



# **Genesys Meeting Center 4.02 Deployment Guide**

**April 2007**

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# Table of Contents

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<b>Introduction .....</b>	<b>1</b>
Using the Genesys Meeting Center .....	1
<b>The Application .....</b>	<b>2</b>
Application Client .....	2
Browser Client .....	2
Outlook Calendar Add-in .....	3
Genesys Meeting Launcher .....	3
<b>Minimum System Requirements.....</b>	<b>4</b>
<b>Network Configuration .....</b>	<b>5</b>
Proxy Servers & Firewalls .....	5
Latency .....	6
Bandwidth & Data Transfer.....	6
MIME Types Used by the Genesys Meeting Center.....	7
Pop-Up Blockers .....	7
<b>Installation and Removal.....</b>	<b>8</b>
Overview .....	8
Installation by User .....	9
Removal by User .....	9
Installation and Removal by Administrator.....	11
Installing Webtour ActiveX Component.....	12
<b>Integration with Communication Applications.....</b>	<b>13</b>
Outlook Calendar Integration.....	13
Contacts Selection .....	15
Genesys Meeting Launcher .....	15
<b>Contact Us .....</b>	<b>16</b>
Genesys Worldwide .....	16
<b>Appendix A: Genesys Meeting Center File Locations &amp; Registry Keys.....</b>	<b>17</b>

## Introduction

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### Using the Genesys Meeting Center

Hold interactive and productive virtual meetings from anywhere at any time with remote participants directly from your desktop. Achieve complete and integrated multimedia conferencing on a global level. Save both time and money by avoiding costly business travel. Easy access to the user-friendly functionality of the Genesys Meeting Center makes it an ideal solution to meet with colleagues and customers both across the hall and across the world. The meetings are firewall-friendly so minimal IT support is required.

### Functionality and Integration

Moderators can show any document on demand, present applications, deliver animated PowerPoint presentations, and fully manage their audio conferences online through the intuitive meeting interface. All sessions can be archived with synchronized audio and web for later playback. Easy integration with business applications for email, calendar, messaging, and presentation applications ensure positive responses from everyone in a corporate environment, from individual users to IT teams.

### Security

The Genesys Conferencing R&D team has developed and deployed a secure environment for its clients. Genesys Meeting Center is secure by design, providing users with high-level security throughout all phases of conferencing, presentation storage, and collaboration. Genesys protects confidential information and networked systems through access network and content security. In addition to system guarantees of reliability and security, up-to-date anti-virus and intrusion software, provided by services to which Genesys subscribes, constantly protect Genesys networks and guarantee uninterrupted coverage. Genesys also uses dependable, Tier 1 Internet Data Centers that deliver the highest level of reliability.



## The Application

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### Application Client

This is a Windows-based application that moderators and presenters must use. Participants may use it if they wish. Depending on your role in the meeting, your user interface will vary. But everybody's application is installed from the same MSI or EXE package.

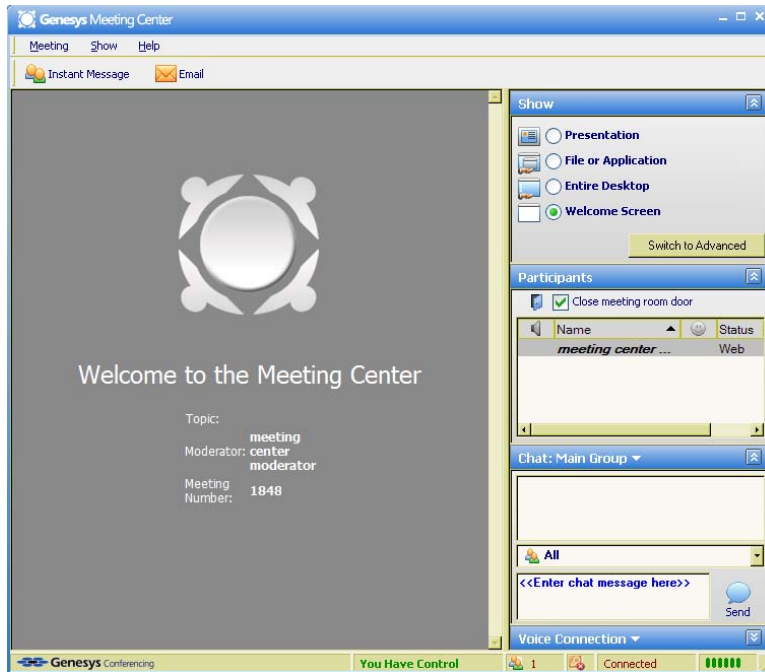


Figure 1 - Application client with the moderator's basic interface.

### Browser Client

Participant who cannot or wish not to use the application client can use the Browser Client. The Browser Client uses Ajax technology, which means you can use it across different browsers, platforms, and operating systems.

The Browser Client does not use Java, and it does not install anything on a computer, which is an advantage in secure environments.

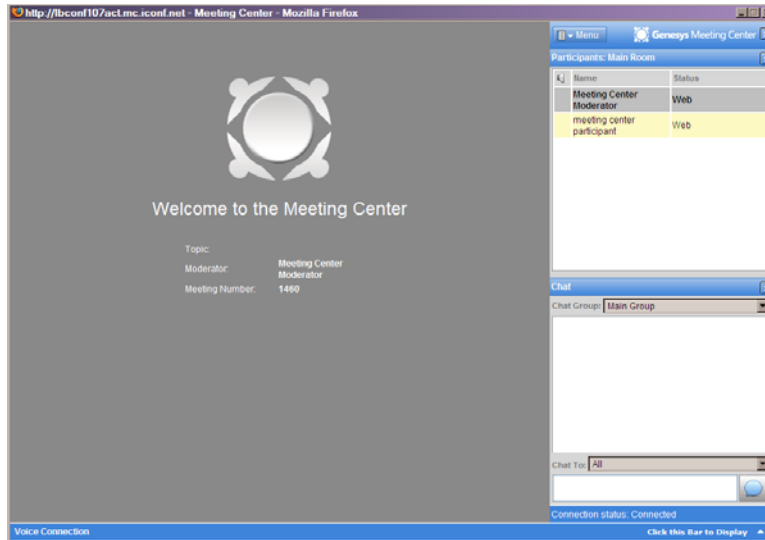


Figure 2 - Browser Client using Firefox

## Outlook Calendar Add-in

The Genesys Meeting Center Outlook add-in allows you to schedule and start Genesys meetings directly from Outlook. The meetings you schedule are automatically added to your Outlook calendar as well.

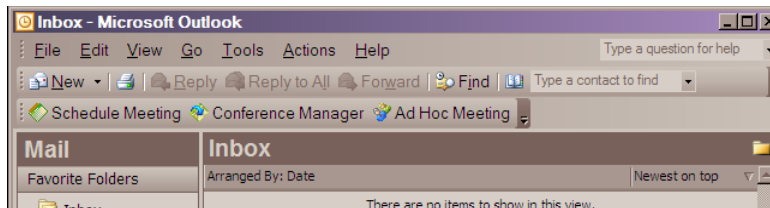


Figure 3 - Outlook Calendar add-in toolbar

## Genesys Meeting Launcher

The Genesys Meeting Launcher is a convenient way to manage your meetings without the hassle of constantly logging into your account through your browser. It is a distinct and separate program from the application client (a separate .exe file.) It allows you to do many of the same things you can do with the Outlook Calendar Control, such as scheduling a meeting or starting an ad hoc meeting, by clicking an icon in the system tray.

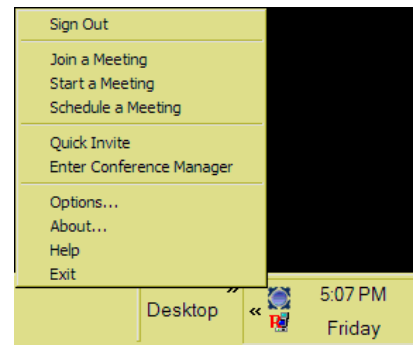


Figure 4 - Options available from the Meeting Launcher, which is the blue square icon in the system tray.

## Minimum System Requirements

	Moderators	Presenters/ Participants (App. Client)	Participants (Browser Client)
Browser	Internet Explorer 6.0		<ul style="list-style-type: none"> <li>IE 6.0</li> <li>Firefox 1.5</li> <li>Safari 2.0</li> </ul>
	JavaScript and session cookies enabled		
CPU	800 MHz		
RAM	<ul style="list-style-type: none"> <li>96 MB</li> <li>128MB if you use Windows XP</li> <li>128MB if you use application sharing</li> </ul>	96 MB (128 for WinXP)	
Disk Space	<ul style="list-style-type: none"> <li>18 MB, excluding usage-dependent storage, such as slide thumbnails, contacts, and log files.</li> </ul>	N/A	
Operating System	<ul style="list-style-type: none"> <li>Windows 2000, XP</li> <li>Windows Vista not yet supported</li> </ul>	<ul style="list-style-type: none"> <li>Windows 2000, XP</li> <li>Mac OS X</li> <li>Linux</li> </ul>	
Uploading Presentations	PowerPoint 2000	N/A	N/A
Calendar Integration	Outlook 2000	N/A	N/A
MSN Integration	MSN Messenger	N/A	N/A
Contacts Integration	<ul style="list-style-type: none"> <li>MS Exchange</li> <li>Lotus Notes</li> </ul>	N/A	N/A
Network connection	<ul style="list-style-type: none"> <li>56 kbps</li> <li>128 kbps for broadcasting video</li> </ul>	56 kbps	
Archive playback	Windows Media Player 9		
Audio	<ul style="list-style-type: none"> <li>Touchtone telephone</li> <li>If using Genesys Desktop VoIP, headset, or handset connected to your PC (Application Client only)</li> </ul>		
Video (video enabled accounts only)	Industry-standard webcam using Windows WDM Image Capture win32 driver (correct version needed for webcam)		N/A

Table 1- Minimum System Requirements

## Network Configuration

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This section discusses network considerations and recommended network configurations when using the Genesys Meeting Center.

### Proxy Servers & Firewalls

#### Domain Names

All the servers used by the Genesys Meeting Center are under these domains and their cnames. If you add them to your proxy or firewall filters, then all traffic should flow properly, regardless of subsequent changes to the Genesys Meeting Center's servers.

- \*.iconf.net
- \*.genesys.com
- \*.confarchives.com (in order to view archives)
- \*.conferencing.com

#### IP Addresses

If you cannot add the domains and their cnames listed above to your proxy or firewall filter, you can add the list of IP addresses that the Genesys Meeting Center uses. This list is confidential and is released only to customers who have signed a non-disclosure agreement. Contact your Technical Support representative for more details.

#### Data Streams

Genesys Meeting Center uses different types of data streams over the course of a meeting.

- Proprietary and XML data streams
- HTTP methods (GET and POST)

Ensure that your content monitoring tools, anti-virus software, and other network devices and software do not prevent the Meeting Center from transmitting and receiving these data streams.

#### Email and Spam Filtering

Email invitations, messages, and reminders for meetings scheduled from the lobby or the Meeting Launcher originate from a Genesys SMTP server. They come from the address "meetinginvite@mail.netconferencing.com". If your company has spam filtering or other mechanisms that validate incoming email, you may need to make an exception for this address within your filtering.

Email invitations for meetings scheduled from the Outlook Calendar control originate from your local email server, with the meeting moderator’s email address.

## Ports

	SSL	Non-SSL	
	GenMC Meeting	GenMC Meeting	Hosted Archive Playback
TCP/port 80 (HTTP)		X	X
TCP/port 443 (HTTPS)	X		
TCP/port 1755			X
UDP/port 1755			X

Table 2 - Ports used by Genesys Meeting Center

For improved performance when listening to an archive hosted on a Genesys server, you can allow Windows Media Player to stream the .asf file using TCP or UDP over port 1755. The visual portion of the archive uses TCP over port 80.

## Desktop VoIP

In order for Desktop VoIP to find out which Genesys server to use to carry your VoIP call, the softphone queries a central server using UDP over port 5055. If this port is unavailable it will use port 4050.

The actual voice traffic uses protocols/ports in this order: UDP/4050, TCP/4050, TCP/443, and TCP/80

## Latency

Genesys Meeting Center uses a polling architecture that is susceptible to network latency. All networking appliances should be configured to not introduce additional delay for network packet transmission to Genesys Meeting Center servers.

You can use a series of pings or traceroutes to measure the latency within your company’s network infrastructure. To ensure smooth and reliable operation of Genesys Meeting Center, latency between your network and Genesys servers should be less than 100ms.

## Bandwidth & Data Transfer

In the table below,

- Amount of data shown for starting and joining a meeting represents the initial download requirements only. It is downloaded once, and it is not downloaded again unless you exit your meeting and re-enter.

- The measurements for receiving slides are based on an 8-slide PowerPoint file that is 414 KB in size.

Action	App. Client	Browser Client
Moderator start meeting	190 KB	N/A
Participant join meeting	21 KB	1.3MB
Moderator shows eight slides	497 KB	N/A
Participant receives one slide	192 KB	200 KB
Moderator shows initial screen of application sharing	223 KB	N/A
Participant receives initial screen of application sharing	160 KB	233 KB
Moderator polls the conference server	0.95 kbps	N/A
Participant polls the conference server	0.74 kbps	0.77 kbps

*Table 3 - Bandwidth needed for a Genesys meeting*

## MIME Types Used by the Genesys Meeting Center

- text/html
- text/plain
- text/xml
- text/richtext
- image/gif
- image/jpeg
- application/octet-stream
- application/x-zip-compressed

Users can also specify "accept-encoding: gzip", even if it technically is not a MIME type.

## Pop-Up Blockers

Some pop-up blockers have the potential to obstruct certain features in the Genesys Meeting Center lobby. For example, surveys and quizzes are not available if the window that contains them does not open. Participants using the browser client who need help from Customer Support may also need to have pop-up blockers disabled so the support representative can collect the necessary log files for troubleshooting.

The current crop of the marketplace's most popular pop-up blockers does not interfere with Genesys Meeting Center 4.0. However, given the vast number of blockers and the rate at which the technology changes, there is no guarantee that Genesys Meeting Center will not be inadvertently affected.

# Installation and Removal

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## Overview

### Registry

- During installation, the application creates HKLM\SOFTWARE\Genesys Conferencing and writes to keys under it.
- During run time, the application creates HKCU\SOFTWARE\Genesys Conferencing and writes to keys under it.
- If you install the Outlook Calendar add-in, it creates HKLM\SOFTWARE\Microsoft\Office\Outlook\Addins\MeetingCenter.OutlookAddin during the installation and HKCU\SOFTWARE\Microsoft\Office\Outlook\Addins\MeetingCenter.OutlookAddin during run time.

### File Size

- MeetingCenter.msi is about 12.4 MB. MeetingCenter.exe is about 13.3 MB.

### Log Files

#### Application Client

- Logging enabled by default.
- The application client stores log files under C:\Documents and Settings\\Application Data\Meeting Center\LogFiles.
- Generates two files each day the application is used, plus a crash log whenever that happens.

#### Brower Client

- Logs for the browser client are not stored locally. They are generated dynamically in a pop-up window and can be copied and pasted into a text editor.

#### Outlook Calendar Add-in

- Logging disabled by default.
- You can enable it by adding the string value logfile=<path and file name> to HKCU\SOFTWARE\Genesys Conferencing\Calendar.
- There is only one log file. It is cumulative.

#### Enterprise Contacts Control

- Logging disabled by default.
- You can enable it by adding the string value logfile=<path and file name> to HKCU\SOFTWARE\Genesys Conferencing\Contacts.
- There is only one log file. It writes over itself every time you use the control.

## Installation by User

The simplest way to install the Genesys Meeting Center application client is from the lobby page. Users in your organization who have admin rights to install applications can follow these steps.

1. Go to the Tools page from the Setup menu item on the toolbar on the left.
2. Click the 'Install NEW! Meeting Center 4.0' link.
3. Click 'Run' when prompted to install the Meeting Center. An EXE package is downloaded to a temporary folder, and the Windows Installer wizard will walk you through all the installation steps.

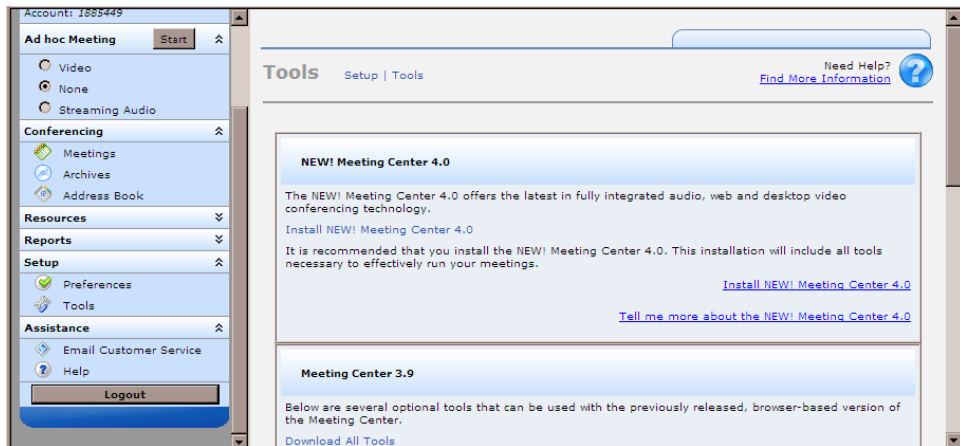


Figure 5 - Download Meeting Center client from Tools page.

After installation, if you want to set version 4.0 as the default, follow these steps.

1. Under the 'Setup' section in the Conference Manager, click on the 'Preferences' link.
2. Click the 'General' tab.
3. Under 'Meeting Center Version', select 'Meeting Center 4.0'.
4. Click the 'Save' button at the bottom of the page.

## Removal by User

### Version 3.x

If your users installed the Genesys Meeting Center 3.x components themselves, they can uninstall them themselves. Using 'Add/Remove Program' from the control Panel or the 'Uninstall All Tools Now' link on the Tools page will delete most files and registry entries. But the table below itemizes all items that they need to delete to remove 3.x from their systems completely.

Type of Item	To be Deleted
Files	<ul style="list-style-type: none"> <li>• C:\Windows\system32\                             <ul style="list-style-type: none"> <li>o astBrowserQuery.ocx</li> <li>o astOutlookCtrl.dll</li> <li>o astUploaderControl.dll</li> <li>o AthClientComp.dll</li> <li>o AthModEngine.exe</li> <li>o AthWndRgnHK.dll</li> <li>o CCLangPack.dll</li> <li>o gmInstaller.dll</li> <li>o gmcUninstaller.dll</li> </ul> </li> <li>• C:\Program Files\Genesys\</li> <li>• C:\Documents and Settings\<user>\Application Data\GenMC</user></li> </ul>
Registry Entries	<ul style="list-style-type: none"> <li>• HKLM\SOFTWARE\Genesys</li> <li>• HKLM\SOFTWARE\Classes\Genesys.astOutlookCtrl</li> <li>• HKLM\SOFTWARE\Astand</li> </ul>
ActiveX	<ol style="list-style-type: none"> <li>1. From Internet Explorer menu, click the Tools   Internet Options.</li> <li>2. From the General tab, click the Settings button in the Temporary Internet Settings section. The Settings window opens.</li> <li>3. Click the View Objects button. The Downloaded Program Files window opens. Note: The ActiveX controls may show as damaged in the Downloaded Program Files window due to the removal of the .dll files.</li> <li>4. Delete the following objects. Depending on what the user has installed, not all of these will be there.                             <ul style="list-style-type: none"> <li>• astFileUploader Class</li> <li>• CSoftPhone Object</li> <li>• Genesys Component Installer</li> <li>• Meeting Center Contacts Control</li> <li>• Genesys Webtour Control</li> </ul> </li> </ol>

Table 4 - Uninstalling Genesys Meeting Center 3.x

It is not necessary to uninstall version 3.9 before installing version 4.0. Both versions can co-exist on a computer, and you can choose to use either one at any time.

### Version 4.0

Uninstalling Meeting Center 4.0 is very simple.

1. From the Program Files menu, go to Programs | Meeting Center | Uninstall Meeting Center.
2. Delete HKEY\_CURRENT\_USER\Software\Genesys Conferencing from the registry to remove any orphaned keys and values.

## Installation and Removal by Administrator

If your users do not have sufficient rights to install applications, then you can push Genesys Meeting Center to them using MSI deployment tools. Similarly, you can use the same tools to uninstall the Meeting Center.

### Command Line

You can install or uninstall the Genesys MSI package from the command line using the `msiexec` command. The MSI has the following custom parameters/options and values.

Property	Description	Possible Values
BILLING_ACCOUNT	The BA your account is in	<your BA number>
ADDLOCAL or REMOVE	Components in the Features table to be included or excluded, respectively, during install and uninstall	<ul style="list-style-type: none"> <li>• MeetingCalendar</li> <li>• MeetingLauncher</li> </ul>

Table 5 - Properties when installing Meeting Center using `msiexec`.

### Sample Commands Using the Default Billing\_Account

App. Client	Meeting Calendar	Meeting Launcher	Command
Y	Y	Y	<code>msiexec /i c:\meetingcenter.msi</code>
Y	Y	N	<code>msiexec /i c:\meetingcenter.msi ADDLOCAL=ALL REMOVE="MeetingLauncher"</code>
Y	N	Y	<code>msiexec /i c:\meetingcenter.msi ADDLOCAL=ALL REMOVE="MeetingCalendar"</code>
Y	N	N	<code>msiexec /i c:\meetingcenter.msi ADDLOCAL=ALL REMOVE="MeetingCalendar, MeetingLauncher"</code>

Table 6 - Sample commands when installing Meeting Center using `msiexec`.

You can use `msiexec` to uninstall Genesys Meeting Center. This command

```
msiexec /x c:\meetingcenter.msi
```

will uninstall all parts of the Meeting Center.

It is good practice to log your installs and uninstalls using the `/l*vx` option.

```
msiexec /i c:\meetingcenter.msi /l*vx
```

### Transforms

If you are a large enterprise that wishes to customize the Genesys Meeting Center MSI package in order to suit meet your organization's requirements and your users' needs, you can do so with an MST transform file.

Using an MSI editor, such as Microsoft's Orca, you can create an MST file that contains the changes you want to make. You push it along with the MSI package when you do your deployment.

Some of the things you can change with a transform file include the following.

- Billing Account
- What to include/exclude in the Features table
- Bitmask for the default appearance of the Outlook add-in toolbar
- Meeting Center Event form as default

Once you have your MST file, you can deploy it using msiexec with a command like this.

```
msiexec /i c:\meetingcenter.msi TRANSFORM=c:\meetingcenter.mst
```

### Install and Uninstall via Content Distribution Software

The Genesys Meeting Center MSI package is compatible with content distribution software from many vendors. Given the variety of content distribution software in the marketplace, this document does not attempt to itemize the steps you need to deploy an MSI under each one. Instead, having learned, in the previous section, about some of the properties you can edit, you can use that information to roll out or roll back the Genesys MSI package using the distribution software at your organization.

## Installing Webtour ActiveX Component

The Genesys MSI and EXE packages do not include the ActiveX control users need in order to conduct webtours. If they wish to have webtours, but do not have the authority to install the necessary control, you have to push it to them separately, independent of the MSI package.

Users who do have the authority can install it themselves from the Conference Manager when prompted.

## Integration with Communication Applications

In order to get the most out of Genesys Meeting Center, the application client includes several features that extend the Meeting Center's capabilities. When you use these features, they can make you more productive and save you time.

### Outlook Calendar Integration

A custom form is extracted by the add-in and published by Outlook in the Personal Calendar on first run. Once published, this form establishes itself as the default form when you post to the Calendar folder.

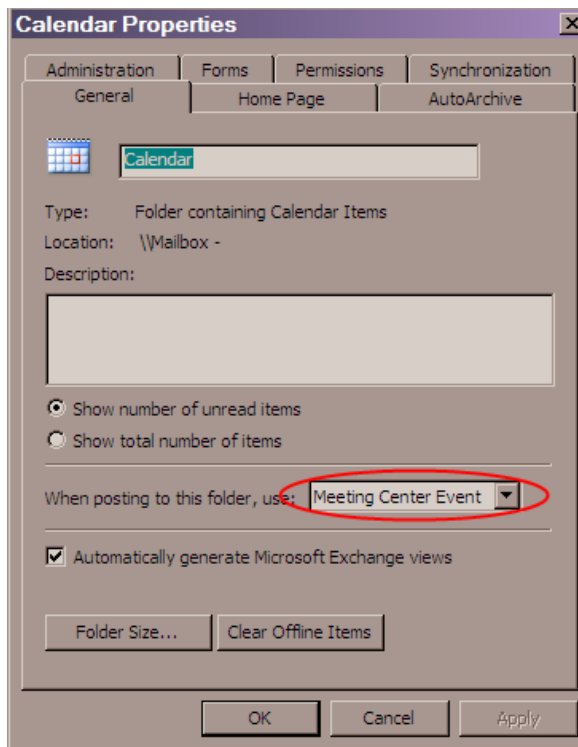


Figure 6 - Outlook Calendar properties. Note how the Meeting Center Event is the default form.

In order to not use the Meeting Center Event as the default form, you must change the dropdown box in figure 6 to show IPM.Appointment. You also have to change this field in the Meeting Settings dialog box.

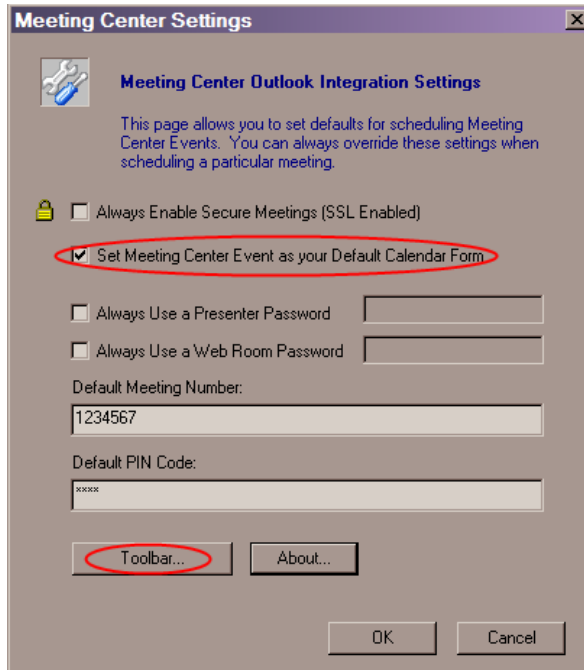


Figure 7 - Meeting Center settings dialog box. Note how Meeting Center Event is set as default here too.

To get to this dialog box,

1. Select Tools | Meeting Center | Meeting Settings from your Outlook menu.
2. Uncheck the 'Set Meeting Center Event as your Default Calendar Form' checkbox.

From this dialog you can also set which buttons to display in the toolbar. Click the Toolbar button, and pick the buttons you want to show.

To uninstall this custom form,

1. Go to Calendar Properties (figure 6.)
2. Click the 'Forms' tab
3. Click the 'Manage ...' button. The Forms Manager opens.
4. Delete the Meeting Center Event form.

The only information the calendar add-in posts to a Genesys server pertains to your account and your meeting's particulars, such as login, password, start time, duration, and other meeting-specific parameters. None of your participants' contact information is sent. Your email server handles the distribution of meeting invitations to the invitees without any interaction with Genesys Meeting Center.

The Genesys Meeting Center Calendar Control is an optional component when you install the application client. Those who do not have a Genesys account, such as participants, and those who do not have Outlook cannot use it, so they can choose to not install it.

## Contacts Selection

Genesys Meeting Center has a contacts selection tool called the Enterprise Contacts Control. It allows you to invite participants from your Outlook, Lotus Notes, or Meeting Center address books when you schedule a meeting from the lobby.

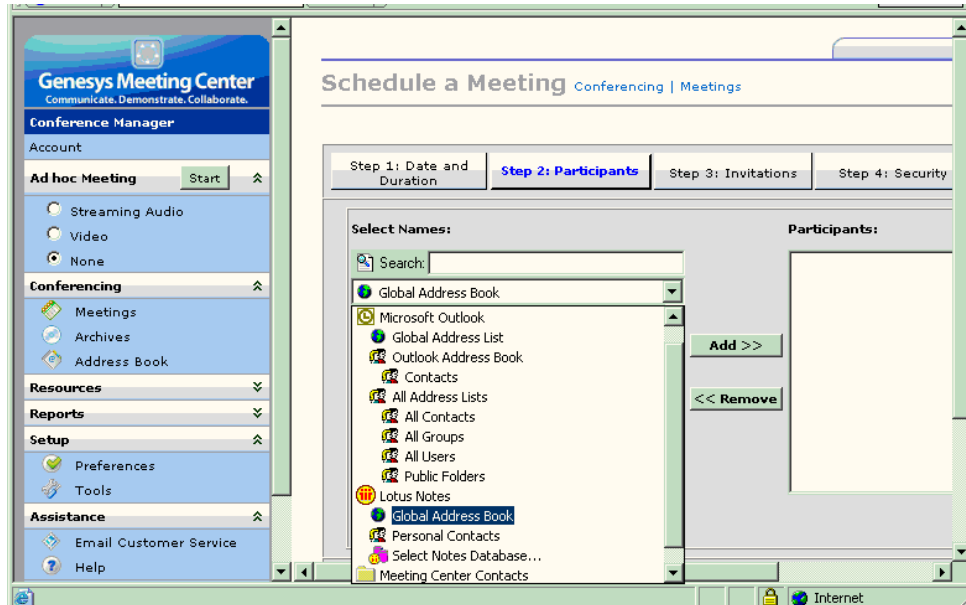


Figure 8 - Contacts Selection control

It is an ActiveX control embedded in a “container”, in this case the lobby page. When the control starts, it checks for several things.

- If Outlook is installed, it opens the Outlook msgstore via MAPI and loads the contact information.
- If Lotus Notes is installed, it opens the Notes database(s) via the Lotus Notes COM object and loads the contact information.
- It checks the Meeting Center address book and loads the contact information in it to a custom folder called Meeting Center Contacts.

Once all the contacts are loaded, the control manages them as though they are acquired directly from Outlook, Notes, or the Meeting Center address book. The control makes no distinction between them when it passes them to the container.

## Genesys Meeting Launcher

A key feature of the Meeting Launcher is its integration with MSN Messenger. You can invite, via MSN Messenger or email, participants to join a meeting you start spontaneously and for which you haven't send any invitations.

In order for MSN integration to work, Windows Messenger must be installed and permitted to run on the machine, as the Meeting Launcher starts the msmsgs.exe process in the background and uses its API to communicate with MSN Messenger.

## Contact Us

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Thank you for your interest in Genesys Meeting Center. We'd like to hear from you. And we're here to help.

### **Genesys Worldwide**

Genesys Conferencing is a leading provider of integrated web, audio, and video conferencing services to thousands of organizations worldwide, including more than 200 of the Fortune Global 500. Our services are designed to meet the full range of communication needs within the large enterprise, from collaborative team meetings to high-profile online events. Genesys Conferencing's flagship product, Genesys Meeting Center, provides a single-platform multimedia conferencing solution that is easy to use and available on demand. With offices in more than 20 countries across North America, Europe and Asia Pacific, Genesys Conferencing offers an unmatched global presence and strong local support.

To contact us, go to the Genesys Conferencing website at [www.genesys.com](http://www.genesys.com).

## Appendix A: Genesys Meeting Center File Locations & Registry Keys

Component	Files Location	Registry Keys (for all components)
Application Client	<ul style="list-style-type: none"> <li>• C:\Program Files\Meeting Center\</li> <li>• C:\Documents and Settings\<user>\Application Data\Meeting Center\</user></li> <li>• C:\Documents and Settings\All Users\Start Menu\Programs\Meeting Center\</li> </ul>	<p>During Install</p> <ul style="list-style-type: none"> <li>• HKEY_LOCAL_MACHINE\SOFTWARE\Genesys Conferencing\</li> <li>• HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Cryptography\</li> <li>• HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Cryptography\RNG</li> </ul> <p>During Runtime</p> <ul style="list-style-type: none"> <li>• HKEY_CURRENT_USER\SOFTWARE\Genesys Conferencing\</li> </ul>
Outlook Calendar add-in	<ul style="list-style-type: none"> <li>• C:\Program Files\Meeting Center\Modules\</li> </ul>	
Meeting Launcher	<ul style="list-style-type: none"> <li>• C:\Program Files\Meeting Center\Modules\ Launcher\</li> </ul>	