

1. Introduction

This application note gives an overview of the Router Development Kit. The purpose of this document is to familiarize you with the basic features of the Router Development Kit and guide you through the steps of building the firmware and evaluating the Ubicom Router Solution.

2. Kit Contents

The Router Development Kit consists of the Hardware Development Kit and the Software Development Kit (SDK). Together, they enable evaluation of the Ubicom Router Solution.

2.1. Hardware Development Kit

The Hardware Development Kit contains an Ubicom Development Board such as the IP8K Router Gateway Evaluation Board as shown in Figure 1 and the Ubicom Programming Dongle as shown in Figure 2. **Note the LAN and WAN ports on the board in Figure 1 and the connector used for the Wi-Fi radio in Figure 2.**

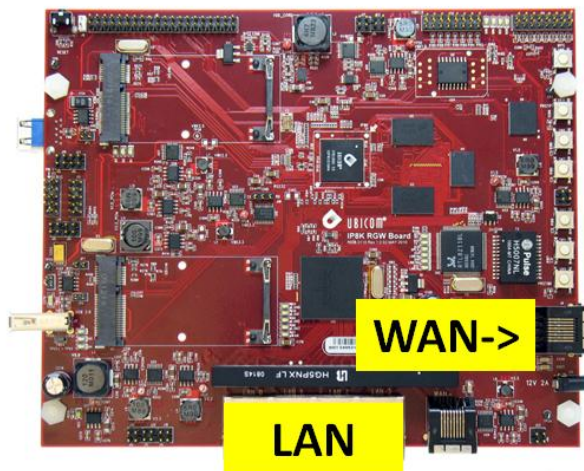


Figure 1. Router Gateway Evaluation Board

The UbiCom development board is also referred to as “Target” in the document whenever used with the UbiCom Programming Dongle.

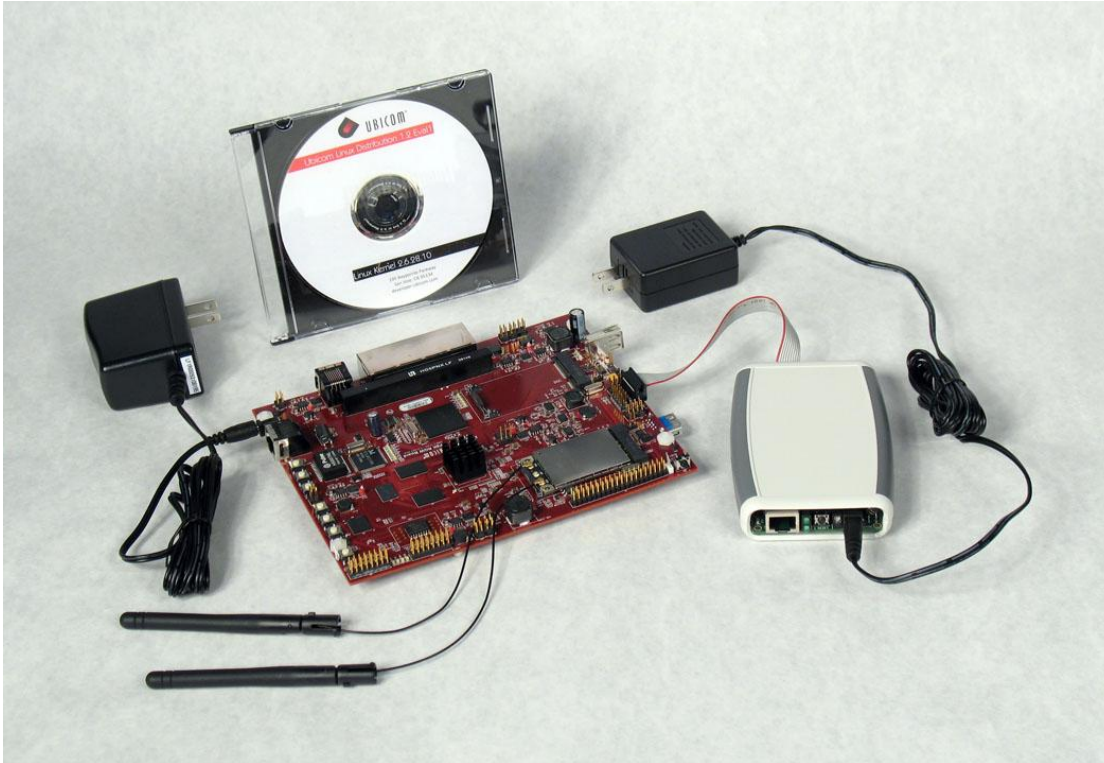


Figure 2. UbiCom Programming Dongle Connected to Target

2.2. Software Development Kit

The Software Development Kit (SDK) contains complete source code, tools, tool-chain, Linux kernel, and documentation to enable rapid development and evaluation of router products such as Wireless Router, Access Point, and VPN router.

The SDK includes documentation in the **Documentation** directory. To unzip the distribution do the following:

```
bunzip2 ubicom-linux-dist-2.0.tar.bz2
```

```
tar -xvf ubicom-linux-dist-2.0.tar
```

Please note that the SDK documentation and other help such as Wiki and forums can be found at <http://developer.ubicom.com>.

3. Web UI

The web UI of the firmware on the development board is available at <http://192.168.0.1>. By default, DHCP server is enabled on the LAN interface of the development board so LAN computers can get an IP address through DHCP from the router. The username and password for OpenWrt is root/root.

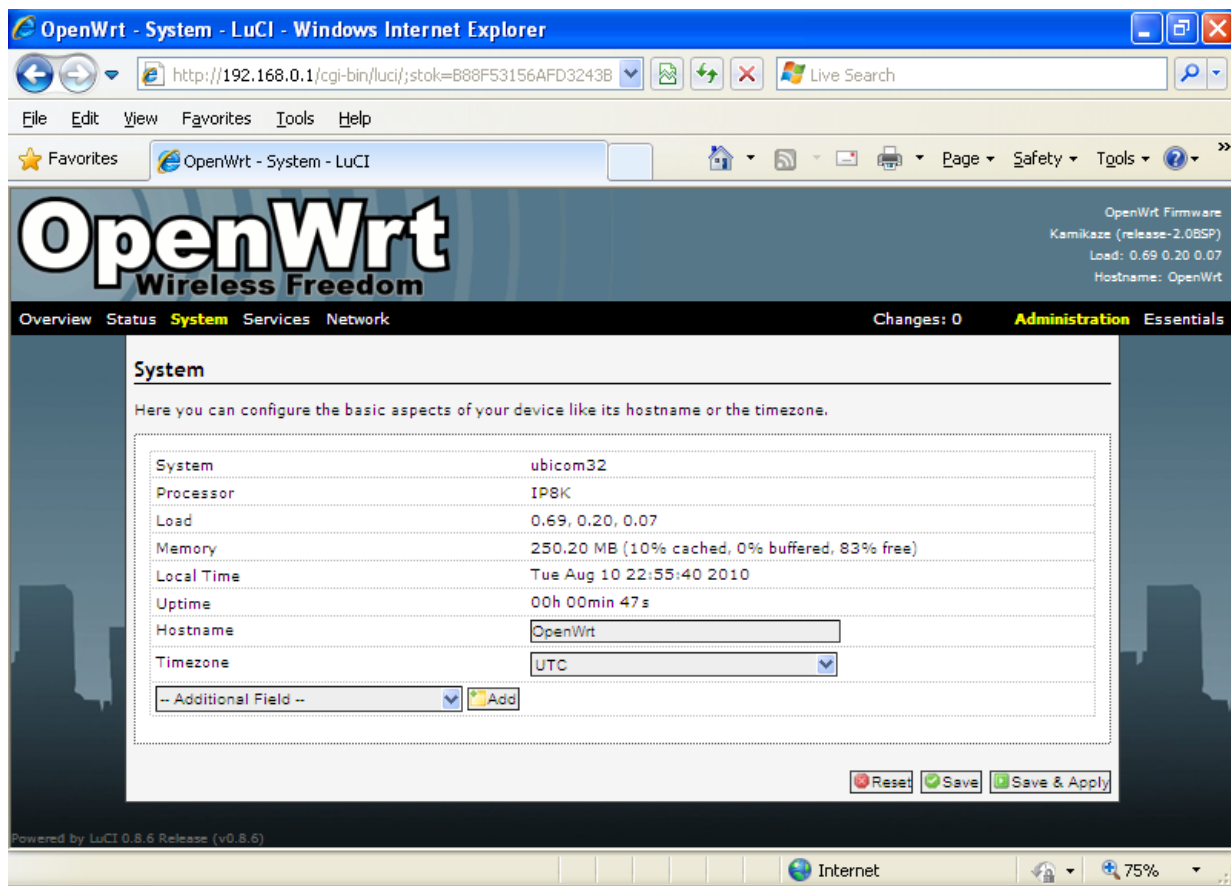


Figure 3. OpenWrt Web UI on Ubicom Router Gateway Evaluation Board

4. More Information

Information about setting up the connections, programming the boards, building firmware, debugging code and developing applications is available in the Documentation folder shipped with the SDK.

The SDK documentation and other help such as Wiki and forums are also available at <http://developer.ubicom.com>.