

GOVPN AS A TUNNELING METHOD

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Today, with the usage of a variety of mobile devices in all businesses, as well as widespread broadband in the home, most corporate networks must provide remote access as a basic necessity [1]. VPN technologies are an integral part of network configuration [2,3].

The purpose of the report is to review the GoVPN daemon as a tunneling method.

GoVPN is a lightweight and easy-to-configure VPN daemon designed to create encrypted and authenticated communication channels over UDP or TCP. Among the objectives of the project are secure code that is easy to read and analyze, security, and DPI/censorship tolerance. In fact, GoVPN simply tunnels Ethernet frames nothing more or less. There are no special tools for IP management, but the user can write his own scripts for that. It uses TAP network interfaces, you can specify its name in the settings. The MTU is configured relative to each client separately. It is written in Go and distributed under the GPLv3 license. PAKE DH A-EKE: Diffie Hellman Augmented Encrypted Key Exchange is a passphrase-based authentication protocol for key negotiation. The client enters a passphrase to connect, and a verifier is stored on the server side that cannot be used on the client side, so even if the server is hacked, the hacker cannot impersonate the client.

Three modes of operation are implemented: normal (applied by default), when just encrypted packets go to the network; noise (noise), when packets are augmented with noise to a constant length; CPR (constant rate) - in addition to noise packets are sent strictly at a certain interval, if there is no useful information, a noise packet is sent.

References

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