



RV College of Engineering

Autonomous
Institution
Affiliated to
VTU, Belagavi

Approved by AICTE
New Delhi, Accredited
by NAAC, Bengaluru
And NBA, New Delhi

Master Of Computer Applications (MCA)

SYNOPSIS

TITLE: Firewall

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DESCRIPTION:

Firewall: Firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules. Its primary purpose is to prevent unauthorized access to or from a private network. We use FirewallD, a Linux network tool to manage our device's network configuration.

Firewalld: Firewalld is a dynamic firewall manager, that acts as a front-end to the iptables infrastructure that provides a more user-friendly interface and simplifies firewall management. Firewalld uses iptables to configure netfilter rules to block or allow network traffic. The iptables rules are still there, but the user interacts with firewalld instead of iptables directly. iptables is built on top of the Netfilter framework in the Linux kernel. Firewalld also uses the Netfilter framework under the hood, but it abstracts the complexity of iptables and provides a simplified interface for managing firewall rules.

Implementation: Firewalld uses a concept of zones to define the level of trust that a network has. Zones are predefined sets of rules that allow traffic to flow in or out of the network. Firewalld can be configured using a variety of commands, including commands related to services, rich rules, zones, etc.

Conclusion: In conclusion, firewalls play a critical role in network security by protecting networks and devices from unauthorized access and cyber threats. Firewalld is a powerful and flexible firewall manager that provides a range of options for configuring and managing firewall rules and policies.