# **Final Year Project Proposal**

**Deployment of Network Security in organization**



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# **Abstract**

We lives in a Global IT Village. Where we are using computer technology and applications on daily basis. The platform for this is Network. Which plays a vital role in Modern world i.e. medium for all these sort of communication. But as a drawback to these all development is also rising threats to our network. Which is a challenge to our privacy, security and smooth communication. To avoid such threats, risk and flaws we have “network security” as power weapon/tool. So we can’t ignore network security in any computer network organization. In the same way I am going to implement a scenario/topology for organizational infrastructure, using open source tools.

# **Introduction**

The explosion of the public Internet and e-commerce, private computers, and computer networks, if not adequately secured, are increasingly vulnerable to damaging attacks. Hackers, viruses, vindictive employees and even human error all represent clear and present dangers to networks. Loss of irreplaceable data is a very real threat for any business owner whose network connects to the outside world.

In such a modern IT world Network Security is compulsory for any professional organization. As we know all information/communication are digital. And any institute/organization will have IT infrastructure. All our important Data, applications and information will be processed by this infrastructure. Which is consist of Network tools and devices. There will be a lot of shared resources/services amongst users. Every organization first aim is to have a smooth and secure communication, which is totally based on Network security. The Term Network Security means; a set of policies and rules deployed by a network engineer/admin to monitor and restrict unauthorized access, misuse of resources and prevent violation of user’s activities which can damage organization network resources.

# **Main Aim of the Project**

To Deploy Network Security in organization using security appliance i.e. Pfsense Firewall.

## Project goal/Overall objective

* To prevent Unwanted traffic, unauthorized access, misuse of network/organization resources
* Secure platform for organization assets/resources and data
* To keep organization privacy safe
* Authenticate and authorize users access
* To run infrastructure as per management policies

# **Tools**

* Linux Based Platform (Pfsense) OS installed on Physical Machine
* Different packages i.e. squid and squidguard
* Layer 2 /Layer 3 switches or HuB
* Active Internet Line
* Users Workstations
* VMware Workstation Instead of PC hardware (in absence of Physical Machine)

# **Conclusion**

This project will be a good initiative in making the organizational network a secure infrastructure. With minimum resources and limited budget this will be an ideal security solution for any organization. The solution provided by pfsense is scalable because with passage of time further developments and improvements are going on in pfsense platform. Which will be a plus point for any organization using pfsense as a security solution.