UTM Solution for a Secure Network

OVERVIEW & BUSINESS NEEDS

The Client is a leading provider of Internet security solutions and network security appliances, designed to protect small and medium-sized enterprises (SMEs) that uses Internet for e-commerce and communications. The Client required an integrated security solution that provided robust protection to businesses. Additionally, the Client required a Unified Threat Management (UTM) solution that could perform multiple functions like network firewalling, network intrusion prevention, spam & spyware protection, content filtering, VPN, load balancing, data leak prevention and on-appliance reporting.

OUR APPROACH & SOLUTION

R Systems, being a preferred choice for the Client, developed the following modules for the Client's Firewall device:

- Fixed various Internet Key Exchange Protocol (IPSEC/IKE) issues and vulnerabilities. Also, added a support of AES Encryption
- Added support for various features like certificate Management, OpenVPN daemon, PPTP daemon, SSL VPN, DHCP server etc.
- Dynamic Routing
- Wireless Client and Wireless Router which worked with Atheros based chip set and madwifi driver Added Wireless Support with WEP, WPA and WPA2 capabilities
- Session Management for users
- Firewalls and modifications in Linux Kernel module NetFilter
- Flash/RAM based Modules and Application
- ARM target board (BSP) and cross compiler packages

CHALLENGES

- Capacity to extend and scale-up to meet growing customer requirements with a feature-rich intuitive user interface
- To extend solutions that aimed to deliver rock-solid reliability, performance, and security

TECHNOLOGIES USED

- C / C++
- PERL
- Windows
- Linux
- Protocols: TCP/UDP/IP, FTP/HTTP/SMTP, DHCP/PPPoE, IPSec/PPTP/ISAKMP