



FastViewer Server Solution Installation & Configuration

Manual

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Availability and technical specifications are subject to change without notice.

Contents

History of Changes	1
1 About this Manual	1
1.1 Legal Notices	1
1.2 Technical Assistance	1
1.3 Who should read this Manual?	1
1.4 Manual Contents	2
1.5 Representation Conventions	2
1.5.1 Notations and Formats	2
1.5.2 Hints	3
1.5.3 Figures	3
1.6 Acronyms	4
1.7 System Requirements for the FastViewer Clients	4
1.7.1 System Requirements for Windows Clients	4
1.7.2 System Requirements for Apple OS X Clients	5
1.7.3 System Requirements for FastViewer WebClient	6
1.7.4 System Requirements for Mobile Devices with Android or Apple iOS	6
2 FastViewer - the Web Conferencing Solution	7
3 Minimum Installation Requirements	8
4 Installing the FastViewer Server	10
4.1 Diagram for Hosted Version	10
4.2 Download the Installation File for the Server Installation	11
4.3 FastViewer Server Setup	14
4.4 Adaption of settings.ini	18
4.5 Configuration of the server list and Activation of the FastViewer Server	28
4.6 Check the accessibility of FastViewer Server and service configuration	32
4.7 Download Master and Client Module	34
4.8 Perform an Update of the FastViewer Server	41
4.9 Usage of Webcollaboration Apps	41
4.10 Activation of the SMS Authentication	42
4.11 Outlook Plugin Configuration on the FastViewer Server	43
5 Installing of the FastViewer WebClient Server	45
5.1 Install required Role Services and Features	45
5.2 Configuring Installation Requirements for the Integrated Deployment Scenario	50
5.2.1 Preparations for an Installation with DNS-Name / one IP-address of the WebConference and Web Client server	50
5.3 Install an integrated Deployment Scenario	51
5.3.1 Configure an integrated Scenario on IIS	55
5.4 Install a distributed Deployment Scenario	59
5.4.1 Configure a distributed Scenario on IIS	64
5.5 Configuration options of the WebClient Administrator	67
5.6 Automatical Client selection - Functions of the SmartLoader	78
5.6.1 Configuration of the SmartLoader	80
6 Activating the https support	81
6.1 Add a SSL Certificate	81

Contents

6.2 Activation of the https Support of the FastViewer Server	82
6.3 Activation of the https Support in the Internet Information Server (IIS)	83
6.4 Configure the FastViewer Server for the https Connection via a WebClient.	84
6.5 Steps for exclusive usage of https	85
7 Administrative Tools	86
7.1 Certificate Installer	86
7.2 Server Admin	87
7.3 Log Viewer	88
Index	1

History of Changes

Date	Changes	Reason
2012-05-31	New feature: Using a secure https connection for the OpenScape Web Collaboration Web Client.	CQ00211323
2012-06-18	Revision: Revised description of the integrated deployment scenario, the installation of the OpenScape Web Collaboration server and the OpenScape Web Client on a server with one IP address.	CQ00213051
2012-10-17	Missing work steps added to the description of how to provide the Master and Client module.	CQ00226912
2012-11-02	Added: Description of how to configure the profile for providing the master and client module for UTF-8 languages.	FRN5331
2012-11-14	Review	
2012-11-16	Added: Description of the Hosted solution.	Review
2013-01-29	Added: Description of the SmartLoader.	FRN6305
2013-01-31	Added: Description of an update installation of the OpenScape Web Collaboration Server and the OpenScape Web Collaboration Web Client.	Review
2013-07-03	New note: The Server name for the client module link input field is displayed only if a user has previously requested the license for the OpenScape Web Collaboration server.	CQ00242663
2013-07-03	Correction and more information: The downloaded files for the Mac modules are called FastMaster.zip and FastClient.zip. They must not be unpacked after they have been added to the Web Collaboration server directory.	CQ00242663
2013-07-05	New note: When using the IP address instead of the FQDN, the IP address of existing web conferences is not updated after an IP address modification. Consequently, such conferences cannot be started anymore.	CQ00265570
2013-11-08	Chapter about installing the Microsoft Outlook Plug-in for planning web conferences transferred from the operating instructions into this manual.	Review
2014-04-16	Optionally support of AV4UC (Trend Micro) antivirus program.	FRN 5650
2015-03-05	Remove point 6 from Chapter 4.3	Info from FastViewer
2015-04-01	correction in Chapter 3 overtaken from German document	
2015-04-24	correction in Chapter 9 overtaken from German document	
2015-05-15	minor corrections	
2015-05-25	minor corrections	
2016-05-10	redesign	review
2016-08-10	rework and updated screenshots	review
2017-03-02	small changes	review
2017-10-03	small changes	review
2018-02-23	adaption of the server requirements	review
2018-03-06	adaption of the session IDs split	review
2019-06-06	small changes	review
2019-07-29	updating operation system information	review
2019-10-19	updating certificate handling	review

History of Changes

1 About this Manual

This manual describes how to install, configure and upgrade an FastViewer system as independent web conferencing solution.

1.1 Legal Notices

FastViewer GmbH assumes no liability for any damage, loss or destruction of software, data or programs resulting from the use of FastViewer.

The software and hardware designations used in this manual are mostly registered trademarks and thus subject to the relevant provisions of copyright law. The documentation, as well as extracts from it, may be neither transmitted nor reproduced by any mechanical or electronic means, photocopying or any other means without express permission in writing. All company names cited in examples and data are fictitious. Any similarities are therefore purely coincidental.

The information contained in this document is based on the current software version used at press time. This may be changed at any time without notice and represents no commitment on the part of the seller. The descriptions herein do not guarantee the availability of any described features in a legal sense.

FastViewer has exercised the utmost care while preparing this guide, but does not warrant the completeness or accuracy of the information in it and disclaims all liabilities for any technical or printing error.

As far as possible, this document is gender neutral. In cases where the masculine form of address is used, this is done solely for simplicity, and the feminine form is always implicitly included.

If you have corrections or suggestions, please send us an e-mail.

Thank you for your efforts.

More information on the FastViewer products can be found in the Internet at www.fastviewer.com

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1.2 Technical Assistance

If you require help with a technical problem, please contact our hotline:

Phone: +49 (9181) 509 56 -28

E-Mail: support@FastViewer.com

1.3 Who should read this Manual?

This manual addresses persons who install, configure and manage an FastViewer solution as independent web conferencing system.

1.4 Manual Contents

This manual describes how to install and correctly configure FastViewer.

It is structured as follows:

Chapter 1: About this Manual

This chapter contains information about the structure and use of this user guide as well as a list of all acronyms used.

Chapter 2: FastViewer - the Web Conferencing Solution

This chapter provides an overview of the FastViewer solution.

Chapter 3: Installation Requirements

This chapter comprises the hardware and software requirements for installing all associated components.

Chapter 4: Setting up the FastViewer Server

This chapter describes the WebFastViewer server installation.

Chapter 5: Installing FastViewer Web Client

This chapter describes the installation of FastViewer Web Client, required for the web-based access to web conferences.

Chapter 6: Activation of the https support

This chapter describes the activation of the https support. Also the procedure to exclusive communication is described in this section

Chapter 7: Administrative Tools

In this chapter you find the administrative tools you can use for connecting SSL certificates, analyzing errors, and maintaining FastViewer.

1.5 Representation Conventions

To highlight information in this manual we use the following mark-ups and representations.

1.5.1 Notations and Formats

The following format conventions apply in the manual on hand:

Purpose	Representation	Example
Product and company names	<i>Italic</i>	<i>Fastviewer</i>
Special highlighting	Bold	Name must not be deleted.
GUI elements	Bold	Click on OK .
Menu sequence	>	File > Exit
Cross reference	<i>Italic</i>	You find further information in the <i>Configuration and Administration</i> manual.
Path and file names	Fixed-width font, for example <code>Courier</code>	<code>c:\Programs\... or example.txt</code>
Specifications that may have an individual content such as variables.	<i>Italic</i> in pointed brackets	Specify your <i><user name></i> and <i><password></i> for logging on to the system.
System in- and output	Fixed-width font, for example <code>Courier</code>	<code>Command not found.</code>
Hotkey	Bold	[Ctrl]+[Alt]+[Esc]

1.5.2 Hints

Type of Notes

In this manual, we denote critical hints and supplementing information in the following way.

NOTICE: Denotes hints that contain information worth knowing or useful tips.

IMPORTANT: Denotes **critical** hints that contain high-priority information. Please definitely read such hints and follow given instructions to avoid malfunctions, loss of data or damage to devices.

1.5.3 Figures

This manual displays all input windows important for operation and configuration. Depending on the operating system, the browser used, the screen resolution, the configurations of your PC or your selection of the interface style, the appearance of such windows may vary. However, this does not affect the described functionality.

1.6 Acronyms

Table: Acronyms used

Acronym	Meaning
CLA	Customer License Agent
CLM	Customer License Management
DMZ	Demilitarized Zone
FQDN	Fully Qualified Domain Name
IIS	Internet Information Services
OEM	Original Equipment Manufacturer
WCF	Windows Communication Foundation

1.7 System Requirements for the FastViewer Clients

Hardware and software requirements for using FastViewer.

In the following chapters you find the system requirements for:

- Clients based on Microsoft Windows operating systems
- Clients based on Apple operating systems OS X
- Web browsers usable as a client
- Mobile devices usable as a client

1.7.1 System Requirements for Windows Clients

The following system requirements apply for operating the master module **FastMaster.exe** and the client module **FastClient.exe** of FastViewer:

Operating system	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 But only maintained: Windows 7 Windows 8 Windows 8.1 Windows 10 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019
System requirement	Internet access
Recommended system requirement	Internet access with DSL 2000 kbit/s

1.7.2 System Requirements for Apple OS X Clients

The following system requirements apply for operating the master module **FastMaster.app** and the client module **FastClient.app** of FastViewer:

Operating system	Apple OS X Yosemite 10.10 Apple OS X El Capitan 10.11 Apple macOS Sierra 10.12 Apple macOS High Sierra 10.13 Apple macOS Mojave 10.14
System requirement	Internet access
Recommended system requirement	Internet access with DSL 2000 kbit/s

1.7.3 System Requirements for FastViewer WebClient

You can use the following web browsers for FastViewer WebClient:

Webbrowser (Java)	Internet Explorer version 8 oder newer- Mozilla Firefox Google Chrome version 24 or newer Safari Opera
System requirement	Internet access
Recommended system requirement	Internet access with DSL 2000 kbit/s

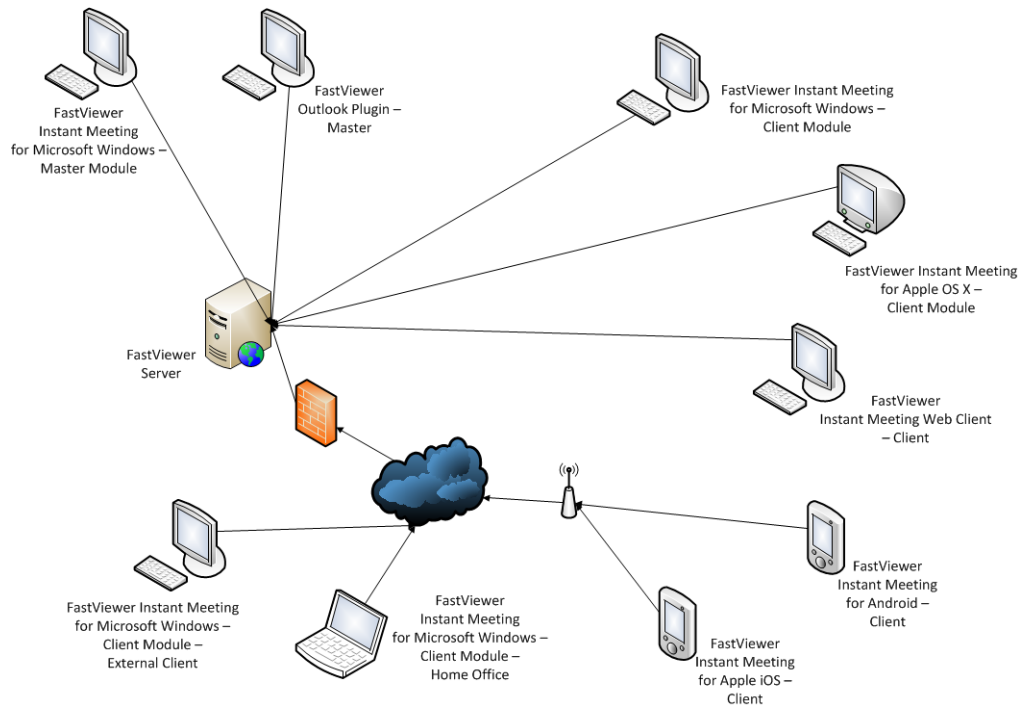
1.7.4 System Requirements for Mobile Devices with Android or Apple iOS

Operation on mobile devices requires the following:

Mobile operating system	min. iOS 8 or later min. Android 4.1 or later
-------------------------	--

2 FastViewer - the Web Conferencing Solution

FastViewer is a web conferencing solution that, owing to its scalability, high security and reliability, enables comprehensive multi-media collaboration. It is suitable for companies of all sizes and offers the option to stage web conferences with up to 100 participants.



FastViewer recognizes the operating system's language automatically. Secure transmission of all session data is ensured by a 256-bit AES encryption.

3 Minimum Installation Requirements

In the following we list the hardware and software requirements that the system to host FastViewer must comply with.

Minimum requirements for the installation for setting up the FastViewer server for up to 100 simultaneous users

- Xeon processor with at least 2,5GHz clock frequency
- At least 4 GB RAM (recommended: 8 GB)
- At least 30GB free harddisk memory
- 1 Gbit network board
- Operating systems:
 - *Microsoft Windows Server 2012 R2, Standard Edition*
 - Microsoft Windows Server 2016, Standard Edition
- Database:
 - Microsoft SQL Server 2008 Express Edition (is included) or newer
- Bandwidth requirement
Bandwidth consumption per FastViewer session depends on the connection type:
 - Connections with desktop sharing
Such connections require an average of 15kbit/s per participant.
 - Connections with video streaming
Depending on the image quality settings in the GUI, up to 300 kbit/s are required per user.
 - Voice connections
Connections with voice transmission require an average of 20kbit/s per user.
- The FastViewer server is found in a DMZ (Demilitarized Zone). The server requires an IP address or alternatively a DNS host entry pointing to the corresponding IP address.

NOTICE: When configuring the FastViewer server, prefer the fully qualified domain name (FQDN) to the IP address. If you use for example the IP address and it is changed, existing web conferences are not updated to the new IP address and cannot be started anymore.

- Port releases
In order to guarantee the WebConference to be reachable via LAN or Internet, the following ports must be opened in a firewall and must not be used exclusively by another program or service:
 - HTTP port: 80
 - HTTPS port: 443 (Only if a certificate is used)

- TCP port: 5000
Port 5000 ensures sessions on highest performance level.
This port must be opened when video functions are used (sending / receiving WebCam pictures).

NOTICE: The usage of the certificate Installer for linkage of an SSL-certificate requires .NET Framework 3.5.

NOTICE: The HTTP-Protocol is being used to check the available servers at module start. When using your own FastViewer Server solution this check can be done via HTTPS instead of HTTP, the port number can be free selected (e.g. HTTPS 321). Thus it is possible to restrict the used protocols and the required ports to be opened in order to guarantee the own security standards. A description of the single configuration steps can be found in chapter 6.5 [Steps for exclusive usage of https](#).

- You can install the FastViewer server in a VMware ESX(i) 4.x and 5.x environment.

Requirements for setting up FastViewer WebClient

- Operating systems:
 - *Microsoft Windows Server 2012 R2, Standard Edition*
 - *Microsoft Windows Server 2016, Standard Edition*
 - *Microsoft Windows Server 2019*
- *Microsoft .NET Framework 3.5 SP1* is installed on the system.
- *Webserver (IIS)* is installed on the system
- Supported web browsers - all web browsers with *JavaScript* support, for example:
 - *Internet Explorer* from version 8
 - *Mozilla Firefox*
 - *Apple Safari*
 - *Google Chrome*
 - *Opera*
- You can install the FastViewer server in a VMware ESX(i) 5.x and 6.x environment.

4 Installing the FastViewer Server

This chapter describes the preparation steps you need to take to set up the FastViewer server module and illustrates the setup process.

You can download the software to be installed fast and conveniently from the customer portal, or it is provided to you on a data carrier.

You reach the FastViewer customer portal via the following link:

`https://portal.fastviewer.com`

In there you can log on to the portal with your alias name or serial number and the associated password.

The customer portal provides the following functions:

- Displaying and editing private data related to the purchased license.
- Performing program settings for configuring the master and client module.
- Downloading and viewing various documents and documentation on the product.
- Downloading all modules of the product FastViewer to provide them for the installation:
 - The master module for Microsoft Windows or Mac operating systems
 - The client module for Microsoft Windows or Mac operating systems
 - The WebCollaboration modules.
 - The setup directory for the FastViewer Outlook Plugin.
 - The setup for the FastViewer server.
 - The update files for the FastViewer server.
 - The setup for the FastViewer WebClient.
- Displaying information about all currently installed Secure Advisor clients as well as all active connections.

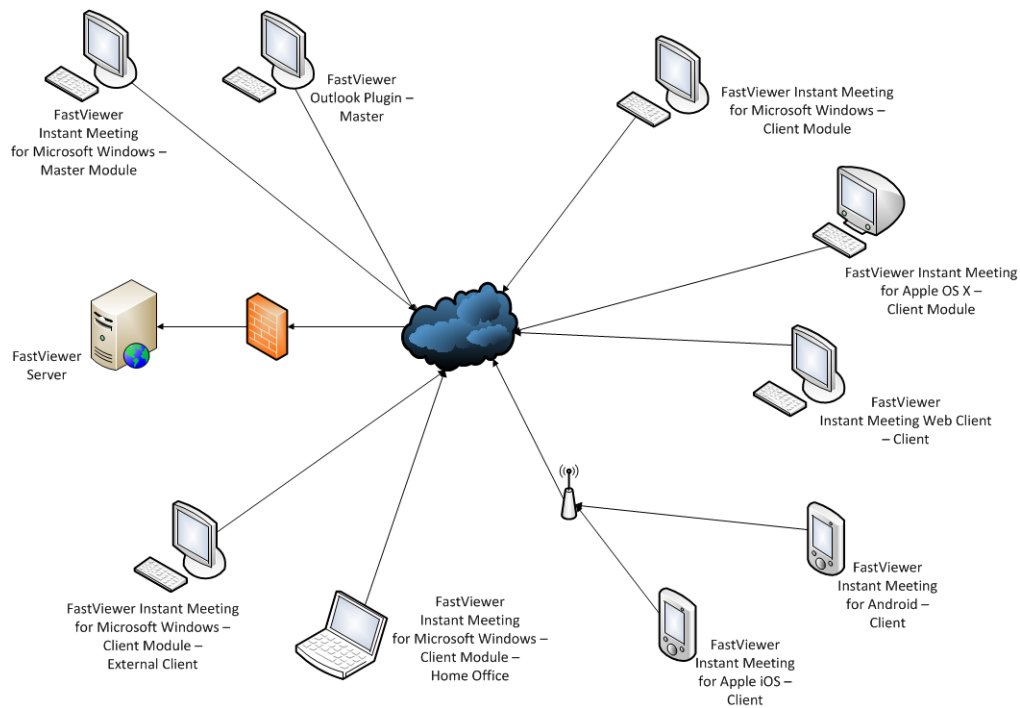
4.1 Diagram for Hosted Version

Description and configuration of the Hosted Version for FastViewer.

The Hosted Version (cloud solution) is another option for a customer deployment to use features provided via the FastViewer. The following diagram illustrates how such a deployment scenario looks like:

Installing the FastViewer Server

Download the Installation File for the Server Installation



If there is no individual FastViewer server license for an on-site installation of an FastViewer server, web conference sessions are automatically staged via a hosted server infrastructure. This infrastructure is distributed globally and designed highly redundantly for secure operation.

All you need to do is logging on to the FastViewer customer portal with the basic license and downloading the corresponding master and client modules.

Before you download the moderator and client modules you may customize them via the configuration settings in the portal.

4.2 Download the Installation File for the Server Installation

Downloading the installation file for the server installation.

To download the installation file for the server installation and to provide it for the installation proceed as follows:

Step by Step

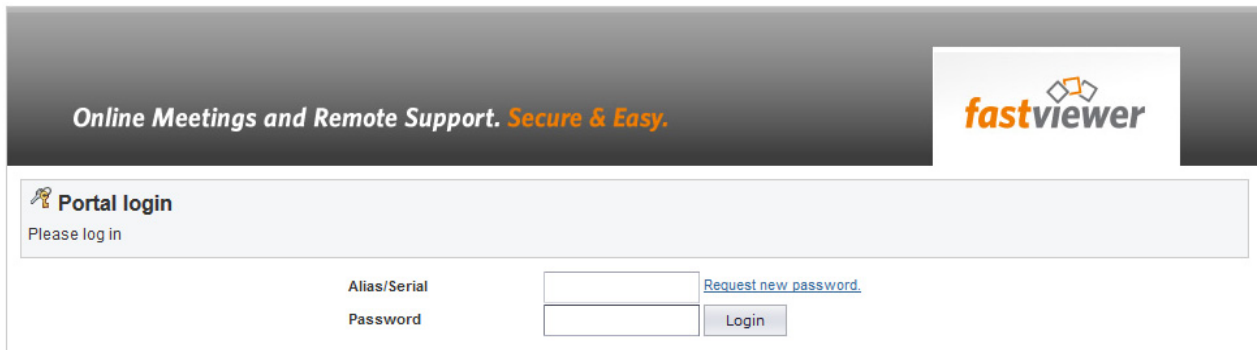
- 1) Invoke the following internet page:

<https://portal.fastviewer.com>

The page on which you can enter the account data to download the components for FastViewer opens.

Installing the FastViewer Server

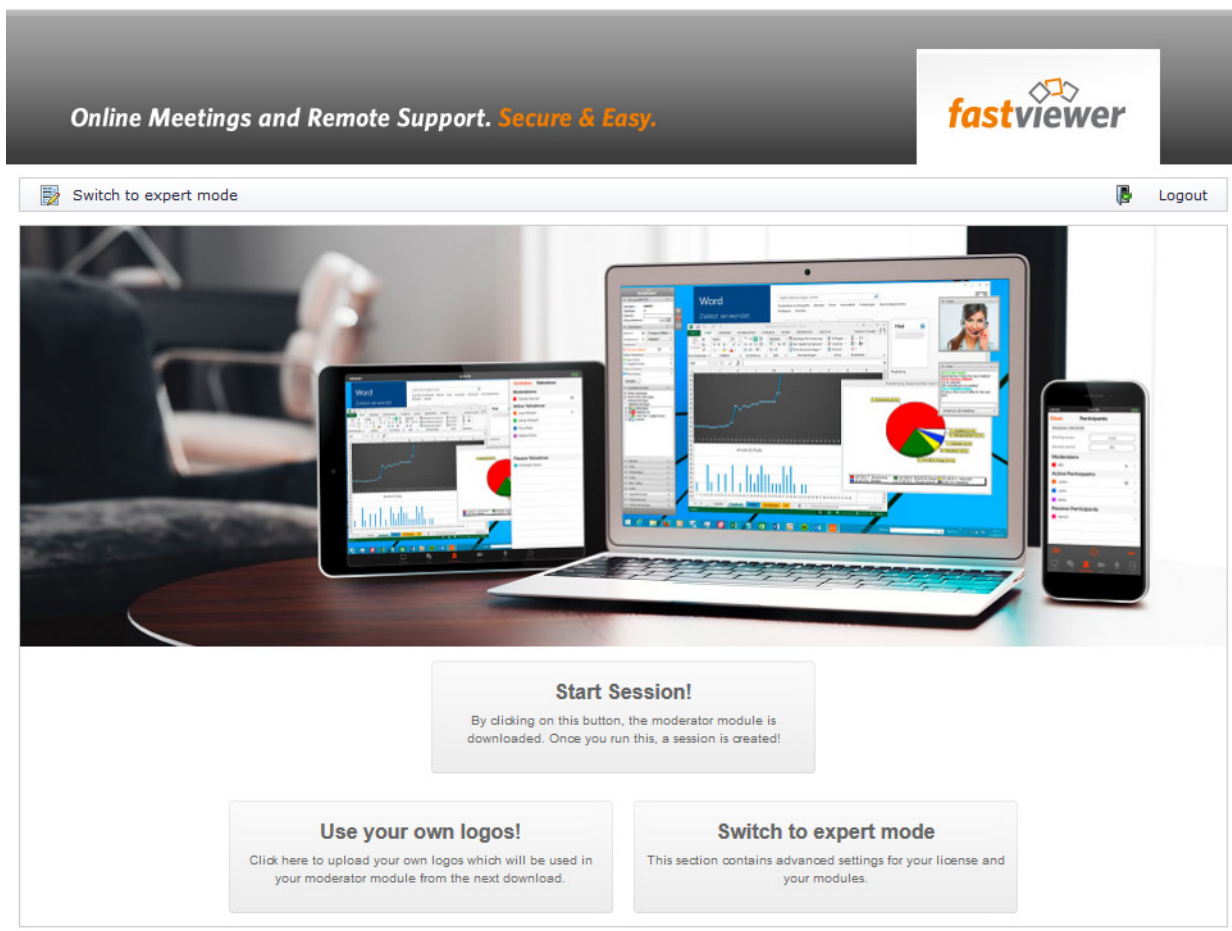
Download the Installation File for the Server Installation



The image shows the FastViewer portal login page. At the top, there is a dark header with the text "Online Meetings and Remote Support. Secure & Easy." and the FastViewer logo. Below the header, there is a light gray box with the title "Portal login" and a subtext "Please log in". Inside this box, there are two input fields: "Alias/Serial" and "Password". To the right of the "Alias/Serial" field is a link "Request new password.". To the right of the "Password" field is a "Login" button. At the bottom left of the page, there is a small text "fastviewer.com | Version: 2.0.9". At the bottom right, there is a row of flags representing various countries.


- 2) To log on for the first time, enter your license number for accessing this web portal under **Alias/Serial**.
- 3) Specify your password for accessing this web portal under **Password**.
- 4) Click on the **Login** button.

The start page of the customer portal opens.



The image shows the FastViewer "Start Session!" page. At the top, there is a dark header with the text "Online Meetings and Remote Support. Secure & Easy." and the FastViewer logo. Below the header, there is a light gray box with the title "Start Session!". Inside this box, there is a large image of a laptop and a tablet displaying the FastViewer interface. Below the image, there is a text box that says "Start Session!" and "By clicking on this button, the moderator module is downloaded. Once you run this, a session is created!". Below this text box, there are two buttons: "Use your own logos!" and "Switch to expert mode". The "Use your own logos!" button has a subtext "Click here to upload your own logos which will be used in your moderator module from the next download." The "Switch to expert mode" button has a subtext "This section contains advanced settings for your license and your modules." At the top left of the page, there is a link "Switch to expert mode". At the top right, there is a "Logout" button.











- 5) Click on the **Switch to expert mode** button in the menu bar.
You see your account data as well as the status of your license.

Online Meetings and Remote Support. **Secure & Easy.**


My license ▾ | General ▾ | Settings ▾ | Download | Logs ▾
Logout

Overview

Here you can find your current account information as well as the status of your license. All changes can be made comfortably by clicking on "Edit". The program will be updated after you have **downloaded the master and the client module again**.

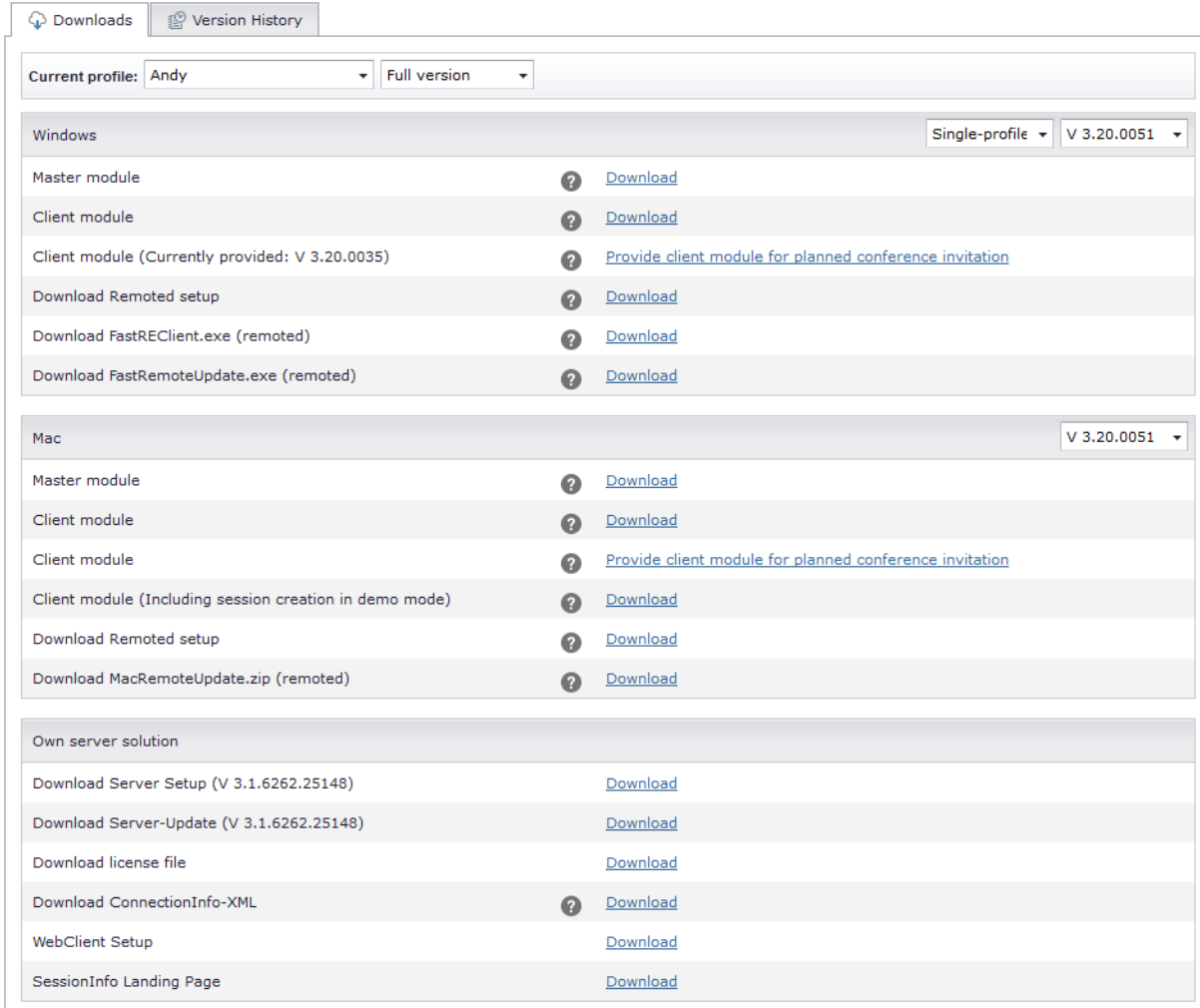
License number	1345786383	
Active	<input checked="" type="checkbox"/>	
Edition	Secure Advisor 	Instant Meeting 
Ad-hoc connections	20 Rooms : 100 Participants	
Remote connections	100 remote client(s)	
Creation date	2/6/2015	
Licensee	UNIFY Documentation Team Andreas Specht	
Default Portal Mode	simple mode  Switch to simple mode	
Alias for portal login		
Password for login	***** 	
Root password for user manager	***** 	
E-Mail address	andreas.specht@unify.com 	
Valid until	Unlimited	
Online log enabled 	<input type="checkbox"/> 	
Number of rows in lists	20 	

6) Click on the **Download** button.

The following page is displayed:

Installing the FastViewer Server

FastViewer Server Setup



- 7) Expand the displayed list with a click on the small triangle bottom left of **Type: Own server solution**.
 - 8) Click on the **Download** link next to **Download Server Setup**.
A file download dialog opens.
 - 9) Click on **OK** in the file download dialog.
Downloading the `ServerSetupV32.zip` file starts.
- Downloading the installation file for the FastViewer server is now complete.

4.3 FastViewer Server Setup

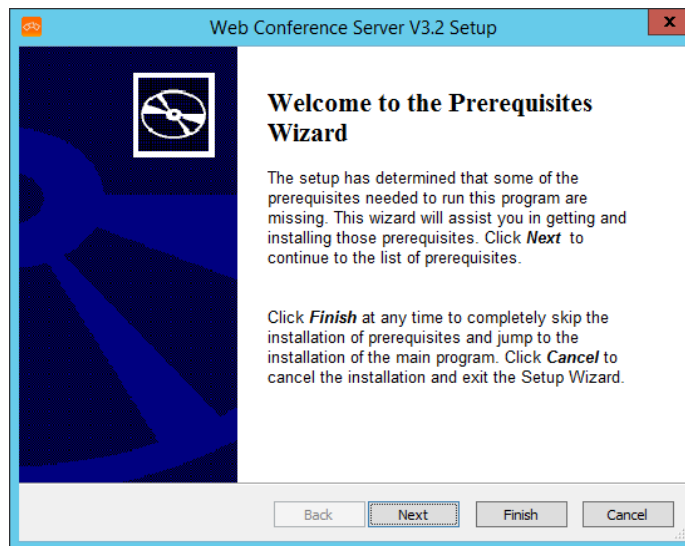
The following is a step-by-step guide through the setup process. Depending on the purchased license, various editions with different features and functions are available to you after the installation.

Execute the following setup steps:

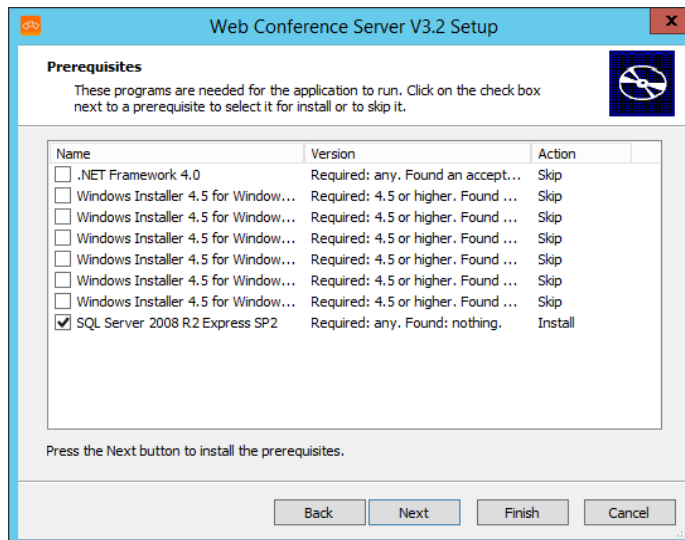
Step by Step

- 1) Extract the downloaded file `ServerSetupV32.zip` in the desired folder on the FastViewer computer.
- 2) Execute the `setup.exe` file.

NOTICE: Be sure to execute the file with administrator privileges. Depending on the operating system, you may then have to right-click the file and select **Run as Administrator**.



- 3) Click on **Next**.



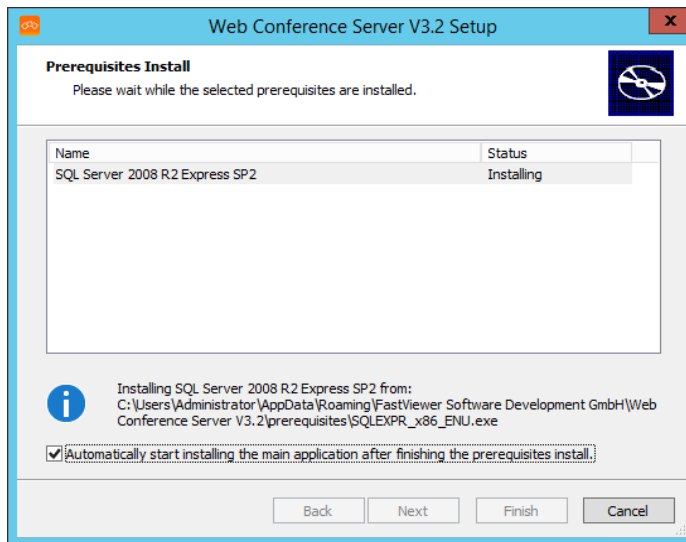
- 4) The opened dialog lists all required applications that are not present on the system, for example:
 - .NET Framework 4.0
 - Various Windows Installers

Installing the FastViewer Server

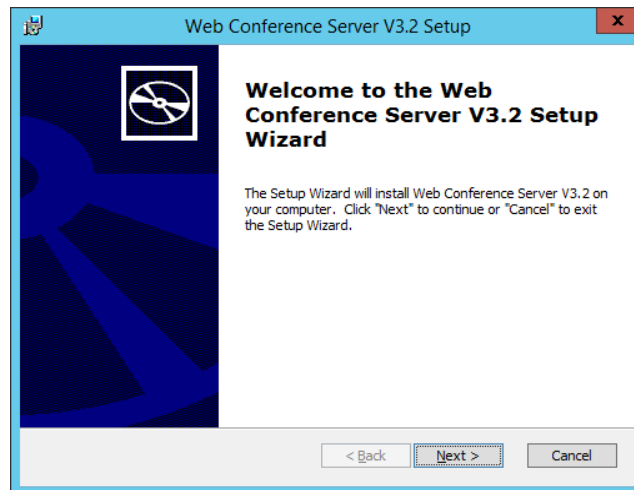
FastViewer Server Setup

- Microsoft SQL Server 2008 Express SP2

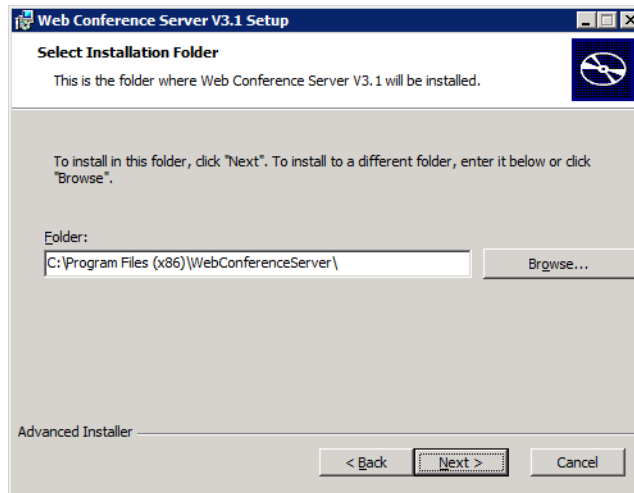
5) Click on **Next**.



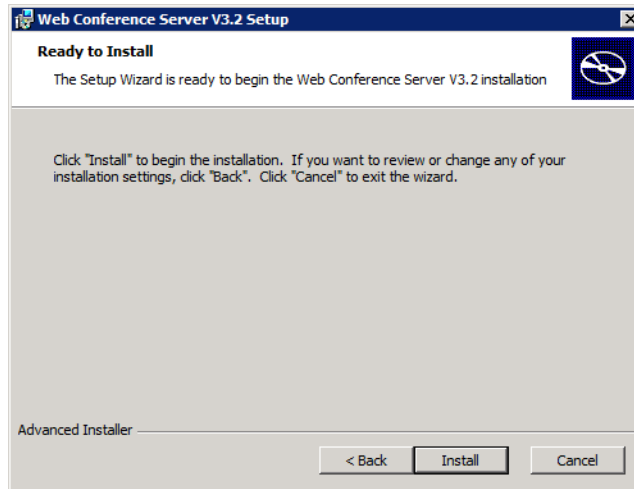
When the required software is installed, the dialog closes and the FastViewer server setup starts automatically.



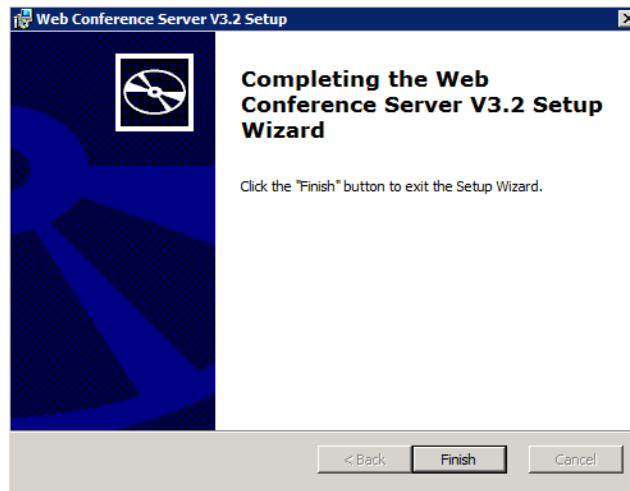
6) Click on **Next**.



- 7) Use the default-set destination folder for the installation or select one via the **Browse...** button.



- 8) Then click on **Install**.
The application is being installed.
- 9) When the setup is finished, click on **Finish**.



The setup process is successfully accomplished. The dialog closes. The Webconferenceserver service starts automatically after the installation.

4.4 Adaption of settings.ini

After you have installed the FastViewer server, execute the following steps to configure it:

NOTICE: If you want to offer participants the possibility to participate via browser in sessions, then a WebClient Server is required.

Step by Step

- 1) Open the `settings.ini` file in the setup folder of the FastViewer server in an editor.

By default, this file is found under the path:

`C:\Program Files (x86)\WebConferenceServer`

- 2) Search the following line:

`ExternalAddress=Change2YourServer`

- 3) Replace value `Change2YourServer` with the external, fully qualified domain name (FQDN) of the FastViewer server.

`ExternalAddress=webconf1.example.com`

- 4) Search the following line:

`;ClientURLBase=http://Change2YourServer/client/
fastclient_i_%1.exe`

- 5) Replace value `Change2YourServer` in both lines with the external, fully qualified domain name (FQDN) of the FastViewer server computer. For example:

```
;ClientURLBase=http://webconf1.example.com/client/fastclient_i_%1.exe
```

and for the possibly configured second URL:

```
WebclientURLBase=http://10.1.101.2:8080/joinclient.aspx?inv=%1
```

- 6) Remove the semicolon (;) at the beginning of the line.
As a result, the line and thus also the parameter you have defined become valid.
- 7) Rename the `Servername` parameter optionally.

NOTICE: You are free to choose any name for the `Servername` parameter. The specified name is displayed at the call of the DNS Name / IP Address via the browser.

- 8) Creation of the listeners: If the server should be available via two DNS names (this is the case if the FastViewer WebClient is operated on the same server, but should be reachable also with another DNS Name) perform the following settings:

NOTICE: If this is not the case, you must not change the defaults.

- 9) Search the following lines:

```
listen1="http://*/"  
listen2="https://*/"
```

Replace the asteriks (*) with the DNS Name under which the FastViewer is reachable, e.g.

```
listen1="http://webconf1.example.com/"  
listen2="https://webconf1.example.com/"
```

- 10) Supplement the list points by:

```
listen3="http://localhost"
```

- 11) Save your changes and close the `settings.ini` file.
- 12) Terminate the Webconference server service via **Windows Server Manager**.
- 13) Start the **Webconference server** service.

The `settings.ini` file may look like this:

```
; Name of server (for database connection entries)
```

```
ServerName=WEBCONF1
```

```
; SQL Connection string, the password for user sa is encrypted, so it cannot be used for  
login in an interactive SQL manager session
```

Installing the FastViewer Server

Adaption of settings.ini

```
SQLConnectionString="Data Source=(local)\fastviewer;Initial Catalog=fastviewer;Persist
Security Info=True;User ID=sa;Password=<<ZLY5VPd8byicus01ottxqQ==>>"

; Session ID Start value for that server
SessionIDStart=100000

; Session ID End value for that server
SessionIDEnd=999999

ExternalAddress=10.1.101.2

XMLRPCsecure=true (insert when using the Outlook add-in)
XMLRPCsecureFQDN=<host.yourdomain.com> (insert when using the Outlook add-in; please enter
the FQDN of the FastViewer server for host.yourdomain.com).

[Logging]
; The setting value is the limit at which a log message is logged.
; 0=Info, 1=Uncritical, 2=Warning, 3=Important, 4=Critical, 5=Disabled
;All=0 ; this overwrites all others, if less
;Connection=2
;PacketManager=2
;DatabaseManager=2
;General=2
;License=2
;MessageProtocol=2
;SessionManager=2
;XmlProtocol=2
; Log file path and logfilename
;LogFilePath="tunnelserver.log"
;MaxLogFileSizeMB=100
; How many logfiles should exist before overwritten
;RotationNumberOfFiles=3

[HttpListenURLs]
; This section contains a list of URLs where the HTTP Service should listen (Hostheader).
; This is required not only for HTTP downloads but also for normal HTTP communication!
; SSL Listenings should also be added here.
listen1="http://*/"
listen2="https://*/"

[ConnectionManager]
```

```
RootURLreply=<Webconference Server>
```

```
[SessionManager]
```

```
ClientURLBase=http://10.1.101.2/client/fastclient_i_%1.exe
```

```
WebclientURLBase=http://10.1.101.2:8080/joinclient.aspx?inv=%1
```

```
; You can use SingleURL=true only if the webclient is installed, then all XMLRPC answers are  
with the webclient URL.
```

```
SingleURL=false
```

```
[DatabaseManager]
```

```
;BackupPath="c:\sqlbackup"
```

```
;BackupHourUTC=1
```

You must activate the FastViewer server after its configuration.

To authenticate the FastViewer server to the SQL database, the "mixed mode" can be used. Thus, a registration via AD account is possible. Access is always via the connection string entered in the settings.ini.

Login with username / password:
SQLConnectionString="Data Source=db.yourdomain.com;Initial Catalog=fastviewer;Persist Security Info=True;User ID=sa;Password=xxxxxxx"

integrated login with security:
SQLConnectionString="Data Source=db.yourdomain.com;Initial Catalog=fastviewer;Integrated Security=SSPI"

In this case, the FastViewer service must run under an ActiveDirectory account that is also authorized for the database. It is identical with the user who runs the Logviewer.

Description of the possible settings.ini parameters:

Section	Parameter name	Description
[General]	Servename = "WEBCONF1"	Name of the Server – is displayed at call of the page http://localhost/admin .
	SQLConnectionString = "Data Source=(local)\fastviewerInitial Catalog=fastviewerIntegrated Security=True"	The Connection-String contains information about Database connection with which the Server can connect to the Database.
	SessionIDStart = 100000 SessionIDEnd = 999999	Start and End of range from the server administrated Session IDs. (Relevant if you use several servers)
	ExternalAddress = "http://FQDN/"	FQDN (Fully Qualified Domain Name) or IP under which the server is reachable internally and externally. If there is only an explicitly internal solution, then it is sufficient that the server is reachable only internally.
	UpdateURL = "http://update1.fastviewer.com/download/"	From this URL the AutoUpdates and RE Updates are downloaded. Please consider that a subdirectory must exist with the respective version name (e.g. 3.20.0039) and it must contain the update-files. The update-files can be obtained from the personal FastViewer portal.
	XMLRPCSecure = false	Activates the Listener for the XMLRPCSecure Interface. This requires SSL and thus a SSL Certificate!

Section	Parameter name	Description
	XMLRPCSecurePort = 5100	Defines the Port 5100 for the Listener of the XMLRPCSecure interface.
	XMLRPCSecureFQDN = "localhost"	Defines the FQDN (Fully Qualified Domain Name) for the XMLRPCSecure interface.
	LogVerboseLevel = 10	A general Logging-level, from which the standard value of the „[Logging]All“ parameter is calculated.
[Logging]	All = 2	Increments equally the LoggingLevel for all sections. (Possible values 0 to 5) The less the LoggingLevel the more detailed is the Logging.
	?Connection = 2PacketManager = 2DatabaseManager = 2General = 2License = 2MessageProtocol = 2SessionManager = 2XmlProtocol = 2XmlRpc = 2Services = 2	Here the specific Logginglevel for separate sections can be adapted.
	LogFilePath = "tunnelserver.log"	Name of the Logfile.
	MaxLogFileSizeMB = 100	Maximum size (specified in MB) of the log file before it is rotated. With rotation a new log file is created.
	RotationNumberOfFiles = 3	Maximum Number of rotation files before the oldest logfile will be overwritten.
	SyslogServer = ""SyslogPort = 514	Here the Name and Port of a Syslog server can be defined to which the Syslog messages will be sent.
[HttpListenURLs] (List)	Listen = "http://*/*"	List of the Listeners which should be initiated by the Server. Default: http-Listener / Standardport 80 / 0.0.0.0

Section	Parameter name	Description
[ConnectionManager]	RootURLReply = "fastViewer WebConference Server"	Here the Response for a "common" http Request, like e.g. via a Browser can be specified.
	DirectListenIP = ""	Here an IP can be entered on which the DirectListener is established. if empty: 0.0.0.0
	DirectPort = 5000	Here the Port for the Direct-Listener is established.
[SessionManager]	ClientURLBase = "http://join.fast-viewer.com?inv=%1"	Download-Link to the Server.
	WebClientURLBase = "http://ExternalAddress/client/fv_i_%1.exe"	Download-Link to the Webclient.
	SingleURL = false	If activated, the server responds with the WebClientURL, also even when the ClientURL is requested.
	FileboardPath = ".\fileboard\"	The folder in which the copied files to the fileboard are stored.
	RecordPath = ".\recordings\"	The folder in which at Serverside-recording the recordings are stored.
	AlwaysAllowDowngrade = false	Start mit older Version allowed? (Downgrade)
	KeepAliveIntervalSeconds = 5	Interval in which the KeepAlive NOOP Packages are sent. !Attention! Changes can cause problems with the Firewall.
[DatabaseManager]	BackupPath = ""BackupHourUTC = -1	Path and UTC time for the automatically Database backups
	PerformUpdate = false	If activated, the server is permitted to update the Database if required. Default: false

Section	Parameter name	Description
	SetMemoryLimitMB = 512	Database Snapshot Size. If an own database is used and the usage of this parameter causes errors then this value must be set to 0.
	CleanupDeletedHourUTC = hh:mm	Time for the database clean up. (For deletion marked data records will be removed)
	DBSyncIntervalSeconds = 3	Interval in which the Database of the servers is synchronized.
	BackupPath="c:\sqlbackup" BackupHourUTC=1 MaxDBLogRetentionDays=80 CleanupDeletedHourUTC=2	MaxDBLogRetentionDays=80 (Number of days after which a log entry should be deleted) CleanupDeletedHourUTC=2 (Time when the deletion should be done daily.)
[AdminIPList] (List)	Allow = "127.0.0.1"	Here you can specify the IPs from which the Admin-HTML-page can be accessed. 127.0.0.1 will be added always.
[HttpServer]	CustomizedClientDownload = true	Each child license can have in the defined folder an adapted .exe for invitations (licensenum-ber.exe) This parameter can be used exclusively for ASP servers.

Section	Parameter name	Description
	CustomizedClientPath = "clients\"	Here you specify the folder in which the Child FastClients.exe files will be stored. This parameter can be used exclusively for ASP servers.
[HttpServerPaths] (List)	/update/ = ".\update\"	Links the update folder with the virtual folder /update/
	/client/ = ".\fastclient.exe"	Links the FastClient.exe with the virtual folder /client/
	/old/ = ".\oldversion.exe"	Links the oldversion.exe with virtual folder /old/. The oldversion.exe prints an information when the used version is an old version. (Relevant if the "MinVersion-Parameter" is set. Refer to parameter description)
[RemoteManager]	AutoupdateREExeName = "FastRemoteUpdate.exe"	Definition of the Name for the Remoted Update file.
	AutoRemoveDoubleEntries = false	At activation this function removes automatically duplicate Remote service entries.
	AutoRemoveDoubleEntriesHourUTC = 1	time for the removal of duplicate Remote service entries.
	AutoupdateTimespanSeconds = 10	Interval between the Updates of single Remote services, when several are updated simultaneously !Attention! A too low value can severe affect the server performance.
[PortMapper]	Enabled = false	Block PortMapper on the server.

Section	Parameter name	Description
[Security]	AllowRunningInfo = true	Is it allowed to retrieve status information?
	AllowPostAspLicense = false	If activated then from the ASP service a created license via the ASP interface can be transmitted to the server.
	AllowClientUpload = false	If activated then a <code>FastClient.exe</code> can be copied to the server via a created license over the ASP interface.
[UserManager]	MacMinVersion = ""	Here a minimum Mac module version can be defined. If it is attempted to start with an older version an according message is displayed. (see also parameter <code>/old/ = ".oldversion.exe"</code>).
	MinVersion = ""	Here a minimum Windows module version can be defined. If it is attempted to start with an older version an according message is displayed. (see also parameter <code>/old/ = ".oldversion.exe"</code>).
	SMSUrl = "https://sms.fastviewer.com:9710/http/send-message?user-name=admin&password=%p%&to=%mobile%&message-type=sms.automatic&message=%message%"	The URL over which the SMS Service is controlled.
	SMSPassword = "xxxxxxx"	The password for the SMS Service.
	SMSAuthKeyLength = 5	Length of the authentication key which will be sent per SMS.

4.5 Configuration of the server list and Activation of the FastViewer Server

Proceed as follows to activate the FastViewer server:

Step by Step

- 1) Create in the installation directory (C:\Program Files (x86)\WebConference-Server) a new folder and name it **update**.
- 2) Add a new text file with the name **serverlist.txt** to the folder.
- 3) Define the range of the possible session numbers for your Server (by default 100000-999999) and enter the external full qualified domain name (FQDN) or the IP-address of Servers, which you have specified already in "settings.ini" e.g.: 100000-999999:webconf1.example.com With the splitting of the numbers from 100000 to 999999, e.g. 100000-499999 and 500000-999999, more servers can be specified.:

<Range of the session-IDs>:<DNS-Name of the Server>

A sample for the text file could look like this:

100000-299999:10.1.101.2

300000-599999:10.1.101.3

600000-999999:10.1.101.4

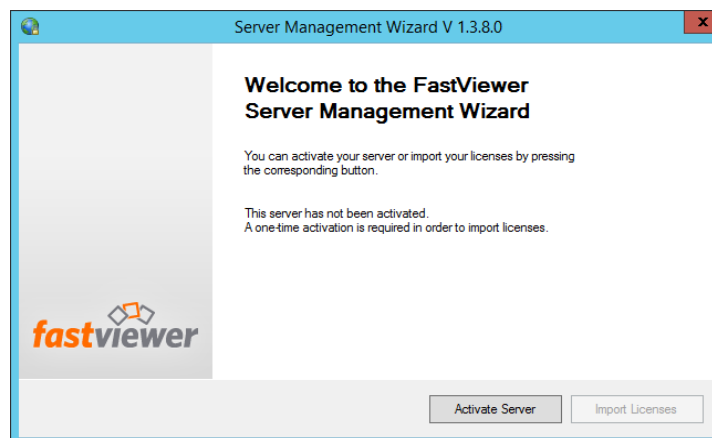
This file will be created by default in the following path:

C:\Program Files (x86)\WebConferenceServer\update

the Server list is accessible via <https://Servername/update/serverlist.txt>.

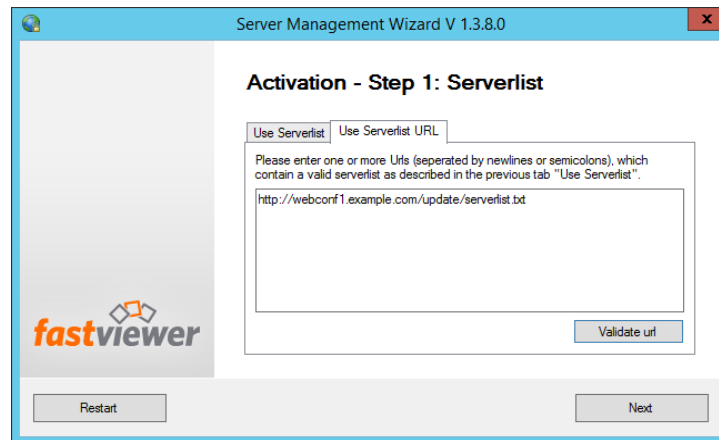
- 4) Click on **Start > All Programs > Webconference Server V3** and select the **Server Manager** option from the displayed list.

The **Activation Wizard** opens.



- 5) Click on **Activate Server** and click in the following window on the **Use Serverlist URL** tab.

The following dialog opens:



- 6) Specify in the Dialog window the link to the Server list and click on **Validate url** in order to verify the specified link. (<http://YOURSERVER/update/serverlist.txt>)

- 7) Click on **Next**.

In the dialog now open you need to decide whether or not to set up a connection to the internet.

- 8) Click on **Yes**.

The following dialog opens:



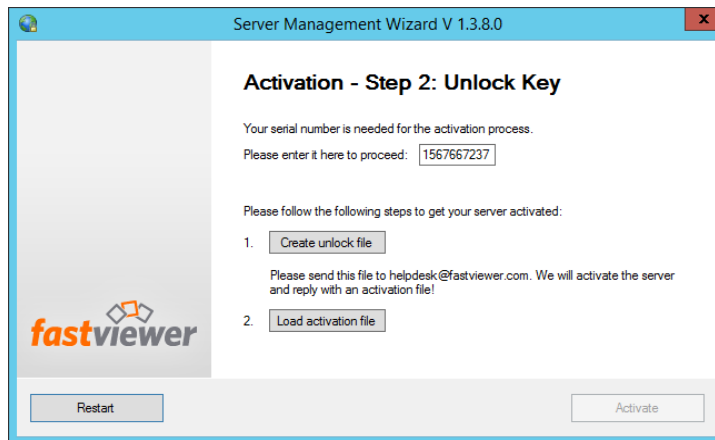
- 9) Enter your **License number**.

- 10) Click on **Activate**.

- If you have an internet connection, your release code is automatically entered in the respective field after a short waiting period. A message informs you about the successful activation of your FastViewer server.
- However, if you do not have an internet connection or a proxy in use, click on the link **Create Unlock File**.

Installing the FastViewer Server

Configuration of the server list and Activation of the FastViewer Server



Send the created unlock file by e-mail to:

helpdesk@fastviewer.com

You receive the release code within the next 24 hours also by e-mail.

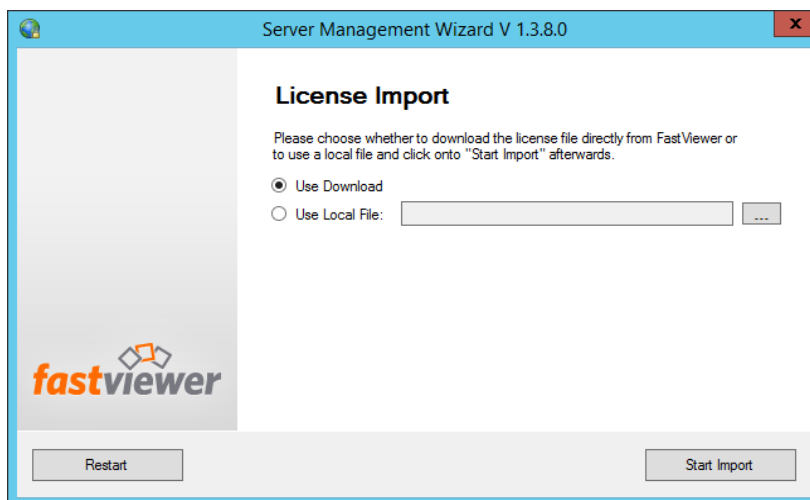
After you have received the file with the release code (for example `ServerAdmin.fvk`), enter the storage location in the **Activation File** input field.

After you have clicked on the **Activate** button you are informed about the activation status of your FastViewer server by a corresponding message.

NOTICE: In case the message "no more activations available" is displayed, then call the support in order to enable activations again.

- 11) Close the message about the activation status of your FastViewer server with a click on **OK**.

The following dialog opens:



In this dialog you need to import the purchased license after successfully activating the FastViewer server.

- 12) Select one of the following options:

Check the accessibility of FastViewer Server and service configuration

- **Use Download**

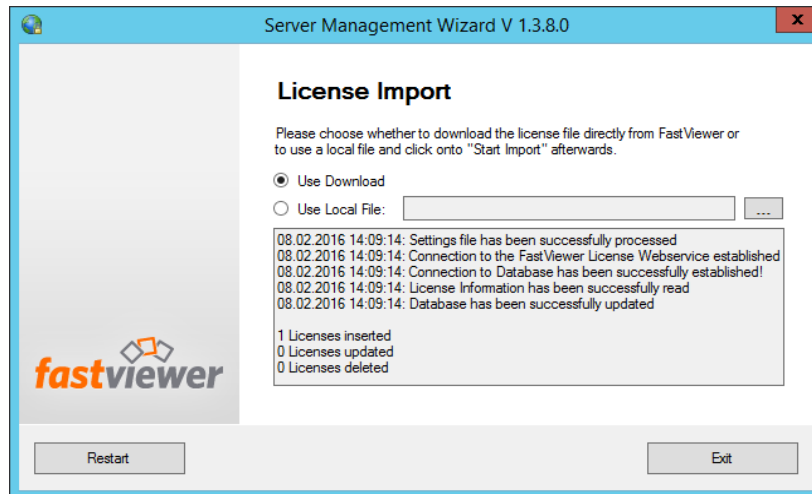
Activate this option if you have an internet connection. In this case the file with the release code is automatically downloaded from the activation server.

- **Use Local File**

Activate this option if you do not have an internet access but received the file with the release code by e-mail. Then click on the search icon ... for specifying the storage location for the file with the release code.

13) Click on the **Start Import button.**

You are informed about the import status by the following dialog, for example.



14) Click on **Exit.**

The dialog closes and the **Server Management Wizard** is shut down.

15) Close the Webconference server service via the **Windows Server Manager.**

16) Start the **Webconference server service.**

4.6 Check the accessibility of FastViewer Server and service configuration

The following steps serve for checking the functionality of the installed and activated FastViewer server.

Step by Step

1) Open the following ports in your internal firewall (if active) for the connections to the FastViewer server:

- TCP 5000
- HTTP 80
- HTTPS 443

Installing the FastViewer Server

Check the accessibility of FastViewer Server and service configuration

- 2) If the FastViewer server shall also be used by external persons, open in your external firewall the following ports for the connections to the FastViewer server:

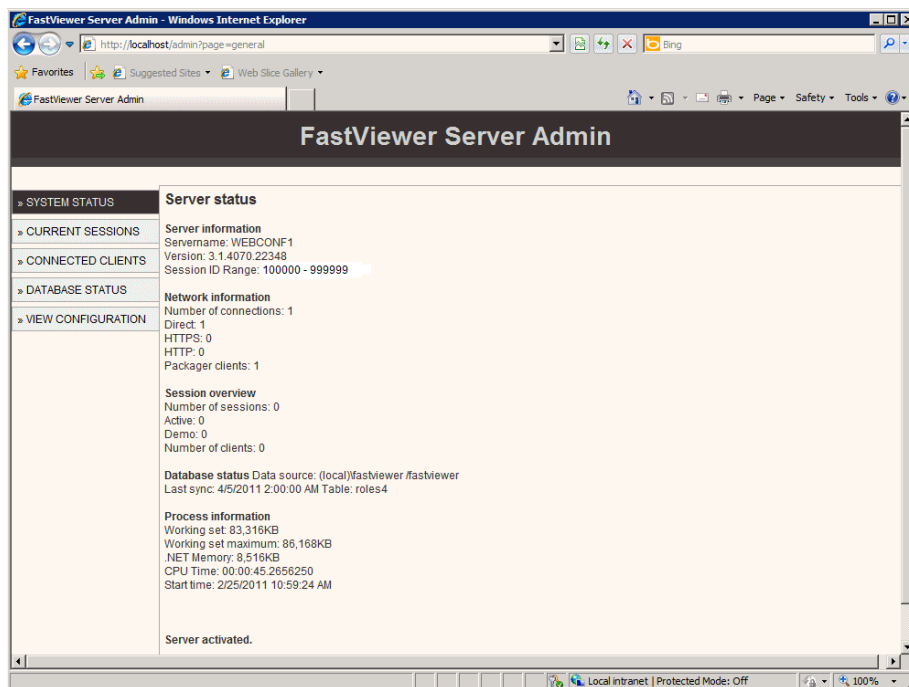
- TCP 5000
- HTTP 80
- HTTPS 443

- 3) Enter the following link in a web browser on the FastViewer computer.

`http://localhost/admin`

This enables you to check the server functionality and monitor the server service at a later date. Please note that you can invoke monitoring only directly at the server for security reasons.

The following web page is displayed for example in the web browser:



- 4) Start a web browser on a workstation in your network and move to the following link:

`http://<FQDN name or IP address of your FastViewer server>`

You see a web page with the following content:

fastviewer Webconference Server

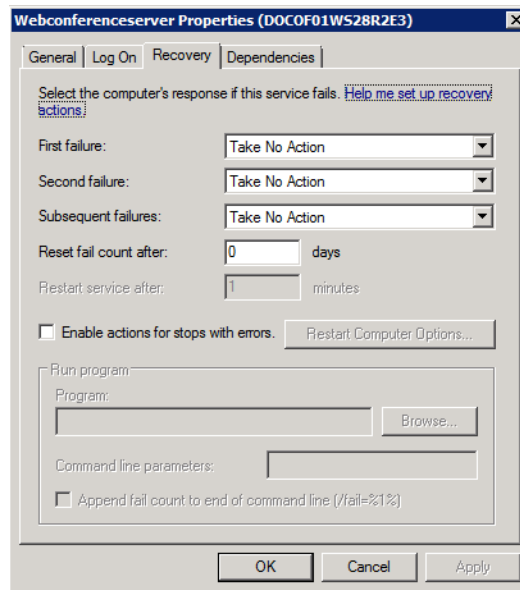
IMPORTANT: If you do not, please check your firewall settings.

Finally, you must perform settings in the restore options of the **Webconfer-enceserver** service that concern the case of a service error.

- 5) Open the dialog that displays local services via **Start > Administrative Tools > Services**.

- 6) Open the context menu with a rightclick on the **Webconferenceserver** service.
- 7) Select **Properties** from the context menu.

The following dialog opens:



It contains the pre-set values for the combo boxes **First failure**, **Second failure** and **Subsequent failures**.

- 8) Set the **Restart the Service** option for all three fields.
- 9) Click on **Apply**.
- 10) Click on **OK**.

Your settings are saved and will be used.

The settings dialog closes.

4.7 Download Master and Client Module

Providing application files for the master and client module.

This section illustrates the steps you need to take after the server activation in the customer portal to enable using the master and client module for the FastViewer.

To download the application files for the master and client module (for Microsoft Windows or the Mac version in each case) from the FastViewer portal and store them on the server, proceed as follows:

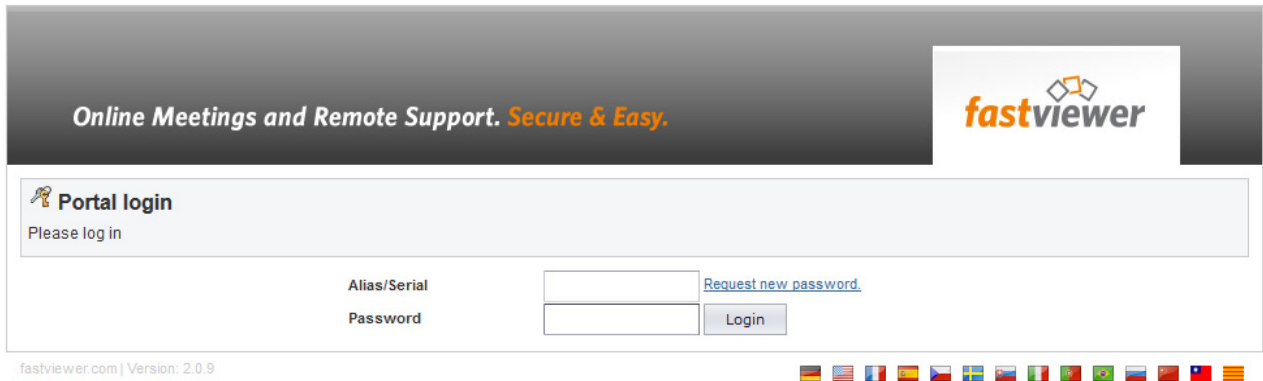
Step by Step

- 1) In case you are already logged in the portal, please log out.

Invoke the following internet page:

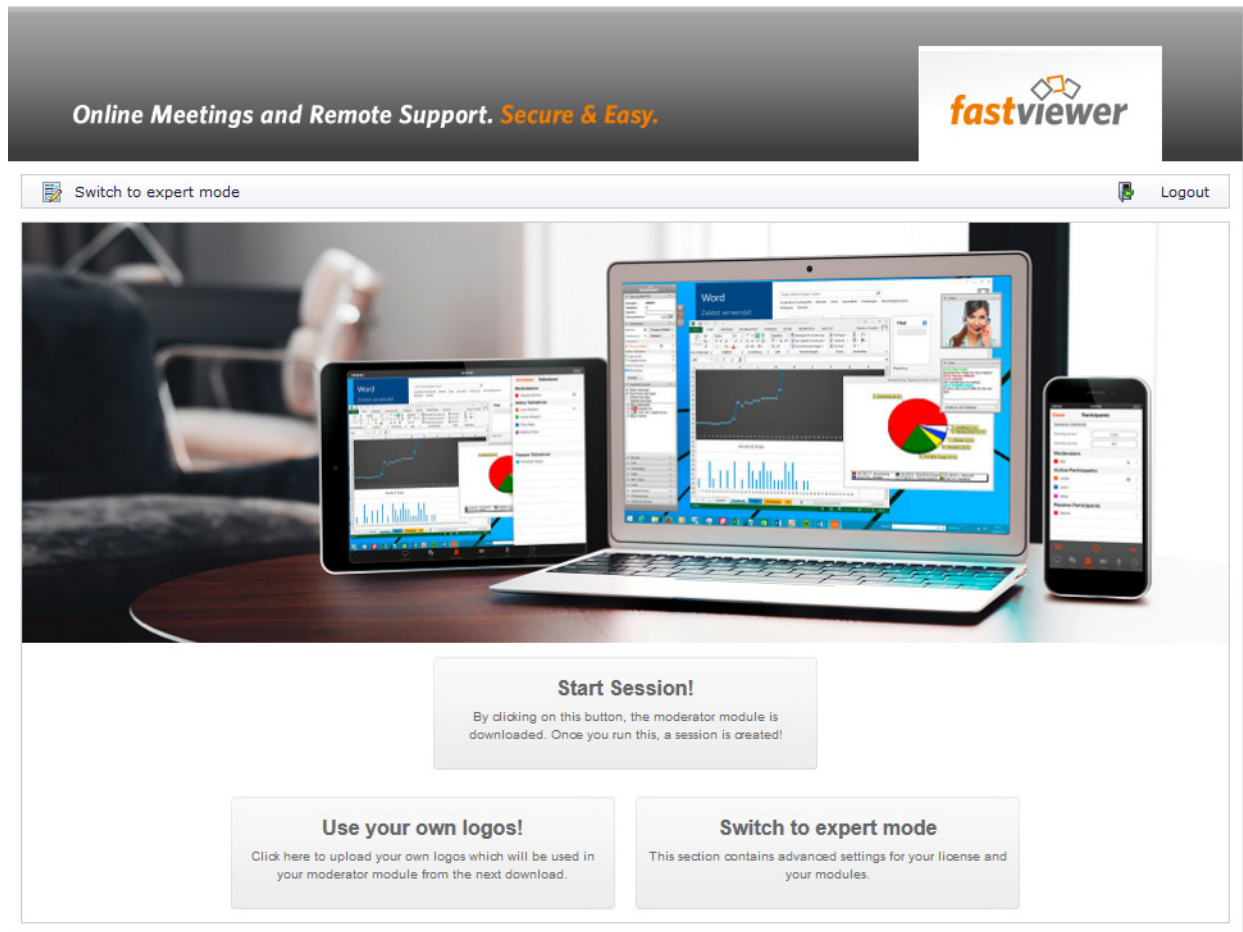
`https://portal.fastviewer.com`

The web page with the input form for logging on to the portal opens.



- 2) To log on for the first time, enter your license number for accessing this web portal under **Alias/Serial**.
- 3) Specify your password for accessing this web portal under **Password**.
- 4) Click on the **Login** button.

The start page of the customer portal opens.




5) Click on the **Switch to expert mode**.

You see your account data as well as the status of your license.

Installing the FastViewer Server

Download Master and Client Module

Online Meetings and Remote Support. **Secure & Easy.**



My license

General

Settings









Download

Logs

Logout

Overview

Here you can find your current account information as well as the status of your license. All changes can be made comfortably by clicking on "Edit". The program will be updated after you have downloaded the master and the client module again.

License number	1345786383
Active	<input checked="" type="checkbox"/>
Edition	<div>Secure Advisor</div> <div>Instant Meeting</div>
Ad-hoc connections	20 Rooms : 100 Participants
Remote connections	100 remote client(s)
Creation date	2/6/2015
Licensee	UNIFY Documentation Team Andreas Specht
Default Portal Mode	simple mode  Switch to simple mode
Alias for portal login	
Password for login	***** 
Root password for user manager	***** 
E-Mail address	andreas.specht@unify.com 
Valid until	Unlimited
Online log enabled 	<input type="checkbox"/> 
Number of rows in lists	20 

- 6) Position the mousepointer on the **Settings**. (eventually Settings V3)
A selection list opens.
- 7) Select the **Functions** option from this list.
The following page is displayed:

Online Meetings and Remote Support. **Secure & Easy.**

My license

General

Settings

Download

Logs

Logout

Customize your modules

You can customize the settings for all your program modules here! The settings will only take effect after you download the module again. Please make sure that you click on **Save** at the end of the page!

Current profile: Default

Profile Manager

Save changes

General

Instant Meeting

Secure Advisor

Display

Texts

Connection

Start parameters for master module

Start parameters for client module

Start client module with elevated privileges

Use the following serverfarm

Worldwide servers

Send Invitations via mailto

Display

Hide startup dialog

Application filter: Transmit taskbar by default

Application filter: Transmit FastViewer sidebar by default

Application filter: Transmit new windows by default

Application filter: Transmit Desktop by default

Start sidebar docked right

Start with full screen mode enabled

Buttons shown at startup

☒ Support
 ☒ Presentation
 ☒ Conference

Suppress log entries from other participants

Functions

Hide Function "Restart"

- 8) To configure the client modules, select an already created profile from the combo box next to **Chosen Profile** or specify a new profile via the **Profile Manager**.

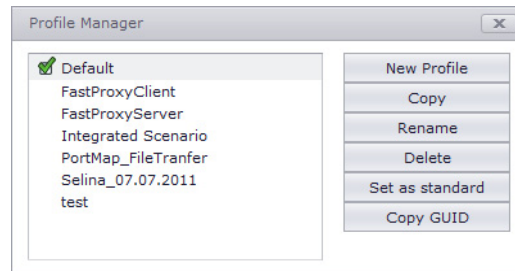
If you use an existing profile, continue downloading the client modules with step 13. Otherwise...

- 9) Access the tabs **General**, **Client Module**, **Support**, **Presentation**, **Conference**, and **Remote** to create a new profile. You can then use this profile to adjust the master and client module settings to the characteristics of your company.

IMPORTANT: You cannot change the configuration of the **Default** profile. If you try to save changes to the default profile, an error message will appear.

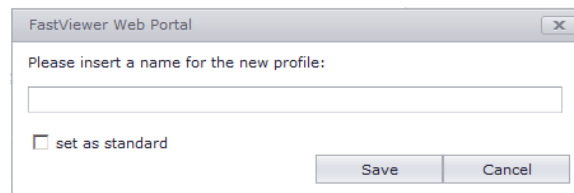
- a) To create a new profile, click on the **Profile Manager** button.

The **Profile Manager** dialog opens:



- b) Click on the **New profile** button.

The following dialog opens:



- c) Enter the desired profile name in the input line.
d) Click on the **Save** button.

The new profile has been integrated in the profiles list and is displayed as current profile.

- e) Click on the (x) icon in the top-right corner of the caption bar.

The **Profile Manager** dialog closes.

- 10) Click on **download** in order to check if the licence has been linked to the server. In this case the configured server list is displayed red framed.
11) Perform other changes to the profile settings optionally.

NOTICE: Between the parameters and the area in which the settings are performed you find a round icon with a question mark. If you position the mouse pointer on the question mark icon, you see a description of this parameter.

NOTICE: When you perform the profile settings for user languages that can only be represented in UTF-8 (e. g. Russian,

Chinese, etc.), you need to select under **Switch to: > Texts > General** the **Send invitations via mailto** option.

In addition, you need to set the international options in Microsoft Outlook and in the Internet Explorer to UTF-8 for such languages if this has not been done yet:

Internet Explorer: **Internet Options > "Advanced" tab > InternationalUse > UTF-8 for mailto links.**

Microsoft Outlook 2010: **File > Options > Advanced > International options > Allow UTF-8 support for the mailto protocol.**

Microsoft Outlook 2007: **Tools > Options > Mail Format > International options > Enable UTF-8 support for mailto protocol.**

- 12)** Click on the **Save changes** button.

A message informs you about the successful adoption of your changes.

- 13)** Click on the **Download** button.

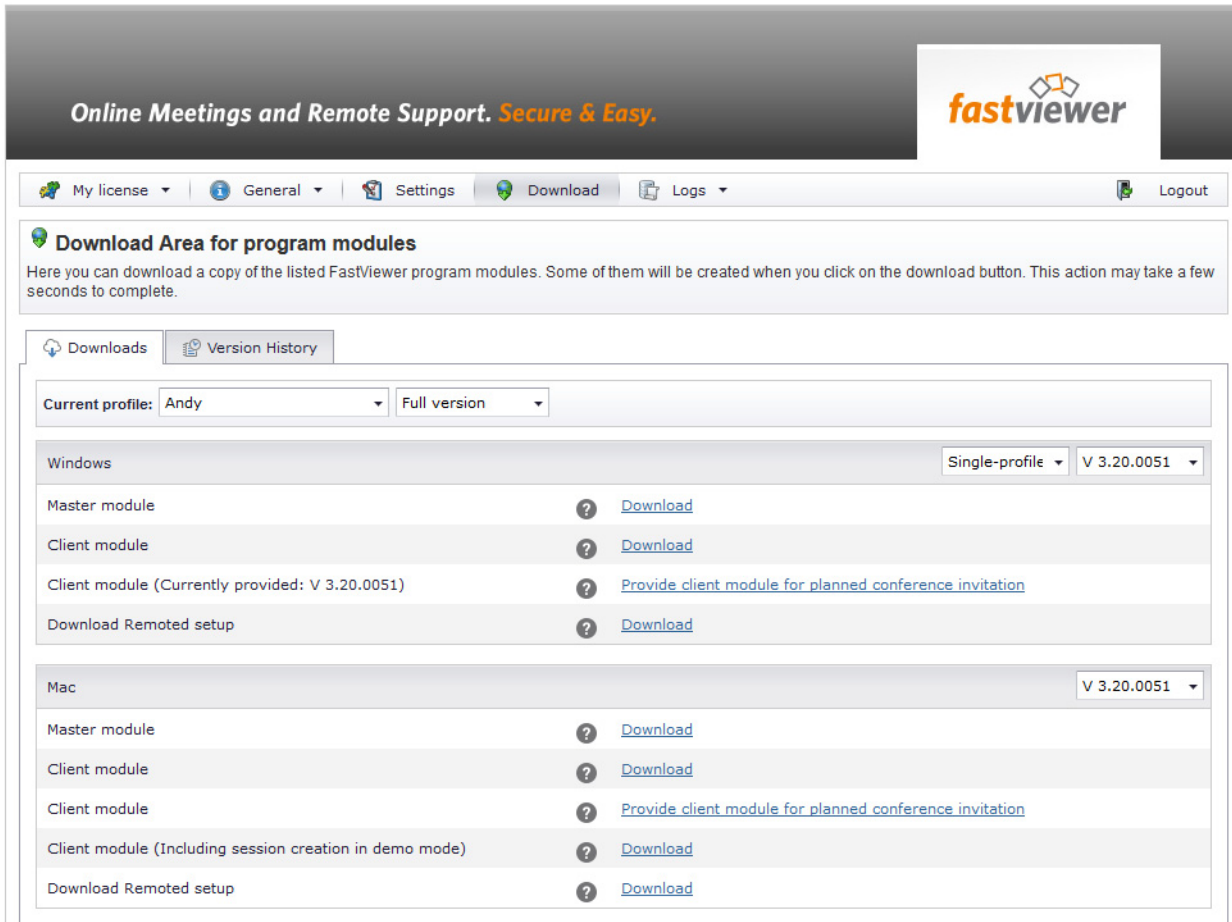
- 14)** Specify by selection for which operating system type (**Windows V3** or **Mac Version**) you want to provide the module files.

NOTICE: You find the combo box for making your selection next to the display of the active profile and the application type **full version/demo version**.

The following page is displayed of downloading the Windows-specific modules:

Installing the FastViewer Server

Download Master and Client Module



15) Click on the **Download link next to **Master module**.**

A file download dialog opens.

16) Click on **OK in the file download dialog.**

Downloading the `FastMaster.exe` file starts.

17) Click on the **Download link next to **Client module**.**

A file download dialog opens.

18) Click on **OK in the file download dialog.**

Downloading the `FastClient.exe` file starts.

19) Repeat this procedure as of step 14 for the Mac-specific modules you may require.

20) Switch to the directory in which the two files were stored after the file download.

21) Copy the file `FastClient.exe` for Windows and, if required, the archive file **FastClient.app.zip for Mac to the directory `C:\Program Files (x86)\WebConferenceServer` of the FastViewer server.**

NOTICE: The archive files **FastMaster.app.zip** and **FastClient.app.zip** to be applied on Mac systems must not be unpacked after they have been copied to the **WebConference-Server** directory.

Providing the application files is now complete.

4.8 Perform an Update of the FastViewer Server

Execute the following steps to update the FastViewer server to a new version:

Step by Step

- 1) Start your web browser and enter the address of the FastViewer portal:
`https://portal.fastviewer.com`
- 2) Log on to the FastViewer portal with your license number and your password.
- 3) Download the current update file (`Download Server-Update`) for the FastViewer server from the portal.

Switch to expert mode > Tab: Download > Own Server Solution > Download: Download Server-Update.

The `ServerUpdate32.zip` file is downloaded.
- 4) Unpack this archive file.
- 5) Close the **Webconferenceserver** service.
Start > Administrative Tools > Services
- 6) Back up the setup directory, default path:
`C:\Program Files (x86)\WebConferenceServer`
- 7) Copy the unpacked files from the archive and paste them into the setup directory.
- 8) Restart the service.

Updating the FastViewer server is now complete.

4.9 Usage of Webcollaboration Apps

Perform the following steps, in order to enable the usage of Webcollaboration Apps in connection with WebCollaboration Server.

Step by Step

- 1) Ensure, that the latest version of the Webcollaboration Server is installed.
(Version 3.1.5829.27126 or newer)
- 2) It must be ensured, that in the installation directory (e.g. C:\Program Files(x86)\WebConferenceServer) of the Setup a subdirectory with the name content does exist. This directory contains the file appredirect.html which ensures that the App is started when the invitation link is used.
- 3) In the directory content also the file conninfo.xml must exist. This file contains the server lists configuration. The file is available via the personal portal under Download > Own server solution > Download ConnectionInfo-XML. This file is required so that the mobile Applications can communicate with the Server.
- 4) the Creation is completed.

Important notes:

Participation in a Webcollaboration session: The required settings (the path to the Webcollaboration server) to the App are automatically transmitted to the participants, but only in case they use the invite functions in order to start a session.

Start of a Webcollaboration session: a start of the session via the App is exclusively possible if the respective license number, a user name and the related password are stored in the App. In Case that no user does exist or has been created the License number can be taken as user name and the license password can be taken as password. Furthermore the function alternative server must be enabled and the DNS name of the Webcollaboration server is stored.

4.10 Activation of the SMS Authentication

The SMS authentication is an extended security function. In order to use the SMS authentication from FastViewer you need first a SMS-Provider for your country or for the countries you want to use this service. The SMS-Provider provides your login data to a SMS-service. This login data is stored as follows on the FastViewer Server.

Step by Step

- 1) Add to the Settings.ini under „UserManager“ the following entry:
SMSUrl=http://your.smsservice.com/xxxxxxx
- 2) "If your SMS Provider requires a password, it can be added with the following entry: SMSPassword=xxxx

Important notes: The exact structure of the URL for the SMS Service needs to be asked by the respective SMS provider, since the structure on the manufacturer. FastViewer provides the following parameters in order to fill the URL with information:

Table: Used abbreviations

Variable	Contents
%message%	Contents of the SMS (Pin for Remote Session)
%mobile%	Number of the mobile device, which contains the SMS
%p%	Password of the SMS Service, which has been set in Settings.ini.

Please take into account: The SMS Server can be used firstly in the User management as soon as the settings in the FastViewer Server are set and the server has established an active connection with the SMS Service. If this is not the case then at the attempt to store a SMS number in the user management you receive the following message: "In this country the SMS authentication is not supported".

4.11 Outlook Plugin Configuration on the FastViewer Server

Integrate the SSL certificate on the FastViewer server if this has not been done yet.

NOTICE: To enable the FastViewer Outlook Plugin communicating with the FastViewer server, an SSL certificate is required for using HTTPS on the server. Install the SSL certificate on the server and bind it to the FastViewer server with the supplied "Certificate Installer". The SSL certificate must be bound to the server via port 5100.

To configure the FastViewer server for using the FastViewer Outlook Plugin proceed as follows:

Step by Step

- 1) Update the FastViewer server to the latest version.
- 2) Start a suitable text editor (Wordpad).
- 3) Open the `settings.ini` file in the text editor in the path:
`<drive>:\Program Files (x86)\WebConferenceServer`
- 4) In the header area, directly under the line `ExternalAddress=` enter the following two commands in the `settings.ini` of the FastViewer server:
 - a) **XMLRPCsecure=true**
 - b) **XMLRPCsecureFQDN=<host.yourdomain.com>** (please enter the FQDN address of the FastViewer server for <host.yourdomain.com>).
- 5) Restart the "Webconferenceserver" service on the FastViewer server.
- 6) Release the TCP port 5100 at the FastViewer server inbound.

Installing the FastViewer Server

Outlook Plugin Configuration on the FastViewer Server

NOTICE: Ensure that port 5100 is also released outbound on all computers on which the FastViewer Outlook Plugin is installed.

- 7) If required, adjust the server address under **Webconference Registration-Server** in the settings dialog of the FastViewer Outlook Plugin.

Configuring the FastViewer server for using the FastViewer Outlook Plugin is now complete.

5 Installing of the FastViewer WebClient Server

This chapter describes the preparatory steps you need to take before setting up FastViewer WebClient on a Microsoft Server. Furthermore, it illustrates the actual setup process in an integrated and in a distributed deployment scenario as well as the configuration steps required after the installation. The FastViewer WebClient installation is divided into the following single steps:

- Installation of the required role services and features.
- Installation steps for the selected deployment scenario.
 - **Integrated deployment scenario**
The FastViewer server and the FastViewer WebClient are installed on the same computer. (When FastViewer-Server uses a different DNS-Name as FastViewer WebClient, then it is necessary to adapt http-Listener)
 - **Distributed deployment scenario**
The FastViewer server and the FastViewer WebClient are installed on two separate computers.

You can download the software from the customer portal anytime by specifying your license data, or it is supplied to you on a CD in the scope of your order.

5.1 Install required Role Services and Features

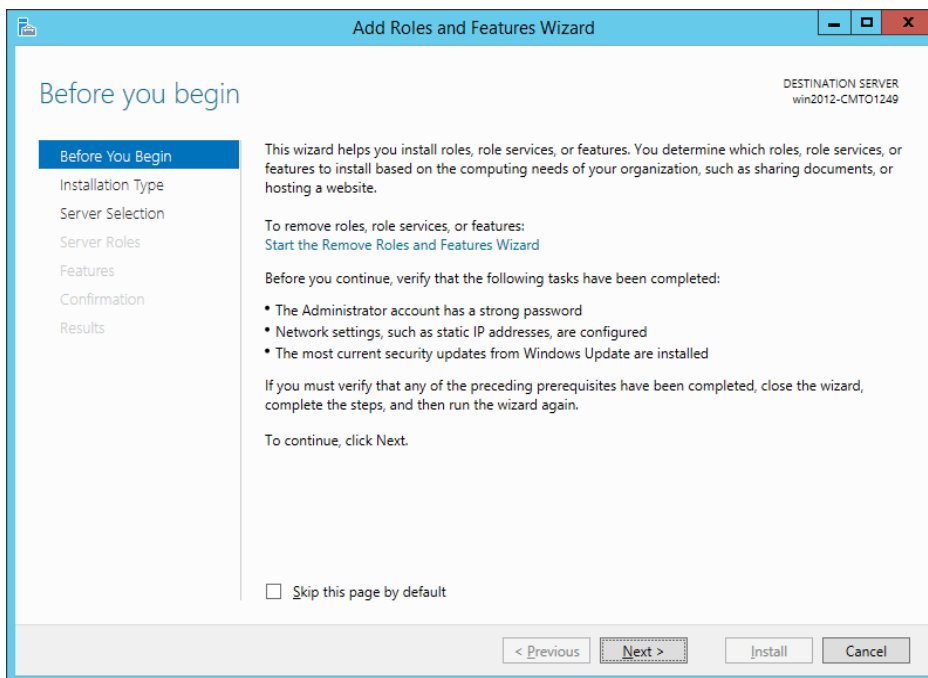
Execute the following steps to install *Microsoft .NET Framework 3.5 SP1* and *Webserver (IIS)* independently from the selected deployment scenario on a *Microsoft Windows Server 2008 R2* system.

Step by Step

- 1) Start the **Windows Server Manager**.
- 2) Click on the **Add Roles and Features** in order to start the Assistant.
The **Features** window section displays features already installed/activated.

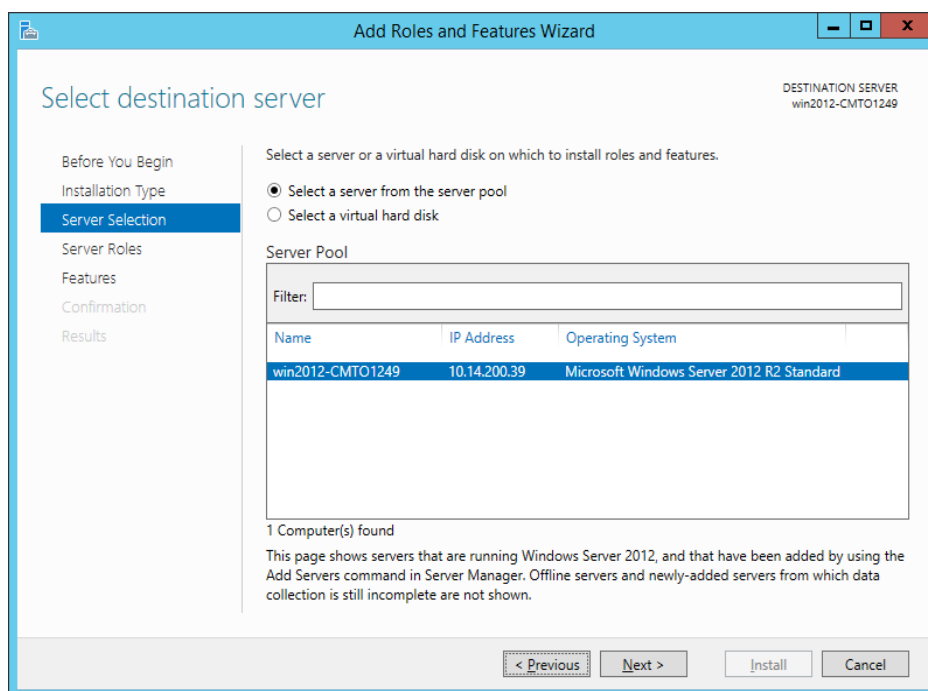
Installing of the FastViewer WebClient Server

Install required Role Services and Features

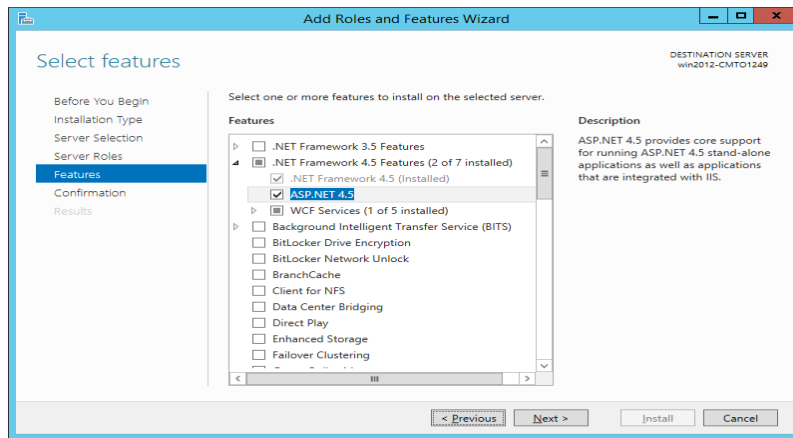


Click on **Next**

- 3) Ensure, that in the following dialog the button **role based or feature based installation** is active and click on Next.
- 4) Select the server on which the installation should be performed and click on **Next**.

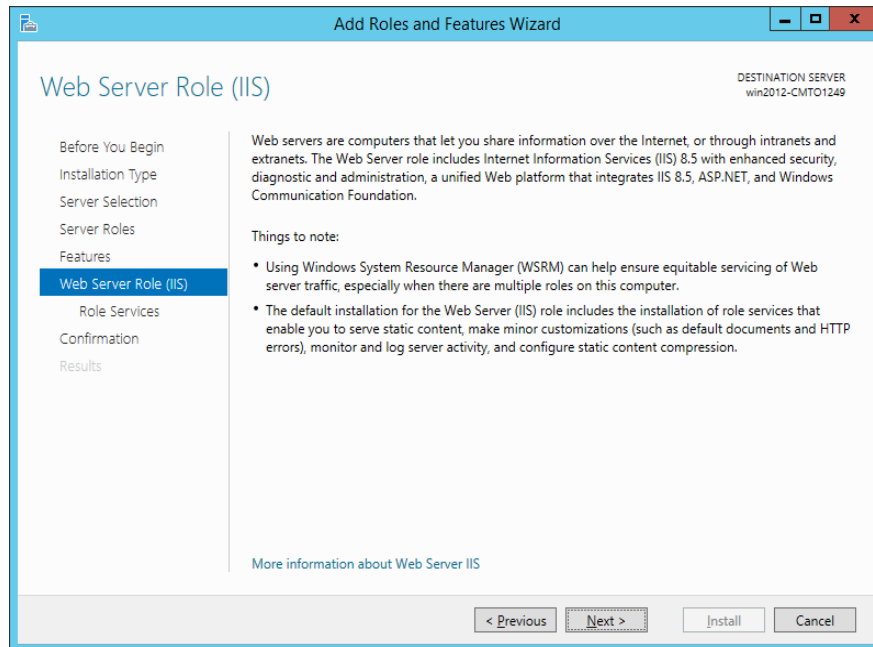


- 5) Click on the checkbox **Webserver (IIS)** in the selection of the server roles continue by clicking the button Next.



- 6) Click on the checkbox **.NET Frameworks** and **ASP.NET**, in order to add the required feature. Prerequisite for the usage of the WebClient is the .NET Framework version 3.5 or higher.
- 7) Click on **Next**.

The dialog to the installation of the webserver (IIS) opens.

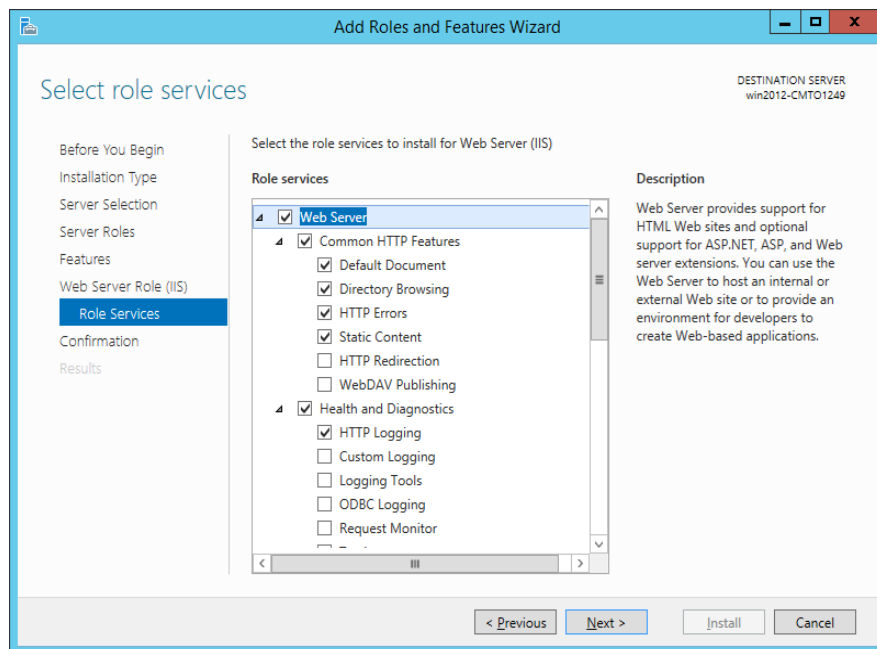


- 8) Click on **Next**.

The following dialog opens:

Installing of the FastViewer WebClient Server

Install required Role Services and Features



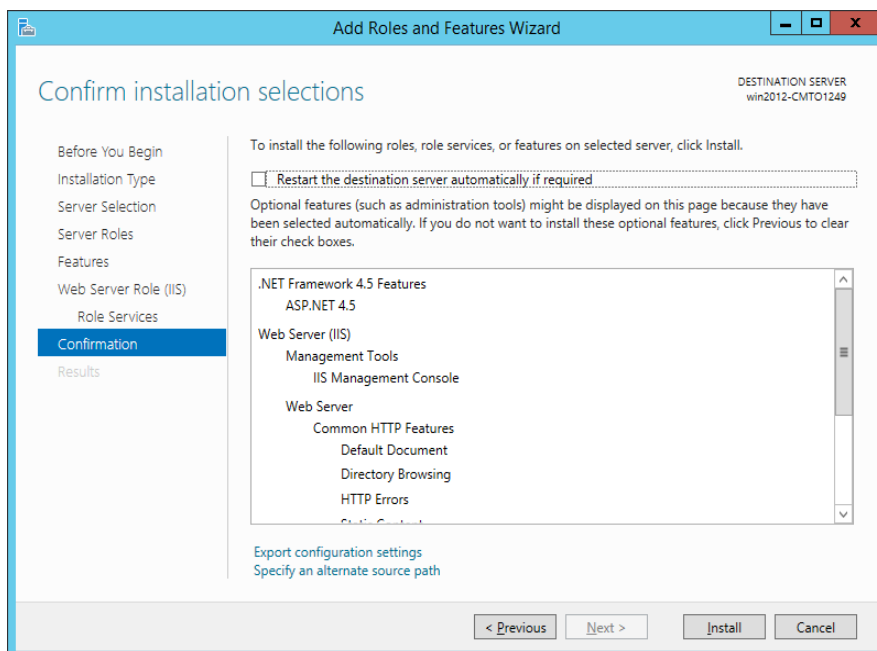
Here you define which of the listed role services should be installed.

9) Take care that the following checkboxes are active:

Static Content, Default document, Directory Browsing and HTTP Errors.

10) Click on **Next**.

The following dialog opens:



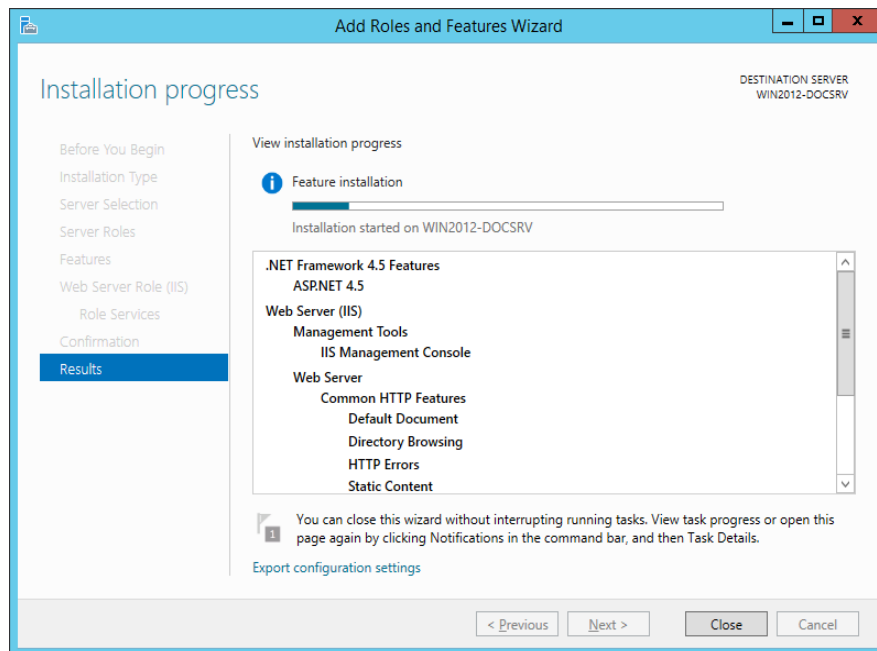
An overview list for all selected role services to be installed is displayed.

11) Click on **Install**.

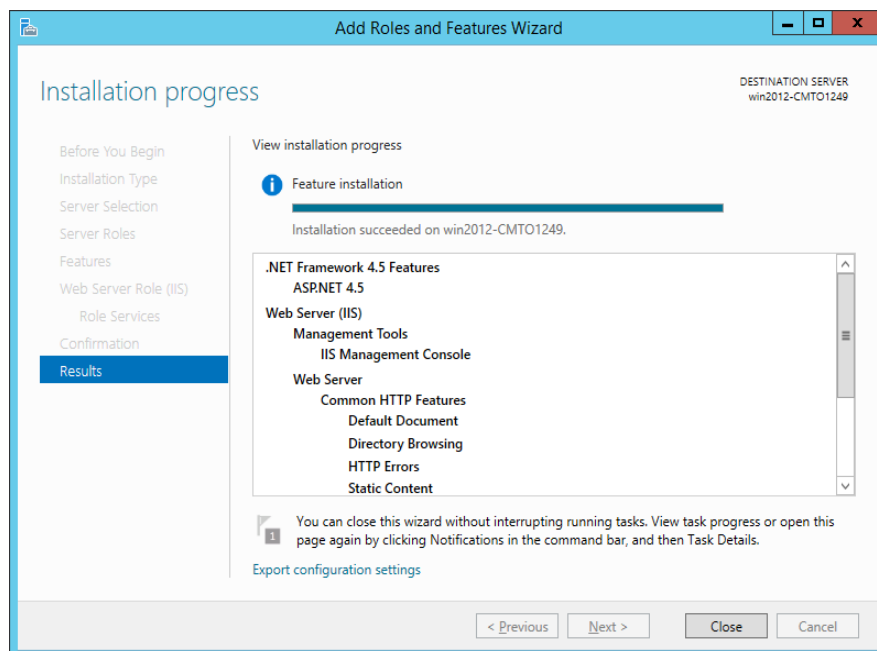
Installing of the FastViewer WebClient Server

Install required Role Services and Features

The installation of the role services starts. In the following dialog the installation progress is displayed.



When the installation has finished the following dialog is displayed:



Information about the installation results of the selected role services and / or features is displayed.

12) Click on **Close**.

The dialog is being closed and the **Assistant to add Roles and Features** has finished.

5.2 Configuring Installation Requirements for the Integrated Deployment Scenario

Configuring installation requirements for the integrated deployment scenario.

Two installation requirements must be configured for setting up the integrated deployment scenario of FastViewer WebClient.

IMPORTANT: This configuration must be performed before installing FastViewer WebClient on the FastViewer server.

In the following the configuration of the two installation requirements is described step by step.

5.2.1 Preparations for an Installation with DNS-Name / one IP-address of the WebConference and Web Client server

Configuration of the `settings.ini` on the FastViewer server for the integrated installation with only one IP address.

In case that a DNS-Name / one IP address is to be used, different ports must be defined in the `settings.ini` on the FastViewer server.

Proceed as follows:

Step by Step

- 1) Open the `settings.ini` file of the FastViewer server in a suitable editor.

You find this file on the FastViewer server in the directory:

`C:\Program Files (x86)\WebConferenceServer`

- 2) Edit the following variables in the `settings.ini` to define different port numbers:

NOTICE: You can use any free port. In the following example, port 8090 has been used.

- a) `ExternalAddress=<DNS name/IP>`
 - b) `ClientURLBase=<DNS name/IP>`
 - c) `WebClientURLBase=http://<DNS name/IP><alternative port>`
- 3) Save the `settings.ini` file.
 - 4) Reboot the **Webconferenceserver** service.

Now the FastViewer server is prepared for the FastViewer WebClient installation that both can be reached under one IP address.

5.3 Install an integrated Deployment Scenario

In this scenario the FastViewer WebClient is installed on the same computer as the FastViewer server.

Prerequisites

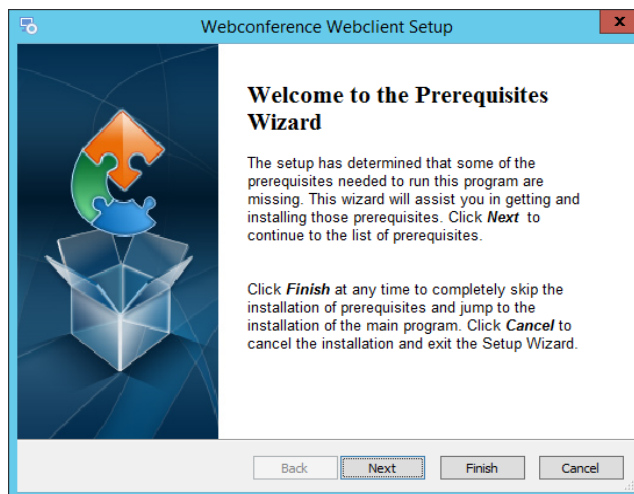
- *Microsoft .NET Framework 3.5 SP1* is already present on the FastViewer WebClient computer. If the required .NET Framework is not on the system, it will be installed during the Setup.
- The *Webserver (IIS)* as well as all required role services and features are already installed on the computer.

Perform the following steps:

Step by Step

- 1) Execute the `WebClientV4Setup.exe` file.

The following dialog opens:

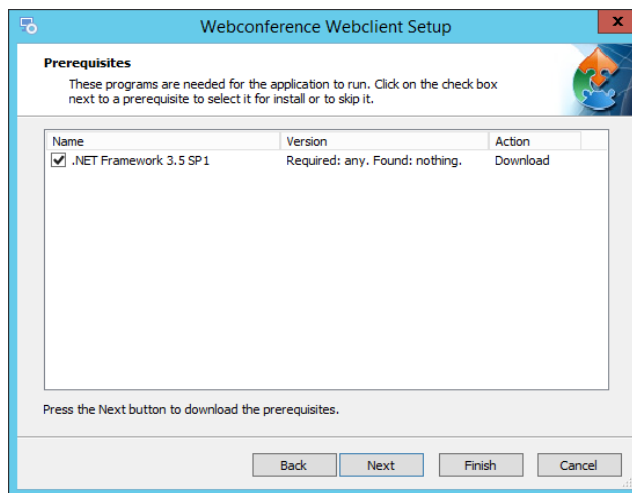


- 2) Click on **Next**.

The following dialog opens in order to verify the .NET Framework :

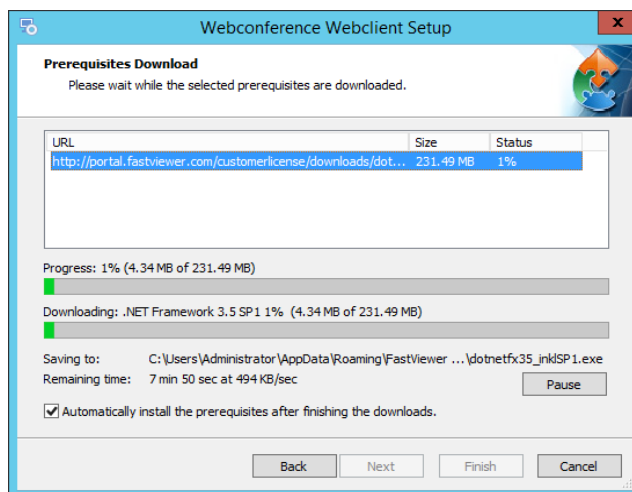
Installing of the FastViewer WebClient Server

Install an integrated Deployment Scenario



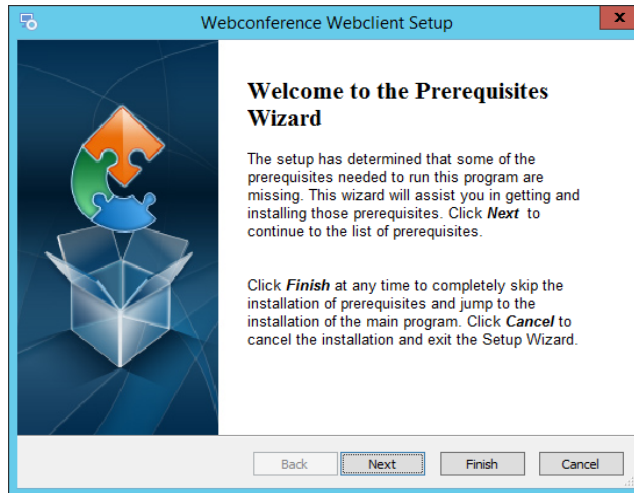
3) Click on **Next**.

If the required .NET Framework is not already on the system, it will be downloaded in this installation step:



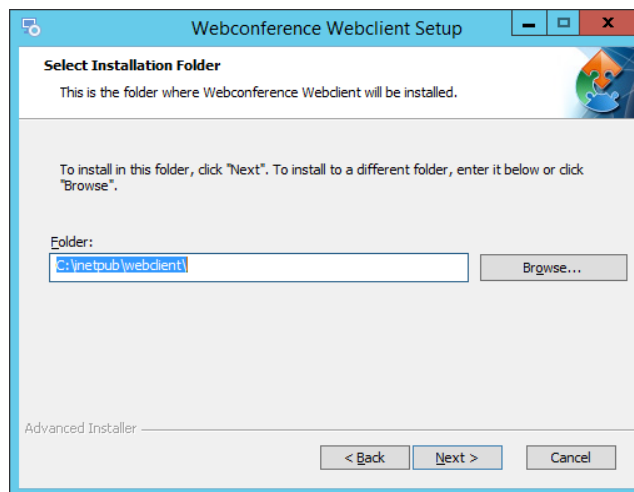
4) Click on **Finish**.

5) the following dialog opens:



6) Click on Next.

The following dialog opens:



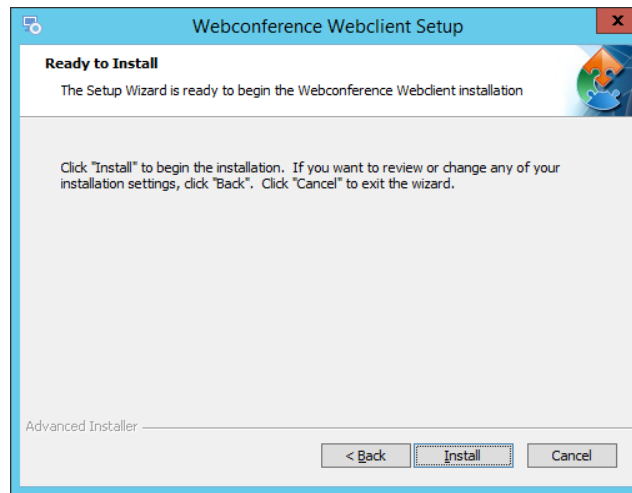
7) Either use the given target folder for the installation or select the target folder with Choose....

8) Click then on Next.

The following dialog opens:

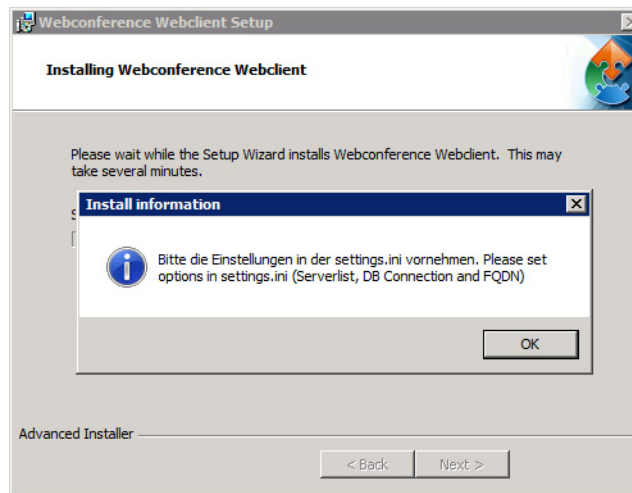
Installing of the FastViewer WebClient Server

Install an integrated Deployment Scenario

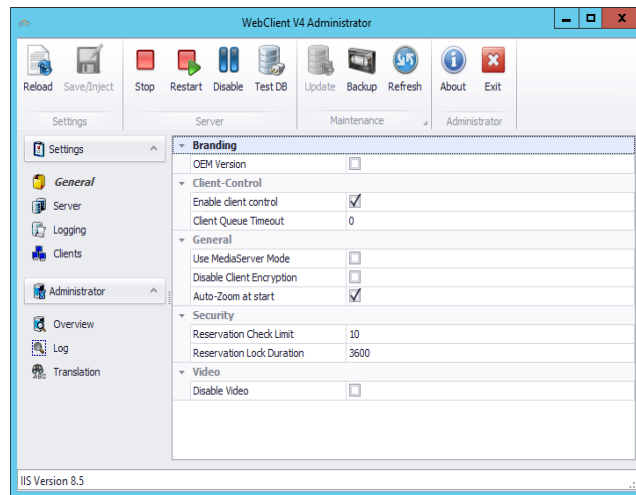


9) Click on **Install**.

The installation starts. After a short time you will be prompted with an appropriate message to enter your License number and the path to the Webclient. (By default: C:\inetpub\webclient)



10) The WebClient V4 Administrator, which is used to create and configure the WebClient.



- 11) Enter for the parameter `ServerlistURLs` under `Server` the existing path of your FastViewer server. The server specification can be done like this:

for example:

```
ServerListURLs=http://10.1.101.2/update/serverlist.txt
```

- 12) Adapt the FQDN of the WebClient servers. E.g.:

```
FQDN="webclient.yourserver.com"
```

- 13) Replace the value `HTTP` port 80 with another port number if the FQDN of the FastViewer servers and of the WebClient should be the same. E.g. port 8090.

NOTICE: Die port number specification depends on the respective Website-settings, which must be performed after the installation.

- 14) Save your changes with `Save/Inject` thus the WebClient V4 Administrator closes.

Activating the FastViewer WebClient is now complete.

5.3.1 Configure an integrated Scenario on IIS

This section comprises the configuration steps you need to take after installing the FastViewer WebClient in an integrated deployment scenario with only one IP address.

NOTICE: To keep the installation simple we recommend to use the setup version with two IP addresses.

Installing of the FastViewer WebClient Server

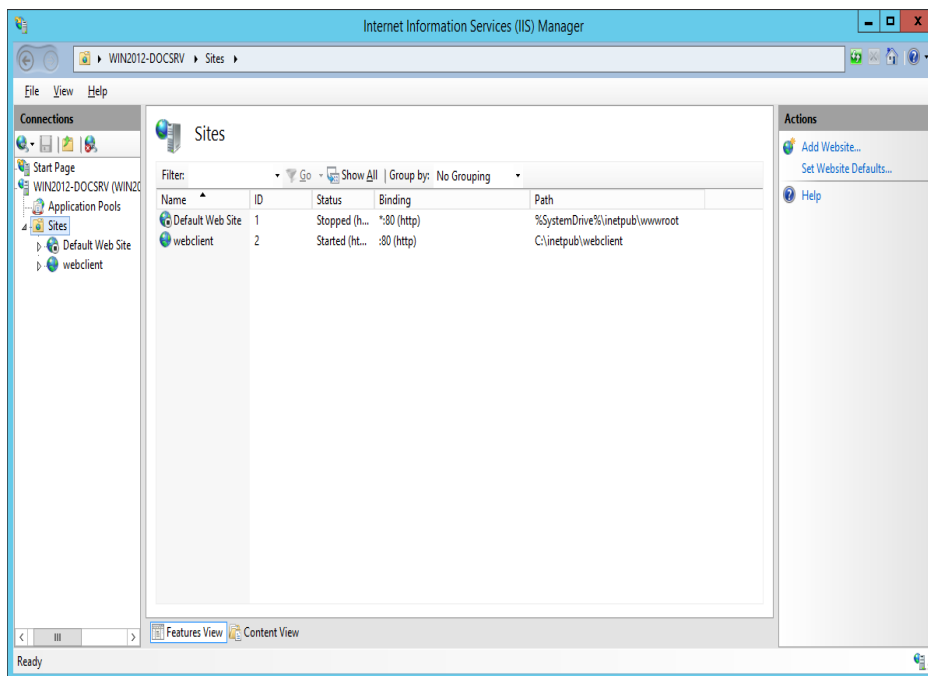
Install an integrated Deployment Scenario

Port 80 is pre-set for the IIS (Internet Information Services) by default. If only one IP address is used, this would conflict using the FastViewer WebClient, which deploys HTTP port 80 also. Consequently, you need to change the port number setting respectively host name in the IIS bindings configuration. Execute the following steps:

Step by Step

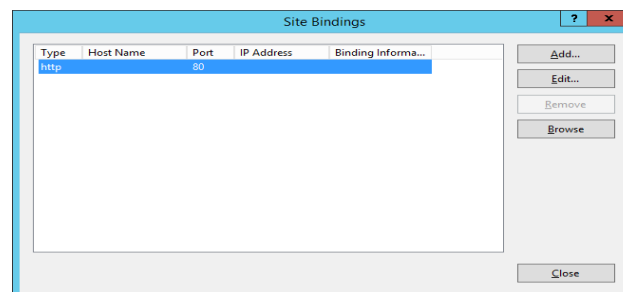
- 1) In the left-hand section of the **Windows Server Manager** window select **Tools > Internet Information Services (IIS) Manager**.
- 2) In the **Connections** section click on the plus character of the connection to be configured and select the **Sites** option.

The **Sites** section displays all configured websites, e.g. **Default Web Site** and **webclient**.



- 3) Select the **webclient** entry.
- 4) In the **Actions** section to the right of the configured **websites** click on the **Bindings** link.

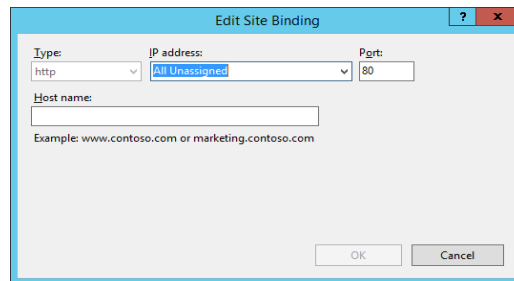
The following dialog opens:



- 5) Select in the **Site Bindings** list the **http** entry.

6) Click on **Edit...**

The following dialog is displayed:



7) Change one of the following values:

- The pre-set port number 80 in the **Port** field, e.g. to 8080.

IMPORTANT: The port number for the web site of the FastViewer WebClient must differ from the port numbers for the other configured web sites.

IMPORTANT: If you want to use https you can select an alternative port (e.g. 8443). Else you need two FQDNs, two IPs and two certificates

IMPORTANT: The port numbers for the website of FastViewer WebClient must differ between other port numbers of other applications.

- **The Host name**
In this deployment scenario you need to enter here a fully qualified domain name (FQDN) different from the one for the FastViewer server computer, for example `webconf2.example.com`.

8) Click on the **OK** button.

The **Edit Site Bindings** dialog closes.

9) Click on the **Close** button in the **Site Bindings** dialog.

The dialog closes.

10) Click in the **Actions** section on the **Start** link (green arrow).

The **weblitent** website is started.

11) If the installation is performed on a 64-bit system, execute the following additional steps:

NOTICE: If you install FastViewer WebClient on a 32-bit system, continue with step 12.

- a) In the **Connections** section of the **Windows Server Manager** click on the **Application Pools** option.

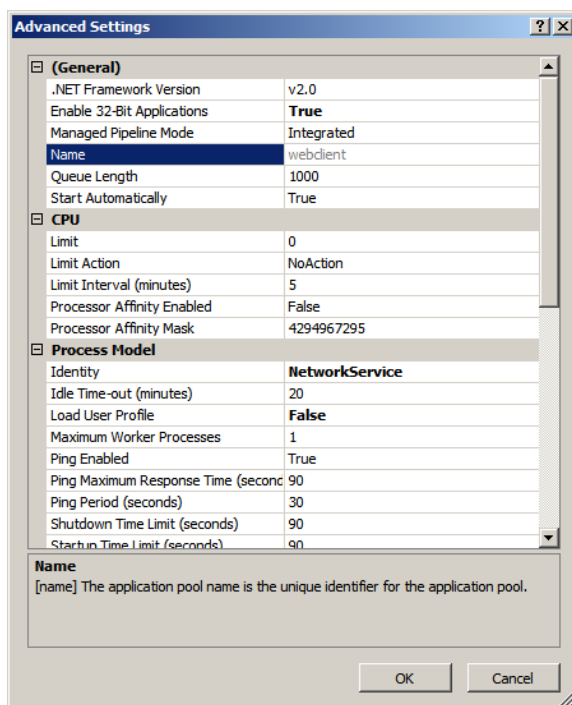
To the right of the **Connections** section the list of the application pools available on the system opens.

- b) Rightclick the list entry **webclient**.

A context menu opens.

- c) Select the **Advanced Settings** option.

The following dialog opens:



- d) Select under **(General)** the **Enable 32-Bit Applications** setting.

Value **False** is configured for this setting by default.

- e) Use the selection button at the end of the row to change the value to **True**.

- f) Confirm your modifications with a click on **OK**.

The dialog closes.

- 12) Open the configuration file `setting.ini` of the FastViewer server.

By default, this file is found under the path:

`C:\Program Files (x86)\WebConferenceServer`

- 13) Look for the following line:

```
;WebClientURLBase=http://Change2YourServer/joinclient.aspx?inv=%1
```

- 14)** Replace value `Change2YourServer` with the external, fully qualified domain name (FQDN) or the IP address of the FastViewer server computer. For example:

```
;WebClientURLBase=http://webconf2.example.com:80/joinclient.aspx?inv=%1
```

or

```
;WebClientURLBase=http://10.1.101.2:8080/joinclient.aspx?inv=%1
```

- 15)** Remove the semicolon (;) at the beginning of the line.

As a result, the line and thus also the parameter you have defined become valid.

- 16)** Save your changes and close the `settings.ini` file.

- 17)** Close the **Webconferenceserver** service via the **Windows Server Manager**.

- 18)** Start the **Webconference server** service.

- 19)** Enter the following URL in your web browser to check the FastViewer WebClient functionality:

```
http://<FQDN or server IP address>:<port>
```

The login page of the FastViewer WebClient opens. If you enter a name and a six digit long session number the following message must be displayed:
"Please enter a valid session number"

5.4 Install a distributed Deployment Scenario

In this deployment scenario the FastViewer WebClient is installed on different servers.

Prerequisites

- Microsoft .NET Framework 3.5 SP1 is already present on the FastViewer WebClient computer. If the required .NET Framework does not exist already on the system, it will be installed during the installation.
- The Webserver (IIS) as well as all required role services and features are already installed on the computer.

Perform the following steps:

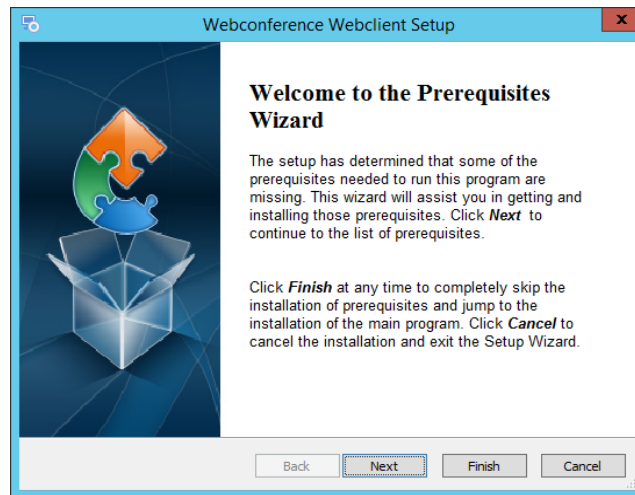
Step by Step

- 1)** Execute the file `WebClientV4Setup.exe`.

The following dialog opens:

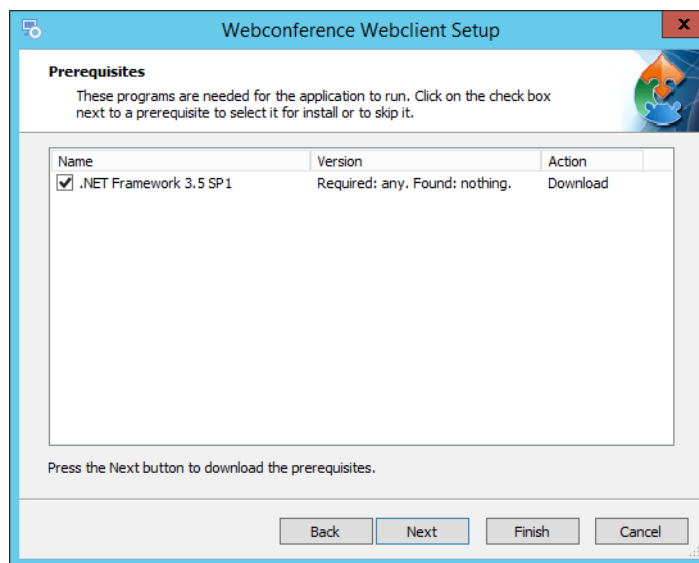
Installing of the FastViewer WebClient Server

Install a distributed Deployment Scenario



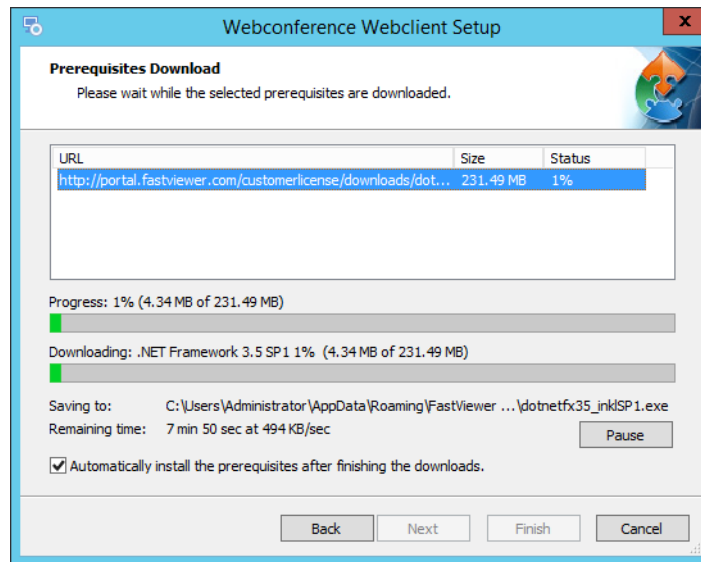
2) Click on **Next**.

The following dialog will be opened.



3) Click on **Next**.

If the required .NET Framework does not exist on the computer, it will be downloaded.



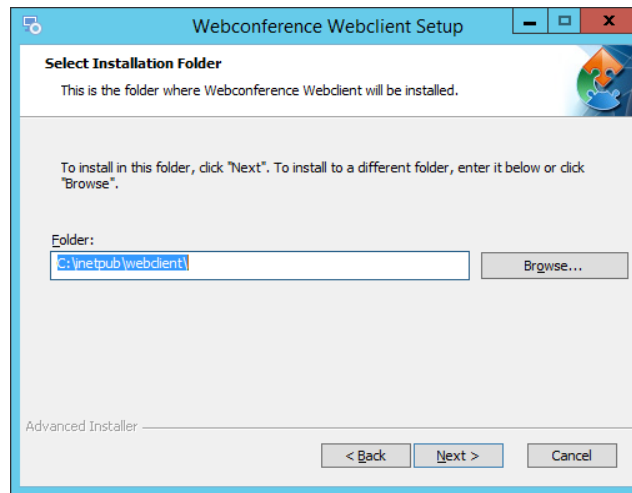
- 4) Then click on **Finish**.
- 5) The following dialog will be opened:



- 6) Click on **Next**.
- The following dialog will be opened:

Installing of the FastViewer WebClient Server

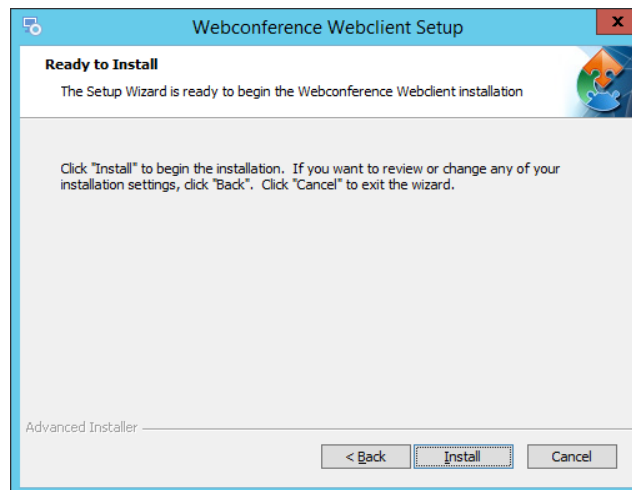
Install a distributed Deployment Scenario



7) Overtake the target folder given by default for the installation or select the target folder with **Choose....**

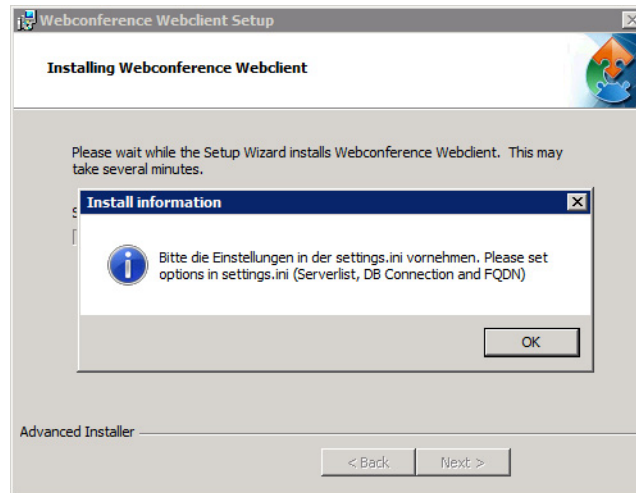
8) Then click on **Next**.

The following dialog will be opened:

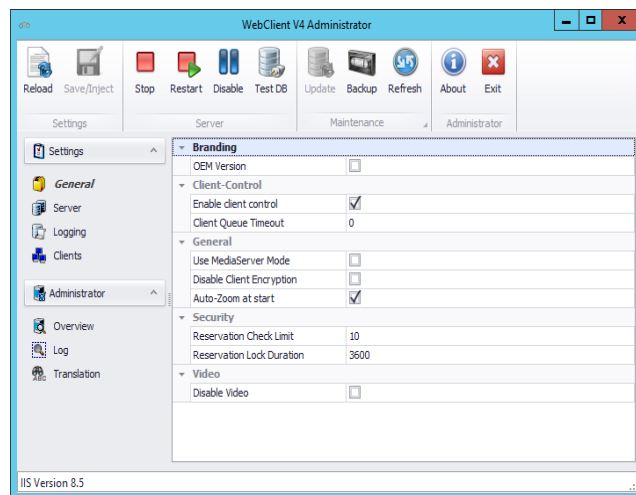


9) Click on **Install**.

The installation is started. After a short time you are prompted to enter the license number and also the path to the Webclient. (by default: C:\inetpub\webclient)



10) the WebClient V4 Administrator opens, which is used to create and configure the WebClients.



11) Enter the parameter `ServerlistURLs` under `Server` for the existing path to Server list of FastViewer-Server. The server can be specified like this:

For example:

```
ServerListURLs=http://10.1.101.2/update/serverlist.txt
```

12) Adapt the FQDN of the WebClient-Server e.g.:

```
FQDN="webclient.yourserver.com"
```

13) You can replace the value for `HTTP Port 80` with another Port number (e.g. 8090).

NOTICE: the port number specification depends on the respective Website settings, which need to be done after the installation.

- 14)** In the Database-Connection field specify the connection to the database. This connection (depending on the installation) can be located e.g. on the FastViewer-Server. Replace in this line the string (local) with the related FQDN or the IP. e.g. webconf1.example.com

NOTICE: In order to check the functionality of the database click on button Test DB. When the connection could be established successfully the following message is displayed: The database connection test was successful.

- 15)** Save your changes and by clicking on the button Save/Inject WebClient V4 Administrator is closed.

The aktivation of the FastViewer WebClient is finished

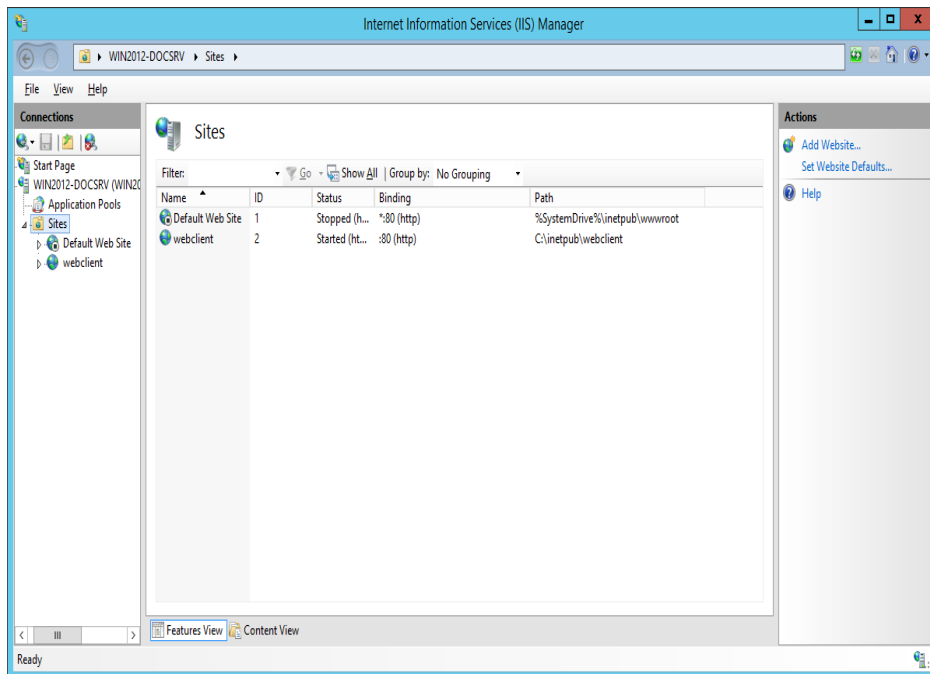
5.4.1 Configure a distributed Scenario on IIS

This section comprises the configuration steps you need to take after installing the FastViewer WebClient in a distributed deployment scenario.

Step by Step

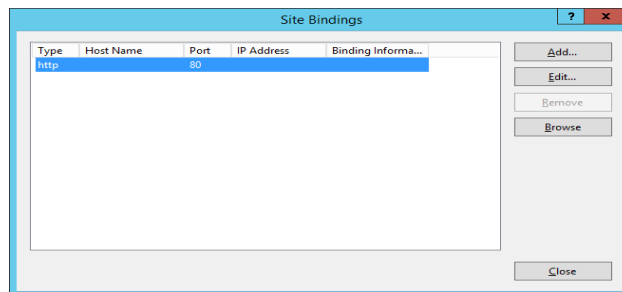
- 1)** In the left-hand section of the **Windows Server Manager** window select **Roles > Web Server (IIS) > Internet Information Services (IIS) Manager**.
- 2)** In the **Connections** section click on the plus character of the connection to be configured and select the **Sites** option.

In the area **Sites** section displays all configured websites, e.g. **default Web Site** and **webclient**.



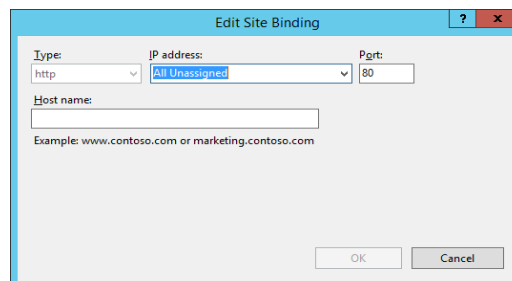
- 3) Select the **webclient** entry.
- 4) In the **Actions** section to the right of the configured **websites** click on the **Bindings** link.

The following dialog opens:



- 5) Select in the **Site Bindings** list the **http** entry.
- 6) Click on **Edit....**

The following dialog is displayed:



- 7) Enter the FQDN name of the FastViewer WebClient computer in the **Hostname** field, for example `webconf2.example.com`

- 8) Click on the **OK** button.
The **Edit Site Bindings** dialog closes.
- 9) Click on the **Close** button in the **Site Bindings** dialog.
The dialog closes.
- 10) Click in the **Actions** section on the **Start** link (green arrow).
The **webclient** website is started.
- 11) If you set up the installation on a 64-bit system, execute the following additional steps:

NOTICE: If you install the FastViewer WebClient on a 32-bit system, continue with step 12.

- a) In the **Connections** section of the **Windows Server Manager** click on the **Application Pools** option.

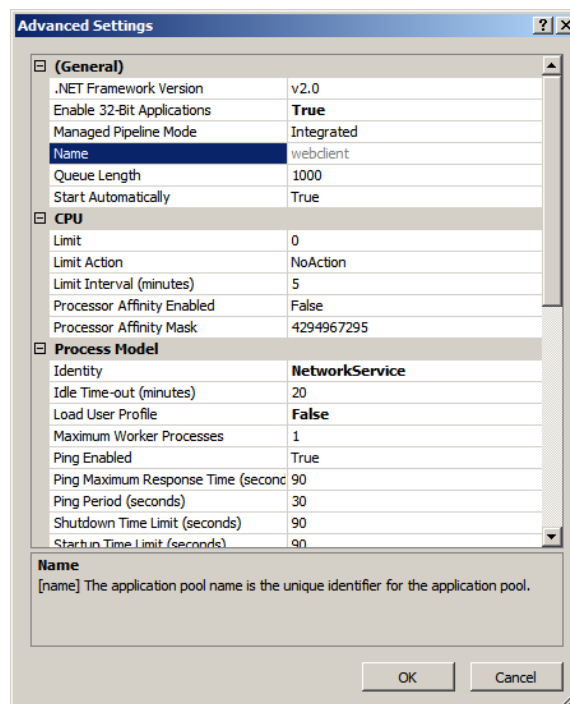
To the right of the **Connections** section the list of the application pools available on the system opens.

- b) Rightclick the list entry **webclient**.

A context menu opens.

- c) Select the **Advanced Settings** option.

The following dialog opens:



- d) Select under **(General)** the **Enable 32-Bit Applications** setting.
Value **False** is configured for this setting by default.

- e) Use the selection button at the end of the row to change the value to **True**.
- f) Confirm your modifications with a click on **OK**.

The dialog closes.

- 12)** Open the configuration file `setting.ini` of the FastViewer server.

By default, this file is found under the path:

`C:\Program Files (x86)\WebConferenceServer`

- 13)** Look for the following line:

```
;WebClientURLBase=http://Change2YourServer/joinclient.aspx?inv=%1
```

- 14)** Replace value `Change2YourServer` with the external, fully qualified domain name (FQDN) or the IP address of the FastViewer WebClient computer. For example:

```
;WebClientURLBase=http://webconf2.example.com:80/joinclient.aspx?inv=%1
```

or

```
;WebClientURLBase=http://10.1.101.3:80/joinclient.aspx?inv=%1
```

- 15)** Remove the semicolon (;) at the beginning of the line.

As a result, the line and thus also the parameter you have defined become valid.

- 16)** Save your changes and close the `settings.ini` file.

- 17)** Close the **Webconferenceserver** service via the **Windows Server Manager**.

- 18)** Start the **Webconference server** service.

- 19)** Enter the following URL in your web browser to check the functionality:

```
http://<FQDN or server IP address>:<port>
```

The login page opens. When you enter a name and a six digit session number the message "please enter a valid session number" must appear.

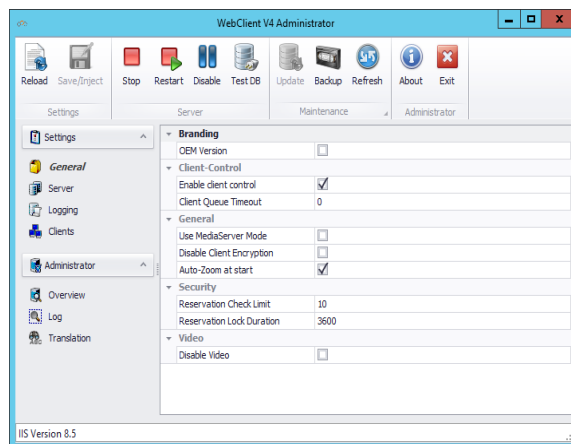
5.5 Configuration options of the WebClient Administrator

In the following you find a compilation of all settings you can possibly perform in the `settings.ini` configuration file of the FastViewer WebClient. The WebClient administrator can be found under the path `C:\inetpub\webclient`.

You can perform the settings in the `settings.ini` conveniently via the settings dialogs of the **WebClient Administrator**. You find this application program (`WebClientAdministrator.exe`) in path `...\inetpub\webclient\Administrator`.

Installing of the FastViewer WebClient Server

Configuration options of the WebClient Administrator



Description of the symbol panel:

Subsection	Description
Reload	updates all values of the WebClient Administrator according to the information of settings.ini.
Save/Inject	saves the actual settings.
Stop	stops the WebClient.
Restart	restarts the WebClient.
Disable	Deactivates the WebClient, actual sessions are not closed but no new sessions can be started.
Test DB	tests the connection to the database.
Update	starts the update procedure.
Backup	creates a zip file from the WebClient Files for safety.
Refresh	updates the number of the active sessions in the overview as well as the version number of the server.
About	informatin about the version of the WebClient Administrator.
Exit	Closes the WebClient Administrator.

Description of the area settings:

Subsection	Label	Description
General	OEM Version	If set, then instead of the FastViewer logo an alternative logo is displayed. This must be stored in the installation directory of the WebClient server.
	Enable client control	Enables the transfer of the control permissions to a Web-Client participant.
	Client Queue Timeout	Here the value can be defined in which time periods information like keyboard entries or mouse movements is transmitted.
	Use MediaServerMode	Is required when media servers are used.
	Disable Client Encryption	This function is necessary for recording sessions on the server.
	Auto-Zoom at start	When this function is active, at session start the whole desktop of the presenter is shown and not only an extract..
	Reservation Check Limit	Here you can specify the maximum number of reservations (session rooms) in a 5 seconds interval per IP address.
	Reservation Lock Duration	Duration of the lock when the Reservation Check Limit (see above) has been reached.
	Disable Video	Deactivates the video functions of the WebClient. This results in better performance.

Installing of the FastViewer WebClient Server
Configuration options of the WebClient Administrator

Subsection	Label	Description
Server	Database-Connection	Contains the data-base connection string inclusive user data for the connection establishment.
	Serverlist	Defines the session number range for the respective Webconference server. (E.g. 100000-999999:webconf1.example.com)
	Serverlist URLs	Contains the link to the server list. (E.g. http://webconf1.example.com/update/serverlist.txt)
	FQDN	The WebClient server is reachable under the specified DNS-Name.
	HTTP Port	HTTP port of the WebClient server which is used for communication.
	SSL Port	The HTTPS port of the WebClient server used for communication in case that a respective certificate is available and the function "Use SSL" is active.
	Use SSL	Activates the communication of the WebClient per HTTPS.
	Redirect URL if disabled	Here you can specify an URL for forwarding in case the Web-Conference server is not active.
Logging	Path for Logfile	Here you can specify a path for logging (E.g. C:\Logs\Web-Client.log).

Subsection	Label	Description
	Log to Client-Console	Setting which logs should be displayed on the client console.
	Log to EventLog	Setting which logs should be displayed on the Windows EventLog.
	Log to File	Setting which logs should be displayed in the log-file.
	Send to SysLog-Server	Setting which logs should be sent to the SysLog-Server.
	SysLog-Server-Adress	Specification of the DNS-Name or IP-address with which the SysLog server can be reached.
	SysLog-Server-Port	Specification of the IP of the SysLog-server.
Clients	Use SmartLoader	If active, at start of the WebClient a Java application opens depending on configuration and operating system the Windows / MAC module or the FastViewer App (Apple and Android)
	Autostart Invitations	If active, at clicking on the invitation link the respective session is started.
	Default-Client for Windows	Configuration which client should be used at start of a session via Smart-loader on a Windows operating system.
	Default-Client for Mac	Configuration which client should be used at start of a session via Smart-loader on a MacOS operating system.

Installing of the FastViewer WebClient Server
 Configuration options of the WebClient Administrator

Subsection	Label	Description
	Default-Client for iOS	Configuration which client should be used at start of a session via Smart-loader on an iOS device
	Default-Client for Android	Configuration which client should be used at start of a session via Smart-loader on an Android device
	Allow alternate Client	Allows the participant to selection of the Client to be used. (WebClient or native).
	iOS Protocol Name	Protocol name which should be used by the iOS App (by default: ifastviewer)
	iOS Appstore Link	Link to the iOS App.
	Android Protocol Name	Protocol name which should be used by the Android App (by default: ifastviewer)
	Android PlayStore Link	Link to the Android App.
	Path for client modules	If the subscriber modules (FastClient.exe and FastClient.app.zip) are not stored in the installation directory, you can specify the path to the modules here.

Subsection	Label	Description
	Domain	If the path links to a network drive you can specify here the respective domain.
	Username	If the path links to a network drive you can specify here the user name with the respective rights.
	Password	If the path links to a network drive you can specify here the password for the user.

Description of the Administrator range

Subsection	Label	Description
Overview	Running Sessions	Displays the actual active connections of the WebClient.
	Local Version	Displays the actual active version.
	Available Version	Displays the actual latest version which is available.
	Update Mode	Value Automatic starts the update process automatically. Value Manual requires intervention of an administrator.
	Update Source	Value Online defines that it is searched for updates online. Value Offline deactivates this search.
	Update Path	Path to which a potential update will be downloaded.
	Service State	Status of the Update service.

Subsection	Label	Description
	Advanced Settings	Here you can configure the intervals how often it should be searched for new updates. Furthermore the login mode at deployment of a new update and a possibility to store proxy information in order to make update query possible at all.
	Backup Path	Adaption of the Backup path.
	Existing Backups	Displays all existing backups with time-stamp. There is a possibility to restore from a backup or delete a backup.
Log		Overview and possibility to export the log entries.
Translation		Start of the FastViewer Resource editor to create or adapt the WebClient administrators in different languages.

Beside of the configuration possibility with the **WebClient administrator** the configuration file `settings.ini` can be edited. An overview about the possible parameters are in the table below.

Installing of the FastViewer WebClient Server
Configuration options of the WebClient Administrator

Setting	Description	Value specification
ClientForWindows	This parameter specifies the FastViewer client to be used for a Microsoft Windows operating system when its invitation link is clicked. Example: <code>ClientForWindows=0</code>	0 :for clientFastViewer or 1 :for FastViewer WebClient (with JavaScript).
ClientForMAC	This parameter specifies the FastViewer client to be used for a device with MAC operating system when its invitation link is clicked. Example: <code>ClientForMAC=4</code>	1 : for FastViewer WebClient (with JavaScript) or 4 : with FastViewer Mac client.
ClientForiPhone	This parameter specifies the FastViewer client to be used for a device with iOS when its invitation link is clicked. Example: <code>ClientForiPhone=3</code>	1 : for FastViewer WebClient (with JavaScript) or 3 : for -FastVieweri-Phone-App.
ClientForAndroid	This parameter specifies the FastViewer client to be used for a device with Android operating system when its invitation link is clicked. Example: <code>ClientForAndroid=5</code>	1 : for FastViewer WebClient (with JavaScript) or 5 : for FastViewer Android.
ClientForOther	This parameter specifies the FastViewer client to be used for all other operating systems when its invitation link is clicked. Example: <code>ClientForOther=1</code>	1 :for FastViewer WebClient (with JavaScript).
ClientForMobile	This parameter specifies the FastViewer client to be used for any mobile device when its invitation link is clicked. Example: <code>ClientForMobile=1</code>	1 : for FastViewer WebClient (with JavaScript) or 2 : for FastViewer WebClient with Flash.
ClientQueueTimeout	This parameter defines the time in milliseconds after which the data in the waiting loop is transferred from the FastViewer WebClient to the FastViewer server. The default value is <code>ClientQueueTimeout=300</code> .	<value>
ControlEnabled	Activates/deactivates the assignment and application of remote-control privileges via the .FastViewer WebClient This function is inactive by default: <code>ControlEnabled=0</code> .	0 or 1
DBConnectionString	Connection character string for SQL servers. Example: <code>DBConnectionString="Data Source=(local)\fastviewer;Initial Catalog=fastviewer;Persist Security Info=True;User ID=sa;Password=<<xxxxxxxxxxxxxxxxxxxx>>"</code>	<connection string>

Installing of the FastViewer WebClient Server
Configuration options of the WebClient Administrator

Setting	Description	Value specification
DefaultWebClient	Setting to determine whether Flash or JavaScript shall be used as default for the - FastViewer WebClient. DefaultWebClient=Flash is set by default.	=Flash or =JavaScript
DisableVideo	This option lets you disable the video feature. This feature is active by default: DisableVideo=0.	0 or 1
DomainForPathToPresavedFiles	Domain name for a legitimation if required for accessing the path under PathToPresavedFiles. Example: DomainForPathToPresavedFiles="Company"	<domain>
EnableLogging	Activates/deactivates writing of log files. This parameter is inactive by default: EnableLogging=0. Logging consumes a considerable amount of the server system's computing power. This may deteriorate the system performance of the FastViewer server from the user's view. Therefore, activate this parameter only for the period in which you actually need this data to search for errors.	0 or 1
FQDN	External, fully qualified domain name or IP address of the FastViewer server with port specification, e.g. FQDN="10.1.101.2:8080".	<FQDN>
iPhoneProtocolName	This parameter defines which iPhone or iPod application you can invoke directly via the - FastViewer WebClient link without having to enter a session ID manually. The default setting is iPhoneProtocolName="iFastViewer".	"iOpenScape" or "iFastViewer"
MAILsender	Specify here the e-mail address to be displayed as originator address for the error e-mail. Example: MAILsender="err.log@offline.com"	<e-mail address>
MAILreceiver	Specify here the e-mail address the error e-mail shall be sent to. Example: MAILreceiver="ser.coll@offline.com"	
OEMVersion	This parameter defines whether or not the FastViewer logo shall be displayed (in case of an OEM (Original Equipment Manufacturer) version). The default setting for this parameter is: OEMVersion=0	0 or 1

Installing of the FastViewer WebClient Server
Configuration options of the WebClient Administrator

Setting	Description	Value specification
PasswordFor-PathToPre-savedFiles	<p>Password for a legitimization if required for accessing the path under PathToPre-savedFiles.</p> <p>Example: PasswordForPathToPre-savedFiles="Password"</p>	<password>
PathToPre-savedFiles	<p>Path in which the Windows and Mac clients have been stored. This path must be valid for providing the clients as well as for the Smartloader function.</p> <p>Example: PathToPresavedFiles="C:\Program Files (x86)\WebConferenceServer"</p> <p>See also:</p> <p>DomainForPathToPresavedFiles</p> <p>UsernameForPathToPresavedFiles</p> <p>PasswordForPathToPresavedFiles</p>	<path specification>
Serverlist	<p>Defines the session number range for the FastViewer server used, e.g. 100000-999999:10.1.101.2. If this parameter is configured, the ServerListURL parameter need not be set.</p>	
ServerListURL	<p>If the session number range is defined in a text file (e.g. serverlist.txt), this parameter specifies the storage location of this text file, e. g. http://10.1.101.2/update/serverlist.txt.</p>	<URL>
SmartDownloaderClientForWindows	<p>This parameter determines the FastViewer client application offered under a Microsoft Windows operating system via the Smartloader. The default setting for this parameter is: SmartDownloaderClientForWindows=0</p>	<p>0 : FastViewer client or</p> <p>1 : FastViewer WebClient (with JavaScript).</p>
SmartDownloaderClientForMAC	<p>This parameter determines the FastViewer client application offered under a MAC operating system via the Smartloader. The default setting for this parameter is: SmartDownloaderClientForMAC=4</p>	<p>1 : FastViewer WebClient (with JavaScript) or</p> <p>4 : FastViewer MAC client.</p>
SMTPPORT	<p>Specify here the port of the SMTP server to which you wish to transmit error reports.</p> <p>Example: SMTPPORT="<port number>"</p>	<port number>
SMTPPWD	<p>Specify here the password of the user on the SMTP server to which you wish to transmit error reports. Example: SMTPPWD="<password>"</p>	<password>

Setting	Description	Value specification
SMTPServer	Specify here the name of the SMTP server to which you wish to transmit error reports. If you do not specify this name, sending an error report to an SMTP will be disabled. Example: SMTPServer="<server name>"	<server name>
SMTPUserID	Specify here the name of the user on the SMTP server to which you wish to transmit error reports. Example: SMTPUserID="<UserID>"	<UserID>
SysLogPort	This parameter defines the port (UDP) the FastViewer server uses for communicating with the Syslog server. The default settings is: SysLogPort="514"	
SysLogServerIp	IP address of the Syslog server to which the generated log messages shall be sent. Example: SysLogServerIp="100.10.0.100.100"	<IP address>
UsernameForPathToPre-savedFiles	User name for a legitimation if required for accessing the path under PathToPre-savedFiles. Example: UsernameForPathToPre-savedFiles="UserID"	<UserID>
UseSmartDownloader	Activating/deactivating the Smartloader. With the FastViewer WebClient and independent from the operating system the appropriate client is automatically downloaded via the Smartloader. The default setting is: UseSmartDownloader=False	False or True

The following applies for all parameters in the `settings.ini` file:

- Case sensitivity must be heeded.
- Parameter and value are separated by an equal sign.
- No blanks between parameter and equal sign
- Pre-set values exist for the respective parameter only as far as specified

5.6 Automatical Client selection - Functions of the SmartLoader

SmartLoader function.

The SmartLoader enables web conference participants to connect to each other independently from the operating system. In this context, an automatic version control makes sure that an updated client module is downloaded for the specific operating system, only if required.

Altogether the FastViewer server supports the following operating systems:

Operating system	Web conferencing client
Microsoft Windows	Windows client (as master module and client module)
Apple Mac OS	Mac client (as master module and client module)
Apple iOS	iOS-App
Google Android	Android-App
Other	FastViewer WebClient

Without SmartLoader, every Ad-hoc web conference requires downloading the client that matches the operating system. If a participant has been invited for a web conference via an invitation e-mail, the participant's operating system is automatically recognized, but it will be downloaded each time a new web conference session is staged.

The SmartLoader remedies the above disadvantages. Only the following URL is now required for Ad-hoc web conferences In case of using Fastviewer communication server structure:

join.fastviewer.com

It is used for starting the session. After you have entered the session ID for joining the web conference, the following process starts automatically.

First the version number of the required module stored in the download directory is checked:

- If both versions are identical, the module starts automatically with the entered session ID. As a result, the module starts extremely fast to save time and bandwidth considerably.
- If both versions are not identical, the file of the old module will first be overwritten with the current module's file. Subsequently, the module starts automatically with the entered session ID. After the web conference the module is available for the faster start-up version (see above description).

The same procedure applies for web conferences started via a link in an invitation e-mail.

Once a web conference module has been loaded via this mechanism, the ensuing web conference sessions are loaded within seconds as the module file need not be downloaded anew. You need not wait for an update phase to pass until the initial start of a newly appearing module version.

Prerequisites for using SmartLoader :

To use the SmartLoader the web conference participant requires a browser that supports JavaScript.

NOTICE: JavaScript-Plugin can be downloaded for all common web browsers from the Java website (www.java.com).

If a participant does not have Java, he/she will be enabled to join the session conventionally. The client module required for the participant's system is then offered for downloading.

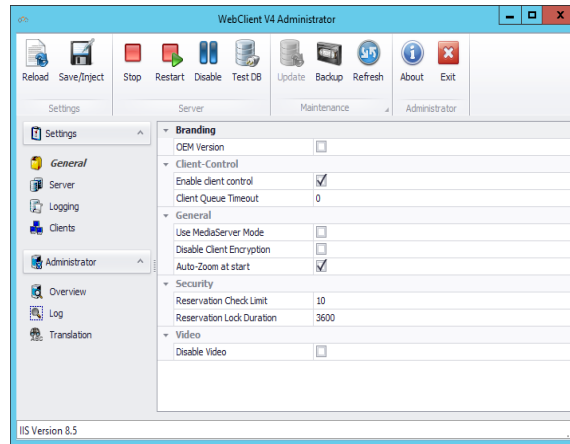
5.6.1 Configuration of the SmartLoader

Configuring SmartLoader.

Using the SmartLoader features requires the following configuration works:

Step by Step

- 1) Start the application **Web Client Administrator** by executing the program `WebClientAdministrator.exe`



You find the application program `WebClientAdministrator.exe` on the FastViewer server in the directory `inetpub\webclient\Administrator`

- 2) In the **Web Client Administrator**, switch to the **Clients** tab.
- 3) Activate the Smartloader by setting the option **Use Smartloader**.
- 4) Select the clients you wish to use.
 - a) Select the client for Windows systems from the **Client/Windows** combo box:
 - Windows, for using the Windows-based client module.
 - Web, for using the web-based client module.
 - b) Select the client for Mac systems from the **Client/MAC** combo box:
 - MAC, for using the Windows-based client module.
 - Web, for using the web-based client module.
- 5) Save your settings with a click on **Save Settings**.
- 6) Enter in the field path for client module the path `C:\Program Files (x86)\WebConferenceServer`. Make sure that the modules (`FastClient.exe` and `FastClient.app.zip`) are available under this path.

Performing the SmartLoader settings is now complete. The SmartLoader is now active too.

6 Activating the https support

Enabling a secure https connection for the FastViewer WebClient or FastViewer-Server.

NOTICE: The certificate required for the secure https connection must be valid and equipped with a "private key"! Else https connections are not possible!

At the installation the system intern Web Client is installed by default without https support..

Using a secure https connection can be retrospectively enabled via installing SSL certificates on the IIS web server that hosts the client interface as well as on the FastViewer server. In case of Web Client and FastViewer are reachable with different DNS names, so in this constellation two SSL-certificates are needed.

When the SSL certificate installations are complete, the FastViewer WebClient can use a secure https connection to the FastViewer server.

Execute the following steps for this purpose:

- Add the certificates to the store of the own certificates for all FastViewer servers used, if you wish to use an internal root certification authority.
- Install the server certificates for the IIS web server.
- Usage of a SSL Certificat in FastViewer WebClient: In the IIS Web Server and WebClient Administrator activate the https-Unterstützung.
- In order to use a SSL Certificat for a FastViewer- Server: Perform in the `settings.ini` the Configuration settings for the FastViewer-Server.

In the following sections we detail how to proceed in the single work steps.

6.1 Add a SSL Certificate

Step-by-step guide to adding a certificate to the Trusted Root Certification Authority.

NOTICE: You find further information about this procedure under:
<http://technet.microsoft.com/en-us/library/cc754841.aspx>

To add a certificate to the store of the Trusted Root Certification Authority if you wish to use an internal root certification authority proceed as follows:

Step by Step

1) Open the Management Console.

E.g. via execute. Enter `mmc` and confirm with return key

Activating the https support

Activation of the https Support of the FastViewer Server

- 2) In the **Management Console** open the **File** menu and select the **Add/Remove Snap-In** function.

The **Add or Remove Snap-ins** dialog opens.

- 3) Select in the **Available snap-ins** area the **Certificates** snap-in and click on **Add**.

- 4) Select in the **Certificates snap-in** dialog under **This snap-in will always manage certificates for:** the **Computer account** option and click on **Next**.

- 5) Select in the **Select Computer** dialog the **Local computer** option and click on **Finish**.

The **Select computer** dialog closes.

- 6) Click on **OK**.

The **Add or Remove Snap-ins** dialog closes.

- 7) Expand in the console structure the **Certificates** entry.

The certificate objects are displayed.

- 8) Open the context menu of the object **Own Certificates** with a click of the right mouse button.

- 9) Select **All Tasks > Import** to import the certificates.

Now follow the steps through the **Certificate Import Wizard** dialog.

- 10) Repeat this procedure for all available FastViewer servers.

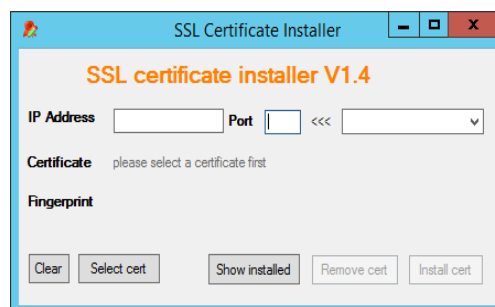
6.2 Activation of the https Support of the FastViewer Server

Step-by-step guide to activating https support on the FastViewer server.

To activate https support on the FastViewer server proceed as follows:

Step by Step

- 1) Open the **Certificate installer** which is located under `C:\Program Files (x86)\WebConferenceServer`.



The dialog to the installation of FastViewer-Server-Certificate will be opened.

- 2) Click on **Select cert**.

The dialog opens in which you can select the supplied own certificates.

- 3) Mark the certificate and confirm with a click on **OK**.
- 4) Enter under **IP Address** the IP address of FastViewer Server.

NOTICE: You can also use the combo box to enter the IP address.

- 5) Click on **Install Cert.**

The selected certificate is installed.

https support is now installed on the FastViewer server. Further information can be found in Chapter 7.1 Certificate Installer.

6.3 Activation of the https Support in the Internet Information Server (IIS)

Step-by-step guide to activating https support and configuring the binding port on the IIS server.

To activate https support and configure the binding port on the IIS server proceed as follows:

Step by Step

- 1) Click on **Start**.
- 2) Click on **Administrative Tools**.
- 3) Start the **Server Manager**.
- 4) Expand the console structure **Roles**.
- 5) Expand **Web Server IIS**.
- 6) Expand **Internet Information Services (IIS) Manager**.
- 7) Expand on the right side under **Connections** the IIS server entry (computer name).
- 8) Expand **Sites**.
- 9) Open the **webclient** context menu with a click of the right mouse button and select the **Edit bindings** function.

The dialog for configuring the binding port **Site Bindings** opens.

- 10) Select **Add**.

The **Edit Site Bindings** dialog opens.

- 11) Enter in the configuration dialog the binding type **https** under **Type**.
- 12) Enter the IP address assigned to FastViewer WebClient in the configuration dialog under **IP Address**.

Activating the https support

Configure the FastViewer Server for the https Connection via a WebClient

NOTICE: Be sure to actually enter the IP address of FastViewer WebClient and not the one of FastViewer Server.

13) Enter in the configuration dialog port **443** under **Port**.

NOTICE: You can also use any other port here. This port information is automatically transmitted to all Web Client subscribers.

14) Select under **SSL Certificate** the certificate you have previously installed.

15) Click on **OK** to complete defining the binding port.

The **Edit Site Bindings** dialog closes.

16) In the **Site Bindings** dialog click on the **Close** button.

17) Select on the right side under **Connections** the IIS server entry (computer name).

18) Select on the right side in the action area under **Manage Server** the **Restart** function.

Activating https support and configuring the port on the IIS server is now complete.

6.4 Configure the FastViewer Server for the https Connection via a WebClient

Step-by-step guide to configuring the FastViewer -WebClient for the https connection.

To configure the FastViewer WebClient for the https connection proceed as follows:

Step by Step

1) Open the file WebClientV4Administrator.exe under the path

C:\inetpub\webclient\Administrator in order to start the the WebClient administrator

2) click under Settings on Server and activate the function Use SSL in order to click on the checkbox. In the field SSL Port specify the used port number.

3) Now save and perform for the FastViewer-Server a restart:

a) Click on **Start**.

b) Click on **administrative tools**.

c) Start the **Server-Manager**.

d) Expand in the structure of the console **Configuration**.

e) Mark **Services**.

- f)** Scroll in the list of services until **Web Conference Server** and open via right click for this service the context menu.
- g)** Select from the context menu **restart**.

The Configuration of the FastViewer-Servers for https-support is finished. From now on Web conference sessions take place via a secure https-connection.

6.5 Steps for exclusive usage of https

Step-by-step guide for the general usage of https instead of http (port 80) Thus for communication with FastViewer https or tcp port 5000 is used exclusively.

Step by Step

- 1)** It must be ensured that the steps of Chapters 6.1 and 6.2 have finished successfully. These Chapters describe the creation and activation of the SSL certificate and thus the base for the basically usage of https.
 - 2)** Öffnen Open the server list `serverlist.txt` which can be found under `C:\Program Files (x86)\WebConferenceServer`.
 - 3)** Complete the respective IP-addresses/DNS-Names by adding after the session number a double point (:) and https:// e.g..
 - a)** For the usage of FastViewer-Servers:
`100000-999999:https://10.1.101.2`
 - b)** For the usage of several FastViewer-Server:
`100000-299999:https://10.1.101.2`
`300000-599999:https://10.1.101.3`
`600000-999999:https://10.1.101.4`
- The server list is invocable with `https://Servername/update/serverlist.txt`.
- 4)** Start the ServerAdmin under `C:\Program Files (x86)\WebConferenceServer`.
 - a)** Click on **Change Serverlist**.
 - b)** click on tab **Use Serverlist URL**.
 - c)** Modify the URL from `http://` to `https://`
 - d)** In order to ensure the functionality of the link click on Validate url.
 - 5)** Confirm the performed changes by clicking on the Submit Changes Button. Click in the following window on Yes in order to transfer the changes. If there is no internet connection click on No. In this case please send the created `ServerAdmin.fvk` to `support@fastviewer.com`. After adaption of the server list you will receive an information per mail.

Please download again the modules via your personal portal. Now https and / or tcp will be used exclusively for the Communication to/from FastViewer-Server. The configuration / creation of https on the WebClient is described in the Chapters and 6.3 and 6.4.

7 Administrative Tools

Administrative tools for the FastViewer server

This section describes the administrative tools used for connecting SSL certificates as well as for analyzing and maintaining. They are not required for normal use of the FastViewer server.

The following tools are available:

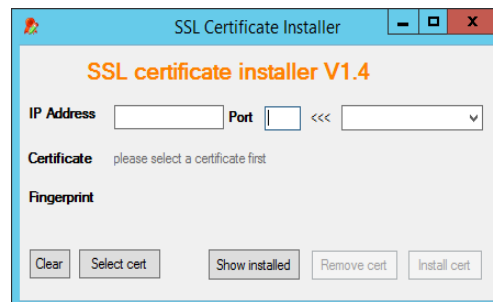
- **Certificate Installer**
Tool for connecting SSL certificates.
- **Server Admin**
Tool for analyzing the server status.
- **Log Viewer**
Tool for representing logs.

7.1 Certificate Installer

Tool for connecting SSL certificates.

If you wish to encrypt the communication during a web conference session you need to have a valid SSL certificate for the IIS. The Certificate Installer serves for connecting SSL certificates to the corresponding FastViewer server addresses.

You reach such tools via **C:\Program Files (x86)\WebconferenceServer\Certificate Installer**.



The GUI of this tool offers the following operating elements and functions:

- **IP Address/Port**
Enter here the IP address and the Port to which the SSL certificate shall be bound to. Alternatively, you can select the IP address manually via the opposite combo box.
- **Clear all**
A click on this button deletes your entries.
- **Select cert**
After clicking this button you can select the SSL certificate to be bound to the IP address mentioned under **IP Address**. The certificate name appears to the right of **Certificate**. In addition, the finger print of your SSL certificate (the so-called hash value) appears to the right of **Fingerprint**.

- **Remove cert**
Via this button you can separate the SSL certificate from the IP address defined above.
- **Install cert**
After you have made all required entries, a click on this button binds the selected SSL certificate to the specified IP address.

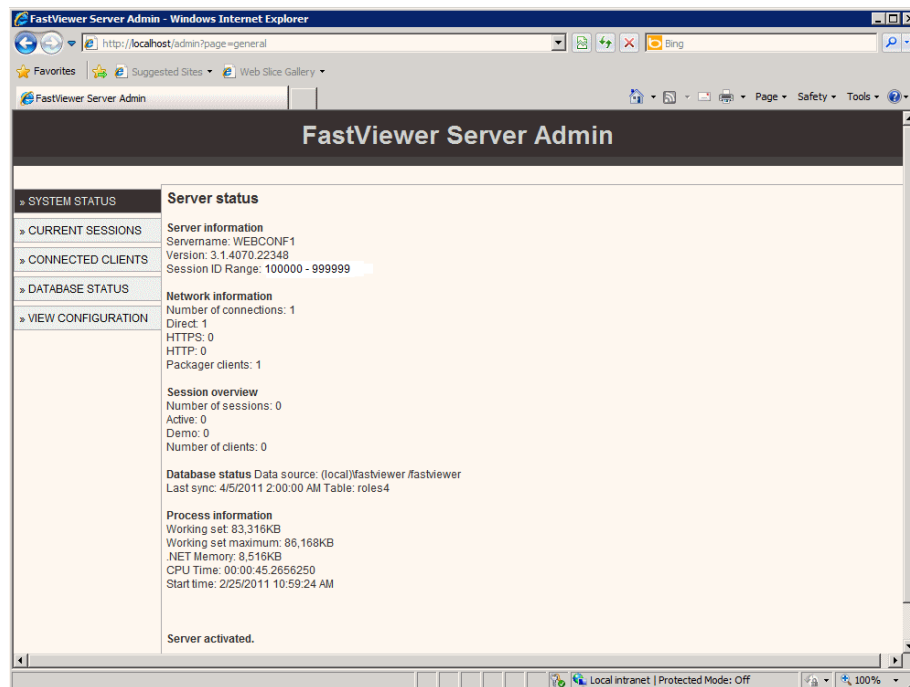
7.2 Server Admin

Tool for analyzing the server status.

This is a browser-based tool that enables displaying the server or database status, the number of currently started sessions and the connected client modules. You can also use it for displaying the current server configuration (`settings.ini`).

You reach this tool via browser.

Enter `http://localhost/admin`.



Clicking one of the following buttons represented in the left-hand section of the page you can have the corresponding information displayed:

- **SYSTEM STATUS**
This page is displayed by default when the *Server Admin* starts. It contains general information about the server (e.g. server name, session ID range), network information (e.g. type (direct, via HTTP or HTTPS) and number of connections), server status: active/inactive.
- **CURRENT SESSIONS**
A click on this button displays all current sessions.

- **CONNECTED CLIENTS**
After clicking this button you receive an overview of all currently connected clients.
- **DATABASE STATUS**
The single entries in the **Table** column can be exported or displayed in the XML format. Such information is exclusively important for support purposes.
- **VIEW CONFIGURATION**
Enables a fast overview of the server settings contained in the `settings.ini` configuration file.

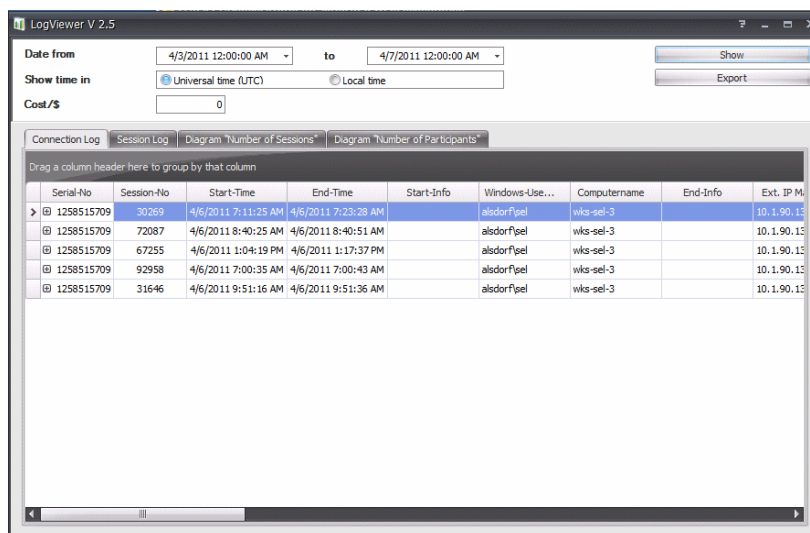
7.3 Log Viewer

Tool for representing logs.

Log Viewer

With the *Log Viewer* tool you can gain an overview of all staged sessions. It provides useful information about sessions in tabular and graphical format anytime. In addition, this tool enables you to sort connection or session details by various criteria and execute an export in the CSV format.

You reach this tool via **C:\Program Files (x86)\WebconferenceServer\Log Viewer**.



The *Log Viewer* is divided into four tabs:

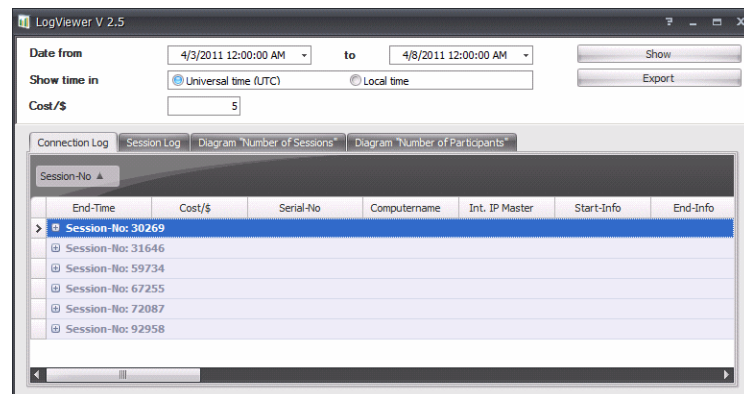
- **Connection Log**
This tab lists the following information about all established connections in tabular format:
 - **Serial-No**
 - **Computernam**e of the moderator
 - **Session number**
 - **Start-Time** of a session
 - **End-Time** of a session

- **Duration/min**
- **Internal IP address** of the moderator
- **External IP address** of the moderator
- **External IP Client**
- **number of Participants**
- **Start-Info** entered at the beginning of the session
- **End-Info** entered at the end of the session
- **Windows user name** of the moderator
- **Customername** (only if specified in the moderator module)
- **RE Username** - user name if the FastViewer Secure Advisor is used
- **RE Computername** - name of the accessed computer
- **RE-Info 1-9**
- Broken - if the session has been cancelled because e. g. of a dropped connection, a tick is placed in this column for the cancelled session.

You can also toggle **Universal time (UTC)** and **Local time**.

With the help of a conversion function you can request an evaluation by €/€ amounts. Simply enter the desired minute rate in the **Cost \$/min.** field, then click on **Show**.

You can group the above information by column. Drag the corresponding header of a selected column into the bar positioned directly on top of the tabs with the left mouse button kept pressed. The following figure shows data grouped by session number.



- **Session Log**

This tab lists the following information about all held sessions in tabular format:

- **Serial-No** - serial number of the purchased license
- **Session-No** - session number
- **Event-Time** - start time of the session
- **Source**
- **Target**
- **Service**
- **Information**
- **Info 1-5**

- **Message type**

- **Diagram "Number of Sessions"**

This tab provides a graphic overview of the sessions held in a previously defined period, so that performance peaks can be detected early. On the x-axis you can see the selected period and the y-axis displays the number of sessions held in parallel respectively the number of participants.

- **Diagram "Number of Participants"**

This tab provides a graphic overview of the involved participants in a previously defined period, so that performance peaks can be detected early. The x-axis displays the selected period and on the y-axis you can see the number of participants.

You can determine the period in which logging information is displayed on each of the four tabs. Use the fields **Date from** and **to** in the tab's top section for this purpose. After you have clicked on **Show**, the desired data is evaluated and subsequently displayed on the current tab.

Index

A

Acronym directory 4
activating 28

C

Certificate Installer 86
checking 32
configuring 18, 56, 64
Configuring a deployment scenario 56, 64
Conventions 2
Customer portal 11, 34

D

Definition 29
distributed 64
Distributed deployment scenario 59, 64
downloading the installation file 11, 34

E

Editing site bindings 57, 66

F

FastViewer role services and features 45
FastViewer Rollendienste und Features 41
FastViewer server 14, 18, 28
FQDN 76

H

Hosted version 10

I

Installation requirements 45
Installationsvoraussetzungen 41
installing 14, 51, 59
integrated 56
Integrated deployment scenario 51, 56

L

Legal notices 1
Log Viewer 88
Logging activation 76

N

Notations in this manual 2

O

Outlook plug-in 43

R

Release code 30

S

Server Admin 87
server configuration 43
Server installation 32
Session number range 77
settings.ini configuration file 67
Sitzungsnummernbereich 29
Smartloader, configuration 80
Smartloader, general information 78
Syslog Port 78
Syslog Server 78
System requirements 8

T

Tools 86, 87, 88

W

Web conferencing solution 7
Webconferenceserver service 59, 67

