

# USAGE OF HYBRID VPN TECHNOLOGIES TO ENSURE PERSONAL INFORMATION SECURITY

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Open wireless networks pose a serious threat to users since attackers on the same networks can use different methods to track web traffic and even steal users' accounts on sites that do not use the HTTPS security protocol [1]. In addition, some Wi-Fi network operators deliberately inject ads into web traffic, which can lead to unwanted tracking.

**The purpose of the report is** to analyze using of hybrid VPN technologies to ensure personal information security.

There are several types of VPN: the most common types are PPTP VPN, Site-to-Site VPN, L2TP VPN, IPsec, SSL, MPLS VPN, and Hybrid VPN [2, 3].

Speaking of a hybrid VPN, it combines MPLS and IPsec. Both types are used separately on different nodes. However, sometimes a node allows simultaneous connection of both types of protocols. This is done to improve the reliability of MPLS using IPsec.

With IPsec's help, the data is encrypted and forms a VPN tunnel. MPLS is used on a channel for transmitting information using transmitting equipment. To connect these two types of VPN, a gateway is installed, where IPsec is eliminated and the connection to MPLS is made while maintaining data security.

Hybrid VPNs are used by companies as MPLS is very often not suitable for their sites. MPLS offers many advantages over shared connectivity, but the cost is high. With a hybrid network, users can connect to a central site through a remote location. Thus, hybrid VPNs are one of the most expensive types, but very flexible in configuration.

## References

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