`app` Design

`app` shows devices on the network.

The major portion of the work the app does is deserializing messages from the network. To accomodate this, a layered approach is taken where base receivers are defined for the different protocols and converters and converting receivers can get the received data all the way to the correct message with high code reuse. Higher level receivers can share lower level receivers to improve resource utilization. Testing is also simplified because most of the testing can occur at the highest level of data. Each receiver only receives one kind of message. This allows models to modularly choose which receivers they need and further simplifies testing.

One con of the layered approach is that it's difficult to construct the actual instances used for the app. Factories are provided in the app package to facilitate the full construction.

The mock, network, and app packages aren't tested. The mock package isn't tested because the gains would be marginal. The network package would be difficult to test and can be reasonably verified just by running the app since all its receivers are immutable and don't have branches. The app package is difficult to test because it uses lots of real resources. The Android app itself isn't tested because it is difficult, even though it probably should be.