

# Switched Firewall Development

## Benefits

Calsoft helped the customer:

- Accelerate development of their product with skilled engineers
- Reduce time to market with proven processes and methodologies
- Reduce software errors because of proven history of product development, testing, and quality assurance.
- Achieve their overall objective at a lower cost and with guaranteed support from a proven technology vendor
- Increase customer satisfaction with high quality product built with robust product assurance processes

## The Client

The client is a recognized leader in delivering communications capabilities to customers worldwide. They have a portfolio of solutions spanning packet, optical, wireless and voice technologies.

## The Challenge

The client has a Switched Firewall that is ideally suited for medium sized enterprises. They want the provision to prevent or reduce Security attacks like DoS attacks and features such as security logging in the L2 and L3 layers. They also wanted to develop a filtering mechanism to perform deep packet inspection along with faster switching capabilities. All this had to be done whilst ensuring high performance levels of the Switched Firewall.

## The Solution

The Switched Firewall solution, is based on Switched Firewall Director (SFD) and Switched Firewall Accelerator (SFA). SFD is a Linux based appliance that is running Checkpoint NGX firewall with SecureXL technology. SFD is running on Linux 2.4.18 kernel, combined with red hat 7.3 user-mode software. SFA is basically a switch, which runs proprietary OS called WebOS.

Other key features of the Calsoft Labs solution are:

- Checkpoint's propriety filtering methodology with deep packet inspection
- Extensive security logging features and Linux packet filters helped in increasing the efficiency of the Switched Firewall
- Dedicated Crypto Cards for accelerating VPN sessions
- Modules to offload sessions, interfacing with Checkpoint's Firewall Acceleration interface
- L2 bridging, L3 routing, VLAN processing, Multicast broadcast processing.
- Management support via CLI, WEB-GUI and SNMP.

Calsoft Labs' solution also achieved powerful performance in the range of multi gigabits with separate packet inspection and packet forwarding functionality.

## Technology and Resources

- **OS:** Linux
- **Languages :** C, Assemble Language
- **Technologies:** Checkpoint's propriety filtering methodology. Linux packet filtering, interfacing with Checkpoint's Firewall Acceleration interface, Dedicated Crypto Cards
- **Team Size:** 15

If you wish to know more about Calsoft Labs and its offerings, please feel free to mail us at [info@calsoftlabs.com](mailto:info@calsoftlabs.com)

### **About Calsoft Labs**

Calsoft Labs provides specialized concept to market Product Engineering and embedded design and engineering services in select market segments – ISVs, New Media Companies, Networking and Datacom OEMs, computer hardware manufacturers, semiconductor companies and consumer electronics companies.

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