000-8000-00805F9B34FB}'

GenericFileTransferServiceClass\_UUID = '{00001202-0000-1000-8000-00805F9B34FB}'

GenericAudioServiceClass\_UUID = '{00001203-0000-1000-8000-00805F9B34FB}'

GenericTelephonyServiceClass\_UUID = '{00001204-0000-1000-8000-00805F9B34FB}'