

ABSTRACT**BLUETOOTH PAIRING SYSTEM, METHOD, AND APPARATUS**

The system provides secure controlled access to multiple Bluetooth devices issued to users. For example an officer may be issued a weapon. To enable monitoring of weapon status, a Bluetooth sensor may be fitted to a holster and the Officer issued with a Bluetooth enabled mobile phone. In order to establish a secure Bluetooth connection between the devices, sensor contains a prestored link key and the mobile phone stores a partial link key. The supervisor enters their username and password, and a secret key into the phone which is then used with the partial link key to generate a copy of the link key stored in the first device, so that a secure connection can be established with the first device. The officer enters their username and password into the sensor, and once the secure connection is established it is sent over the secure connection to the mobile phone which then sends both user names and passwords to a verification authority. If the officer is verified and authorized to issue the devices, an authorization message is returned and use of the devices allowed. If the authorization fails, a failure message is returned and the devices are not issued and features may be blocked. The verification authority may be internal or external to the phone. If the authority is external, then the supervisor's user name and password could be omitted.

Figure 1C