



The USB dongle provides the connection to the house router.

The internal wifi is a hotspot serving a private LAN. All the relays and thermometers are on this LAN and a Python server manages the system, accepting notifications from the thermometers and serving the RBR UI website to a phone on the same LAN. The server is addressed as <http://rbr.home>.

IP addresses are handed out by DHCP, and DNS translates the above address into the appropriate IP address. The “hostapd” daemon handles port forwarding, so the phone can talk to the Internet as well as to the server.

The advantage of this setup is that the controller can be located anywhere within wifi range of the router; all it needs is a 5W USB power supply.

Setup is mostly done before delivery and no physical access to the router is needed. All maintenance can be done from a laptop connected to the private LAN.

The setup does not currently include remote control over the Internet. This feature is planned for early implementation..