

Aftek offers an end-to-end solution for client requirements in the networking domain for PDA, wireless phones, access points and media receivers. We work through all layers right up to testing, to support the networking and connectivity needs of our clients

Hardware

- ◆ Complete board design for WiFi solution. It includes schematic development, layout development, board bring-up and testing

Driver

- ◆ Driver design, development and porting services for a variety of general, real-time operating systems like Windows CE, Linux and more
- ◆ Driver development for wireless OEM modules connecting logical interfaces like SPI, SDIO and PCI

Application

- ◆ Application design and development for embedded device solutions like access point, wireless camera, wireless phone, wireless television and many more
- ◆ Porting customized applications to various embedded device platforms
- ◆ Applications implementing security features WEP, 802.1x/WEP, WPA/TKIP, WPA2/AES and IPSec

Testing

- ◆ Testing and customization of vendor-specific chip-driver on the required embedded hardware system. This type of testing is used to validate it for the host-processing platform, operating system and embedded applications
- ◆ Detailed testing and verification of device solutions

Aftek's Networking Expertise

Aftek has provided end-to-end networking solution to clients including:

- ◆ Network camera (WiFi and Ethernet based)
- ◆ Digital home solution
- ◆ VoIP gateway
- ◆ WiFi to GSM, GPRS and PSTN gateway

The entire development of this solution includes hardware development, BSP (Board Support Package) development, application development, integration and testing.

We have developed networking solution based on following platforms:

- ◆ CPU: Intel XScale (IXP 425, PXA 270, PXA255), ARM 9, ARM 11, Texas Instrument's OMAP 2430
- ◆ Operating systems: Windows CE (5.0, 6.0), Linux (2.4, 2.6)





Expertise in Wired technology with Focus on Ethernet

We provide firmware, middleware, customized device driver and protocol-stack development-services for a variety of communication technologies. Ethernet is a popular communication technology that has gained importance in embedded connectivity.

Chipsets and cards interfaced

- ◆ Ethernet MAC/PHY chipsets: Aftek has incorporated many Ethernet devices (MAC and PHY) into networking solutions including: KS8721, SMSC 9118, SMSC 9117 and RTL 8201
- ◆ Ethernet switches: RTL 8309 (unmanaged switch) and KS8995 (managed switch) bring-up and testing

Driver development

- ◆ Aftek has developed device drivers for the above chipsets

Application development

- ◆ Developed applications for different networking solutions including VOIP gateway, remote upgrade, remote monitoring, and more.

Protocols

- ◆ Worked on several protocols including SIP, UDP, RTP, RTCP, TCP/IP and more.

Expertise in Wireless Technology with focus on WiFi

We have incorporated WiFi technology in many of the projects ranging from integrating WiFi chipsets, developing complete solution to testing WiFi functionality.

Aftek has leveraged its WiFi experience in various embedded solutions like access point, wireless phone, camera, and wireless media receiver (WMR) using chipsets of wireless experts like Atheros, Philips, Marvell, Conexant, Azurewave and others.

Highlights

- ✓ WiFi access point implementation, integration and Assembly, porting and testing
- ✓ Interfaced multiple WiFi clients like wireless TV, WiFi camera and WiFi phone with WiFi access points
- ✓ Implemented WEP key, MAC filtering and access control list feature to limit WiFi clients
- ✓ Worked on the 802.11a/b/g protocol, Prism GT Javelin chipset 3886M and WiFi AP card
- ✓ Implementation and optimization of WiFi stack

Chipsets and cards interfaced

Expertise in various WiFi chipsets including Javelin 3886 chipset, BGW200, AWGH320, and Intersil Prism3.

Application development

Aftek has developed applications for different networking solutions including WiFi camera, VOIP gateway, remote upgrade and remote monitoring. We have also provided user interface to OS provided services like wireless zero Configuration (WZC).

WiFi driver development

Aftek has developed device drivers for SDIO, SPI, and PCI that are typically used to interface WiFi chipsets and cards.

We have worked on following chipsets and cards:

WiFi chipset

- ◆ Intersil Prism 3 compatible to 802.11b on PCMCIA interface
- ◆ Philips BGW200 compatible to 802.11b on SPI interface
- ◆ Atheros SOCs compatible to 802.11a/b/g

WiFi cards

- ◆ Corega, RoadLanner on PCMCIA interface
- ◆ AmbiCom on CF interface

Security features

We have implemented following security features for WiFi solutions:

- ◆ Security suites WEP, 802.1x/WEP, WPA/TKIP and WPA2/AES
- ◆ Security at network level like IPSec

Testing

We have experience in testing the functionality of WiFi access point. It has leveraged to bring up AP, multiple BSS support, rogue AP management, security testing and throughput measurement.

Aftek Limited

50/24 Pralhad Arcade, Bhakti Marg, Off. Law College Road, Erandwane, Pune, India - 411 004.
Tel. No.: +91 20 3024 0000 Fax. No.: +91 20 3024 0001
Email: servicesinfo@aftek.com
Website: www.aftek.com