



TECHNICAL DATA SHEET

Online-Meetings and Remote Support. *Easy & secure.*


fastviewer

Minimum Requirements to Operate the Moderator and Client Modules

<p>Web Client HTML5</p>	<p>Internet Explorer Version 8 and above Mozilla Firefox Google Chrome Version 24 Safari (only on OS X, for iOS there is a native APP available) Opera</p>
<p>MAC OS Client</p>	<p>Apple OSX Yosemite 10.10 Apple OSX El Capitan 10.11 Apple macOS Sierra 10.12 Apple macOS High Sierra 10.13 Apple macOS Mojave 10.14</p>
<p>Windows Client</p>	<p>Windows Vista Windows 7 Windows 8 Windows 8.1 Windows 10 Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019</p> <p>Support is guaranteed Windows 7 Windows 8 Windows 8.1 Windows 10 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019</p>
<p>Mobile App iOS/Android</p>	<p>iOS 8 Android 4.1</p>

Bandwidth Requirements of FastViewer

A FastViewer session with desktop sharing requires about 15 kbit/s per user. The video function additionally requires an average of 100 - 300 kbit/s per user (depending on the setting for the video quality in the user interface).

The Audio Chat feature of FastViewer requires an average of 20 kbit/s.

The above information may vary, depending on the constellation and the used functions.

Requirements of the Video Function

Port 5000/HTTPS 443 (chunked): One of this ports must be open if you want to use the video function (transmission/reception of the webcam image).

Maximum number of simultaneously transmitted videos:	Up to 8 video participants per session
Resolution of the transmitted video:	320x240 (300 Kbps)

Supported Languages

Due to the Unicode support, all languages are possible. The moderator and client modules using automatic speech recognition. This depends on the language of the operating system.

Already available languages:

DE, EN, IT, FR, SP, PL, PT, NL, RU, TR, JP, GR, CN, RO, BR, CZ, SE, SK, KA

Minimum Prerequisites for the Use of a FastViewer Server Solution

Minimum requirements for installing the FastViewer WebConference server for up to 100 concurrent users:

- **Hardware requirements**

- Xeon processor operating at a clock speed of at least 2.5 GHz
- At least 4 GB of RAM (8 GB RAM is recommended)
- At least 30 GB of free hard disk space
- Gbit network card

- **Operating systems**

- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

Support is guaranteed from

- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

- **Databases**

- Microsoft SQL Server 2008 including Express Versions

- **Supported virtualization platforms**

- Microsoft Hyper-V
- VMware

- **Bandwidth requirements**

This requirement is heavily dependent on the functions used. The average requirements per participant are as follows:

Desktop sharing: 15 kbit/s

Video transmission: depending on the settings of image quality, between 100 and 300 kbit/s per transmitted video.

VoIP: 20 kbit/s.

- **IP/DNS configurations**

The server requires an IP address, or alternatively a DNS name pointing to the appropriate IP address.

NOTE: When configuring the WebConference server, the fully qualified domain name (FQDN) should preferably always be used instead of the IP address. For example, if the IP address is used, and a change in the IP address occurs, the existing conferences are not updated to access the new IP address, so these web conferences can no longer be started.

- **Open ports**

The following ports must be opened in a firewall to ensure that the WebConference server can be accessed over the LAN and Internet:

- HTTP port: 80
- HTTPS port: 443
- TCP port: 5000

NOTE: If the moderator- and client-modules are in the same network, the connection can be established directly via the TCP port 5005. This function must be activated in the FastViewer customer portal first.

- **Number of parallel users per server**

Please note that an accurate statement about the maximum number of concurrent users cannot be made because this number is highly dependent on the use of the functions described above.

The maximum number of users per server is calculated as follows:

$$\frac{\text{Network connection of server}}{\text{Total bandwidth of functions}}$$

Example:

Server connection: 100 mbit/s

An average of 5 videos are transmitted via the server, requiring 200 kbit/s each

Desktop sharing is active with 15 kbit/s

$$\frac{100 \text{ mbit/s} * 1024}{5 * 200 \text{ kbit/s} + 15 \text{ kbit/s}} = \frac{102400 \text{ kbit/s}}{1015 \text{ kbit/s}} = \mathbf{100 \text{ participants}}$$

NOTE: The specified desktop sharing value is a calculated average based on practical experience. When scrolling through Excel lists, for example, or when frequent screen switching occurs, this value increases accordingly.

A further aspect that must be noted is the connection of FastViewer Webclient server. When participating in a session via the WebClient, the data is provided through the IIS (Internet Information Server) from Microsoft.

We generally recommend that this service be run on a separate server so that the performance of the FastViewer server is not adversely affected. When videos are transmitted via the IIS, they must be transcoded by the IIS. This operation requires the appropriate resources and - depending on the desired use - the IIS server should be cascaded.

Minimum requirements for installing the FastViewer WebClient server:

- **Operating systems**

- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

Support is guaranteed from

- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

- **.NET Framework**

- .NET Framework 3.5 SP1 is installed on the system.

- **Server roles**

- IIS (Internet Information Services) incl. ASP.net is installed on the system.

- **Supported Web Browsers**

Any web browser with JavaScript support, e.g.,

- Internet Explorer Version 8 and above
- Mozilla Firefox
- Google Chrome Version 24
- Safari (only on OS X, for iOS there is a native APP available)
- Opera

Overview of Features for Clients

Features	Windows		MAC OS		Web Client	Mobile Apps	
	Master	Client	Master	Client	HTML/Flash	iOS/Android	
Transmit own desktop	✓	✓	✓	✓	-	✓	Collaboration
Transmit multiple screens	✓	✓	✓	✓	-	-	
Participants list	✓	✓	✓	✓	✓	✓	
View whiteboard	✓	✓	-	-	-	-	
Edit whiteboard	✓	✓	-	-	-	-	
Chat	✓	✓	✓	✓	✓	✓	
Receive videos of participants	✓	✓	✓	✓	HTML5 or Flash*	✓	
Transmit own video	✓	✓	✓	✓	✓	✓	
Transmit audio (VoIP)	✓	✓	✓	✓	-	✓	
Display call numbers for phone conference	✓	✓	✓	✓	✓	-	
Use arrow pointer	✓	✓	✓	✓	✓	✓	
Application selection	✓	✓	✓	✓	-	-	Security
Disconnect participants	✓	-	✓	-	-	✓	
Session recording	✓	✓	-	-	-	-	
View session information	✓	✓	✓	✓	✓	-	
View session log	✓	✓	✓	✓	-	-	
Use Active Directory user lock	✓	✓	-	-	-	-	
Use black list / white list	✓	✓	-	-	-	-	
Panic button to exit the remote control	✓	✓	✓	✓	-	-	
256-bit AES encryption	✓	✓	✓	✓	✓	✓	

Features	Windows		MAC OS		Web Client	Mobile Apps	
	Master	Client	Master	Client	HTML/Flash	iOS/Android	
Receive / grant moderator rights	✓	✓	✓	✓	-	✓	Moderation and control
Grant remote control rights	✓	-	✓	-	-	✓	
Perform remote control	✓	✓	✓	✓	✓	✓	
Access to Remote Management Console	✓	✓	-	-	-	-	
File upload / download	✓	✓	✓	✓	-	-	
File transfer	✓	✓	-	-	-	-	
Session scheduler	✓	✓	✓	✓	-	✓	
Start User Manager	✓	✓	-	-	-	-	
Disconnect connection without participants	✓	✓	✓	✓	-	-	
Use direct connection	✓	✓	-	-	-	-	
Start FastViewer session	✓	✓	✓	✓	-	✓	
Gesture control for mobile input	-	-	-	-	-	✓	
Direct session start from invitation	✓	✓	✓	✓	✓	✓	
Show dynamic (HTML) sidebar	✓	✓	-	-	-	-	Customization
Keyboard: transmit scancodes	✓	✓	-	-	-	-	
Use start parameters	✓	✓	✓	✓	-	-	
Start with elevated privileges (Windows UAC)	✓	✓	-	-	-	-	
Use Opus codec for audio transmission	✓	✓	✓	✓	-	✓	

*Default = HTML5, Fallback = Flash