2.3 BLE Communication

BLE works by forming pico - and scatternet networks between various master and slave devices. Each device in the network is either a master or a slave, but never both. The devices then form a piconet when one or more slaves connect and synchronize with a single master device. The role of the master device is then to manage the slave devices through the protocol. This forms a 'star' network topology which is illustrated in Figure 2.2. (Townsend *et al.*, 2014)

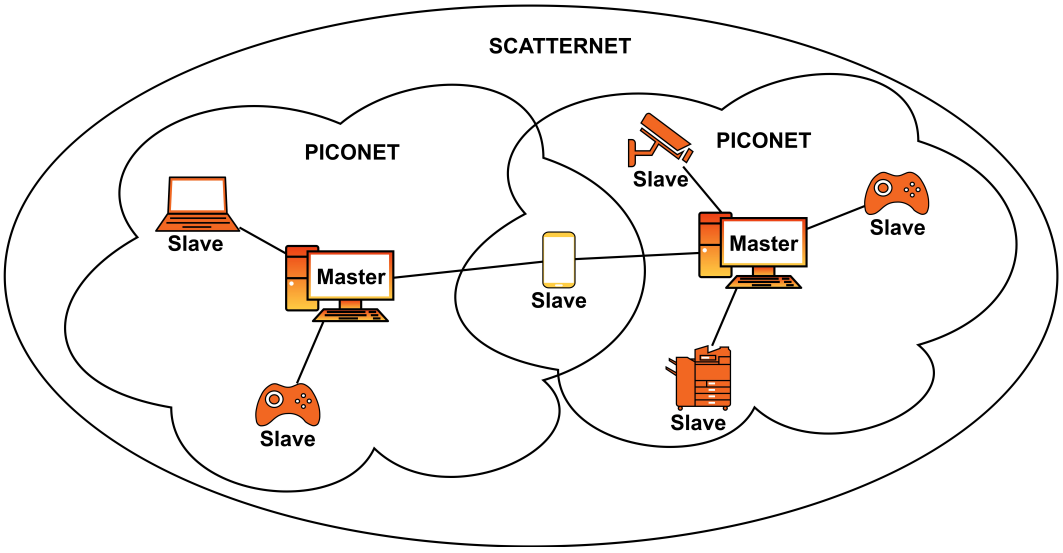

Figure 2.2: BLE Star Network Topology

Specifications from the BLE specification sheet is shown in Table 2.2. The BLE protocol is divided into various standardized and proprietary profiles that specify specific communication architectures. The GATT profile is used by BSIG to standardize various common service applications, and is also the profile where the FTMS service that is required by Zwift is specified.