Let’s take a look at devices management model now.

The most obvious thing is that every device has to be referred to specific protocol or network. It’s quite hard to confuse usb-device and onewire-based one because of their differences in hardware implementation. There is no way to plug iButton tablet in usb socket without external adapter.

Therefore, every device is belonged to some network-specific container that is called “NetworkManager”. It controls all the devices of given protocol. For example, we may implement “UsbNetworkManager” instance to manage all the usb-devices.

The others interfaces on the diagram is involved to help and support this management: “ConversionExtension” stands for auxiliary operations of the network, “NetworkSearchPredicate” – for device-search purposes. “NetworkManagerHub” just integrates all the networks into one to simplify their management.