

We might fairly imagine a wireless world in the next future. The internet of things is getting a reality and we may feel its progress every day.

The trend started with local network of devices and the Bluetooth technology contributed during many years to connect peripherals to portable devices and vice-versa.

In a wireless world, things have no physical connectors then the pairing between two objects shall be logical instead physical (a connector).

The Bluetooth pairing is a familiar example about the pairing between two devices operating three steps as follow:

- Discover the possible devices to connect.
- Select one of the discovered devices
- Enter the same passcode on the two devices

Then this procedure highlights two principles:

- Selection of the devices to pair
- Connection agreement is using a shared secret(i.e. the passcode)

Such of pairing is far to be user-friendly and another procedure has been proposed to bootstrap the Bluetooth pairing in using the NFC technology. In a single gesture, the user selects the device to connect and transfers the essential information for the pairing (i.e. identity of the targets and shared secret) via the NFC connection having a very short operational range (few centimeter). The close vicinity of the devices to pair is essential for using the NFC technology making the choice of the devices to pair non ambiguous.

### **Easy pairing principle**

The easy pairing principle involves two wireless technology:

- A first wireless communication means having a very short operational range able to establish a close vicinity connection.
- A second wireless communication on which the applications will exchange data. this second means of communication exposes high performance features (better operational ranges (i.e few meters up to few hundreds meters) and higher data rates).

The first means of communication transfers essential and short data allowing the bootstrapping of the second means of communication.

The easy pairing allows an intuitive and fast connection between two devices willing to establish a wireless communication.