

White Paper: Netviewer Server Differentiation

This White Paper deals with the functionality of the Netviewer server product family and the possible target groups for on premise Netviewer server solutions.

Target group for Netviewer Server products

Target group for the Netviewer Server products are companies with

- high security requirements
- special integration requirements
- large amounts of Netviewer licenses
- companies that want to have an inhouse Netviewer solution for internal communication.

To address these needs and to cope with the special requirements to the Netviewer software solution Netviewer provides two different server products:

- Netviewer Standard Server
- Netviewer Enterprise Server

Netviewer Standard Server

The Netviewer Standard Server product can be installed on a dedicated server inside the company IT infrastructure. It can handle internal sessions as well as sessions over the internet. Companies hosting this solution often have high security requirements and want to have all software components of the communication channel under direct control.

Hosting an own server saves internet bandwidth, gains performance and minimizes security risks as all traffic generated from inside the corporate network does not leave the company's IT infrastructure.

The Standard Server is a very small system which is easy to install and to maintain on a Windows based server. It can handle all Netviewer client products (Support, Meet, Admin) up to a certain amount of concurrent sessions or hosts.

Hard- and Software Requirements

Operating System: Windows 2000, XP, 2000 Server, 2003 Server

Processor: Intel Pentium 4 class with at least 2GHz

Memory: >1GB

Network: 100Mbit/s

Harddisk: >2GB free free space

Ports: 80 HTTP (obligatory), 2000 TCP (optional, recommended), 443 TCP (optional, recommended)

Netviewer Enterprise Server

In addition to the advantages of a Netviewer Standard Server the Netviewer Enterprise Server product can handle fail-safe scenarios, load balancing, configuration possibilities of the Netviewer clients and many integration options.

A Netviewer Enterprise Server is a prerequisite for individual Server and Netviewer Client customizations.

The company running an Enterprise Server has a lot of possibilities to configure the Netviewer software according to their individual needs. More than 300 settings can be changed regarding the client functionality and connection. The Enterprise Server uses a Microsoft SQL database to store the configuration data of the Netviewer client software. This configuration can be changed during the operation of the server with the included configuration software (see figure 1) without, however, affecting the running server- or client software.

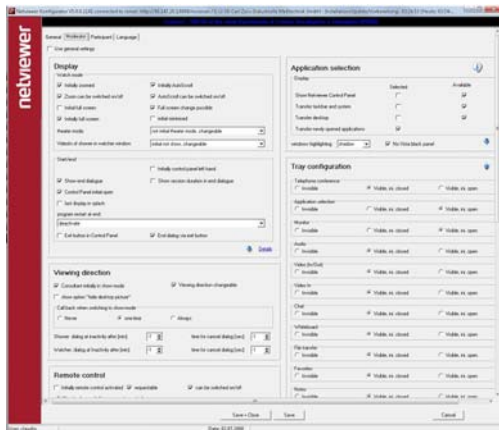


figure 1: Netviewer configurator

The SQL database also stores the logging information generated during the Netviewer sessions of the Netviewer clients. This information can be used for statistical or billing purposes. Following information is for example stored: session duration, the name of the consultant who initiated a session or quality monitoring data.

The Netviewer Enterprise Server solution consists of three major components:

Communication Server (ComS): The ComS is a server role of the Netviewer Enterprise Server software. It is responsible for all data exchange during a Netviewer session.

Connection Server (ConS): The ConS also is a server role of the Netviewer Enterprise Server software. It is responsible for logging, user authentication, fail safe of communication servers and load balancing.

Distributor: The Distributor is a specialized database synchronization program which synchronizes all Netviewer Enterprise Server databases in an Enterprise Server system.

The Enterprise Server solution is highly scalable to fit the needs of large company environments. Several ConS and ComS can be connected to one large Netviewer server environment. This system can handle the following three scenarios:

Fail safe: A Netviewer Enterprise Server system can handle fail-safe scenarios. If the operation of parts of the system is disturbed, others components of the

system can take over their role provided that this server role (e.g. ComS or ConS) is redundant inside the Enterprise Server system.

Load balancing: The ConS can do an automatic load balancing of the ComS inside the Enterprise Server system. New Netviewer sessions are distributed to the ComS that has the least session load. The load balancing requires more than one ComS component in the Netviewer Server system.

Session cascading: The Enterprise Server system can cascade large Meet sessions on more than one ComS. This enables the system to handle Meet sessions with up to 1000 participants in one session. The session cascading requires the so called "event mode" of a Meet session. The event mode reduces the functionality to a one-way chat, video and voIP connections from the moderator to the participants.

The Netviewer Enterprise Server comes along with an administration center. It consists of an administration server and a monitor client program and gives an overview on all connected Netviewer Enterprise Server components, and several of their performance data (see figure 2). It is used for monitoring and administrative purposes.

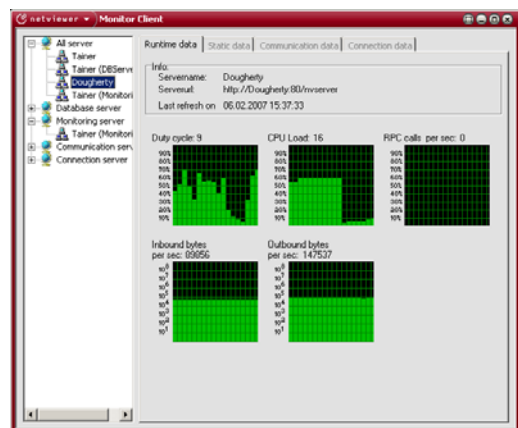


Figure 2: Netviewer Monitor Client

Using the Enterprise Server system customers also have the possibility to avail themselves of the Microsoft Outlook and Microsoft Office plugins that are included in Netviewer Meet Version 5. These plugins enable users who have installed Netviewer Meet to plan web collaboration meetings directly in Microsoft

Outlook without the need to startup the Netviewer client during the planning phase.

To gain more compatibility with secured IT infrastructures where outgoing TCP connections are not allowed and HTTP connections may be slow, the Enterprise Server offers the possibility to additionally use the port 443 with the SSL protocol. To be able to use this protocol the Enterprise Server needs a valid SSL certificate.

The Enterprise Server also offers the possibility of server sided recording of Meet sessions (NVL-files). This can be used for example to store session recordings for revision purposes.

Hard- and Software Requirements

Operating System: Windows 2000, XP, 2000 Server or 2003 Server

Database: Microsoft SQL-Server, SQL-Server 2000 Desktop Engine Version, SQL-Server 2005 Express or SQL-Server 2005

Processor: Intel Pentium 4 class with at least 3GHz

Memory: >2GB

Network: 100Mbit/s

Harddisk: >3GB free free space

Ports: 80 HTTP (obligatory), 2000 TCP (optional, recommended), 443 TCP (optional, recommended), 443 SSL (optional, recommended)

Optional Interfaces

The Netviewer Enterprise Server solution has several optional interfaces which can be used to integrate the Netviewer software solution into the existing IT infrastructure.

Token interface:

The token interface connects the Netviewer Enterprise server to a third party application. For example a portal server. This application can authenticate and authorize users to have Netviewer sessions, and book sessions on the Netviewer server. The Netviewer server returns a token (an alphanumeric string) with which the client can be started. The third party application provides the user with the Netviewer executable together with the token number. Therefore an existing third party user authentication can be leveraged. An additional authentication at the Netviewer server is not

needed anymore. The token interface is typically used when the Netviewer clients have to be integrated into an inter- or intranet portal, a ticket system or other client-server based applications.

For details see also the Netviewer White Paper "*Integration Interfaces*".

Active Directory interface:

The Netviewer Active Directory interface uses the group memberships of Active Directory users to authenticate them to use the Netviewer software. The Netviewer Enterprise server does not need any connection to the Active Directory at any time. The interface uses the Netviewer client software to gather the needed information.

To authenticate the user, one or more Active Directory groups with their GUIDs are imported into the Netviewer Server database and are connected to already created Netviewer profiles. These groups have the possibility then to use Netviewer.

The Active Directory authentication enables leveraging the user management of the existing corporate Active Directory. The company does not need to have a separate user management within the Netviewer solution, and the user has a single sign on to the Netviewer clients which also increases the acceptance to use the Netviewer tools in daily business.

For details see also the Netviewer White Paper "*Active Directory*".

Feature Overview

Characteristics	Standard Server	Enterprise Server
Product Spectrum	One individual Standard Server for each product.	All Netviewer products
Internet / Intranet use	Yes / Yes	Yes / Yes
Administrable configuration	No	Yes
Expandability	Upgrade to Enterprise Server	Fully scalable
Data storage	CSV file	SQL database
Active Directory connection	No	Yes
Token Interface	No	Yes
Outlook Plugin	No	Yes
User administration	Yes	Yes
Server sided recording	No	Yes
Administration Center	No	Yes

Summary

The Netviewer server products are targeted to companies that have high demands on security, integrability or local session handling.

The Netviewer Standard server provides the possibility to host the Netviewer solution inside a corporate Network and has the advantage of an easy administration and a very fast setup.

The Enterprise Server Solution addresses large corporate environments with high demands on scaling and redundancy, or companies that want to integrate the Netviewer solution into their existing IT environment.

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