

# Introduction to Firewall (Part-1)



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# Acknowledgment

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# Introduction to Firewall

What is Firewall?

Firewall is a system or device which is used to control incoming and outgoing connections

For a particular application or device.

It is a policy to control the necessary and appropriate network to access the rest of the world.



# Introduction to Firewall

A basic Firewall for Linux can look like this:



Gufw



# Introduction to Firewall

A Firewall for Windows can look like this:



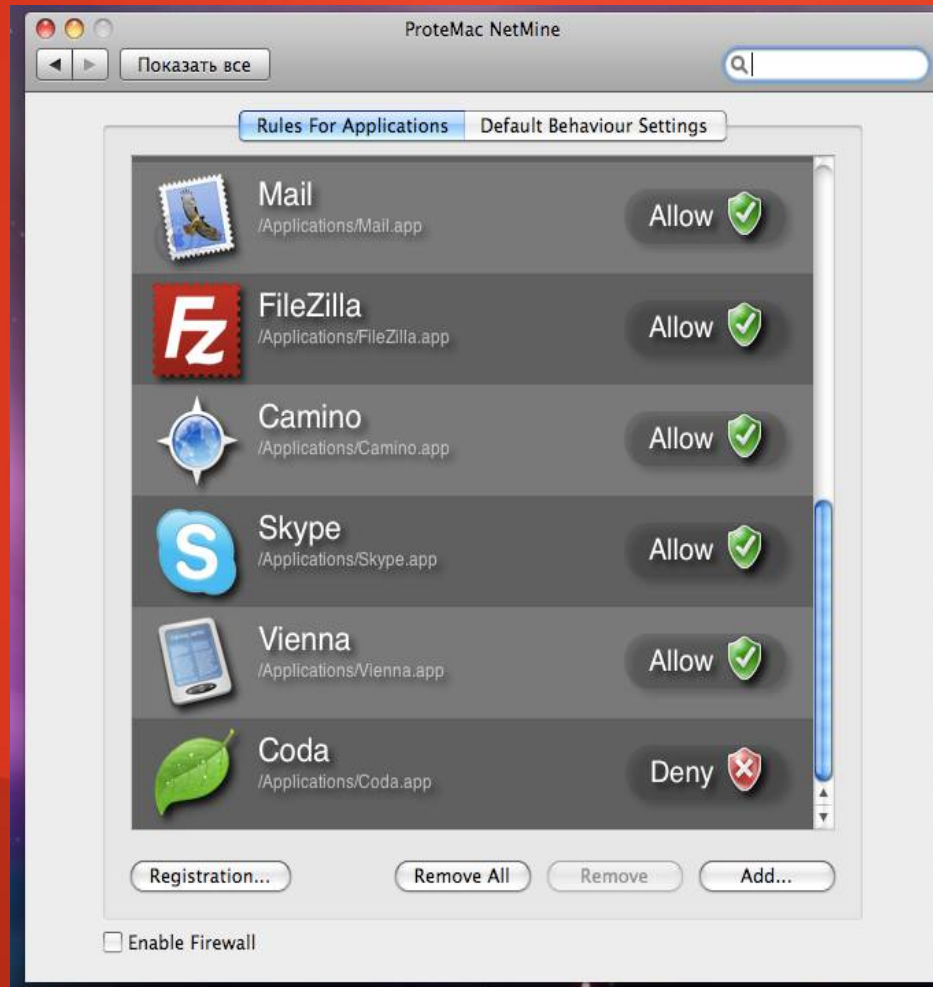
Ashampoo





# Introduction to Firewall

A Firewall for Mac can look like this:



ProteMac  
NetMine 2.0



# Introduction to Firewall

They are commonly located between a private network and internet  
It protects network from hackers and intruders.





# Benefits Of Firewall

Benefits:

- Enforce Security Policies
- Increase Network Flexibility
- Limiting the exposure from harmful elements.
- Logging Activity effectively

By this a FIREWALL can be a primary security component.



# Burning wall's History



History

It was 1987 in AT & T Bell Lab when **Bill Cheswick & Steven M. Bellovin** created “Electronic jail” to observe an attack which was the first Network Firewall every created

And **David Pensak** claims to built the first commercially firewall.



# First generation Firewall

Packet filters:

Digital Equipment Corporation's Engg. In 1988 developed the 1<sup>st</sup> Filter System known as Packet Filter Firewalls and was the 1<sup>st</sup> paper published on firewall technology.

- Between Computer on Internet
- If packet matches they are dicarded/rejected
- No attention if its steam of traffic.
- Works on 3<sup>rd</sup> layer of OSI layer



# Second generation Firewall

Stateful filters:

Dave Presetto, Janardan Sharma, and Kshitij Nigam were 1<sup>st</sup> to create 2<sup>nd</sup> Generation Firewall known as state packet inspection or Circuit level gateway.

- Upgraded version of packet filter
- Reveals packets info
- They contain connection state as one of their test criteria



# Third generation Firewall

Application layer:

Application Firewall known as Toolkit (FWTK) in June 1994 was developed by Marcus Ranum, Wei Xu, and Peter Churchyard. This was first transparent Application firewall released as commercial product.

- Kernel enhancement of IP filter and socket transparent
- It can "understand" certain applications and protocols
- Stop and detects intrusions.



# Any Queries??





# Catch me here:

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# End Of Part-1

