# Network Abstraction Layer Team

- How-to setup IPv6 on Debian/Ubuntu Presentation
- Presentation on lib Bluez (source code examples)
- Google Protocol Buffers Presentation

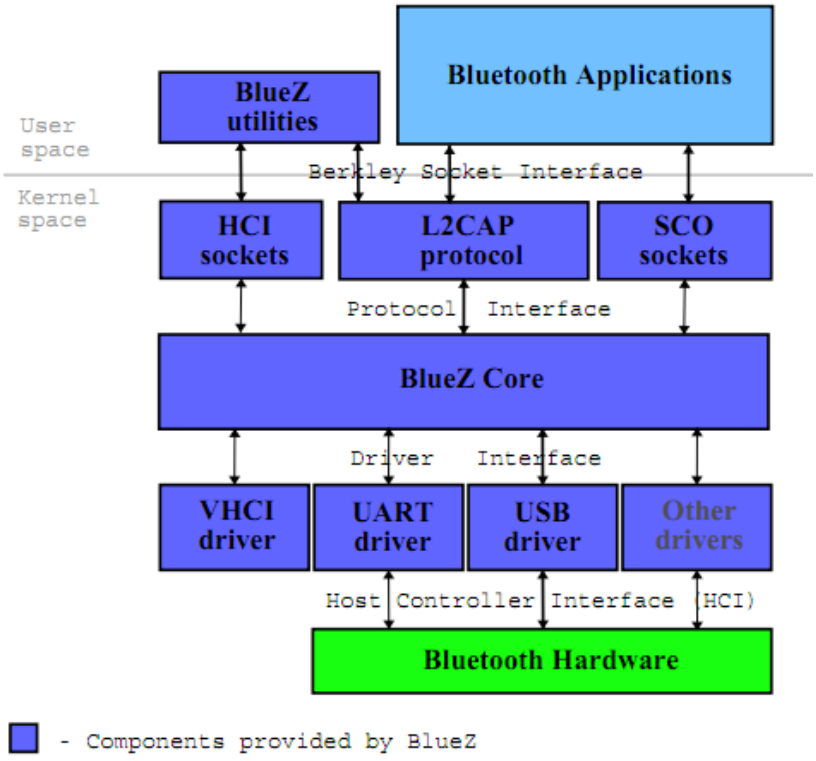
# How-to setup IPv6 on Debian/Ubuntu Presentation

- Most recent releases of the major linux distributions, such as Fedora, OpenSUSE, and Ubuntu, support IPv6 by default. The following instructions are fairly generic and should cover most linux distributions that support Ipv6.
- Otherwise ...

  How to setup IPv6

# Bluez library

- Provides API for bluetooth communication
- Standard unix socket like
- We will usually choose RFCOMM in situations where we would choose TCP, and L2CAP when we would choose UDP
  (L2CAP reliability is configurable)
- RFCOMM uses L2CAP to emulate a serial interface
- Whereas TCP supports up to 65535 open ports on a single machine, RFCOMM only allows for 30



# Source Code Examples

- Server Example
- Client Example
- Device scanning

# Google Protocol Buffers

- Provide a way of serializing structured data
- GPBs (why?)
  - To Deal with:
    - Endianness problems
    - Memory Layout differences
    - Slow XML
  - Avoid complex and cpu intensive encoding
  - Data stays structured anywhere on any system
  - Simplified coding / easier expansion of the protocol

# Google Protocol Buffers How to

- Define data structure in .proto file
- Compile it with protoc
- Include generated .h in your own code
- Use it!
- Examples