

FTP PROXY DEVELOPMENT

Client is developing a Unified Thread Management (UTM) internet security device. The device provides various protection features (including VPN) on the same box. In order to meet the target dates for product release, Client wants to outsource development of some features.

CHALLENGE

The UTM device implemented the application level firewall by use of proxies. As proxies work on application layer, they are better equipped to apply the policies of the firewalls. A new connection is passed to the application proxy if firewall module allows the connection and application level rules have been configured for it. Proxy then inspects the protocol messages and enforces the application level firewall rules. As the project required implementation of a number of application proxies, Client wanted to partner with Newgen for development, testing and integration of FTP proxy.

SOLUTION

Newgen developed a multi-threaded transparent FTP proxy for the Client. It integrated at designed integration points with the core firewall module on the UTM device. FTP Proxy also did necessary changes in the application packets is packets passed through it. It took care of active and passive mode transfers. Proxy also enforced protocol conformance for all proxied FTP sessions and logs all the FTP sessions.

FTP proxy was tested with in-house developed automation scripts and tools like wget, wput and netcat to test the performance and stability.

BENEFITS

- ☒ Multi-threaded proxy to apply FTP policies on concurrent FTP sessions through the firewall.
- ☒ Rules based on user, direction, commands, time of the day etc.
- ☒ Enforce protocol conformance for FTP sessions.

TECHNOLOGIES

- ☒ C, C++, Sockets, POSIX threads
- ☒ Proxying FTP server in active and passive modes

PROJECT TEAM

- ☒ 20 person months
- ☒ Duration - 6 months

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