

SmileTiger Software Corporation

**SmileTiger TeleMeeting Server 2011
PBX Integration and API Guide**

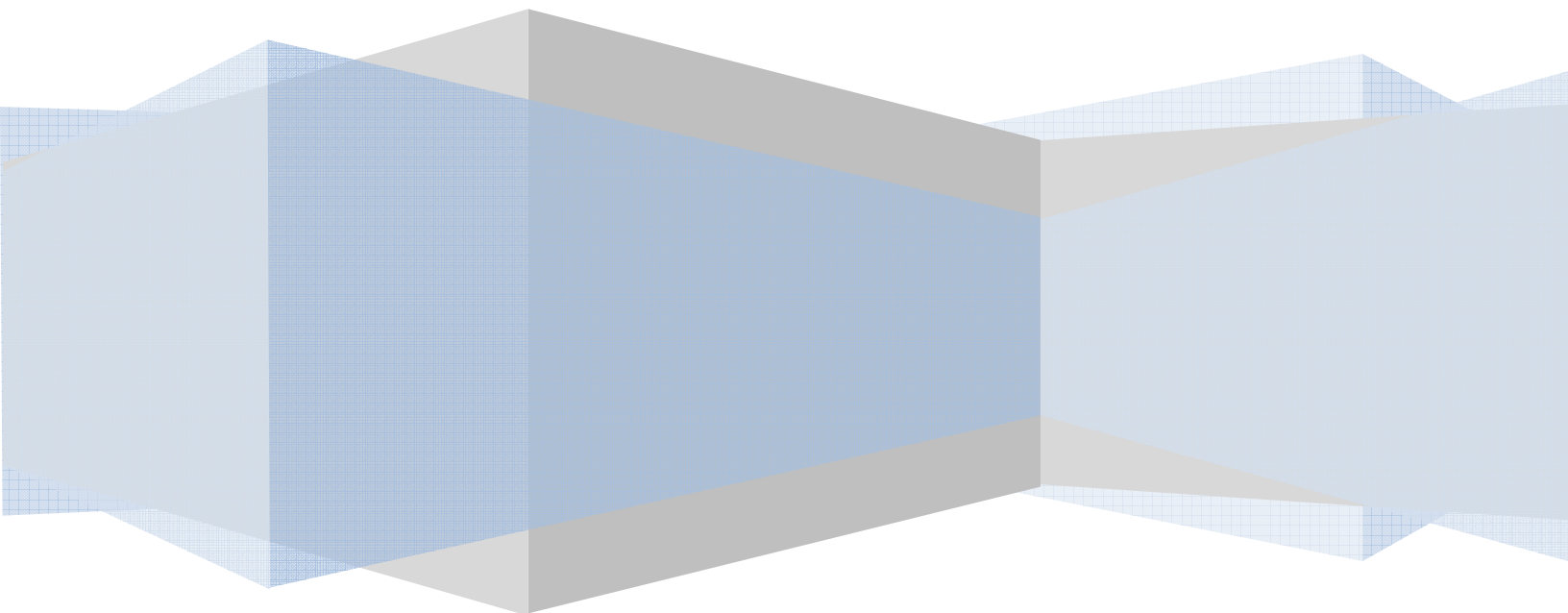


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1 Overview

SmileTiger TeleMeeting Server 2011 brings you the easy-to-use, rich-media telephone calls. All conversation starts with dialing an ordinary phone number that you use every day. It seamlessly integrates web conferencing with ordinary telephone calls to bring the real-time, unified communication to the new level.

SmileTiger TeleMeeting Server 2011 can be deployed in several ways, depending on the corporate needs.

It can be deployed as a complete PBX + Web Conferencing system. It has an embedded IP PBX to deliver voice. The PBX connects with web conferencing part to integrate the IP phone calls with data sharing.

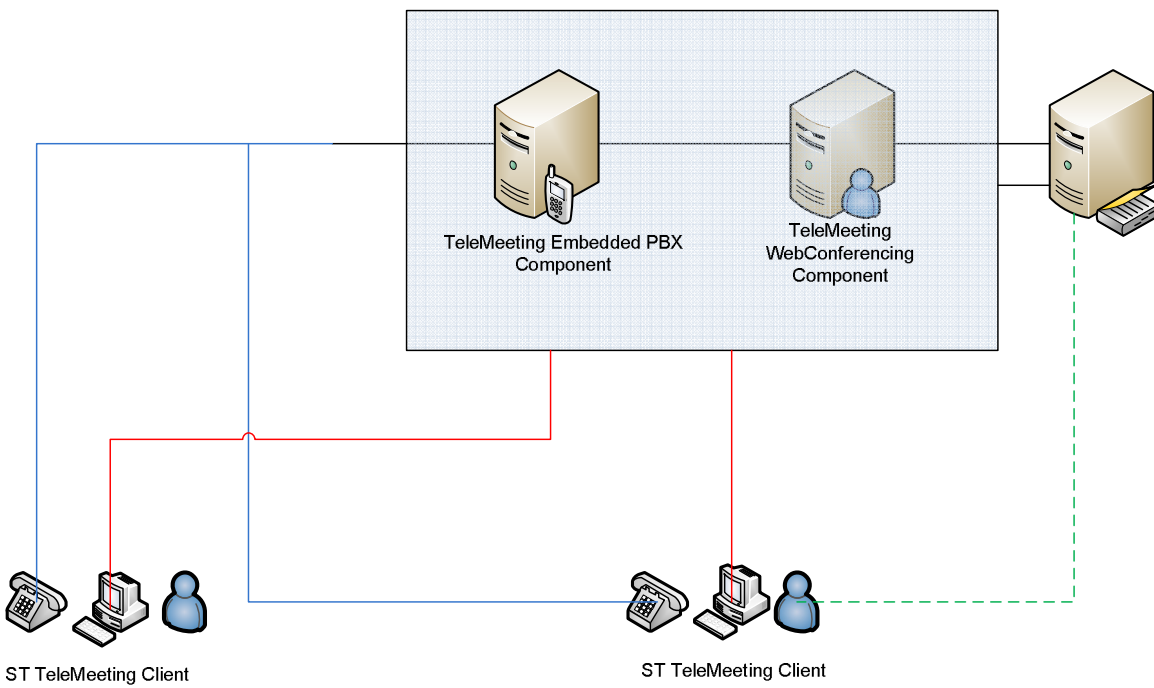
For companies with their own traditional or IP PBX, only the web conferencing part is needed to be deploy. Company PBX uses REST interface to connect to the web conferencing part, to start online meeting together with phone calls and teleconference calls.

This document focuses on the deployment and integration for the second scenario.

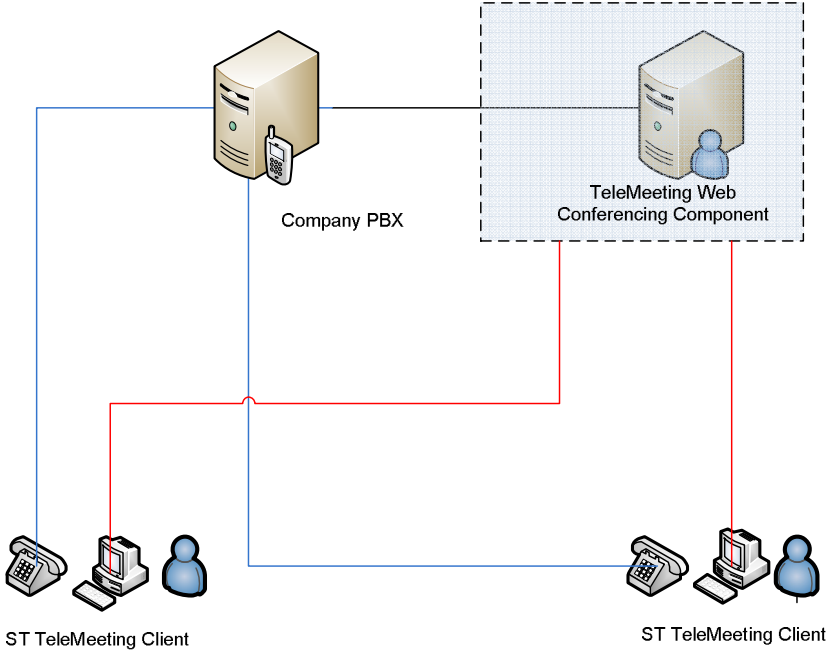
2 System Architecture

SmileTiger TeleMeeting Server 2011 includes two components: Embedded PBX component (Linux) and Web Conferencing component(Windows).

On each user computer, SmileTiger TeleMeeting Client is installed to handle all communications.



SmileTiger TeleMeeting Server 2011 System Architecture (Complete Deployment)



SmileTiger TeleMeeting Server 2011 System Architecture (Web Conferencing Deployment)

3 Pre-requirement

To install the system, you will need the following infrastructure:

1. Windows XP or higher to install SmileTiger TeleMeeting Server.
2. Microsoft Active Directory to manage user, phone number, and teleconference number.
3. Open the following ports: 8770, 8776, 8777, 80, 61616. Please note, all these ports are changeable through configuration files.

4 Deployment

4.1 Installation

Run the auto installation package at the following address:

http://www.smiletiger.com/telemeeting/download/SmileTigerTeleMeetingServer2011_Base.exe

4.2 Configure SmileTiger TeleMeeting Server

Modify the configuration file at Program Files -> SmileTiger TeleMeeting Server 2011 -> smc-config.xml

1. Replace <ActiveMQServerIP> value with the external IP address of your server machine.
2. Make sure <useAD> value is set to "1".
3. Make sure <useEmbeddedPBX> value is set to "0".
4. Replace <ActiveDirectoryUser> value and <ActiveDirectoryPassword> value with your own Active Directory user information. This user should have reading permission to Active Directory.
5. Modify <UseADForTeleconference> value if necessary. Value "1" means to use Active Directory to manage user's teleconference number. Value "0" means not to use it.

```
<?xml version="1.0" encoding="utf-8"?>
<config>
  <Tomcat>
    <port>8080</port>
  </Tomcat>
  <ActiveMQServerIP>184.73.219.197</ActiveMQServerIP>
  <ActiveMQServer>localhost:61616</ActiveMQServer>
  <PBXServer></PBXServer>
  <useEmbeddedPBX>0</useEmbeddedPBX>
  <eMeetingServer>localhost:8770</eMeetingServer>
  <AdministratorUserName>admin</AdministratorUserName>
  <AdministratorPassword>admin</AdministratorPassword>
  <UMC>
    <useAD>1</useAD>
    <ActiveDirectoryUser>Administrator</ActiveDirectoryUser>
    <ActiveDirectoryPassword>ready2go</ActiveDirectoryPassword>
    <UseADForTeleconference>1</UseADForTeleconference>
    <GUCSAccount>smiletiger</GUCSAccount>
    <GUCSPassword>NBA5suy</GUCSPassword>
    <GUCSAMQServer>localhost:61616</GUCSAMQServer>
    <GUCSTopic>GUCS</GUCSTopic>
    <GUCSMeetingServer>localhost:8770</GUCSMeetingServer>
    <UMCTopic>UMC</UMCTopic>
    <LogFile>UMCLOG.log</LogFile>
    <UserDB>MySQL</UserDB>
    <MySQLSVR>localhost</MySQLSVR>
    <MySQLSVRPORT>8776</MySQLSVRPORT>
  </UMC>
  <MMC>
    <homepage>www.smiletiger.com</homepage>
    <meetingType>MCONFERRING</meetingType>
  </MMC>
</config>
```

4.3 Start TeleMeeting Server

Make sure to run TeleMeeting Server using Administrator permission.

Go to Windows Start ->All Programs -> SmileTiger TeleMeeting Server 2011 -> Start TeleMeeting Server

4.4 Stop TeleMeeting Server

Go to Windows Start ->All Programs -> SmileTiger TeleMeeting Server 2011 -> Stop TeleMeeting Server.

5 User and Phone Number Management

All users, their telephone numbers, and teleconference numbers are managed through company Active Directory. No management website is needed.

If you have the need to manage users not registered with Active Directory, use the following website for user to do self account registration and management: <http://<telemeeting server address>:<port>/>. User can create account, manage phone number and teleconference number, and download TeleMeeting Client.

5.1 User Management through Active Directory

In SmileTiger TeleMeeting, each user can have one account, multiple telephone numbers, one teleconference number.

User account is used to login to TeleMeeting Client. It is the same user account managed in company Active Directory.

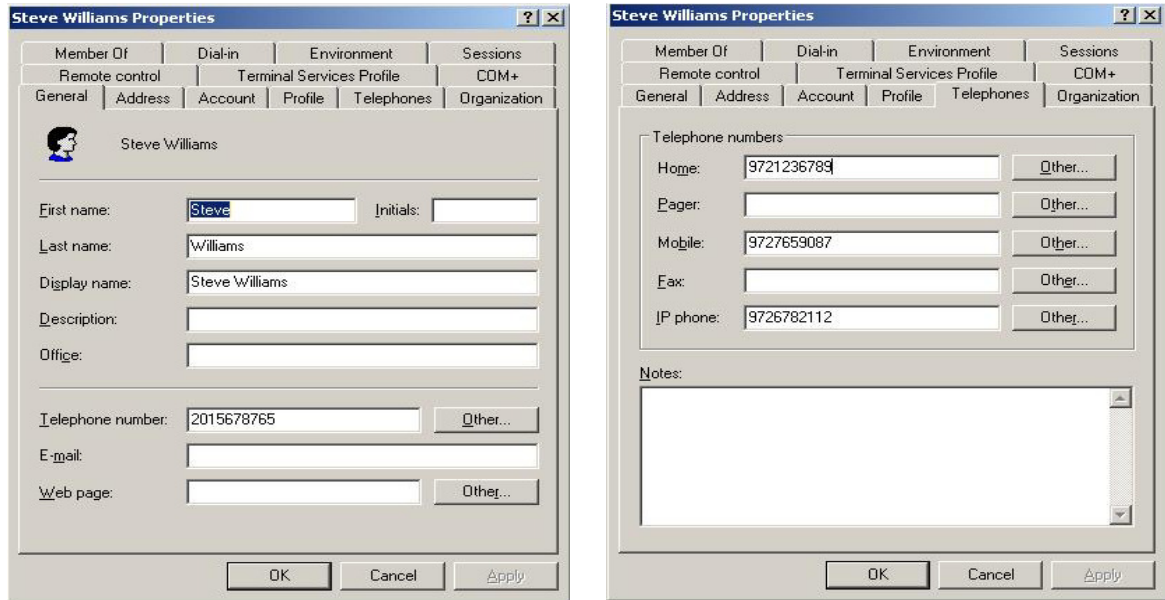
Any phone call user makes or receives from the telephone numbers are associated with this user account, and will bring up the online meeting at the machine where user logs in to TeleMeeting client.

5.2 User phone Management through Active Directory

SmileTiger TeleMeeting pulls user phone numbers from the following two user property locations:

1. General tab ->Telephone number
2. Telephones tab -> Home, Mobile, IP phone.

All these telephone numbers are associated with this user. No matter which phone number this user calls from or receive calls from, SmileTiger TeleMeeting recognizes the association and forwards the request to this user's TeleMeeting client to start an online meeting.



6 User Teleconference Number Management Through Active Directory

You have the option to associate a teleconference number with a user at Active Directory. If you do, that user can manage the teleconference number's online meeting room through his TeleMeeting client. The management includes: send email invitation with the link to join online meeting room, reset online meeting moderator password, reset the home page for the online meeting room, enter the online meeting for data management.

If you don't associate the teleconference number with any user, it works fine as well regarding to join all meeting attendees automatically to a online meeting associated with this number. A web conferencing room is automatically assigned to this teleconference number when first called through SmileTiger TeleMeeting API.

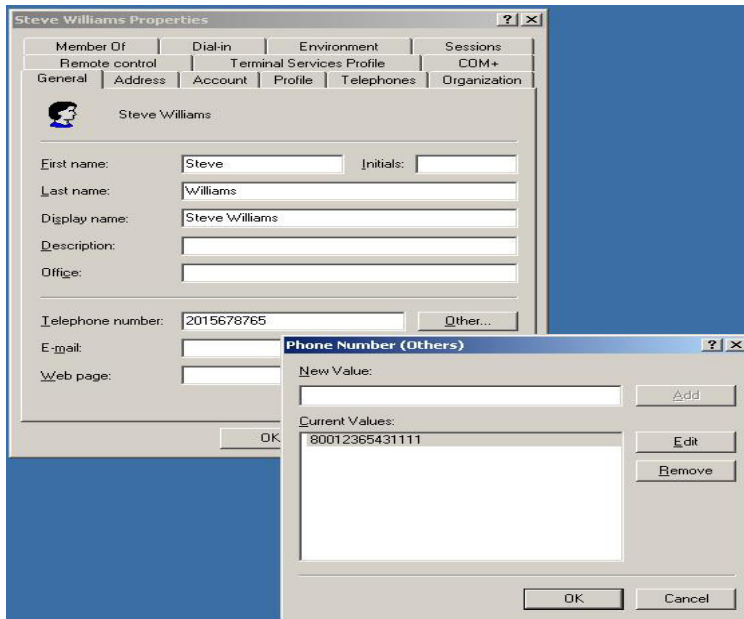
6.1 How to associate a teleconference number with a user?

There are two steps to finish the association:

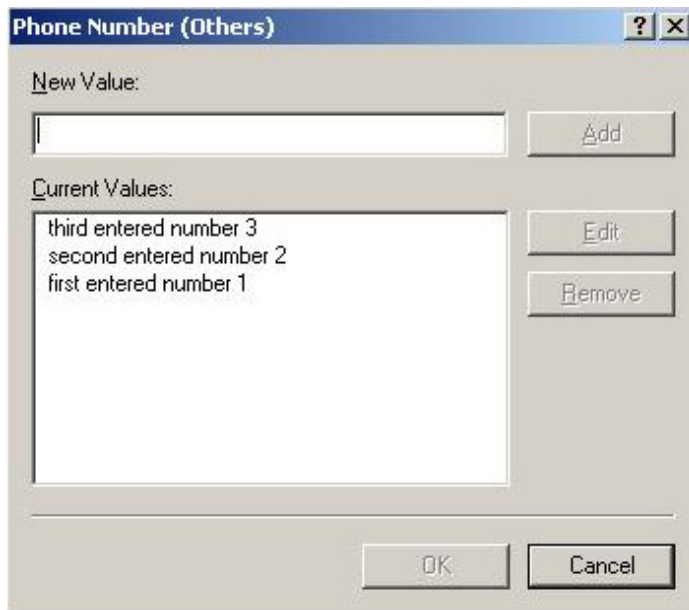
1. Set the user's teleconference number at the following Active Directory user management location: user properties -> General tab -> Telephone number -> Others.
2. Set the flag at the following configuration file: "C:\Program Files (x86)\SmileTiger TeleMeeting Server 2011\smc-config.xml"

```
< UseADForTeleconference >1< /UseADForTeleconference >
```

- value 1: means using the teleconference number defined at Active Directory.
- value 0: means don't use it.



In the case you enter more than more number in this Telephone number -> Others. TeleMeeting takes the one last entered. In the following example screenshot, the "third entered number 3" will be taken as teleconference number.



3.1.2.1 *How to define a teleconference number?*

If your company teleconference number is uniquely identified by the calling number, then put the calling number as the teleconference number.

If your company teleconference numbers have the same calling number, but are distinguished by different pin numbers, then you need to put the combination of calling number and pin number as one teleconference number. For example, the calling number is 8007891234 and conference pin is 1111, then put the following number as teleconference number: 80078912341111. It applies to the calling of API as well. When calling "start conference" using API, make sense you pass the complete teleconference number as callee.

7 SmileTiger TeleMeeting Integration API

The API is exposed as **Representational State Transfer (REST)**. Any program can call it through HTTP protocol.

The API contains four functions: Start Meeting, Stop Meeting, Start Conference, Stop Conference.

7.1 Start Meeting

`http://<telemeeting server address>:<port>/rest/rest/starmeeting?caller=<caller phone number>&callee=<callee phone number>`

This applies to the case when the phone conversation is between two users. Your application calls this function when the phone starts. This function joins both caller and callee into an online meeting that belongs to caller.

During the phone conversation, if user got disconnected from the meeting room for any reason, he/she can get back to the meeting by clicking "Re-enter meeting room" at the local TeleMeeting client. The user won't be able to re-enter the meeting room when "Stop Meeting" is called.

7.2 Stop Meeting

`http://<telemeeting server address>:<port>/rest/rest/stopmeeting?caller=<caller phone number>&callee=<callee phone number>`

This applies to the case when the phone conversation is between two users. Your application calls this function when phone call is over. This function disconnects the online meeting between caller and callee. It still allows user to be in the current meeting now. When they exist or get disconnected, they can't come back again.

7.3 Start Conference

`http://<telemeeting server address>:<port>/rest/rest/startconference?caller=<caller phone number>&callee=<teleconference phone number>`

This applies to the case when a user calls into a teleconference number. Your application calls this function after the user joined into teleconference call. This function joins caller into an online meeting that belongs to the teleconference number.

During the teleconference call, if user got disconnected from the meeting room for any reason, he/she can get back to the meeting by clicking "Re-enter meeting room" at the local TeleMeeting client. The user won't be able to re-enter the meeting room when "Stop Conference" is called.

7.4 Stop Conference

<http://<telemeeting server address>:<port>/rest/rest/stopconference?caller=<caller phone number>&callee=<teleconference phone number>>

This applies to the case when a user calls into a teleconference number. Your application calls this function after the user quitted from the teleconference call. This function disconnects caller from the online meeting that belongs to the teleconference number. . It still allows user to be in the current meeting now. When they exist or get disconnected, they can't come back again.

8 SmileTiger TeleMeeting Client

Please refer to the client guide at:

<http://www.smiletiger.com/telemeeting/documentation/STTeleMeetingClientUserGuide.pdf>