

4.4 Firewall

In computing, a firewall is a network security system that controls the incoming and outgoing network traffic based on an applied rule set. A firewall establishes a barrier between a trusted, secure internal network and another network (e.g., the Internet) that is assumed not to be secure and trusted[9]. Many personal computer operating systems include software-based firewalls to protect against threats from the public Internet. Many routers that pass data between networks contain firewall components and, conversely, many firewalls can perform basic routing functions[10]

Types of firewall

1. Network layer or packet filtering
2. Application layer
3. Proxies
4. Network address translation

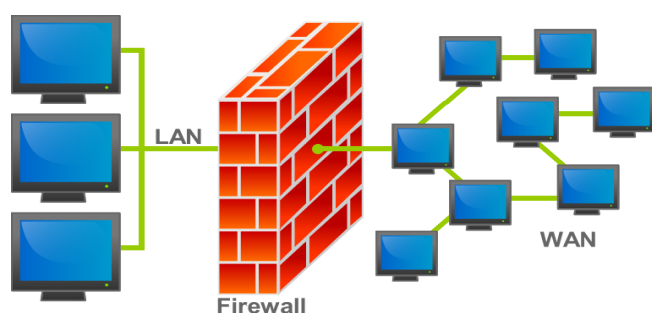


Figure 6: Diagram of Firewall

What Firewalls Do

Firewalls can protect your computer and your personal information from:

1. Hackers breaking into your system
2. Viruses and worms that spread across the Internet
3. Outgoing traffic from your computer created by a virus infection

To protect unauthorised access and malware we use Firewall. After using the IP tracing and honeybot we find some illegal IP to attack our server. Then we have use the firewall to prevent from them. To stopping these illegal activities we have provide more secure firewall such as proxy firewall. To provide the solution we have 8 basic steps to more secure the firewall.[11]

1. Enable Auto Updates for the Firewall.
2. Keeping setting consistent across network.
3. Tweaking the setting to your usage.
4. Add multiple layers to your pc and security system.
5. Use strong password.
6. A 128-bit encryption on your wireless network.
7. We use the proxy firewall
8. Change the setting as own specification

Sometimes we have blocked the IP which are repeated to attack my system. Then we provide some more secure option and establish advanced security. We establish advanced security firewall and create a new rules provide by the windows operating system like inbound and outbound rules. To create a Strong Firewall Security policy some specific points in our mind.

1. Using the firewall Rule Base.
2. Creating a Secure Firewall Rule Base
3. Defining Security Zones
4. Preventing IP Spoofing
5. Analyzing the rule base hit count.

5. Conclusion

In this paper, we tried to achieve a clear view of the DDoS prevent technique and the defense solutions that have been proposed. HoneyBOT is medium interaction open source software that provides those IP which have attack to my system .And after attacking we try to known the behaviour of those IP and tracking them to find the location. To prevent our system we have use the some specific technique and advanced technology of windows firewall system.

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