

Quality of Service

for NCP Secure VPN Clients



What is QoS?

Quality of Service (QoS) is the quality of a communications service from the user's point of view. The quality of service is measured by how the service meets the appropriate requirements.

In networks, all data packets are usually treated equally, regardless of which applications. As long as the network only transmits data packets from applications that require low bandwidth, a fully utilized bandwidth can only be noticed by short delays during data transmission.

In use of real-time applications, which require a higher bandwidth, like Voice Over IP Telephony or video streaming (skype, YouTube, ...), delays and loss of data packages have a negative effect. In VoIP telephony this occurs by terminating, delayed calls

or by a low voice quality, in video streaming through unsynchronized transmission of image and sound.



Responsible for this is the standard network protocol TCP / IP, which does not distinguish from which application which data was sent and transmits the data the same way. So when the bandwidth is utilized, all the data packets in the transmission are split evenly and the quality of the real-time applications decreases.

With the help of the "Quality of Service" (QoS) certain data packets can now be prioritized. It is important that the connected router, via which the IP telephony is transmitted, knows QoS. By prioritizing the data stream, real-time applications can be favored for bandwidth allocation, providing the bandwidth needed for a high-quality application with no crash or distortion. Other bandwidth-intensive applications must then wait until enough bandwidth is released.

QoS works as a "bandwidth management". It does not offer extra bandwidth, it prioritizes selected data transmissions.

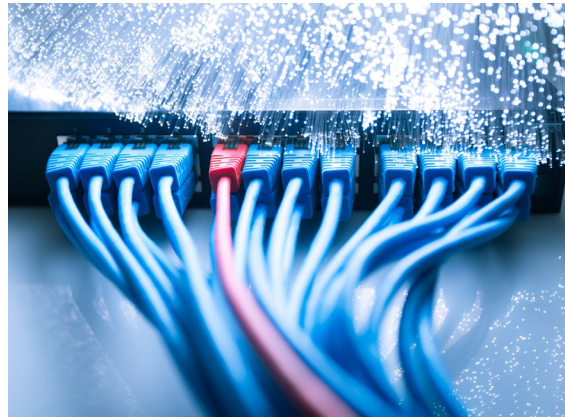
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NCP Clients in VPN

This function is added to the NCP VPN Clients. With this function it is possible to determine a minimum bandwidth of the data traffic for a selected application or service. If there is a high network utilization VoIP packets can still be sent with a good sound quality.



VPN and Connection Direction

The prioritization of the packets takes place only for the traffic of the VPN connection, not over other LAN adapters. At the moment, QoS can only be used to send data from the NCP VPN client to VPN gateways. The receiving of data from the VPN gateway is not regulated by QoS.

About NCP

Since it was founded in 1986, NCP has been developing universally applicable software components enabling end devices to connect to the corporate network easily and securely via public networks with a fully automated central remote access VPN management. NCP's Secure Communication Products are made for many different scenarios e.g. mobility, M2M, IoT and classic VPN scenarios.