Access Points for this Workshop

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For
AIT Wireless and Security Workshop
Ubiquiti

- Off the shelf atheros Mips based SOC
- Atheros Radio (802.11g in this case)
- WRT based Linux distribution
- Better integrated than running DD/Open-WRT
- Integrated antenna
- External antenna jack (sma) or non-integrated AP available.
- Cheap!
Ubiquiti PowerStation 2

- Big 18 degree 17dB gain panel antenna
- Or diversity N connectors
- Dual 10/100 ethernet
- Weather-tight
- TX power 26dBm
- Retails for $159
- Windload 185 Km/h
Ubiquiti NanoStation 2

- 10dB gain
- 60 degree beam width
- SMA jack for external Antenna
- $79
Ubiquiti Bullet

- 20dBm TX
- @11Mb/s -90dBm RX
- @54Mb/s -72dBm RX
- Integrates directly with antenna
- Single port POE
- 16MB ram, 4MB flash
- Comes in regular HP and 5ghz flavors
Ubiquiti Pico station

- 32MB of ram 8MB flash
- Same radio performance as a bullet
AirOS – Is Linux pure and simple

- Web interface
- CLI
Benifits

- Adjustable channel spectrum width!
  - 5 10 20 40Mhz
- Can run OpenWRT 8
- Adaptive polarization
- Power over ethernet injection
- Built-In antenna alignment applet
Limitations

- Ubiquiti AIROS not really setup for serious routing
- 16MB ram and 4MB of flash (on older models)
- Single radio design
- Power over ethernet-injection is non-standard
Alternative standalone AP

- OpenWRT running on Ubiquiti
- OpenWRT running on commodity AP
- Mikrotik RouterOS or OpenWRT running on routerboard 133 (dual radio is possible)
- *BSD or Linux on soekris or pcengines style embedded system.
- Another AP platform...
Bibliography

- Ubiquiti Networks - http://ubnt.com/
- OpenWRT - http://openwrt.org/
- Routerboard - http://www.routerboard.com/
- Soekris - http://www.routerboard.com/