Methods for Restricting Unwanted Access on the Networks Using Firewall

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Abstract : This paper examines firewall mechanisms routinely implemented for network security in depth. A firewall can't protect you against all the hazards of unauthorized networks. Consequently, many kinds of infrastructure are employed to establish a secure network. Firewall strategies have already been the subject of significant analysis. This study's primary purpose is to avoid unnecessary connections by combining the capability of the firewall with the use of additional firewall mechanisms, which include packet filtering and NAT, VPNs, and backdoor solutions. There are insufficient studies on firewall potential and combined approaches, but there aren't many. The research team's goal is to build a safe network by integrating firewall strength and firewall methods. The study's findings indicate that the recommended concept can form a reliable network. This study examines the characteristics of network security and the primary danger, synthesizes existing domestic and foreign firewall technologies, and discusses the theories, benefits, and disadvantages of different firewalls. Through synthesis and comparison of various techniques, as well as an in-depth examination of the primary factors that affect firewall effectiveness, this study investigated firewall technology's current application in computer network security, then introduced a new technique named "tight coupling firewall." Eventually, the article discusses the current state of firewall technology as well as the direction in which it is developing.

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1

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