



A MITEL  
PRODUCT  
GUIDE

# MiVoice MX-ONE

## IP Phone Software Server - Installation Instruction

Release 7.4SP2

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This chapter contains the following sections:

- [Architecture](#)

## Description of IP Phone SW Server

The IP Phone Software Server, IPP Server, is used to store software and configuration files used by IP terminals/clients connected to the Telephony System. IPP Server is distributed as an installation package and consists of a Tomcat web server + the IPP Server Application that enables MX-ONE Service Node Manager to communicate with the IPP Server in order to modify configuration files.

SW and configuration files for IP terminals/clients could be stored on any accessible web server in the IT infrastructure. But by using the IPP Server instead, it is possible to manage (create, modify and delete) configuration files directly in the MX-ONE Service Node Manager web interface.

### Note:

This document will not cover the different IP phone/client types. Refer to the Installation Instruction for the different models to get an understanding of how the file structure for software and configuration files should be set up.

## 1.1 Architecture

The IPP Server consists of a Java application (version 8) and a distribution of Apache Tomcat for Windows, version 9.0.52. The application is developed as 32-bit but you can also install and run in a 64-bit environment in 32-bit mode.

In order to get a smooth installation of the Apache Tomcat and the IPP Server Application it is distributed as an install package created with NSIS (Nullsoft Scriptable Install System). Except that the target machine must have a 32-bit Java Runtime Engine (JRE) installed, the install package is all that is needed. See further chapter requirements.

# Requirements

## 2

IPP Server can basically run on any Windows OS (32-bit or 64-bit). It is verified on:

- Windows Server 2008 R2 (32-bit and 64-bit)
- Windows Server 2013
- Windows 7 (64-bit)
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019
- Windows 11 (64-bit desktop version)

Java Runtime Environment (JRE) version 6 (32-bit) or later must be installed before the installation of IPP Server starts.

### Note:

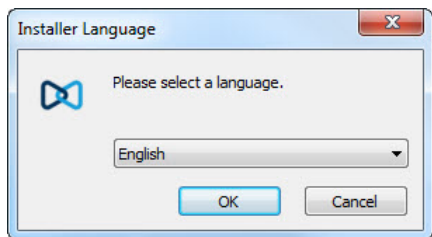
IP Phone Server works with Java provided by Oracle and Azul (openJDK).

# Installation

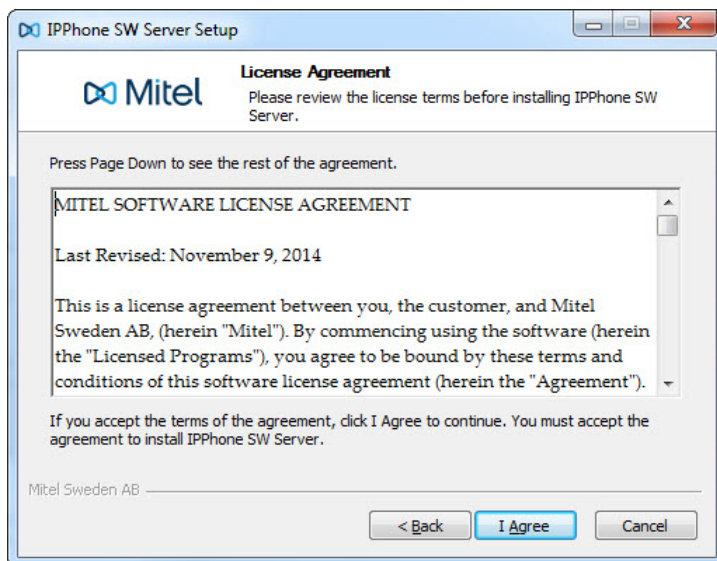
## 3

To start the installation, just execute the provided.exe file and read through the license agreement.

1. Click on the button "I agree" to accept the license agreement and follow some few steps/ instructions in the wizard. The entire process takes just a minute or two.



2. Accept the terms of License agreement.



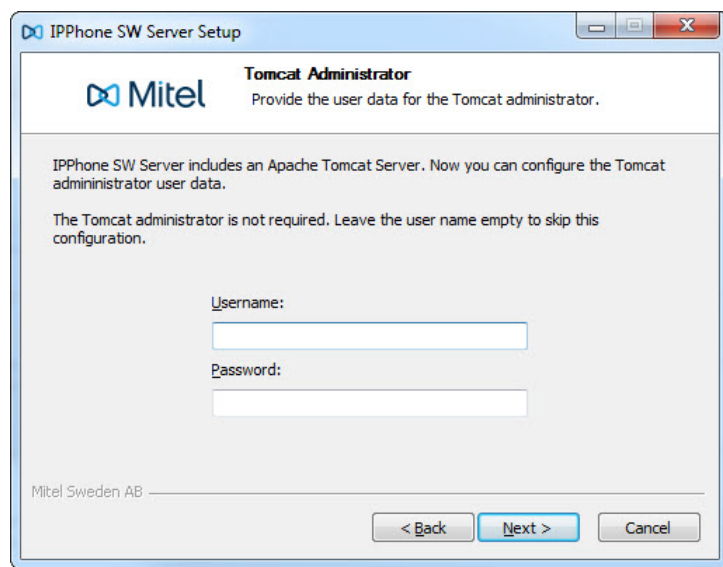
3. Fill in desired HTTP port number and optional the HTTPS Port number. If nothing is filled in, port 8080 is chosen (see [Co-existence with Microsoft IIS Server](#) on page 9).
4. If the HTTPS port is entered, the Tomcat Certificate page is displayed, in which you have to enter the Certificate keystore file and password. Read the description in the link mentioned below:

<http://tomcat.apache.org/tomcat-9.1-doc/ssl-howto.html>

E.g. File: C:/Users/<user-id>/ .keystore and the Password: "changeit"

**Note:**

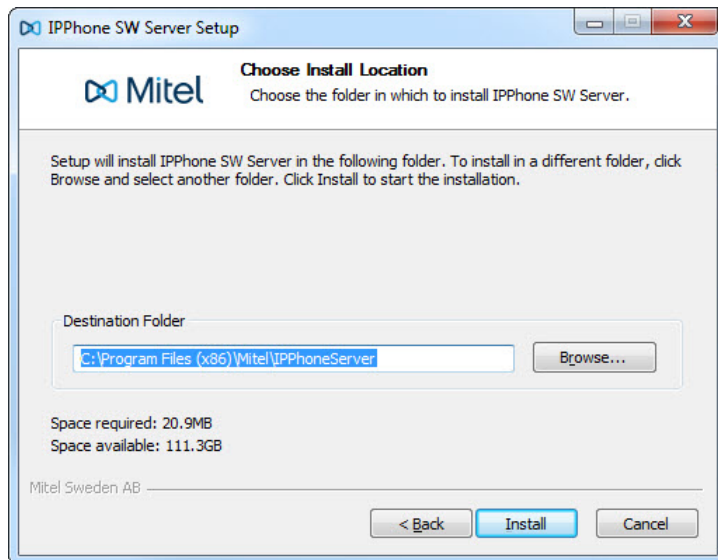
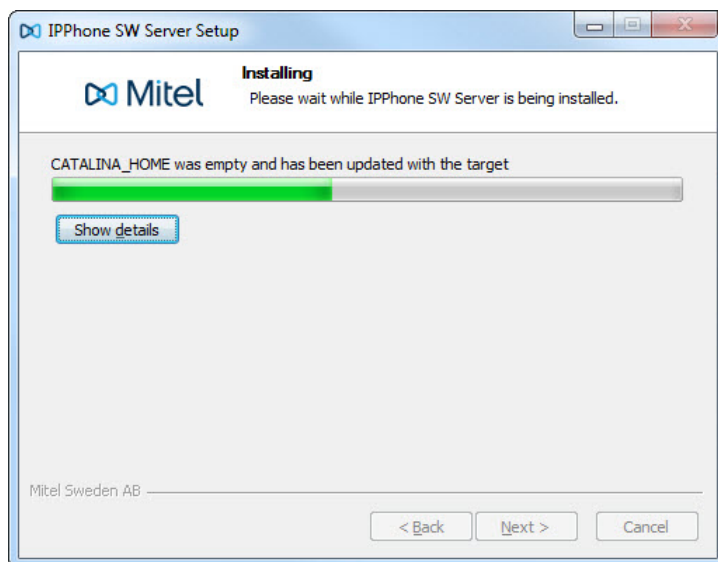
You can leave the administrator credentials blank. It is only used in case of additional advanced configuration is done on the Tomcat (something that is not by any means supported by the IPP Server Application itself).



5. By default the destination folder for the installation is selected based on the environment (the target machine). Change it as desired.

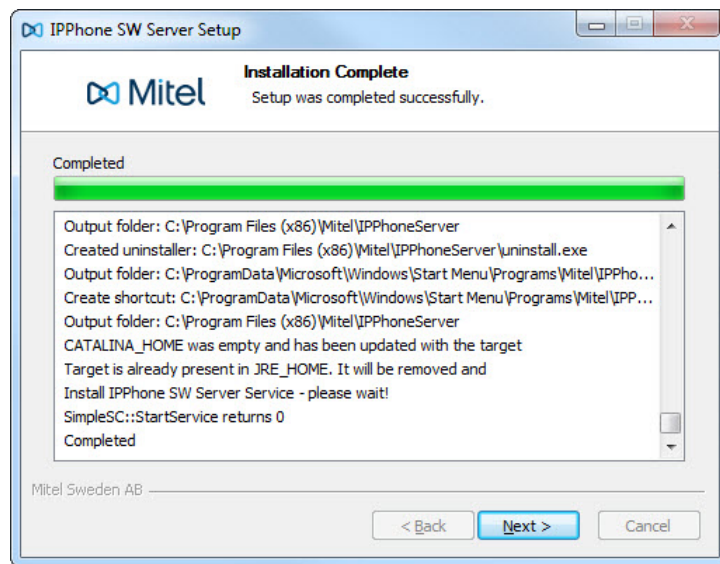
**Note:**

There is a limitation of the NSIS installer script that does not allow paths longer than 1024 characters. Ensure that the script manages paths for components deeper down than where the installation root is placed, so not only the destination folder defines the longest path. If you have troubles installing the IPP Server, try to install it e.g. directly under C:\.

**6. Click Install.**



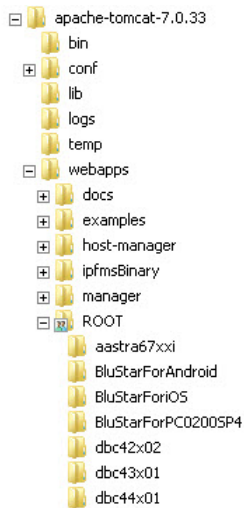
7. You can view the details of the installation process before the wizard is closed, when it is done.



# Configure Folder Structure

## 4

Inside the IPP Server installation folder, each terminal/client type shall have its own storage for software and configuration files according to the image below. Different IP phone/client types or families do have its own folder below ROOT.



For details about the exact spelling and contents of each folder, refer to the document Installation Instruction for each terminal/client type.

In security settings, each folder must be configured with read rights for Users.

# Checking IPP version

## 5

The running IPP version number can be seen (using Windows Server 2008 or later), in the Control Panel\Program and Features, in the column called Version. By default the Version column is not shown, so it needs to be manually added.

# Co-existence with Microsoft IIS Server

# 6

This chapter contains the following sections:

- [Modify Port for IPP Server](#)
- [Modify MIME Types in IIS](#)
- [Create Virtual Directories inside IIS for IPP Server](#)

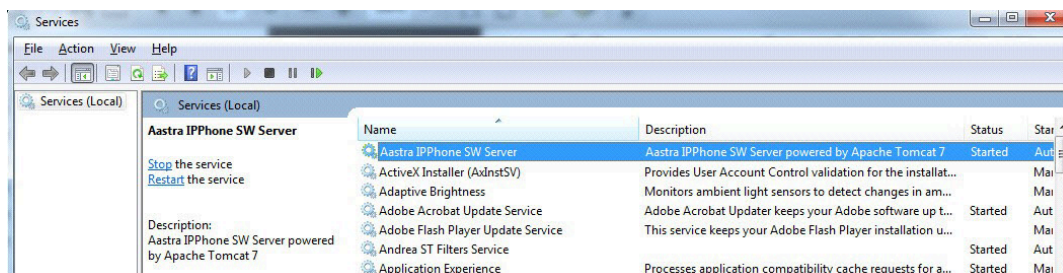
Even if an IIS server is running on the same machine, it is not possible to use this for the IPP Server Application. The reason for this is that IPP Server is developed as a Java application and IIS only supports applications developed in a Microsoft environment. Therefore the Tomcat web server is necessary.

## 6.1 Modify Port for IPP Server

To avoid a conflict with a possible installation of Microsoft IIS, port 8080 is set as the default port for Tomcat. The port number may be modified after the installation is done. To do so edit the file `server.xml` stored in the folder `<install-path>\apache-tomcat-<version>\conf\`. Remember that the same port set should be used when configuring MX-ONE Service Node Manager later on.

Inside the xml-tag `<Service name="Catalina">`, modify the tag `<Connector port="nnnn" ...>`, where "nnnn" represents desired port number.

Restart the service through Control Panel/Administrative Tools/Services:



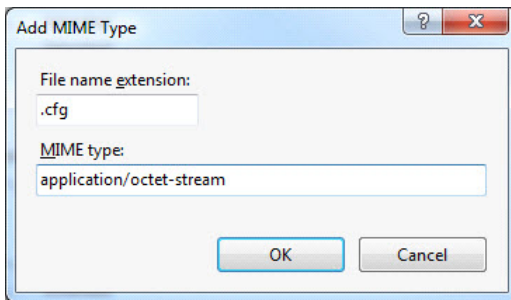
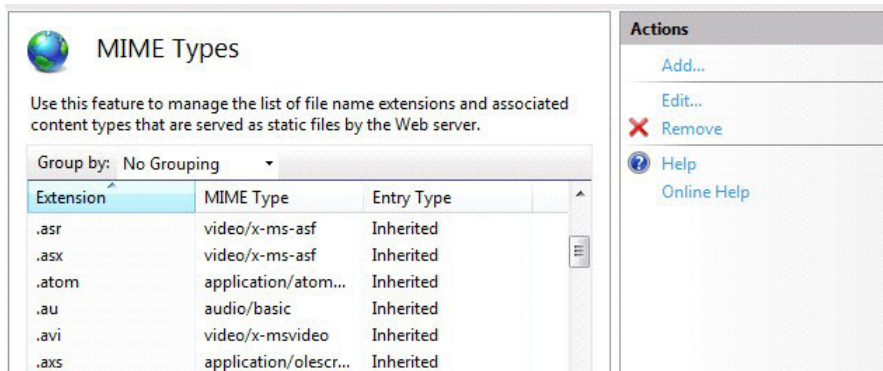
## 6.2 Modify MIME Types in IIS

In IIS management console, add/edit the MIME types for the following extensions:

- .cfg
- .st
- .txt

- .tuz (encrypted configuration file)

Set them all to MIME type application/octet-stream.

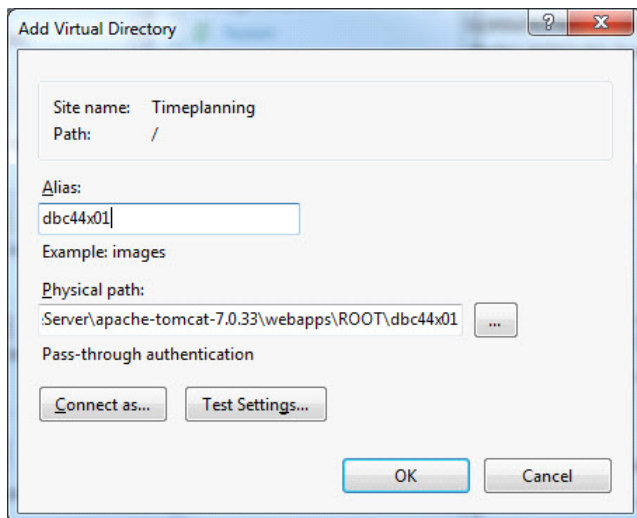


## 6.3 Create Virtual Directories inside IIS for IPP Server

Use the IIS management console to create one virtual directory for each IP terminal/client in IIS. If several applications/sites are running on different ports, the site running on port 80 should be used.

Set the Alias name to the same as the folder name representing the terminal/client type, and the Physical Path to the actual folder inside IPP Server installation, e.g.:

`\<installation path>\apache-tomcat-<ver.>\webapps\ROOT\dbc44x01`



Now it will be possible for IP terminals/clients to access relevant content on HTTP port 80 while the MX-ONE Service Node Manager still can update configuration files on the port set for IPP Server in file server.xml.

**Note:**

Each terminal/client type needs its own virtual directory.

In case different subnets or telephony domains are configured in MX-ONE Service Node Manager, the path to the terminal/client type will also include the subnet/domain name. Make sure to update the virtual directories in IIS accordingly.

For further reading regarding management of configuration files, see Online help in MX-ONE Service Node Manager, task Telephony/IP Phone.

Also see document Installation Instruction for respective telephone/client type for details about which files shall be used and naming of the folder on IPP Server.

