AASTRA

Clearspan®

MEET-ME CONFERENCING GUIDE

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1 Overview

Clearspan offers a full suite of conferencing solutions, from simple ad-hoc conferences such as N-Way calls, to full-featured Meet-Me Audio Conferencing, which can support hundreds of participants and includes moderator controls, web-based clients, and scheduling options.

This guide describes the Clearspan Meet-Me Audio Conferencing solution, which is designed to support the needs of every business customer, whether it is a small business that needs to conduct sales calls with prospective clients or a large enterprise with geographically distributed offices that need to bridge hundreds of participants together for company meetings. The solution is designed to maximize efficiency and minimize distractions so that people can conduct business without interruption.

With Clearspan Meet-Me Audio Conferencing, an administrator creates conference bridges (that include a dialable number in its definition, such as 222-555-1212) and designates Clearspan users as "conference hosts". The host can create conferences on the conference bridge that has been assigned to them, with a unique conference ID created for each conference. Participants dial the bridge number, enter the conference ID, and they are joined together on the conference. The conference can be scheduled as a one-time event, a recurring event, or a reservationless conference that is available at any time.

Key Benefits of the Clearspan Solution:

- **Reduce costs** – The solution runs on existing Clearspan servers, eliminating the need to introduce additional platforms or third-party applications.
- **Enhance the experience with high definition (HD) voice** – The solution supports HD Voice (G.722 codec), so that participants with HD-capable devices can experience the benefits of clear HD communication.
- **Reduce distractions during calls** – The solution blocks Music On Hold from other Clearspan participants if they put the call on hold during a conference, and supports Lecture Mode, which automatically mutes all participants when they join a conference.
- **Simplify notifications** – The Clearspan Meet-Me Conferencing Add-in for Microsoft Outlook allows hosts to quickly add a Clearspan Meet-Me Conference to an Outlook meeting.

1.1 Key Functionality

The solution supports the following key functionality:

- Reservationless and scheduled conferences
- Outlook add-in for participant notifications

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- HD (G.722) audio support
- Dual-tone multi-frequency (DTMF) controls for moderators and participants
- Web-based Conferencing Moderator client
- Participant “Call Back” option
- Blocking Music On Hold from other Clearspan participants
- Active Talker
- Conference options:
  - Play tone or name when participants arrive or depart
  - Roll call
  - Lecture mode
  - Mute or unmute lines
  - Lock or unlock conference
  - Recording
  - Escape to operator
  - Outdial to add participants
  - Moderator required to start conference
  - Self-identification

1.2 Common Deployment Scenarios

The solution supports various common Audio Conferencing deployment scenarios, including those in the following subsections.

1.2.1 Wholesale Audio Conferencing

Send a bridge number, conference ID, and moderator PIN to a subscriber, typically on a *wallet card*. They can hold meetings at any time, up to a maximum number of participants.

In this model, an administrator at a service provider creates reservationless conferences and mails the access information to a subscriber. The subscriber does not need to know they are a Clearspan user and they do not need to access the web portal. Conferences can be configured by the administrator to limit the maximum number of participants in the conference.

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1.2.2 High Definition Business Conferencing for Small and Medium Businesses

Small and medium business (SMB) customers with high definition (HD)-capable devices can use Clearspan Meet-Me Conferencing to hold sales calls and other meetings. HD-quality audio is heard between any participants with HD-capable devices.

1.2.3 Large-scale Conferences and Webinars

End customers can conduct large-scale meetings and webinars, up to 294 participants, using Clearspan Meet-Me Audio Conferencing. Multiple moderators can be involved, with numerous controls to eliminate typical interruptions such as entry tones, muting individual participants, automatic muting of new participants, and blocking Music On Hold from participants who place their line on hold.

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2 Functionality

2.1 Product Architecture

The following figure shows the major components of the Meet-Me Audio Conferencing solution.

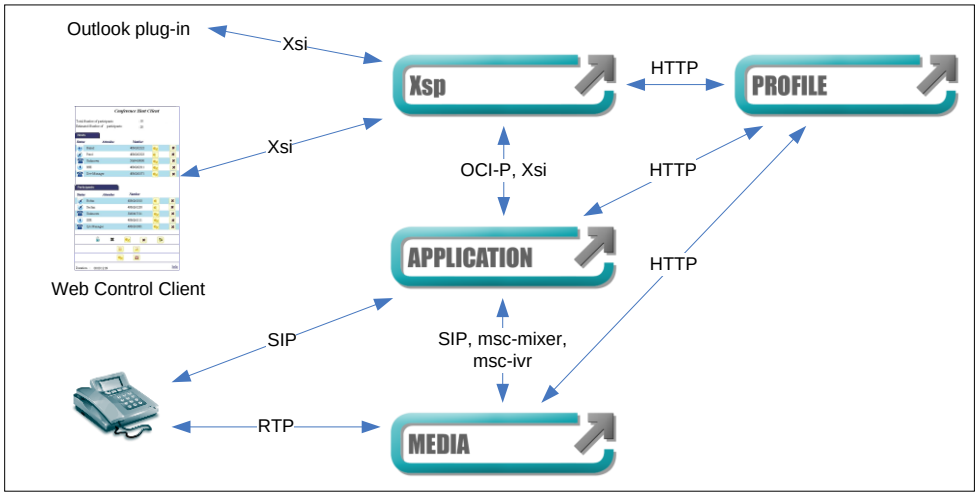

Figure 1 Major Components of Meet-Me Audio Conferencing Solution

The roles of these components are:

- **Application Server**: Schedules a conference, establishes an audio conference on the Media Server, connects phones to the conference, and controls the conference.
- **Media Server**: Performs audio mixing, records the conference, play prompts, and detects DTMF tones.
- **Profile Server**: Stores conference recordings.
- **Xtended Services Platform (Xsp):** Hosts the Conferencing Moderator client.
- **Meet-Me Conferencing Add-in for Microsoft Outlook**: Facilitates scheduling of conferences by automating the steps to reserve a conference bridge.
- **Conferencing Moderator client**: Allows the moderator of a conference to see the list of participants who joined the conference and take actions such as mute a participant and record the audio conference.

2.2 Meet-Me Conference Types

There are two types of Meet-Me Conferences:

- **Scheduled conferences** - A moderator schedules the conference in advance or right at the start of the conference. A unique conference ID is created for this

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conference, and it is valid during the configured time periods. This type of conference is most appropriate for large conferences, webinars, and recurring meetings.

- **Reservationless conferences** - A moderator creates a conference with a long-life period, but without scheduling any specific conference dates. A unique conference ID is assigned to this conference and can be used to start a conference at any time within its life period. This type of conference is most appropriate for informal or unforeseen meetings, such as group discussions or crisis management meetings.

For information on creating and scheduling conferences, see section *4 Create and Manage Conferences*.

2.3 Reserve Conference Ports on Media Server

For scheduled large-scale webinars that occur during the busy hour, it is desirable for Media Server resources be set aside.

There are two deployment methods for large conferences:

- A pair of Media Servers is reserved for large conferences. No other services are allowed to use this pair. When a conference with at least 50 participants starts, the Application Server invokes the Media Server Selection policy on the Network Server with a tag indicating a large conference. The Network Server should be preconfigured to associate the pair of Media Servers with the Control Chanel Framework large conference service: *cfw-largeconf*. The Network Server returns the addresses of the pair of Media Servers to the Application Server, which then creates the conference on these Media Servers.
- Use “Best Effort” design practices for service providers for whom dedicating a pair of Media Servers to large conferences is not worthwhile. These customers should follow good engineering guidelines (for example, reduce the blocking rate). The Conferencing service becomes a best-effort service, even for large conferences. The Application Server does not give preference to the Conferencing service over other media services.

2.3.1 Estimated Number of Participants

The estimated number of participants is optionally entered when creating a new conference. This value is used in the following way:

- If the *estimated number of participants* field is left empty, up to 147 participants can join a conference on a first-come first-served basis. Ports are not reserved in advance. A small conference is requested to the Media Server Selection policy of the Network Server.

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- If the value in the field for the estimated number of participants is less than 50, the behavior is the same as above.
- If the value in the field for the estimated number of participants is between 50 and 147, this is the number of ports reserved on the Media Server when the conference is created. A large conference is requested to the Media Server Selection policy of the Network Server. Up to 147 participants can join the conference.
- If the value in the field for the estimated number of participants is between 147 and 294, this many ports is reserved on the Media Server when the conference is created. A large conference is requested to the Media Server Selection policy of the Network Server. Up to 294 participants can join the conference.

2.4 Functions Available to Moderators

A group administrator creates a conference bridge and designates Clearspan subscribers who can be a host on that bridge. Hosts are allowed to create scheduled and reservationless conferences against that bridge. When a conference is created, there is a moderator PIN generated along with the conference ID. Any participant who joins the conference using the moderator PIN has special privileges for that particular instance of the conference and can perform the moderator functions. Within a conference, moderators can invoke functions such as recording, locking a conference, inviting a new participant by calling the participant from the conference, and so on. There can be multiple moderators for an instance of a conference.

The following subsections describe the functions available to moderators.

2.4.1 Lecture Mode

The Lecture Mode mutes all attendees except for the moderator who invokes the option. Any new participant or moderator joining the conference is automatically muted. Note that only the moderator who turned on the Lecture Mode is allowed to speak.

2.4.2 Record Conference

A moderator can record a conference for up to 12 hours. After the recording has been started, it can be paused, restarted, and stopped. When the recording is stopped, the recorded audio is uploaded to the Profile Server and made accessible through the web portal of the Clearspan subscriber who created the conference.

Meet-Me Conferencing supports recording in the MP3 and WAV formats.

2.4.3 Invite New Participant Using Outdialing

A moderator can originate a call from a conference to a new participant. The moderator enters the participant's phone number and the Conferencing service originates the call.

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Services such as Outgoing Call Restrictions apply to the originated call. Conference bridge-originating services apply to the call.

When the new participant answers the call, the participant is played the message “You have been invited to join an audio conference. Press 1 to join the conference”. If the participant presses 1, the participant is joined to the conference; otherwise, the call is released.

2.4.4 Lock Conference

When a conference is locked, new participants cannot join the conference. The conference must be unlocked before new participants can join the conference again.

Note that while a conference is locked, a moderator can still invite new participants using “OutDialing”.

After the last moderator of a conference leaves the conference, the conference is automatically unlocked. This way, a new moderator can join the conference and take control of the conference.

2.4.5 Self-Identification Code

This function provides the ability for attendees of a conference to identify themselves to any application that is subscribed for notifications. When a conference is created the host has the ability to select whether attendees should identify themselves by entering a code (with a maximum of 10 digits being allowed).

2.4.6 Moderator DTMF Menu

Control functions are available to moderators of a conference and are accessible through a DTMF menu. The DTMF menu can be invoked at any time during the conference by pressing *. Only the moderator hears the menu, while participants continue talking in the conference. While the menu is playing, the moderator does not hear the conference.

The DTMF menu options are:

* – Repeat the menu options

0 – Transfer to Operator

1 – Mute or unmute this line

2 – Participant count, followed by roll call

3 – Turn on or turn off Lecture Mode

4 – Lock or unlock conference

5 – Recording submenu

6 – Invite a new participant by calling the participant

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7 – Enter self-identification code

8 – End conference

– To return to the conference

The moderator can invoke the above options by pressing both the keys together if the moderator does not want to listen to the menu. For example, moderators can press *1 to mute their line.

If any other digit is entered, the moderator is returned back to the conference.

2.5 Functions Available to Participants

Control functions are also available to participants and are accessible through a DTMF menu. The DTMF menu can be invoked at any time during the conference by pressing *. Only the participant hears the menu, while moderators and other participants continue talking in the conference. The DTMF menu options work the same way as they do in the moderator DTMF menu.

* – Repeat the menu options

0 – Transfer to Operator

1 – Mute myself or unmute myself

2 – Participant count, followed by roll call

7 – Enter self-identification code

9 – Log in as moderator

– To return to the conference

The participant can invoke the above options by pressing both the keys together if the participant does not want to listen to the menu. For example, participants can press *1 to mute their line.

If any other digit is entered, the participant is returned back to the conference.

2.5.1 Log in as Moderator

When this option is invoked, a participant is asked for the moderator's PIN. If the PIN is correct, the participant is elevated to moderator status and can execute moderator commands.

2.5.2 Mute or Unmute

Participants have the ability to mute or unmute themselves in a conference. If the moderator has muted a participant, then the participants can unmute themselves using the DTMF menu options. However, if the moderator has set the conference to Lecture Mode, then the participants cannot unmute themselves.

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2.5.3 Transfer to Operator

This function disconnects a participant from the conference and transfers the participant to a phone number defined for the conference bridge. To help the participant, a human operator or an Auto Attendant, can answer the call.

2.5.4 Self-Identification Code

This function provides the ability for attendees of a conference to identify themselves to any application that is subscribed for notifications. When a conference is created the host has the ability to select whether attendees should identify themselves by entering a code (with a maximum of 10 digits being allowed).

2.6 Inhibit Clearspan-based Music On Hold

For Conferencing services, a common problem is that if a participant of a conference puts a conference on hold, then Music On Hold is played to the entire conference, thus making the conference unusable to other participants. The Meet-Me Conferencing service protects conferences from Music On Hold by muting participants who advertise that they are currently playing Music On Hold.

A participant advertises that they are playing Music On Hold by adding the *moh* parameter to the *X-Clearspan-DNC* Session Initiation Protocol (SIP) header.

2.7 Grace Period for a Conference

A *Grace Period* provides an additional buffer time that allows a conference to continue beyond its scheduled end time. When a *Grace Period* is enabled, the *Grace Period* value is considered for the conference's forced ending. However, when the flag is disabled, the *Grace Period* value is not applicable. When the *Grace Period* value is set to "0", the conference is forced to end at its scheduled end time.

For a scheduled conference, the *Grace Period* starts after the scheduled end time. Therefore, a conference can end either on completion of the *Grace Period* or the *Maximum Conference Duration*, whichever comes first.

For a reservationless conference, a *Grace Period* is not applicable.

2.8 Early Entry into a Conference

Early Entry allows attendees to join a conference before the scheduled start of the conference.

Attendees can join the conference during the specified number of minutes before the scheduled start of the conference. A value of "0" signifies that early entry is not allowed.

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2.9 Conference Notification

2.9.1 Active Conference Notification

When *Active Conference Notification* is enabled, an e-mail notification is sent to the conference host and conference delegates when the first participant joins the conference. This is a fraud prevention mechanism that alerts the conference host about unauthorized activity. An e-mail is sent only when an e-mail address is configured for the conference host. The e-mail is localized based on the locale of the host.

2.9.2 Conference Expiry Notification

When *Conference Expiry Notification* is enabled, an e-mail notification is sent to the conference host two weeks prior to the scheduled expiration of a recurring or reservationless conference. An e-mail is sent only when an e-mail address is configured for the conference host.

If a conference is created that expires within two weeks, no e-mail notification is sent. The e-mail is localized based on the locale of the conference host. *Conference Expiry Notification* e-mails are sent once a day at 1.15 A.M.

2.10 Maximum Conference Duration

Maximum Conference Duration allows a forced ending of a conference. This feature prevents a conference from remaining open for an extended period of time.

For a scheduled conference, the *Maximum Conference Duration* is counted from the actual start and not the scheduled start. A scheduled conference is terminated when the *Maximum Conference Duration* is reached and not at its scheduled end time.

A reservationless conference is also terminated when the *Maximum Conference Duration* is reached.

2.11 Warning Prompts

2.11.1 End of Conference Warning Prompt

When the *End of Conference Warning Prompt* is enabled, a *Warning Prompt* is played before the scheduled end of the conference to warn attendees about the impending end of the conference. The *Warning Prompt* helps to maintain schedule discipline even when the conference is not terminated.

If the *Warning Prompt* duration is set to “X” minutes, then the warning announcement is played “X” minutes before the end of the conference.

For a scheduled conference, the *Warning Prompt* is played “X” minutes before scheduled end time.

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For reservationless conference, the *Warning Prompt* is played “X” minutes before the *Maximum Conference Duration*. If the *Maximum Conference Duration* is not set, no warning announcement is played.

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2.11.2 Final Warning Prompt before End of Conference

When the *Final Warning Prompt* is enabled, a *Warning Prompt* is played whenever a conference is to be forcefully ended, due to either *Maximum Conference Duration* or *Grace Period* expiry.

The warning announcement is played two minutes before the end of the conference.

2.12 Conference Delegates

The host creates a conference and assigns delegates. The delegates have certain host privileges for that conference. Only other hosts on the same bridge can be delegates. The delegates have access to the *Conference Modify* page and can launch the moderator client and manage the conference instance.

The following are the characteristics of a conference delegate:

- The delegate can modify all options associated with the conference.
- The delegate cannot delete the conference.
- The delegate cannot further delegate a conference.

2.13 Automatic Lecture Mode

Automatic Lecture Mode is applicable when the number of participants or moderator in a conference is more than 147. Entry and exit tones are played whenever a participant/moderator joins the conference.

Once the Automatic Lecture Mode starts:

- An announcement is played to all moderators that the conference has entered into *Automatic Lecture Mode*.
- All participants are muted.
- The moderator's mute state remains unaffected.
- The entrance and exit tones are not played.
- Users are not announced.
- Participants cannot un-mute themselves using DTMF menu options.
- Moderators can un-mute participants via the moderator client but cannot exceed 100 un-muted participants in a conference.
- While the conference is in automatic lecture mode, any participant joining the conference is muted on entry.
- While the conference is in automatic lecture mode, any moderator joining the conference can be un-muted on entry if the number of un-muted personsis less than the maximum limit (100).

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Automatic Lecture Mode cannot be disabled for a conference. It remains enabled even if the participant count subsequently drops below 147.

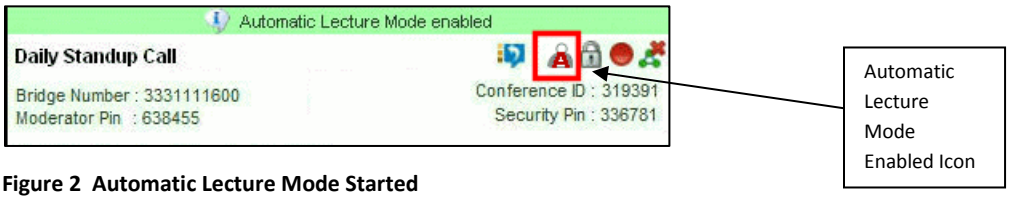

Figure 2 Automatic Lecture Mode Started

2.14 Active Talker

The Meet-Me Conferencing Moderator client is enhanced to identify actively talking participants/moderator in a conference, by showing an active talker status icon in the call line of a participant/moderator. The participant/moderator who is most dominantly talking is determined by the Telephony Application Server and Media Server.

There can be at maximum only one active talker at a time.

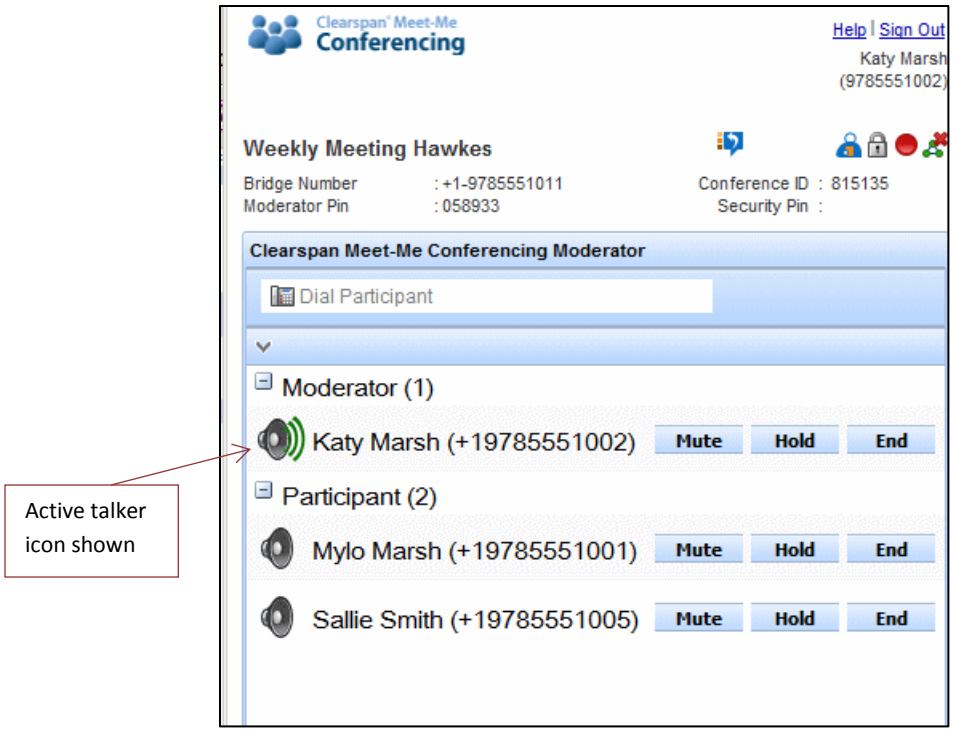

Figure 3 Active Talker Icon Shown for Active Participant/Moderator

2.15 Security PIN

This feature provides an additional security mechanism to authenticate the attendees in the conference. When this feature is enabled, the attendees are prompted to enter the security PIN after the conference ID.

The administrator can set the security PIN length at the conference bridge level and the host can enable the security PIN while creating or modifying the conference. The security PIN can be changed

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by the host or the delegate of the conference. All participants, including moderators and those participants joined via the outdial functionality, must provide the security PIN before they are allowed to join the conference if the feature is enabled.

3 Provisioning

This section describes, for a system administrator, all the steps required to provision the Meet-Me Conferencing service on the Clearspan platform.

3.1 Application Server Configuration

3.1.1 Licensing

The maximum number of conference bridges is specified in the Application Server license file:

```
<com.broadsoft.apm.managedservice.ServiceLicense level="VIRTUAL"
    quantity="500"
    serviceName="Meet-Me Conferencing"
    servicePack="NONE"/>
```

The maximum number of simultaneous conference participants on the Application Server is also specified:

```
<licensedSystemParamArray>
  <com.broadsoft.apm.managedservice.LicensedSystemParam
      name = "numMeetMeConferencingPorts" value = "1000" >
 </licensedSystemParamArray>
```

NOTE: The Application Server must be restarted for the above parameter to take effect.

The system administrator can view the current Meet-Me conferencing port license usage via the Application Server command line interface as follows:

```
AS_CLI/System/Licensing> get
Group Service Licenses:
                  Name   Licensed  Used  Available
  ================================================
  Meet-Me Conferencing       1000     1        999
```


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3.1.2 Configure Conferencing Moderator Client URL

The uniform resource locator (URL) of the Conferencing Moderator client and Call Me Now link must be provisioned on the Application Server. The Conferencing Moderator client and Call Me Now link are hosted on the Xtended Services Platform. The URL is entered using the Application Server command line interface (AS_CLI):

AS_CLI/Applications/CommPilot/ClientApplicationLaunchURLs> set moderatorClient http://<Xsp address>/meet-me-moderator

Note that the same URL is used for both the Meet-Me Conferencing Moderator client and the Call Me Now link.

3.1.3 Inhibit Clearspan-based Music On Hold during Conferences

To inhibit the Clearspan-based Music On Hold service from activating when a participant in a conference puts the conference on hold, enter the following command:

```
AS_CLI/Interface/SIP> set sendXClearspanDNCHeader true
```

3.1.4 Enable MP3 Support

To enable MP3 support for Meet-Me Conferencing, set the recording file format to “MP3” either via the CLI or via the web portal on the *Meet-Me Conferencing* service page.

To set the recording format via the CLI, issue the following command:

```
AS_CLI/Service/MeetMeConferencing> set recordingFileFormat MP3
```

3.1.5 System Administrator Meet-Me Conferencing Settings

The system administrator has access to the Meet-Me Conferencing system-level settings web page, as shown in the following figure.

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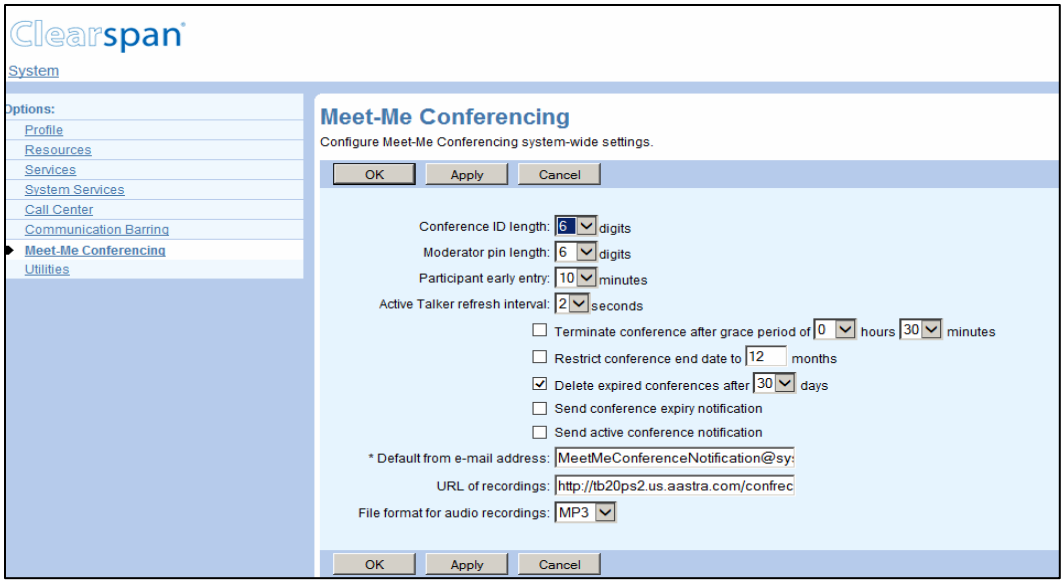

Figure 4 Meet-Me Conferencing System-wide Settings

The following options can be set:

- The *Conference ID length* and *Moderator PIN length* have the options 6, 7, 8, 9, 10, 11, or 12. The default value is "6".
- The conference end date restriction:
  - It can be any number between "1" and "99".
  - The restriction only affects the new conferences and it is relative to the start date of the conference.
  - This restriction is applicable to all types of conferences including reservationless conferences.
  - Changing the end date restriction does not change the end dates of previously created conferences.
- The setting for the number of days after which expired conferences are deleted can take one among the options 1, 2, 3, 4, 5, 6, 7, 15, 30, or 60.
- The *URL of recordings* points to the location where the conference recordings are stored on the Profile Server. The format for this URL is:
  - For the Application Server Release 17.sp3 and above:

    http://profile-server-address/MeetMeConfRepository.
  - For the Application Server Release 16.sp2:

    http://profile-server-address/MeetMeConfRepository/ASClusterName.

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The Application Server cluster name must be unique for each Application Server pair in the network.

- The file format for a conference recording can be set to “WAV” or “MP3”.
- The conference grace period:
  - The grace period is configurable in Hr:Min.
  - The allowed values are “0:00” to “23:45” (in Hr:Min).
  - The default value is “30” minutes.
  - The value “0:00” indicates that no grace period is allowed.
- Participant early entry:
  - The time is configurable in minutes.
  - The allowed values are “0” to “15” (in minutes).
  - The default value is “10” minutes.
  - The value “0” indicates that early entry is not allowed.
- Active Talker refresh interval:
  - The time is configurable in seconds.
  - The allowed values are “1” to “5” (in seconds).
  - The default value is “2” seconds.
- When *Conference Expire Notification* is enabled, an e-mail notification is sent to conference host two weeks prior to the scheduled expiration of a recurring or reservationless conference. The e-mail notification is sent only if an e-mail address is configured for the conference host. The content of the e-mail specifies conference title, conference ID, start date, end date, time zone, and duration of the conference. The e-mail is localized based on the locale of the conference host. If the meeting is initially created with less than two weeks before expiration or the conference host does not have an e-mail address configured on their user profile, e-mail notification is not sent.
- When *Active Conference Notification* is enabled, an e-mail notification is sent to conference host when the first participant joins the conference. The content of the
  e-mail specifies the conference title and conference ID. An e-mail notification is sent only when an e-mail address is configured for the conference host. The e-mail is localized based on the locale of the conference host.

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- For the *Default from e-mail address*, this is the "From:" e-mail address from which e-mail notifications are sent. Default e-mail address is MeetMeConferenceNotification@systemprovider.com.

NOTE: The *Conference ID length*, *Moderator PIN length*, and conference end date settings only have an effect on new conferences.

3.2 Assign Meet-Me Conference Ports to Service Providers or Enterprises

The system administrator must also assign Meet-Me Conference ports to each service provider or enterprise. The number of ports can either be:

- *Unlimited*, in which case the service provider or enterprise can assign an unlimited number of ports to individual groups

  -or-

- *Limited* to a specific value, in which case the total number of ports that a service provider or enterprise can assign to groups cannot exceed the limit specified.

The number of ports for each service provider or enterprise is controlled in the *Resources* section of the service provider web page, as shown in the following figure.

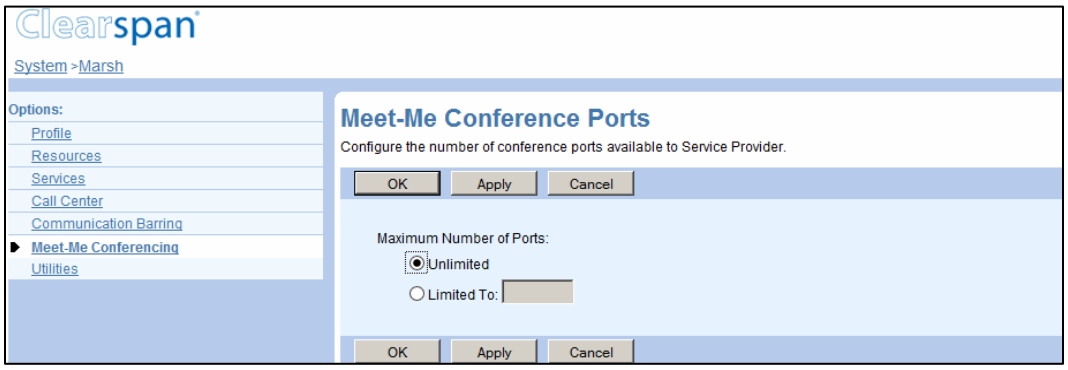

Figure 5 Limit Number of Ports per Service Provider or Enterprise

3.2.1 Assign Meet-Me Conference Ports to Groups

The service provider administrator or enterprise administrator must also assign ports to groups. The number of ports can be either *Unlimited* or *Limited To* a specific value. The *Unlimited* option at the group level is only available if the system administrator has selected *Unlimited* for the group's service provider.

The number of ports for each group is controlled in the *Resources* section of the group web page, as shown in the following figure.

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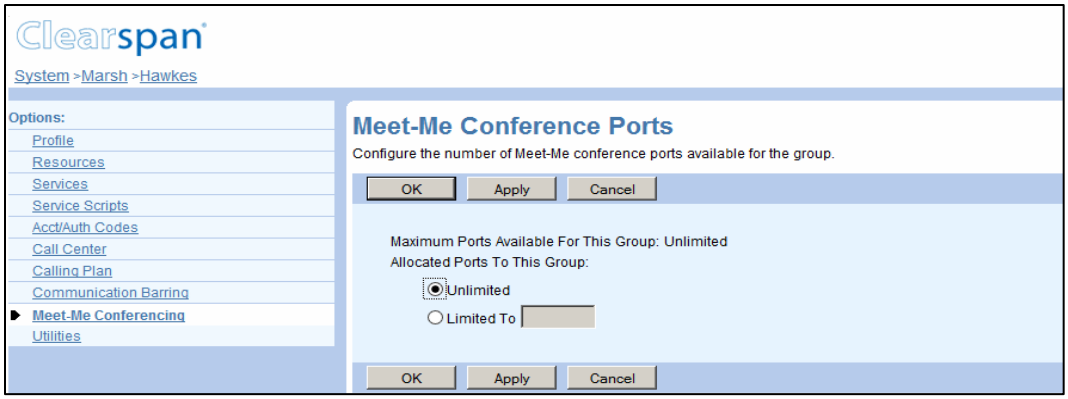

Figure 6 Limit Number of Ports per Group

3.2.2 Create Meet-Me Conference Bridge in Group

To create a Meet-Me conference bridge, the Meet-Me Conferencing service must be authorized and assigned to the group. The group administrator can then go to the *Services/Meet-Me Conference Bridges* level to get a list of existing bridges, and click **Add** to create a new bridge.

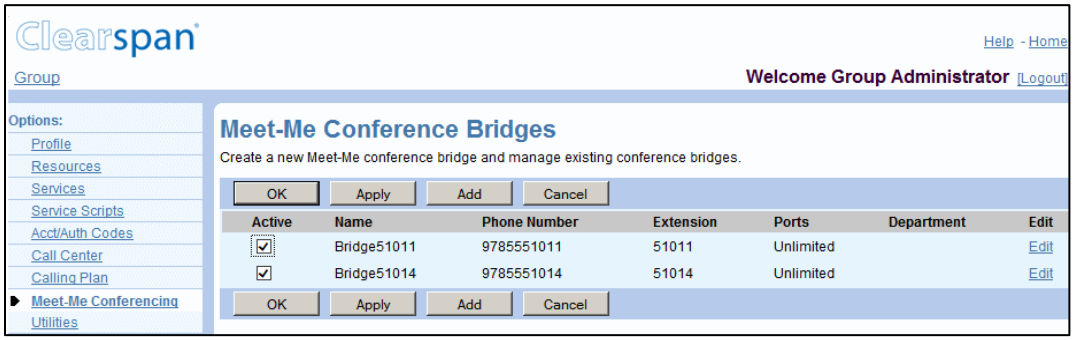

Figure 7 List of Meet-Me Conference Bridges

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After clicking the **Add** button, the following web page is presented to the group administrator.

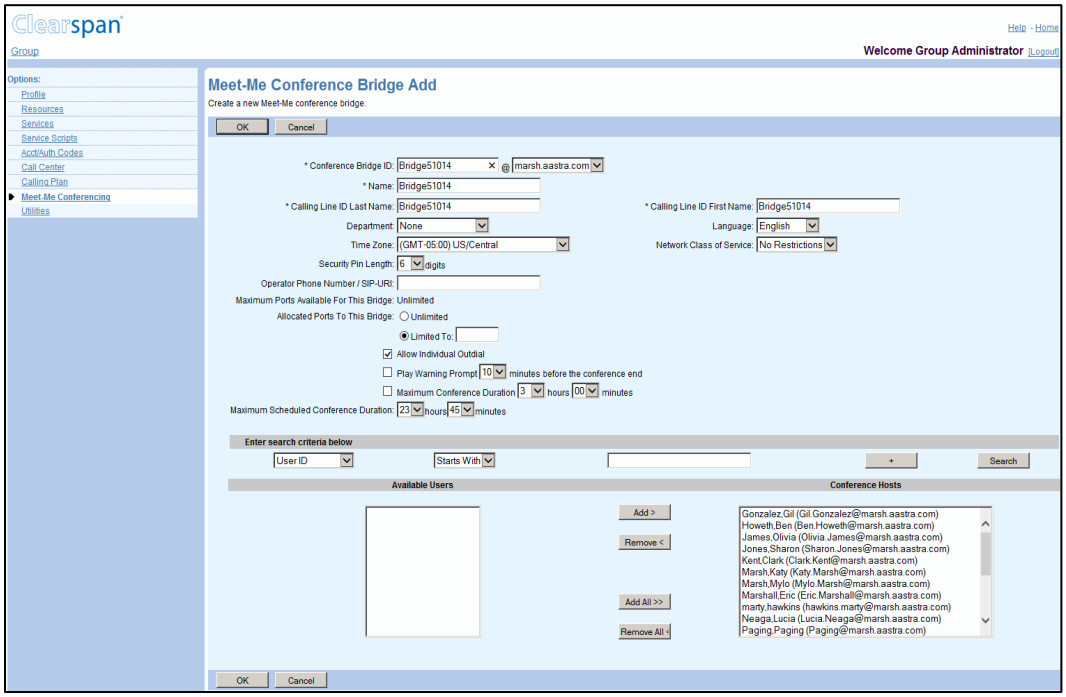

Figure 8 Create New Meet-Me Conference Bridge

- Details related to the bridge such as *Conference Bridge ID*, *Bridge Name*, *Last Name*, *First Name, Department*, and so on, are to be completed.
- The maximum number of ports available for a bridge is determined by the ports allocated to the group. If the group had been allocated an unlimited number of ports, then the ports available for the bridge would also be unlimited.
- Conferencing hosts are selected from a list of users from the group when the group belongs to a service provider. If the group belongs to an enterprise, then if logged in as an enterprise administrator or group administrator, all users in the enterprise or group are listed.
- The *Maximum Conference Duration* is configurable in hours and minutes in the Hr:Min format. Allowed values are “0:15” to “23:45” (in Hr:Min). The default value is “3” hours (180 minutes). The *Maximum Conference Duration* cannot be changed to a value less than the longest existing scheduled conference on the conference bridge.
- The *Warning Prompt* is configurable in minutes. Allowed values are “1” to “15” (in minutes). The default value is “10” minutes.
- The *Security Pin* length is configurable from 4 to 12 digits with a default of 6.

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After all the details have been entered, click **OK** to create the conference bridge if all the details entered are valid. Now, the listing of conference bridges includes the newly created bridge as well.

3.2.2.1 Assign Phone Number to Meet-Me Conference Bridge

After a bridge is created, the group administrator selects that bridge from the list of bridges to retrieve the bridge profile, as shown in the following figure.

Figure 9 Meet-Me Conference Bridge Profile

The group administrator clicks on **Addresses** to assign a phone number and/or extension, as shown in the following figure.

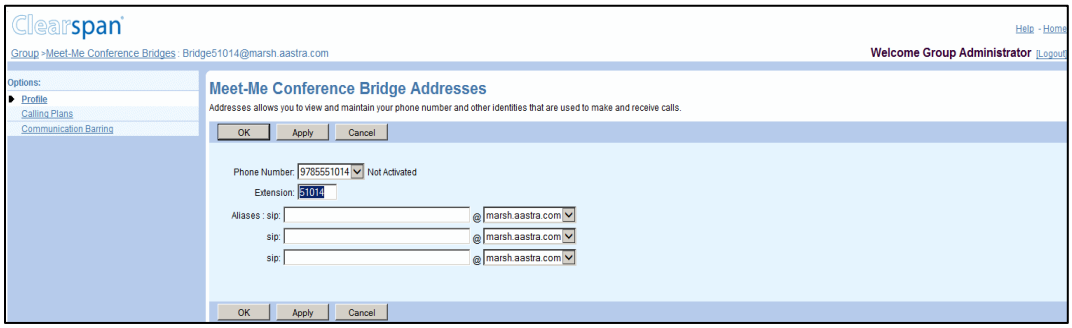

Figure 10 Assign Phone Number to Bridge

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In the bridge profile, it is also possible to click **Assign Services** to assign services to a bridge, as shown in the following figure.

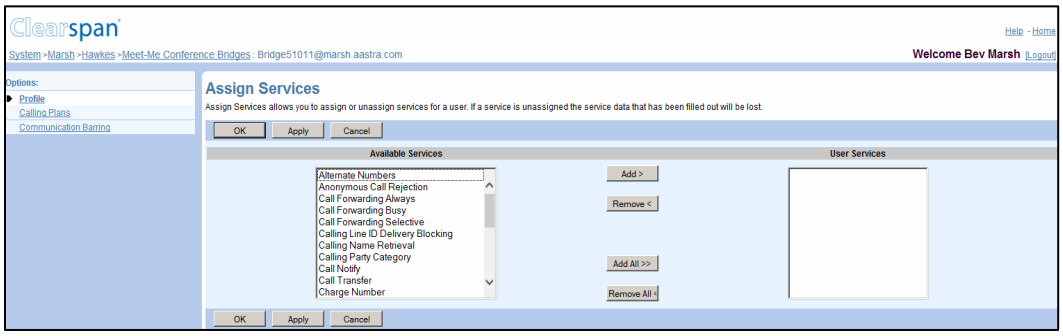

Figure 11 Assign Services to Bridge

The last step involves a subscriber who creates a conference, as described in section 4 *Create and Manage Conferences*.

3.2.3 Media Server Configuration

On the Clearspan Media Server, the Cr reference point must be activated. To do this, a system administrator logs in to all Media Servers, starts the Media Server command line interface (MS_CLI) and then enters the following command:

```
MS_CLI/Applications/MediaStreaming/Interface/CFW> set enablecfw true
```

The Media Server must be restarted for this change to take effect.

3.2.4 Active Talker threshold

The rolling average window duration, configured by the *activeTalkerEnergyWindowInMilliSec* CLI attribute, controls the "smoothing" effect of the rolling average energy. A longer duration means that a participant has to speak longer in a conference before being reported as an active talker. It also means that this participant will be reported as an active talker longer after they stop speaking. A shorter duration is used when a more dynamic list of active talkers is desired.

```
MS_CLI/Applications/MediaStreaming/Interfaces/CFW> set
activeTalkerEnergyWindowInMilliSec 15
```

3.2.5 Audio Codecs

Note that Standard Definition (SD) compressed codecs, such as the G.729, offer network bandwidth savings at the cost of decreased voice quality. For deployments in which voice quality is of utmost importance, that is, voice quality takes precedence over network bandwidth savings, it is strongly recommended that SD compressed codecs not be configured for Meet-Me Conferencing. In such deployments, it is strongly recommended that G.711 u-Law (or A-Law where applicable) be used instead.

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Audio codecs to be used for Meet-Me Conferencing are configured at the *MS_CLI/Applications/MediaStreaming/Interface/CFW/AudioCodecs>* context. When the codec list under this context is left empty, G.711 u-Law is implicitly configured.

3.2.5.1 Enable Reliable DTMF Collection

For reliable DTMF collection, RFC 2833 must be enabled on the Media Server as follows:

```
MS_CLI/Applications/MediaStreaming/Interfaces/RTP> set enableRfc2833 true
```

3.2.5.2 Optional Step – Activate HD Audio Conferencing (G.722)

HD Audio Conferencing is available on the Clearspan Media Server. To activate HD audio, a G.722 license must be purchased (look for "numG722Ports" in the Media Server license file), and G.722 configured using the Media Server CLI.

The following example shows the commands required to configure the Media Server to use G.722 and G.711 u-Law for optimal HD and SD voice quality respectively.

```
MS_CLI/Applications/MediaStreaming/Interface/CFW/AudioCodecs> add g722
MS_CLI/Applications/MediaStreaming/Interface/CFW/AudioCodecs> add ulaw
```

NOTE: The order of the codec list is important, since it is important for the Media Server to give preference to G.722.

3.3 Profile Server Configuration

The system administrator activates and deploys the Meet-Me Conferencing Repository web application using the following commands:

```
PS_CLI/Maintenance/ManagedObjects> activate application
MeetMeConferencingRepository 16.sp2_1.205 /MeetMeConfRepository

PS_CLI/Maintenance/ManagedObjects> deploy application /MeetMeConfRepository
```

The Access Control List of the web application must also be modified to include the Application Servers and Media Servers that run the Meet-Me Conferencing service.

The Access Control List of the web application must also be modified to include the Xtended Services Platforms that run the CommPilot web portal.

```
PS_CLI/Applications/MeetMeConferencingRepository/NetworkAccessLists/WebDav> add
<Application Server address>

PS_CLI/Applications/MeetMeConferencingRepository/NetworkAccessLists/WebDav> add
<Media Server address>

PS_CLI/Applications/MeetMeConferencingRepository/NetworkAccessLists/WebDav> add
<Xtended Services Platform address>
```


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3.4 Network Server Configuration

Meet-Me Conferencing does not change how the Media Server Selection policy is configured on the Network Server. However, Meet-Me Conferencing enhances the Media Server Selection policy by adding the following new services:

- cfw-conf
- cfw-largeconf

The Application Server uses the estimated number of participants configured on a Meet-Me Conference to select which Media Server Selection service to use. Note that:

- If the estimated number of participants is not configured or is less than 50, the Meet-Me Conferencing service uses the cfw-conf when requesting Media Server Selection service from the Network Server.
- If the estimated number of participants is more than or equal to 50, then the Meet-Me Conferencing service uses cfw-largeconf when requesting Media Server Selection service from the Network Server.

The system administrator configures the Media Server Selection policy to use the new service to redirect to the expected Media Server.

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4 Create and Manage Conferences

When a Clearspan subscriber logs in, a **Meet-Me Conferencing** link on the left-hand side of the menu appears and is only visible to a subscriber who is assigned host privileges on a bridge. After clicking the **Meet-Me Conferencing** link, the *Meet-Me Conferencing* navigation menu appears.

Figure 12 Meet-Me Conferencing Navigation Menu

Meet-Me Conference Bridges

On the host user *Meet-Me Conferencing* menu, if you select **Bridges**, the list of bridges appear, (that is, the bridges for which the user is the host and for those that have been assigned to the user).

The following page shows a read-only list of all the bridges for which the logged-in user has host privileges. This page shows both active and inactive bridges.

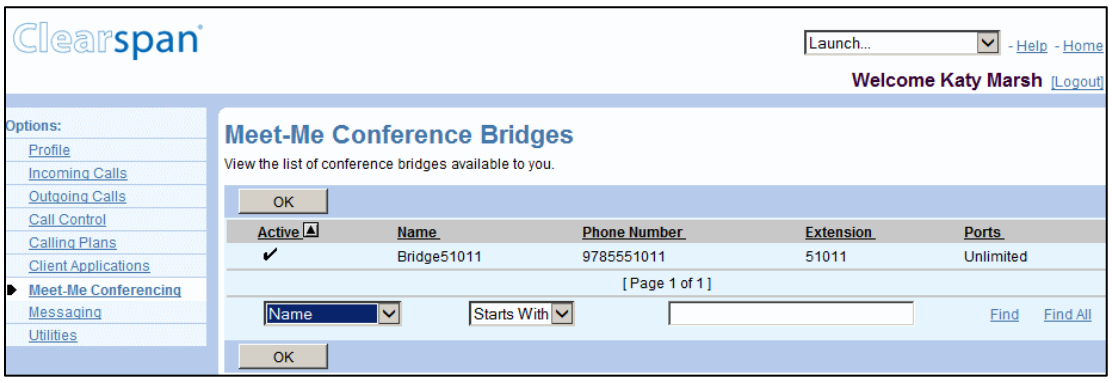

Figure 13 Bridges – List of Bridges

Meet-Me Conferences

On the host user *Meet-Me Conferencing* menu, if you select **Conferences**, the list of conferences that has been created by the host user appear. This page is also used to create a new conference and also to modify or delete existing conferences, as described in the following sections.

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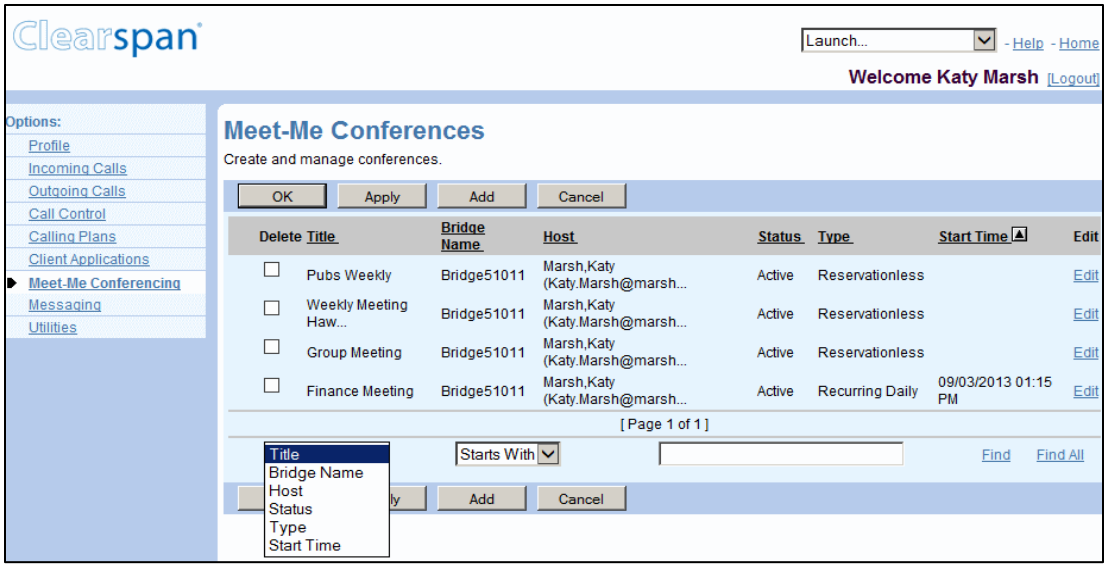

Figure 14 Conferences – List of Conferences

- For the reservationless type conference, the date and time are not shown, although later on this would be completed according to the conference end time defined at the system level.
- For a one-time conference, the date shown would be the start date.
- For a recurring conference, the date would denote the next occurrence of the conference or the last occurrence if it were completed.
- Conferences that are yet to occur would be shown as *Active,* whereas those that have already been completed would be shown as *Completed* in the *Status* column.
- Any conference whether *Active* or *Completed* would be shown as *Inactive* if the bridge on which this conference is created becomes inactive.
- A completed conference can be edited and rescheduled for a future date.

4.1 Create New Meet-Me Conference

On the *Meet-Me Conference* page, when the **Add** button is clicked, the *Meet-Me Conference Add* page opens. This is used to enter details of the new conference to be created. The conference created can be one of the following types:

- One-time Conference
- Recurring Conference
  - Daily
  - Weekly
  - Monthly

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- Yearly

- Reservationless Conference

4.1.1 One-time Conference

On the following *Meet-Me Conference Add* page, a *one-time* conference is being created.

- The *hours* field for the duration has options of 1 hour through 23 hours and the *minutes* field has options of “00”, “15”, “30”, and “45” minutes.
- Only the active bridges show up in the *Bridge Name* drop-down list.
- The *Estimated number of participants* field can have values ranging from “1” through “294”. In addition, this field is validated against the maximum number of available ports for the bridge on which this conference is hosted.
- The *Restrict number of participants to* check box is visible to users who are at a minimum level of department administrator (and above). This does not show up for moderator login.

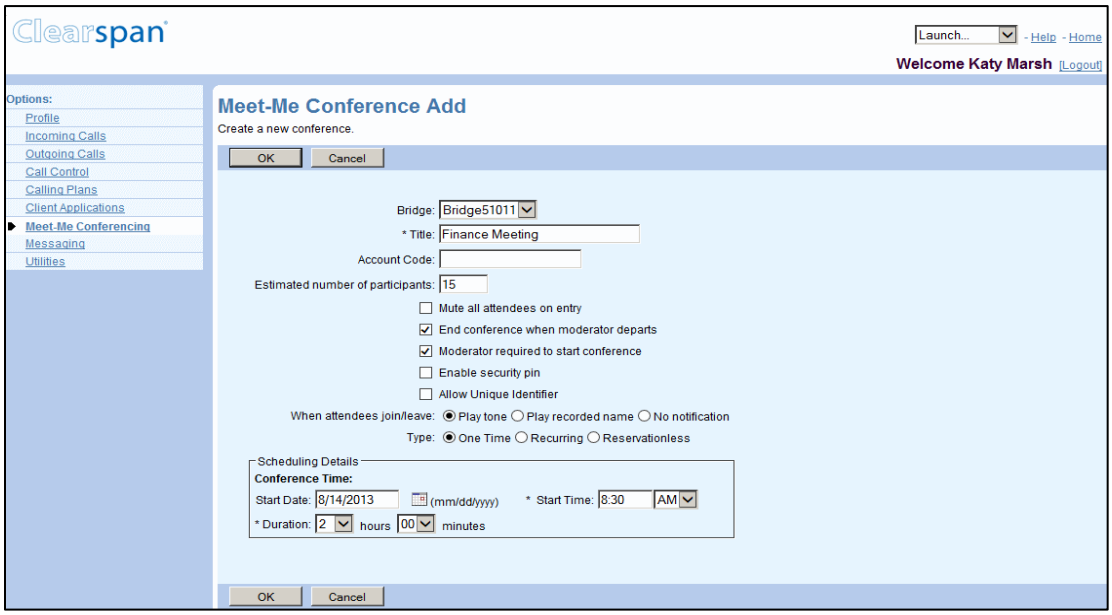

Figure 15 Meet-Me Conference Add Page – One-time Conference

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4.1.2 Recurring Conference

On the *Meet-Me Conference Add* page, a recurring conference can be created with a daily, weekly, monthly, or yearly recurrence.

For the end date, one can select *Never* when there is no conference expiry period defined at the system level.

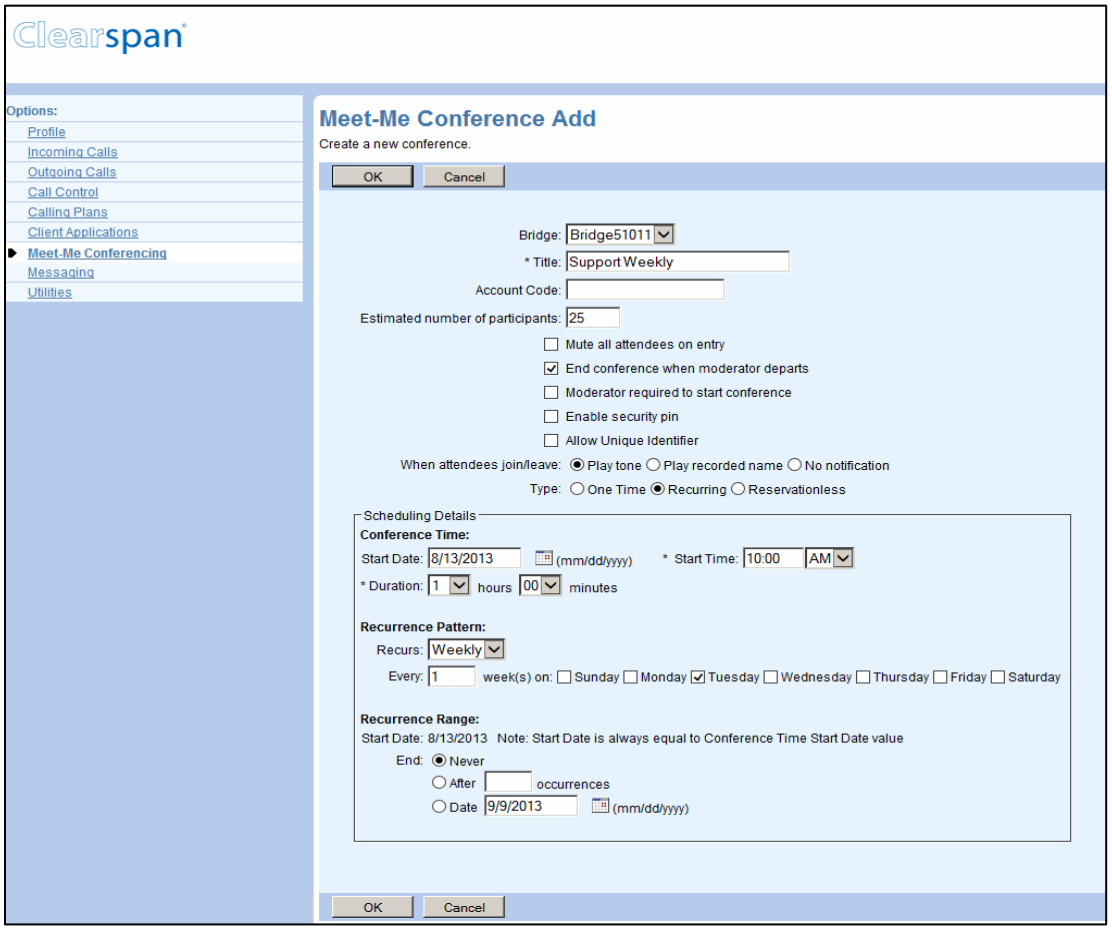

Figure 16 Meet-Me Conference Add Page – Recurring Conference

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4.1.3 Reservationless Conference

On the following *Meet-Me Conference Add* page, a reservationless conference is selected.

If there is a system-level conference end date restriction, then there is start date and end date. The end date is prepopulated with "X" months from the current date.

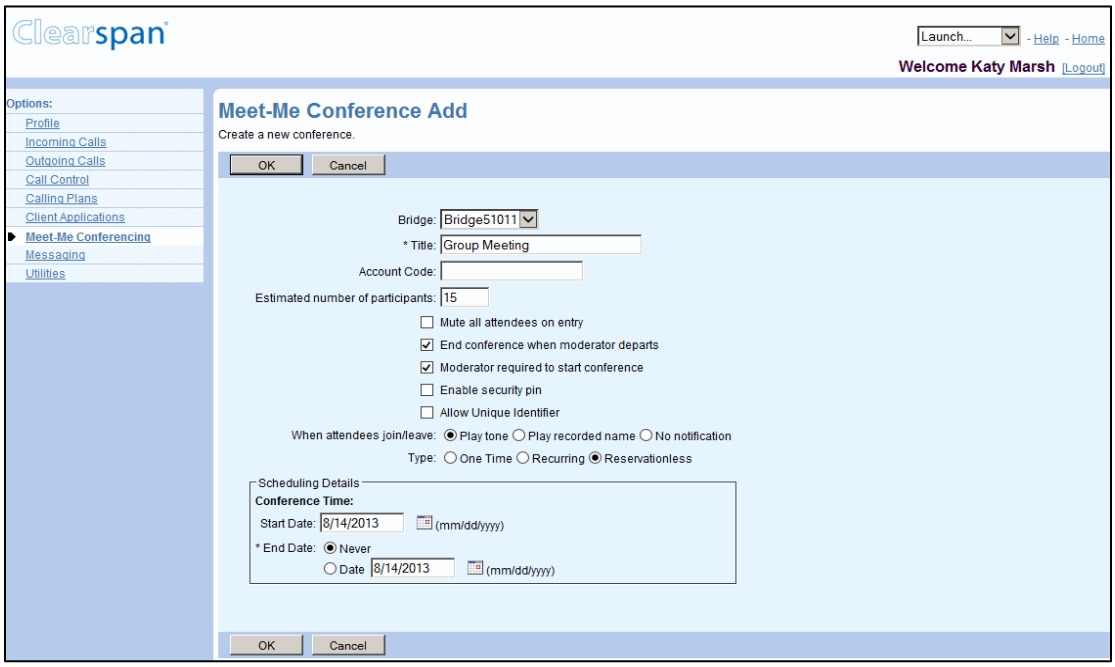

Figure 17 Meet-Me Conference Add Page – Reservationless Conference

4.2 Modify Meet-Me Conference

On the *Meet-Me Conference* page, a host user can modify an existing conference by editing any of the existing conferences. The following page shows a reservationless conference being modified.

- If the bridge on which this conference is created is inactive, a message is shown next to the bridge name indicating that the bridge is inactive at that particular time.
- When a phone number is available for conference access, an extension is shown only in the *Moderator Access* and not in the *Conference Access*.
- After the conference creation, if the expiry period is set at the system level and one opens this page and tries to click **OK** or **Apply** with the end date selected as *Never,* an exception is generated.
- In the case of "modify", the recurrence end date and recurrence end occurrences are relative to the start date.

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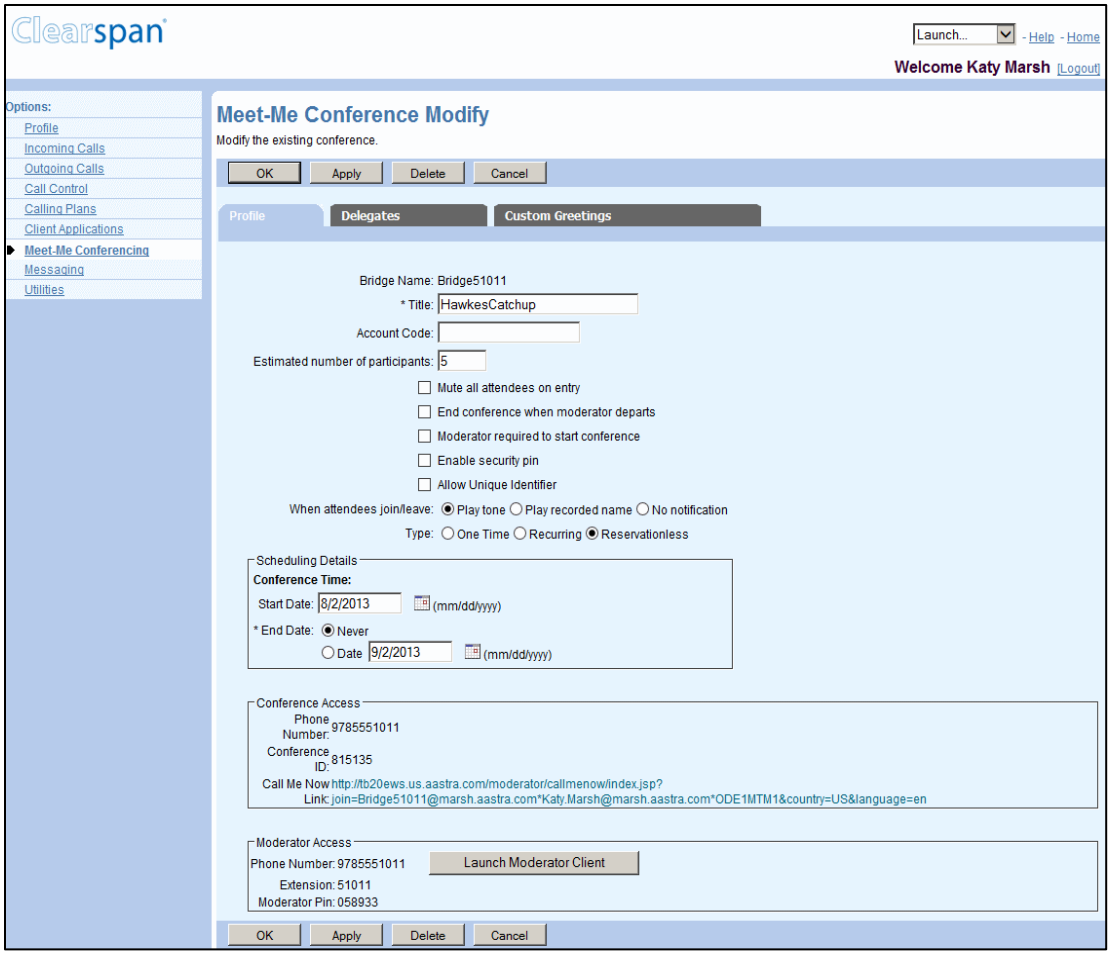

Figure 18 Meet-Me Conference Modify Page – Reservationless – Conference Extension Shown in Moderator Access Only

On the following *Meet-Me Conference Modify* page, a reservationless conference is being modified. It shows the *Conference Modify* page when the bridge is active. When a phone number is not available for conference access, the extension is shown in both field sets, that is, in the *Moderator Access* and the *Conference Access* areas.

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4.3 Meet-Me Conference Custom Entrance Announcement

The host or the conference delegate has the option of creating a custom conference greeting to be played to the participants when they join the conference.

The custom conference greeting can be created via the following methods:

- CommPilot web portal
- Voice portal (VP)

The custom conference greeting recorded or uploaded does not apply to an ongoing conference and will only apply to subsequent conferences.

If more than one concurrent attempt is made at recording or uploading the custom conference greeting, the last greeting recorded or uploaded successfully applies.

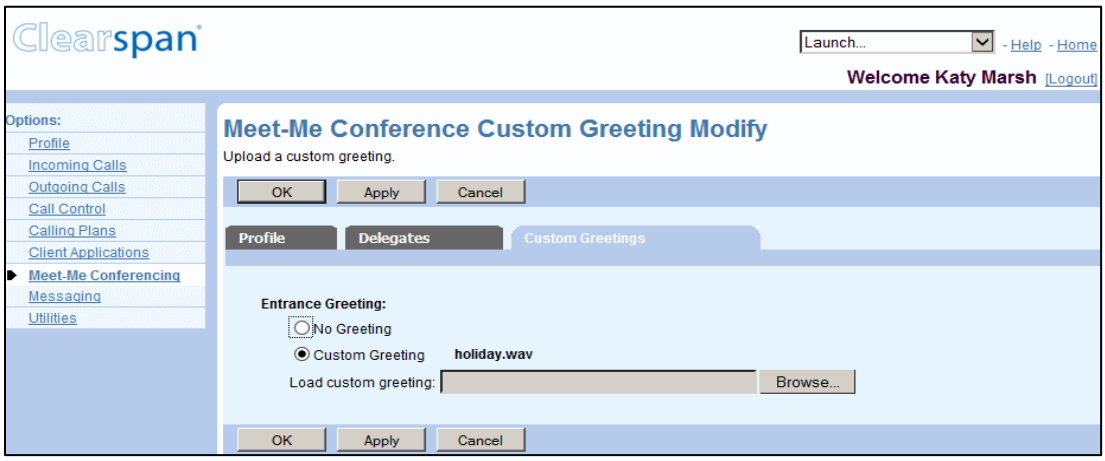

Figure 19 Conference host view of *Meet-Me Conference Greetings* page

4.4 Meet-Me Conference Recordings

On the host user *Meet-Me Conferencing* menu, click on **Recordings** to open a page that lists all available conference recordings for the conferences assigned to the host user.

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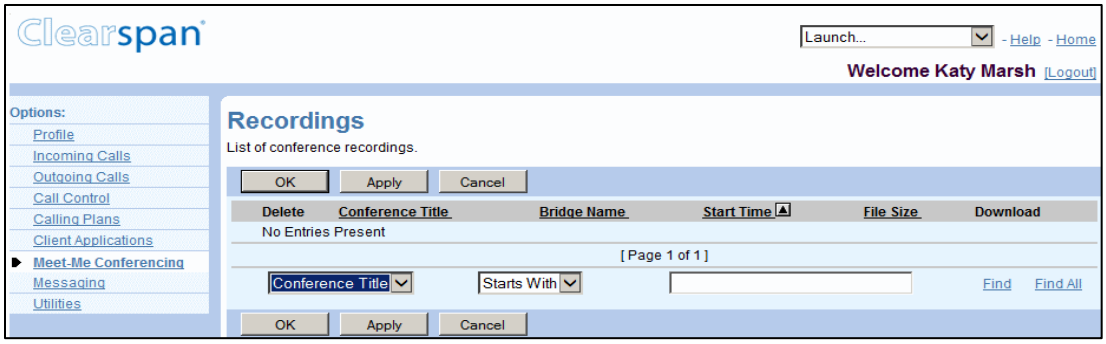

Figure 20 Meet-Me Conference Recordings

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The host user can download or delete conference recordings from this page. Click the **Download** link to save the conference recording to the local machine.

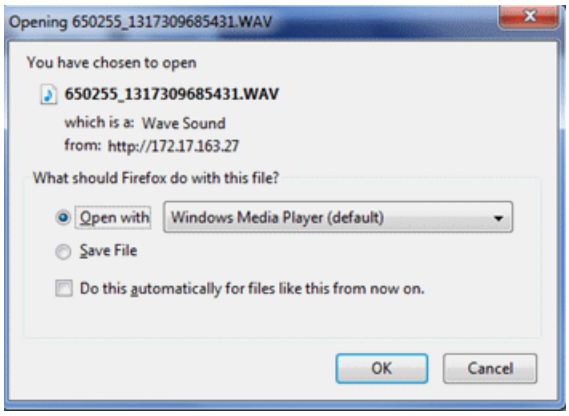

Figure 21 Save Conference Recording to Local Machine

4.5 Meet-Me Conference Delegates

On the *Meet-Me Conference* page, a host user can add delegates by modifying an existing conference. The following page shows a *Delegates* tab for a conference.

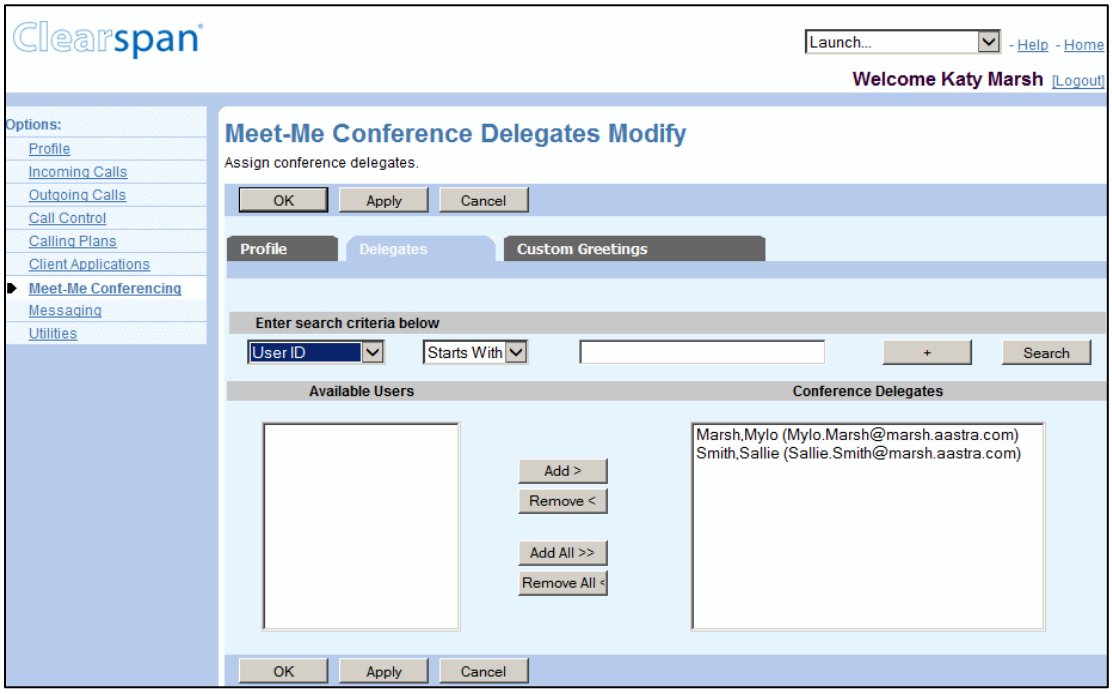

Figure 22 Meet-Me Conference Delegates Tab

The page has search criteria and two list boxes Available Users and Conference Delegates. Conference Delegates are selected from a list of hosts on the same bridge. Multiple users can be assigned as Conference Delegates for the same conference. The drop-down list of search

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criteria includes user ID, first name, last name, phone number, extension, and department. A host cannot be a delegate of the same conference.

On the *Meet-Me Conference* page, *a delegate can modify an existing conference for which they are the delegate.* The following page shows a Delegate's view for a conference.

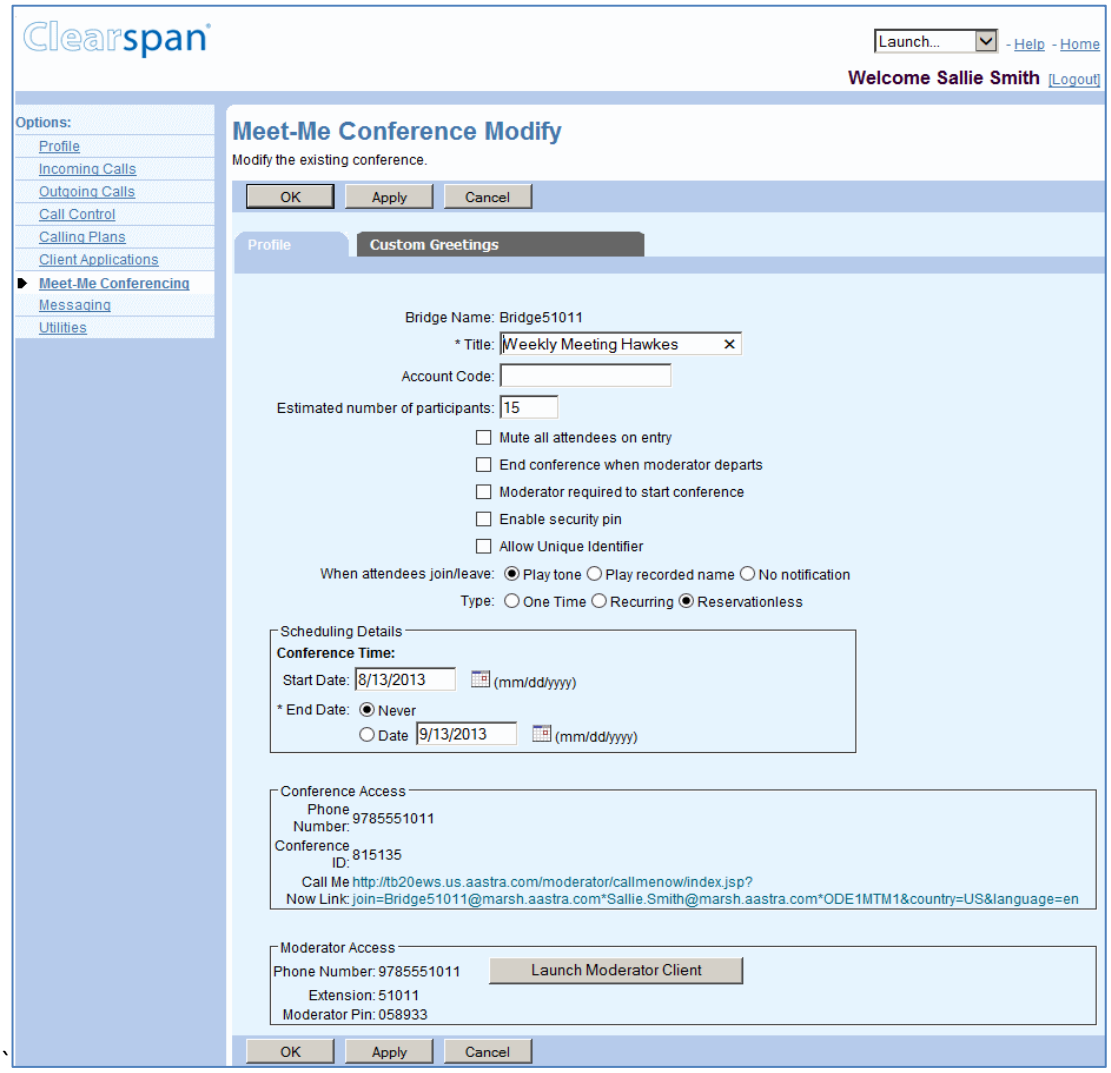

Figure 23 Meet-Me Conference Delegate's View of Meet- Me Conference Modify Page

4.6 Meet-Me Conferencing Moderator Client

The Meet-Me Conferencing Moderator client is a client application for conference moderators to manage the conference through a web-based user interface. The client has a visually intuitive interface for managing the conference and participants.

It enables a moderator to perform the following conference functionality:

- Start or stop lecture mode

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- Lock or unlock a conference
- Start, pause, or stop a conference recording
- End a conference

It also has the following participant functionality:

- Mute or unmute a participant
- Hold or unhold a participant
- Drop a participant
- Outdial a participant

The Meet-Me Conferencing Moderator client is packaged as a web application archive (WAR). In addition to the Conferencing Moderator client application, the WAR file hosts the *Call Me Now* web page. This web page allows a user to enter their number and Clearspan calls the user to add them to the conference.

4.6.1 Software Requirements

The Conferencing Moderator client requires a web browser to open the user interface.

The following web browsers are supported:

- Microsoft Internet Explorer 8 through 10
- Mozilla Firefox 17 or later
- Apple Safari 5 or 6

4.6.2 Meet-Me Conferencing Moderator Client Configuration

The Meet-Me Conferencing Moderator client is a WAR that must be installed, deployed, and activated on an Xtended Services Platform. It requires configuration on both the Xtended Services Platform and the Application Server. The following subsections describe each of these configurations.

4.6.2.1 Xtended Services Platform Configuration

Install, activate, and deploy the Meet-Me Conferencing Moderator client WAR file. The activation and deployment is done as follows.

```
XSP_CLI/Maintenance/ManagedObjects> install application
/bw/install/ModeratorClientApp_<version>.war
XSP_CLI/Maintenance/ManagedObjects> activate application ModeratorClientApp
<version> /meet-me-moderator
XSP_CLI/Maintenance/ManagedObjects> deploy application /meet-me-moderator
```

Once you deploy the application, exit the CLI, and restart the web container by issuing the following command at the system prompt.

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```
$ restartbw WebContainer
```

Set integration settings:

- The Mode can be set to the Network Server if a Clearspan Network Server is used or to the Application Server if only a Clearspan Application Server is used. If the mode is Network Server, then the Network Server's Internet Protocol (IP) address must be set.
- The OCI-P port and the OCI-C port must match what is configured on the Application Server.

```
XSP_CLI/Applications/ModeratorClientApp_<version>/BWIntegration>
set Mode NS
set NS <NS IP>
set ocipPort 2220
set ocicPort 2221
```

Set general settings:

- The autoRefreshInterval controls how often the client state is refreshed from the server. It defaults to 2 seconds.
- The enableCallMeNowWebPage enables the Call Me Now web page, which is hosted in the WAR file. If this setting is disabled, then the Call Me Now functionality does not work.
- The defaultLocale is used for localization. It should be set to "<language>_<country>". Examples are en_US, de_DE, and so on. The Conferencing Moderator client ships with seven prebundled language packs. They are German, French, Italian, Chinese, Spanish, and Spanish (CALA). For information on adding a custom language, see section *4.6.5 Customization*.
- The redirectionUrl parameter value specifies the redirection URL used for SSO requests. The default value is blank. The URL value of this parameter should resolve to the local Xtended Service Platform on which the application is deployed.
- The polling timeout is the maximum time (in seconds) that the server waits before sending a polling (HTTP) request when no events are available to deliver to the client.
- The pollingDelay is the minimum delay in milliseconds between two subsequent long polling requests.

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- This sessionTimeout is the minimum wait time in seconds before the client session expires due to communication error with the server.
- The threadPoolSize specifies the thread pool size for processing tasks like events or subscriptions. The default value is “500”.

```
XSP_CLI/Applications/ModeratorClientApp_<version>/General>
set autoRefreshInterval 2
set enableCallMeNowWebPage true
set defaultLocale en_US
set redirectionURL http://xsp1.domain.com/meet-me-moderator
set pollingTimeout 15
set pollingDelay 250
set sessionTimeout 120
set threadPoolSize 500
```

Set logging settings:

The logging settings allow the ability to control the log level, the directory where the log files are stored, the log file name, and the maximum number of log files that are kept. The default for the maximum number of log files is 30.

```
XSP_CLI/Applications/ModeratorClientApp_<version>/Logging>
set level INFO
set directory /var/Clearspan/logs/xsp
set Filename BWModeratorClientLog;set maxFileSizeInKB 1024
set maxNumberOfFiles <not defined, webapp using internal default>
```

Configure default settings:

Add the Application Server to the list of trusted hosts. If a clustered Application Server is used, then both of the Application Servers in the cluster should be added.

```
XSP_CLI/System/CommunicationUtility/DefaultSettings/TrustedHosts>
add <Application Server IP>
```

Add the Xtended Services Platforms to the list of trusted hosts.

```
XSP_CLI/System/CommunicationUtility/DefaultSettings/TrustedHosts>
add <Xtended Services Platform IP>
```

Set the user transaction limit as follows to increase overload control for user transactions:

```
XSP_CLI/System/CommunicationUtility/DefaultSettings> set userTransactionLimit
65535
```


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Configure Conferencing Moderator Client URL:

This is the URL used to launch the application. However, the Conferencing Moderator client cannot be directly launched from this URL. For more information, see section *4.6.3 Meet-Me Conferencing Moderator Client* Launch.

```
XSP_CLI/Applications/CommPilot/ClientApplicationLaunchURLs> set moderatorClient
= http://<IP or FQDN of the Xsp>/meet-me-moderator
```

4.6.2.2 Application Server Configuration

In the Application Server command line interface (CLI), configure the Open Client Interface-Call Control (OCI-C) interface. Note that the application name that is added must match that which is configured on the Xtended Services Platform.

```
AS_CLI/Interface/OCI/CallControl>
add com.broadsoft.moderatorClient true 8 100 moderator
```

Add the Xtended Services Platform IP address for external authentication as well as the Open Client Interface-Provisioning (OCI-P) and OCI-C interfaces to the network access lists.

```
AS_CLI/System/networkAccessLists/ExtAuth> Add <Xsp IP>
AS_CLI/System/NetworkAccessLists/OCI/Provisioning> add <Xsp IP>
AS_CLI/System/NetworkAccessLists/OCI/CallControl> add <Xsp IP>
AS_CLI/System/NetworkAccessLists/OCI/CallControl/Application> add
com.broadsoft.moderatorClient <Xsp IP>
```

4.6.3 Meet-Me Conferencing Moderator Client Launch

The Conferencing Moderator client application must be launched from the user's CommPilot web portal. The client does not have a separate login. A token-based mechanism is used for the authentication.

To launch the Conferencing Moderator client from the web portal, navigate to the *Meet-Me Conference Modify* page of the conference to moderate and then click **Launch Moderator Client**.

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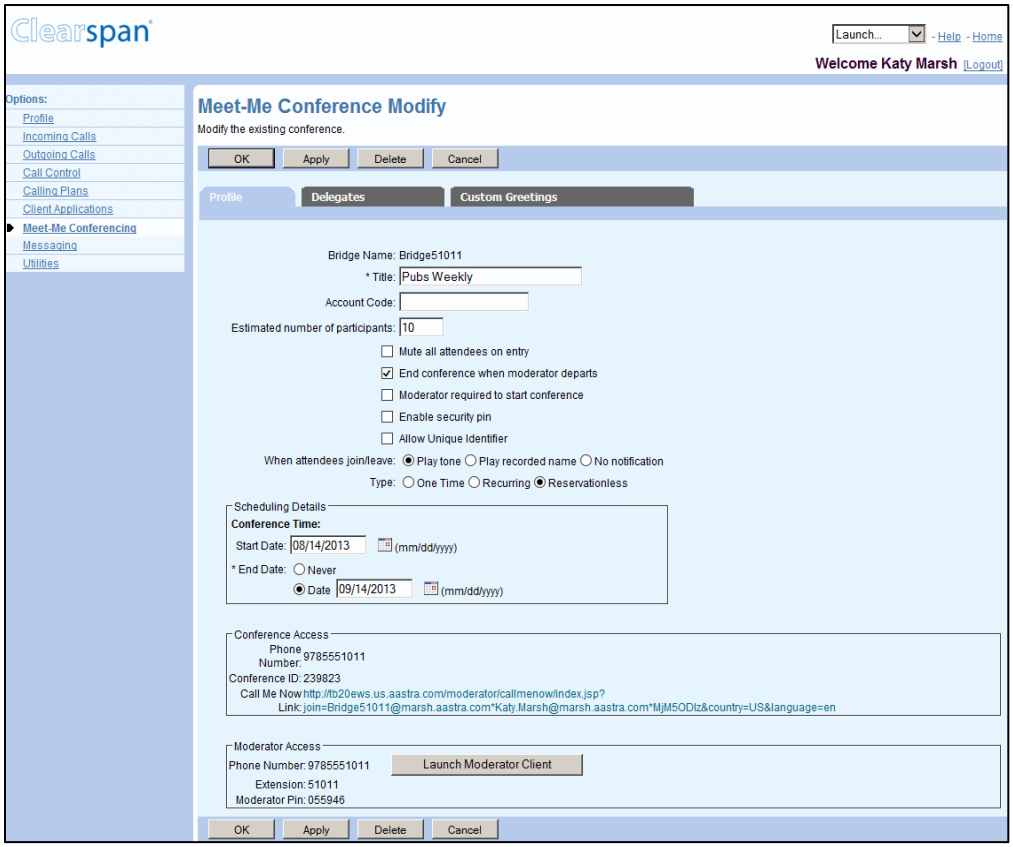

Figure 24 Meet-Me Conference Modify Page – Launch Moderator Client

If you included a conference in an Outlook meeting or appointment, you can launch the Conferencing Moderator client from Outlook.

To launch the Conferencing Moderator client from Outlook, open the appointment containing the conference to moderate, click **Meet-Me Conference**, and select *Launch Moderator Client* from the drop-down menu**.**

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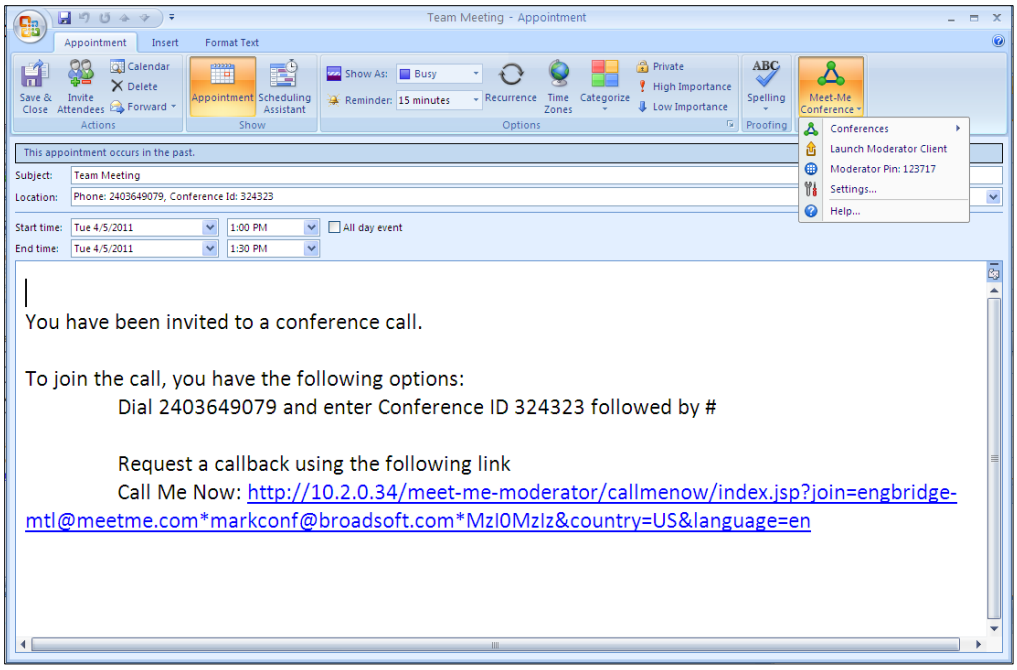

Figure 25 Outlook Appointment – Launch Moderator Client

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4.6.4 Meet-Me Conferencing Moderator Client User Interface

When the Meet-Me Conferencing Moderator client is launched, it shows the conference title, conference bridge number, conference moderator pin, conference ID and conference security pin in the application header. As moderators and participants join the conference, the client is updated with this information. The moderator controls are not visible until a moderator or participant has joined the conference.

A moderator joins the conference by dialing the conference number and using the moderator PIN and security PIN if applicable.

A participant joins the conference by dialing the conference number and using the conference ID and security PIN if applicable.

A message history icon is shown in the application header.

The following figure shows the Conferencing Moderator client with no moderators or participants joined.

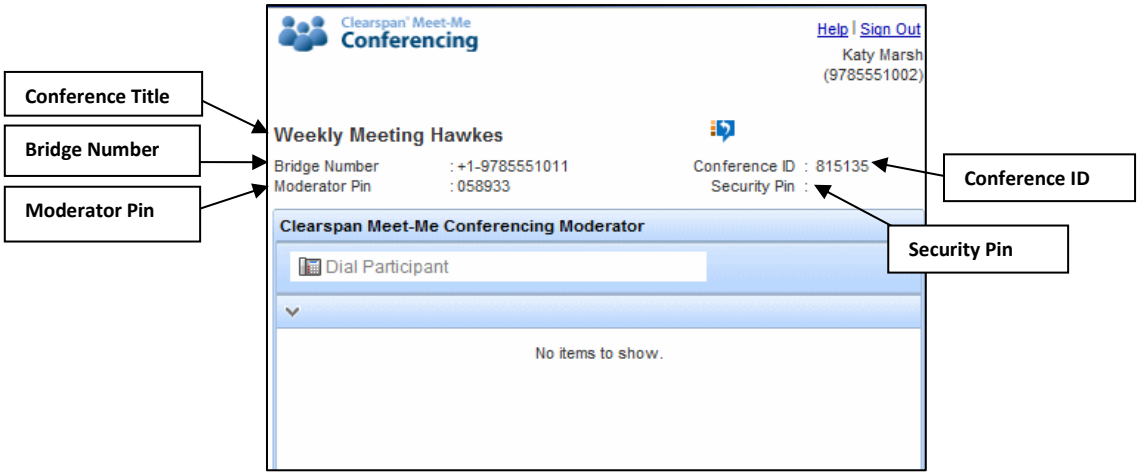

Figure 26 Meet-Me Conferencing Moderator Client with No Moderators or Participants Joined

When a moderator joins the conference, global conference controls are shown in the application header as shown in the following figure. The moderator action controls are shown on the moderator call line.

The global conference controls are context sensitive. For instance, if the *Lock Conference* control is clicked, the conference is locked, and then the control changes to *Unlock Conference Control*.

The global conference controls in the header (from left to right) allow the moderator to:

- Start or stop lecture mode.
- Lock or unlock a conference
- Start, pause, or stop a recording

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- End a conference

Note that the Lecture Mode is controlled at the moderator level. If Lecture Mode is started then all other participants (including other moderators) are muted.

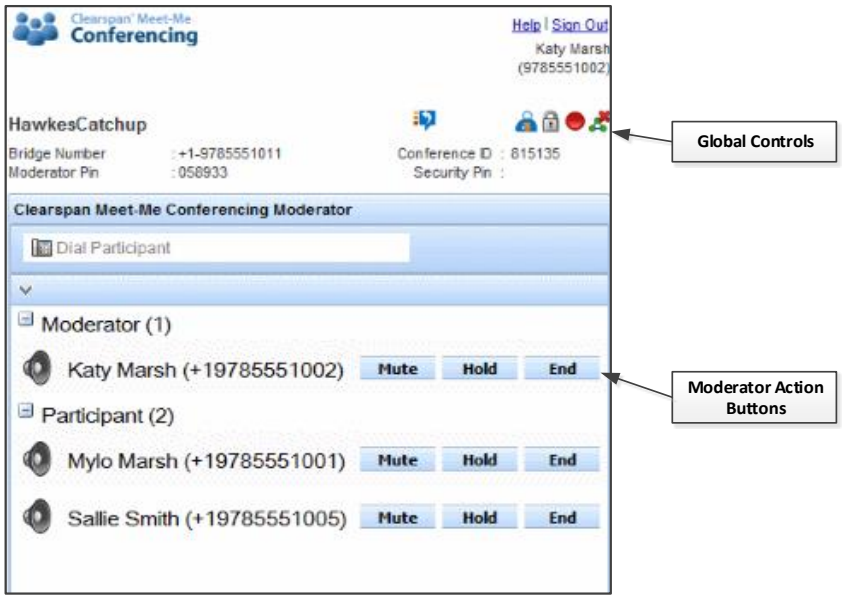

Figure 27 Meet-Me Conferencing Moderator Client with Global Conference Controls and Moderator Action Buttons

The moderator action controls allow the following:

- Mute or un-mute a moderator
- Hold or un-hold a moderator
- End a moderator call in the conference

Message History Dialog

Clicking the message history icon shows a Message History Dialog as shown in the following figure.

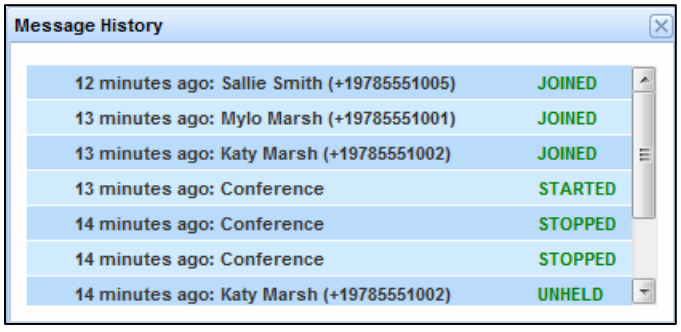

Figure 28 Message History Dialog

The participant action controls are shown for each participant call line. These controls allow the moderator to:

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- Mute or un-mute a participant
- Hold or un-hold a participant
- Drop a participant from the conference

The moderator and participant status are shown by an icon to the left of the name. The icon shown in the figure above indicates that the moderator/participant is active in the conference. When they are muted or on hold, the status icon indicates this situation.

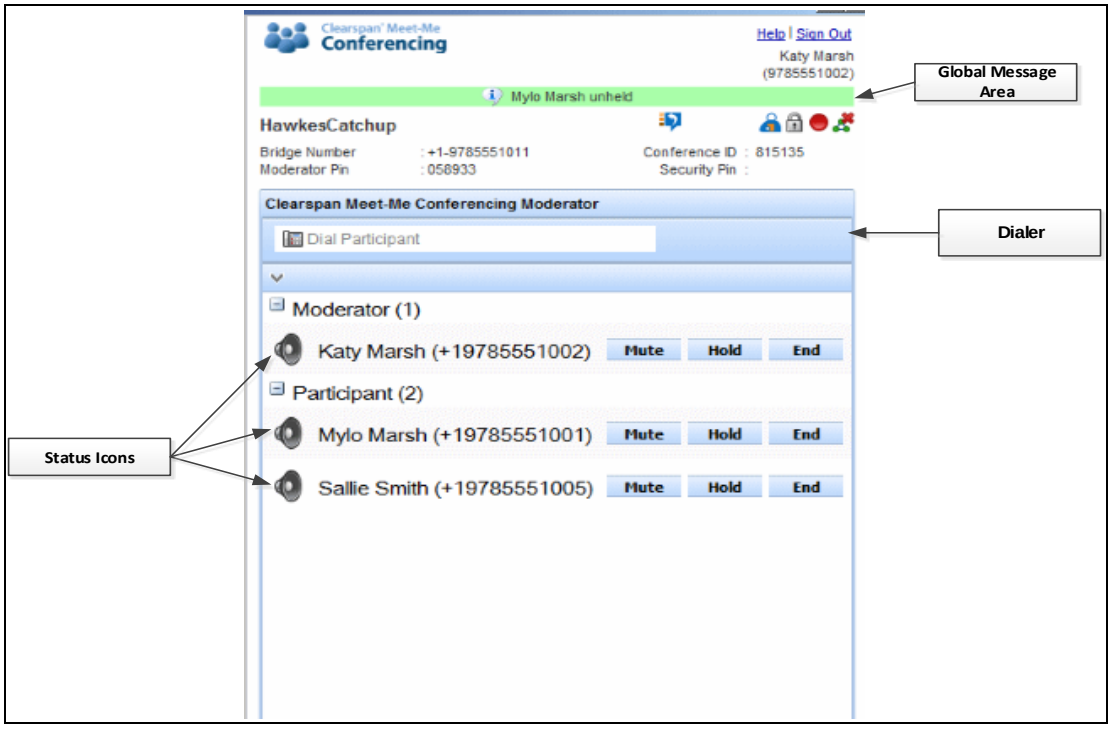

Figure 29 Meet-Me Conferencing Moderator Client with Status Icons and Participant Action Buttons

4.6.5 Customization

The Conferencing Moderator client logo, the logo on the *Call Me Now* web page, and the title of the client are customizable. They can be set through the CLI.

Example:

```
XSP_CLI/Applications/BWModeratorClient_<version>/General/Customizati
on>
set logoImageName=moderatorLogo.jpg
set callMeNowLogoImageName=bwLogo.png
set applicationTitle=Clearspan Conferencing Moderator
```

The images used to customize the logos must be as follows:

- *Conferencing Moderator client logo* – 145 by 25 pixels in PNG format
- *Call Me Now page logo* – 219 by 33 pixels in GIF format

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The logo files must be placed in the following customization directory on the Xtended Services Platform before they can be used:

/var/Clearspan/webapps/conf/<application_name>_<version>

Where the application name and version are the values displayed on the CLI during installation.

A custom language can also be created for use by the client. To create a custom language, an administrator must do the following:

Translate the *ModeratorClientMessages.properties* file (located in the customization directory) into the custom language, and save the file as *ModeratorClientMessages_ <language>_<country>.properties.*

Set the *defaultLocale* on the Xtended Services Platform CLI for the application to the custom locale.

4.7 Meet-Me Conferencing Add-in for Microsoft Outlook

The Clearspan Meet-Me Conferencing Add-in for Microsoft Outlook is an add-in that makes it easy to add a Clearspan audio conference to an Outlook Appointment. It is compatible with Outlook 2003, 2007, and 2010.

> **NOTE**: The add-in is only supported in 32-bit versions of Outlook. Outlook 2010 64-bit is not a supported environment.

In the remainder of the document, the Meet-Me Conferencing Add-in for Microsoft Outlook is called the Meet-Me Conferencing Outlook Add-in or add-in.

The Meet-Me Conferencing Outlook Add-in enables a user to quickly schedule a Clearspan conference from within Outlook, while they are creating a meeting or an appointment. If a meeting is created with Clearspan Audio Conferencing, the Outlook-generated invitation for the meeting includes the Clearspan Conference access information, including URLs to automatically connect to the meeting (if configured).

If the add-in is installed, it is visible when a new meeting or appointment request is created, or when an existing meeting or appointment request is opened by the user who created the request. If the user opens a meeting or appointment request scheduled by another user, then the add-in is not shown.

This add-in is delivered as a Deployment Studio Image (*.dsi*). An administrative user must use Clearspan Deployment Studio (DS) to customize/configure the Meet-Me Conferencing Outlook Add-in and create an executable that an end user must install on their machine. Using Deployment Studio to customize the add-in is similar to the other Clearspan clients, such as Assistant–Enterprise, Receptionist, Call Center, and so on.

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4.7.1 Third-Party Software Requirement

To run the Meet-Me Conferencing Outlook Add-in, the user has to have the Office Primary Interoperability Assemblies (PIA), available from the Microsoft official web site, installed on their computer.

4.7.1.1 Install Primary Interoperability Assemblies for Microsoft Office 2003

The Office 2003 PIA can be installed either during or after Microsoft Office 2003 installation. It requires Microsoft .Net Framework Version 1.1.

To install the Office 2003 PIAs when installing Microsoft Office 2003, Microsoft .Net Framework Version 1.1 must be installed first. Otherwise, the option to install the PIAs customization page does not appear during Microsoft Office 2003 installation.

To install Office 2003 PIA and .Net Framework 1.1 after Microsoft Office 2003 has been installed, the Office setup must be modified as follows:

1) On the *Maintenance Mode Options* screen of the *Microsoft Office 2003 Setup*, select *Add or Remove Features* and click **Next**.

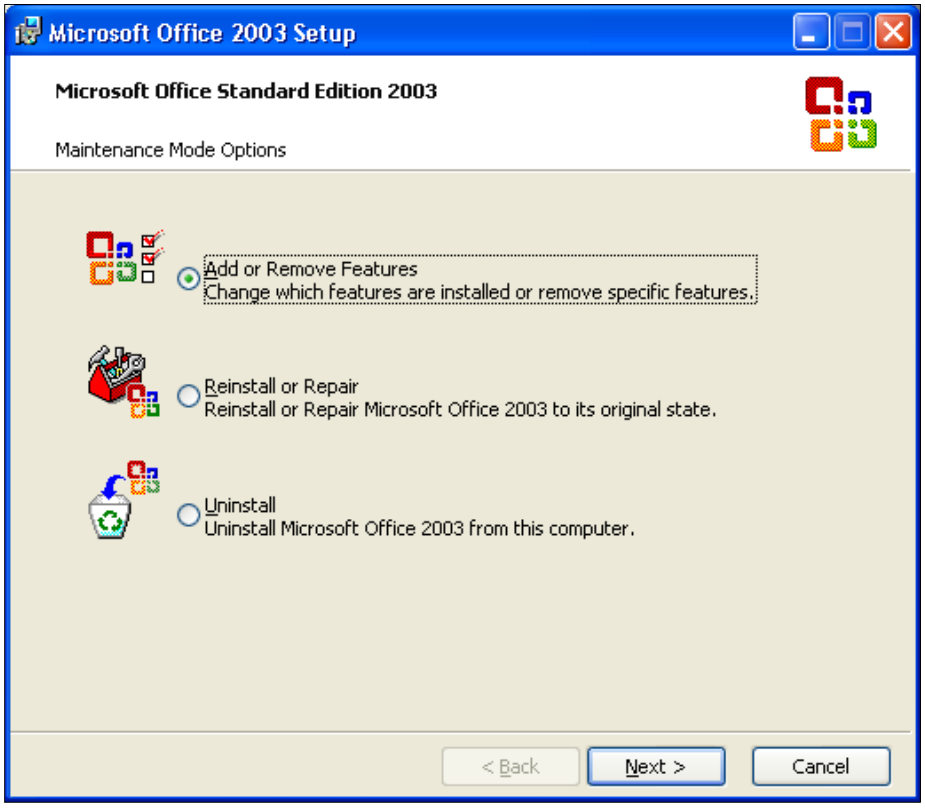

Figure 30 Microsoft Office 2002 Setup – Maintenance Mode Options

2) Select the *Choose advanced customization of applications* check box and click **Next**.

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3) Expand the *Microsoft Office Outlook* node and select *.NET Programmability Support*.

4) Click the drop-down arrow next to *.NET Programmability Support*, and choose *Run from My Computer* from the list that appears.

NOTE: Do not choose *Installed on First Use*. Selecting Installed on First Use means you want only the .NET Programmability Support feature installed on your hard drive when you use the feature for the first time. In this case, you may need access to the CD or network server you used to install Office 2003 to install the .NET Programmability Support feature.

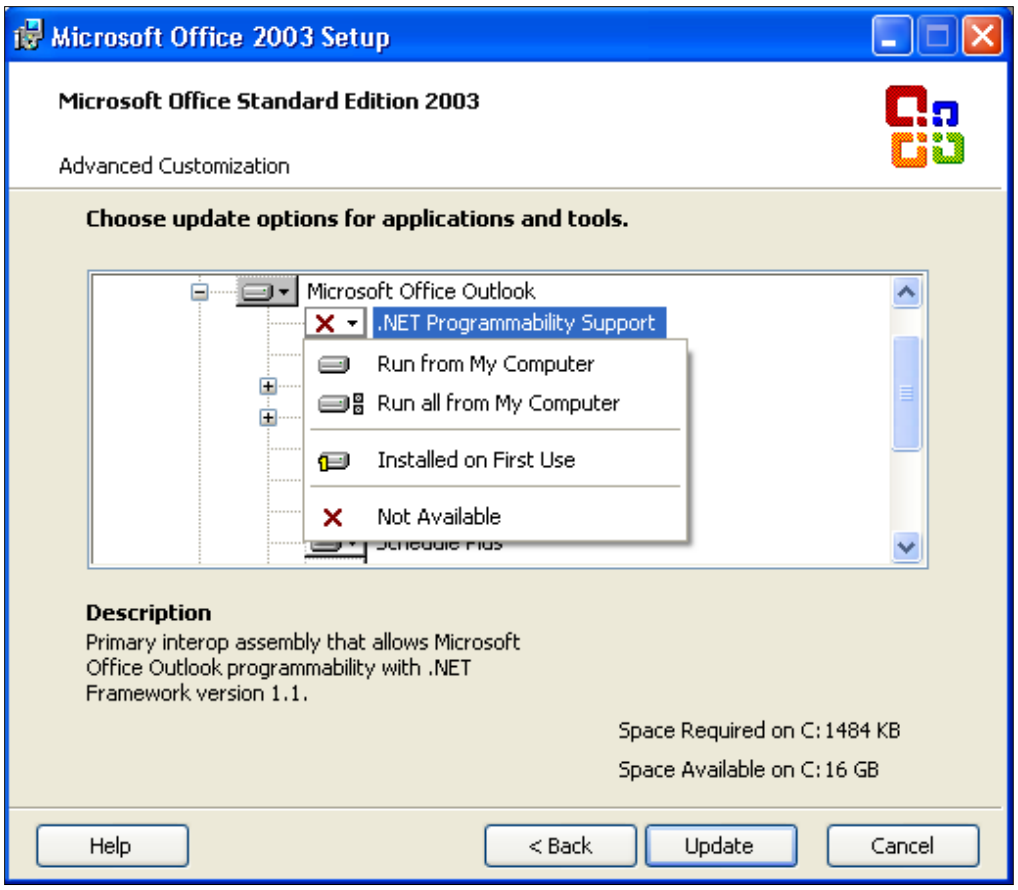

Figure 31 Microsoft Office 2002 Setup – Advanced Customization

5) Click **Update**.

NOTE: Microsoft Office PIAs can also be downloaded and installed from the Microsoft web site at http://www.microsoft.com/downloads/en/details.aspx?FamilyID=3c9a983a-ac14-4125-8ba0-d36d67e0f4ad&DisplayLang=en. For more information, see http://msdn.microsoft.com/en-us/library/aa159923(v=office.11).aspx.

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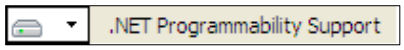
4.7.1.2 Install Primary Interoperability Assemblies for Microsoft Office 2007

To install PIAs after Outlook 2007 is installed, the current setup must be modified as follows:

1) On the *Control Panel*, click **Add or Remove Programs**.
2) Select your edition of Microsoft Office from the list of programs (for example *Microsoft Office Standard 2007*) and click **Change**.
3) Check *Add or Remove Features* and click **Continue**.
4) Click to the left of the *Microsoft Office Outlook* node to expand it.
5) Click the drop-down arrow to the left of the *.NET Programmability Support* item  and select *Run from My Computer*.

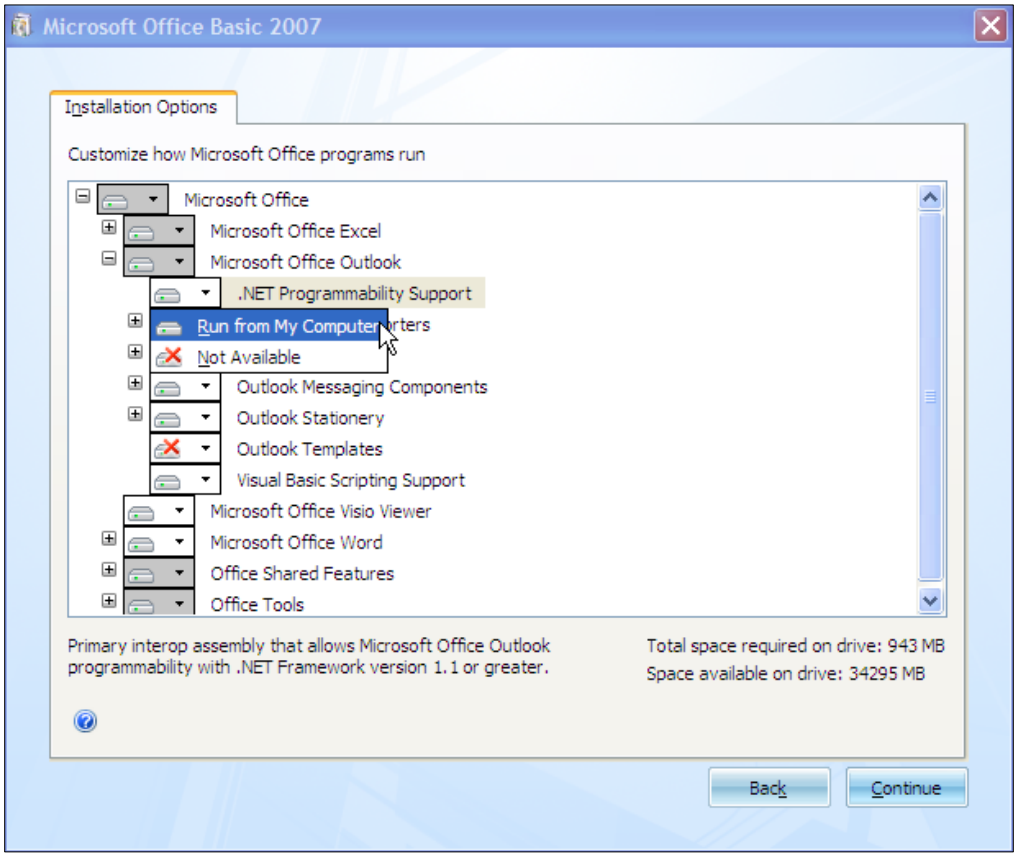


Figure 32 Microsoft Office 2007 – Installation Options

NOTE: Microsoft Office 2007 PIAs can also be downloaded from the Microsoft web site at http://go.microsoft.com/fwlink/?LinkId=72637.

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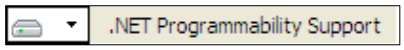
4.7.1.3 Install Primary Interoperability Assemblies for Microsoft Office 2010

To install PIAs after Outlook 2010 is installed, the current setup must be modified.

1) On the *Control Panel*, click **Uninstall a Program**.
2) Select your edition of Microsoft Office from the list of programs (for example *Microsoft Office Standard 2010*) and click **Change**.
3) Check *Add or Remove Features* and click **Continue**.
4) Click to the left of the *Microsoft Office Outlook* node to expand it.
5) Click the drop-down arrow to the left of the *.NET Programmability Support* item 

and select *Run from My Computer*.

> **NOTE:** Microsoft Office 2010 PIAs can also be downloaded and installed from the Microsoft web site at http://go.microsoft.com/fwlink/?LinkId=166026.

4.7.2 Meet-Me Conferencing Outlook Add-in User Interface

The user interface of the Meet-Me Conferencing Outlook Add-in is different in Outlook 2003 compared to Outlook 2007 and 2010. This is because Outlook 2003 does not support the ribbon interface.

In Outlook 2003, the user interface is a standard toolbar as shown in the following figure.

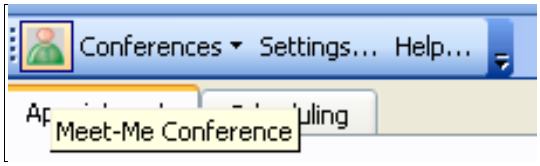


Figure 33 Outlook 2003 – Standard Toolbar

In Outlook 2007 and Outlook 2010, the user interface is a ribbon interface as shown in the following figure.

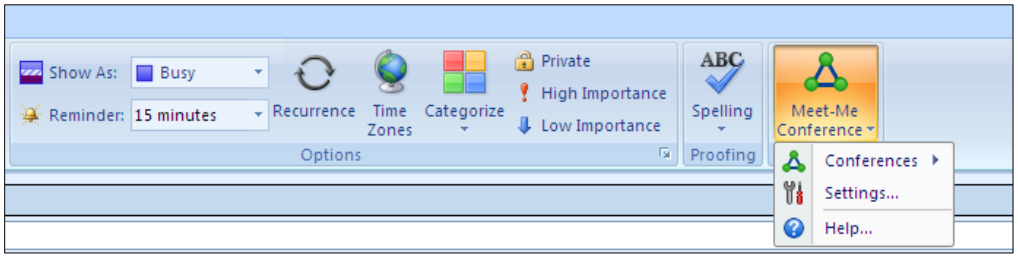


Figure 34 Ribbon Interface in Outlook 2007 and Outlook 2010

Both interfaces of the add-in offer the same functionality. For the rest of this document, the Outlook 2007/2010 interface is used.

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NOTE: The Meet-Me Conference button appears on the Outlook toolbar only when the user is creating or editing a meeting.

4.7.2.1 Settings

Before the Meet-Me Conferencing Outlook Add-in can be used; the user settings must be configured correctly. This is done by selecting the *Settings…* menu option.

A valid Clearspan user name and password must be entered in the user settings. If the user cannot be authenticated on Clearspan, then the add-in is not operational.

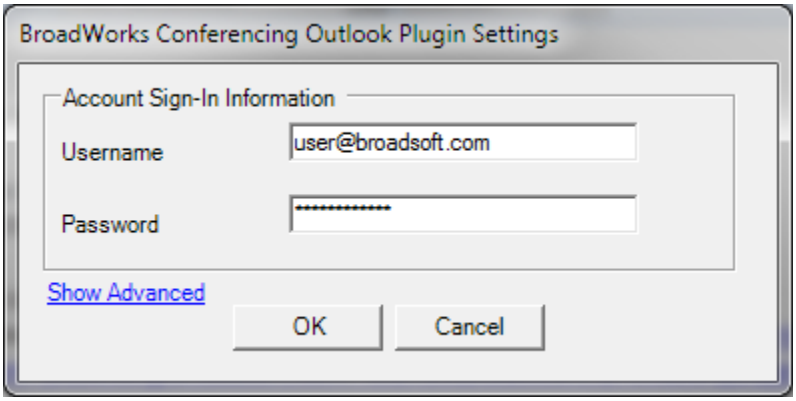

Figure 35 User Settings – User Credentials

The **Advanced >>** link is used to configure and display the server details. The server details are usually preconfigured by an administrator. If the user wants to change them or if they are not preconfigured, then the user must enter the correct address and port of the Clearspan Open Client Server (OCS). The moderator client URL can also be configured from this screen.

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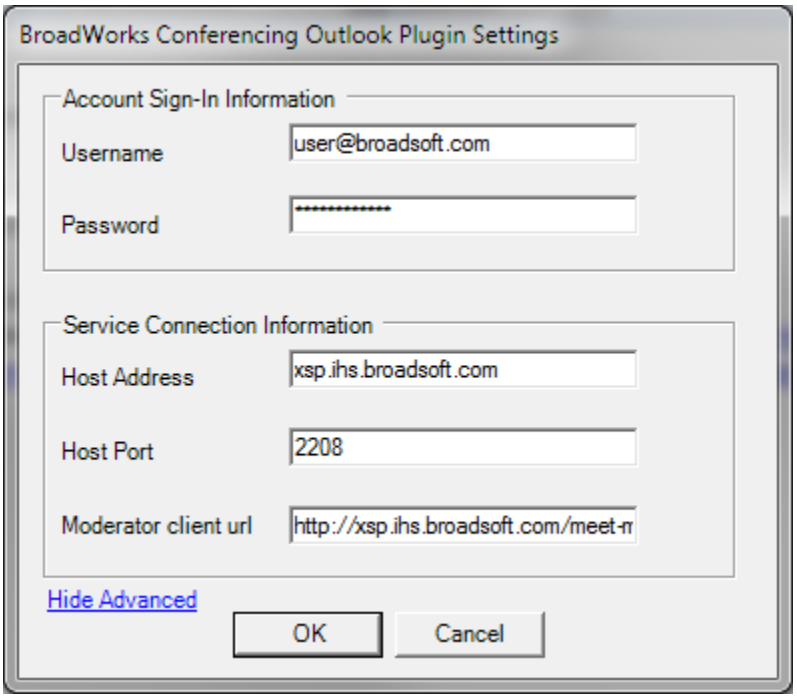

Figure 36 User Settings – Server Details

Once the user has entered the settings, the add-in authenticates the user with Clearspan.

- If authentication is not successful, the user is shown an error message.
- If authentication is successful, the add-in is operational.

When the user points the mouse over the *Conferences* option for an authenticated user, they see a list of reservationless conferences (configured in Clearspan) as well as an option to create a new conference.

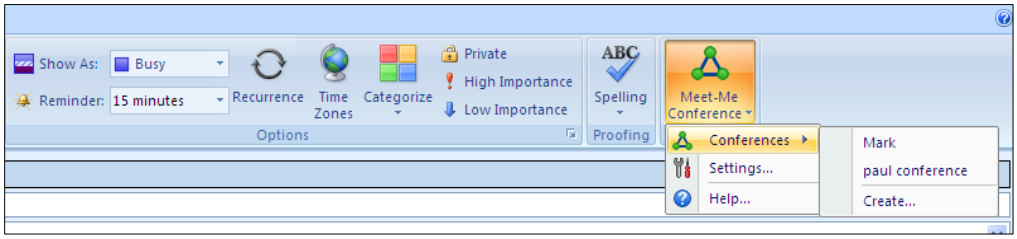

Figure 37 Conferences Option

4.7.2.2 Reservationless Conferences

The user can easily add a reservationless conference to their meeting by selecting the reservationless conference from the list.

When the user clicks one of the reservationless conferences, the conference details are inserted in the Outlook Appointment/meeting request.

Following are some sample conference details inserted in the meeting body:

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You have been invited to a conference call.

To join the call, you have the following options:

Dial: <phone number> and enter Conference ID: <ID> followed by #

Request a callback using the following link:

*Call Me Now: http://xsp.broadsoft.com/callmenow/index.jsp?join=bridgename-1*username@xsp.company.com*430373&country=US&language=en*

If the user makes any changes in the schedule or subject of the appointment/meeting request, the changes are reflected in the invitation and can be viewed by opening the appointment/meeting request again.

NOTE: The Call Me Now Link is only shown when it has been configured by the service provider in Deployment Studio.

The following figure shows an example of the body of a meeting.

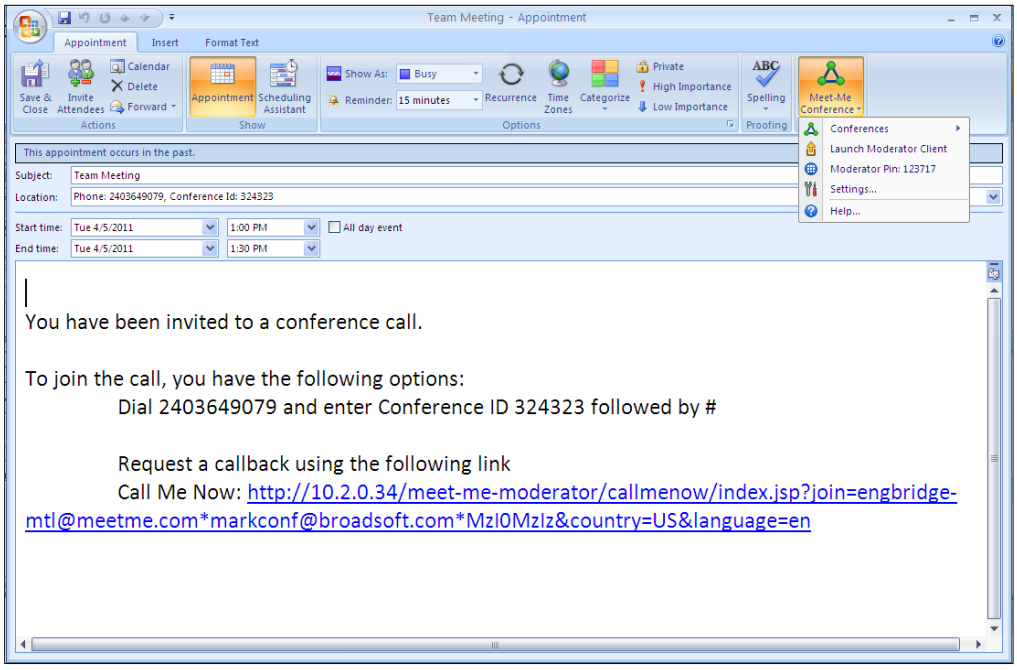

Figure 38 Sample of Meeting Body

Note that after the conference is created, the *Meet-Me Conference* menu in Outlook 2007 and 2010 includes the moderator PIN for the conference and the Launch Moderator Client link. In Outlook 2003 the *Join* menu is added to the toolbar, with the moderator PIN and Launch Moderator Client link options.

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4.7.2.3 Create Conference

To create a new conference, a user must have access to a bridge in Clearspan.

In the *Meeting* or *Appointment* window, from the *Meet-Me Conference* menu, select *Conferences* and then *Create…*. This opens a *Create a new conference* dialog box. This could be a one-time conference (if the meeting is a one-time meeting) or a recurring conference (if the meeting is recurring).

The conference date/time and recurrence is set from the Outlook meeting request. The title is also taken from the Outlook meeting request; however, it can be changed by the user.

The following figure shows an example of a *Create a new conference* dialog box.

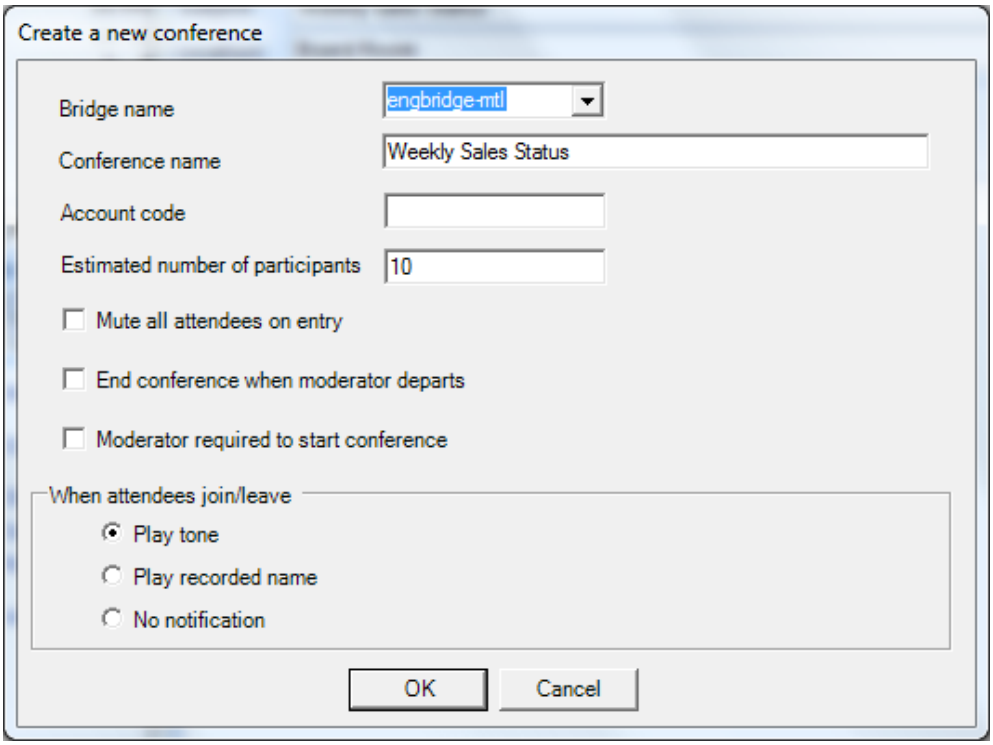

Figure 39 Create New Conference

The conference options are a subset of those that can be configured through the web portal. In addition, they have the same semantics.

When the **OK** button is clicked, the user sees the following dialog box, and the conference information is placed in the meeting body (similar to a reservationless conference).

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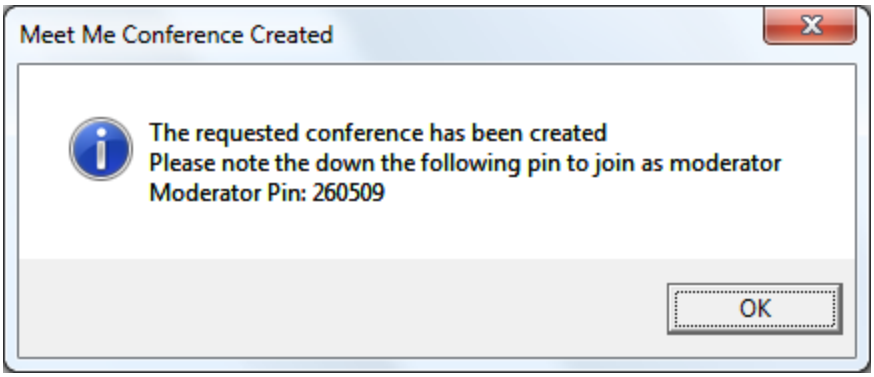

Figure 40 Meet-Me Conference Created

If an error occurs creating the conference, the user sees an error message instead.

If a meeting with an audio conference is modified, the audio conference is modified with the changed times, and the user sees the following dialog box.

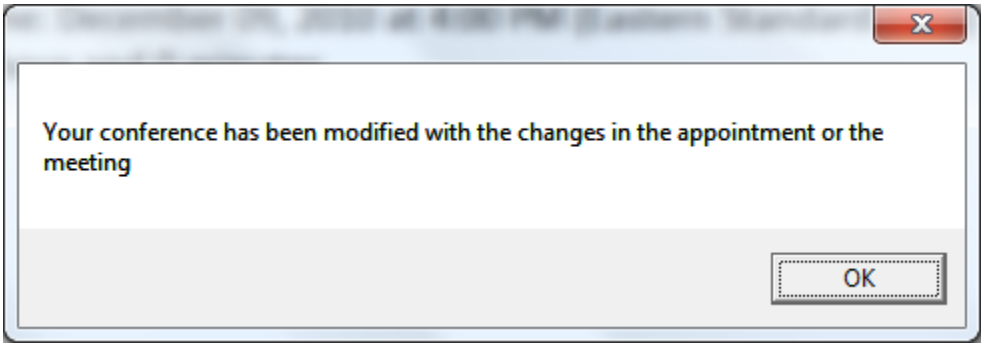

Figure 41 Audio Conference Modified with Changed Times Dialog Box

> **NOTE**: If a meeting that had a corresponding audio conference is deleted, the audio conference is not automatically deleted.

4.7.3 Call Me Now Web Page

If the Call Me Now Link is clicked by a recipient of the Outlook appointment, the user is taken to the *Call Me Now* web page. The user enters the phone number where they can be reached in the text box and clicks the **Call** button. The user is then dialed in to the conference by the Clearspan Conferencing Server.

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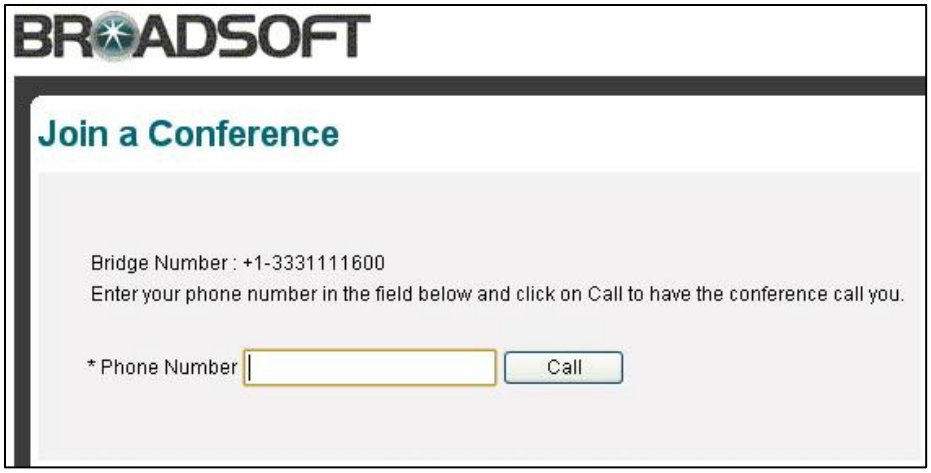

Figure 42 Call Me Now Web Page

The user must enter their phone number and click on **Call** button. Clicking on the Call button sends a request to the Application Server and the Meet-Me Conference calls the participant. If the bridge does not allow an outgoing dial, the operation is blocked.

When the participant answers, the Application Server prompts the user for confirmation. On confirmation, the user is joined with the conference.

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4.7.4 Customization and Configuration with Deployment Studio

Clearspan Deployment Studio (DS) Release 16.0 or later must be used to customize the Meet-Me Conferencing Outlook Add-in. Deployment Studio allows for making changes to the branding, localization, installer, and diagnostic information of the add-in.

The *Deployment Studio – Clearspan Conferencing Outlook Plugin* startup page welcomes you to the Deployment Studio customization.

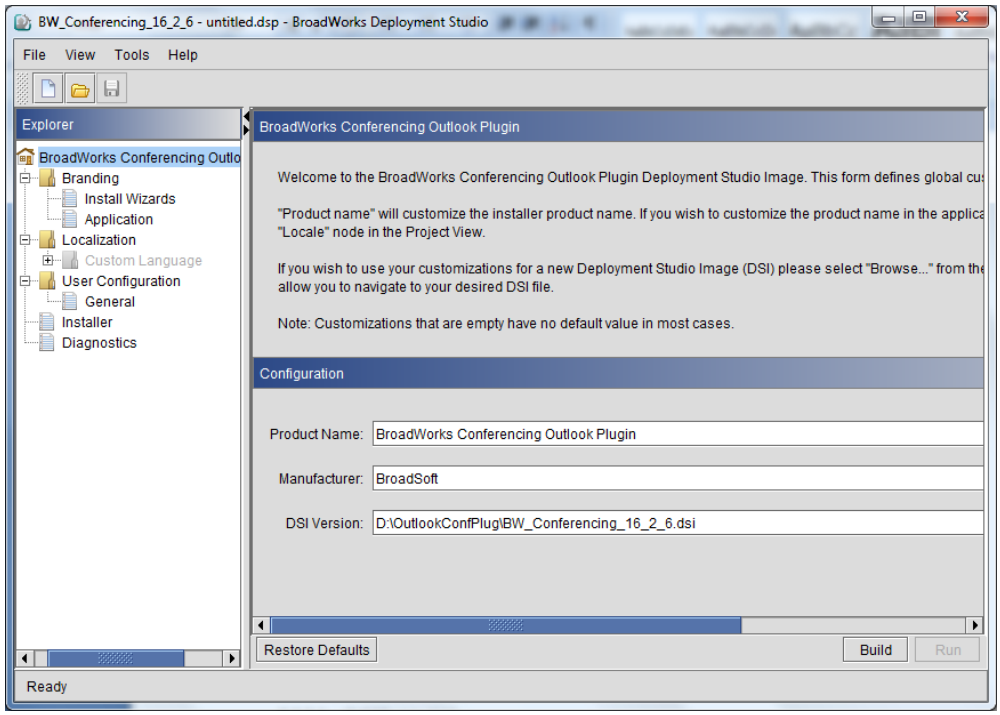

Figure 43 Clearspan Conferencing Outlook Plugin Page

Clearspan Conferencing Outlook Plugin:

- The *Product Name* and *Manufacturer* can be customized from the *Welcome* page.
- The *DSI Version* referred to on this page is the input file (file with extension *.dsi*) containing all customizable resources that Deployment Studio uses to customize the Meet-Me Conferencing Outlook Add-in.

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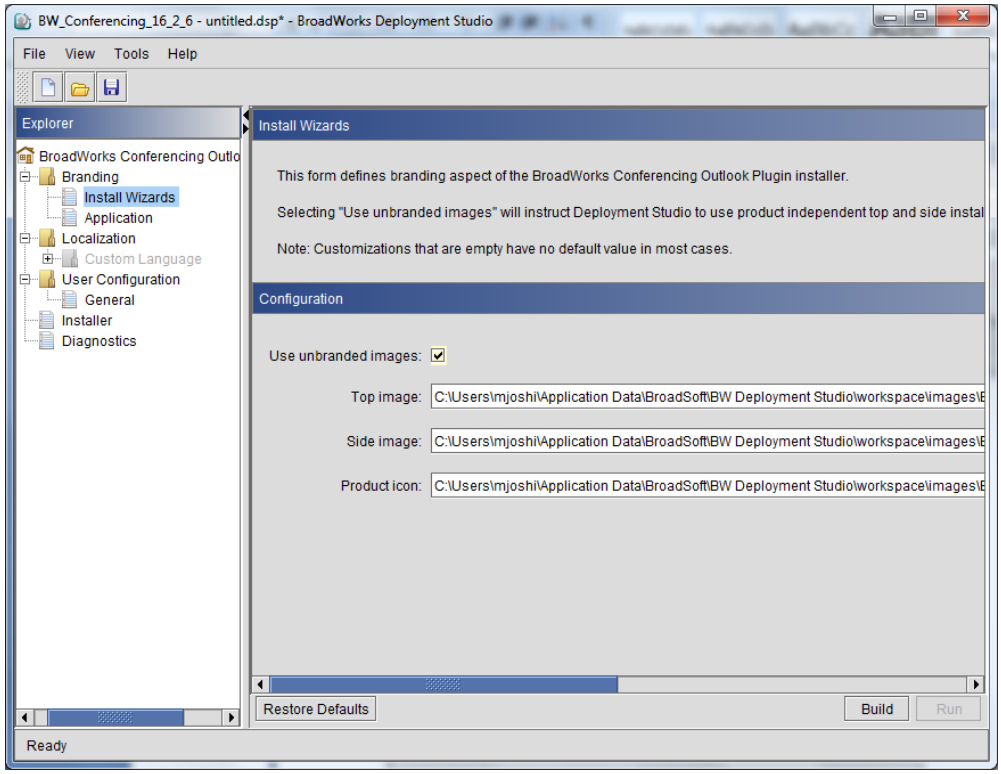

Figure 44 Branding – Install Wizards Page

Branding – Install Wizards:

- The *Top image* customizes the top image used in the installer.
- The *Side image* customizes the side image used in the installer.
- The *Product icon* customizes the product icon used in the installer.

> **NOTE**: If these images are customized, the new images that are used should be the same size as the existing images so that they appear properly in the installer.

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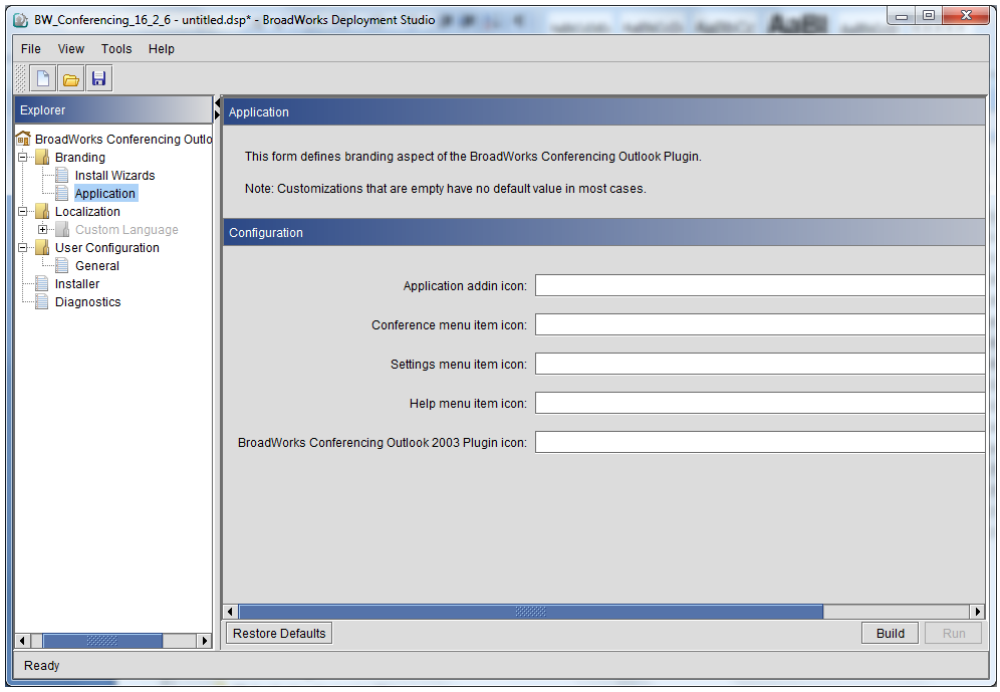

Figure 45 Branding – Application Page

Branding – Application:

- The *Application add-in icon* is the icon used for the Outlook 2007 and Outlook 2010 ribbon interface and should be 64 x 64.
- The *Conferences menu item icon, Settings menu item icon*, *Help menu item icon*, and *Clearspan Conferencing Outlook 2003 Plugin icon* should be 16 x 16. The first three are used in the Outlook 2007 and Outlook 2010 drop-down menus and the last item is used in Outlook 2003 toolbar.

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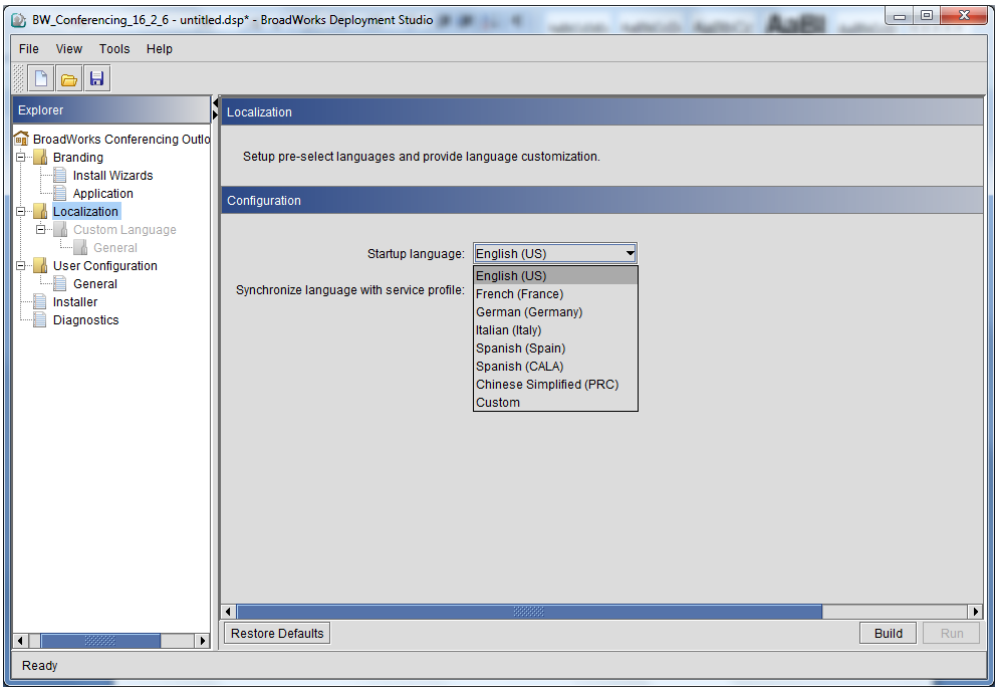

Figure 46 Localization Page

Localization:

- The *Startup language* is used to set the language used for the add-in. The add-in supports seven pre-bundled languages (English, French, German, Italian, Spanish, Spanish [CALA], and Chinese), and allows a user to create a custom language by translating the labels in the add-in. This is similar to the other clients.
- *The Synchronize language with service profile* synchronizes the language that is used in the add-in with the language in Clearspan.

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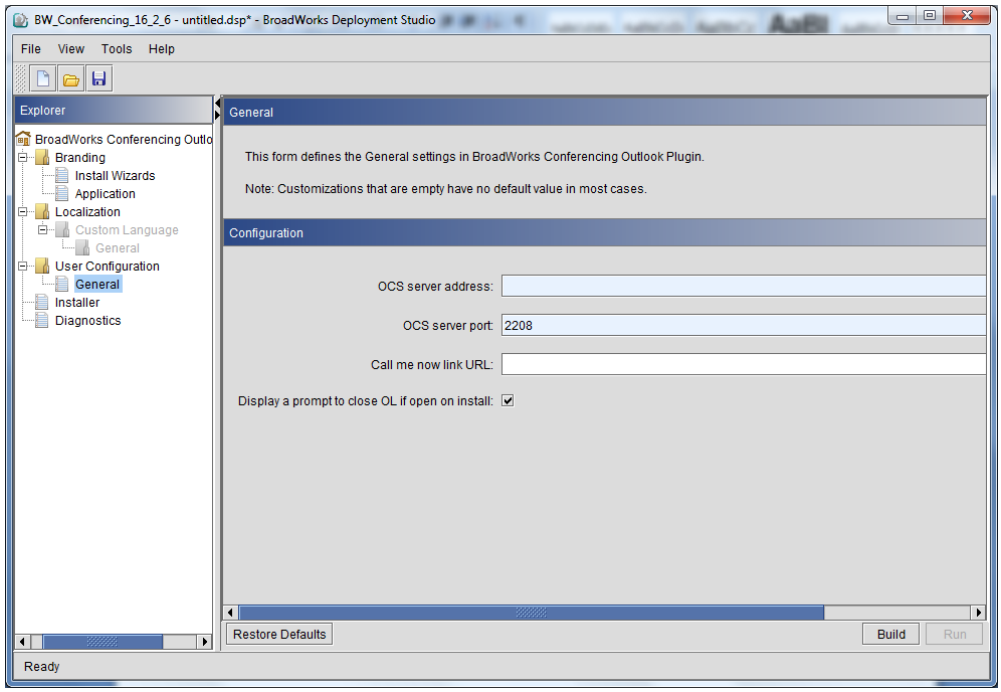

Figure 47 User Configuration – General Page

User Configuration – General:

- The *OCS server address* and *OCS server port* should be configured to the server and port where the Open Client Server (OCS) is running.
- The *Call me now link URL* must be configured for the Call Me Now link to be included in e-mails. The format for the URL link is the following: http(s)://<Xsp IP>/<moderator client context>. For example:

  http://11.2.0.21/meet-me-moderator

- *The Display a prompt to close OL if open on install check box* allows the administrator to specify whether the user should be prompted to close Outlook on an install (if checked) or to automatically close Outlook on install (if unchecked).

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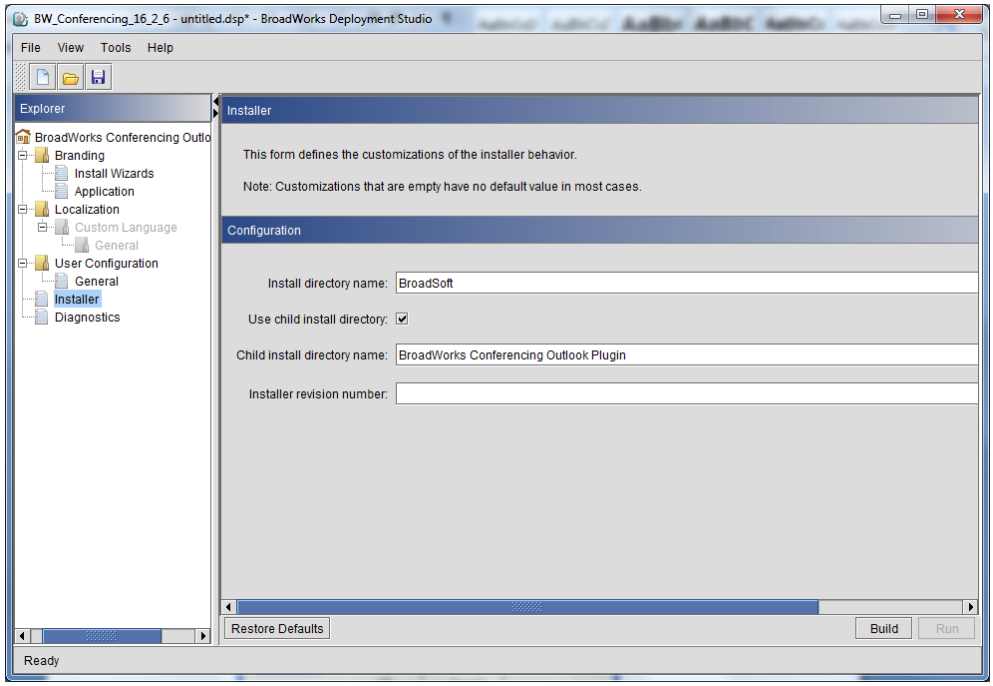

Figure 48 Installer Page

Installer:

- The Installer node allows the customization of the *Install directory name* as well as the selection of whether a child directory is used (*Use child install directory* check box), along with the *Child Install directory name*.
- The installer revision number should be set to "1" for the first build. This number should be incremented if new builds of the add-in are created.

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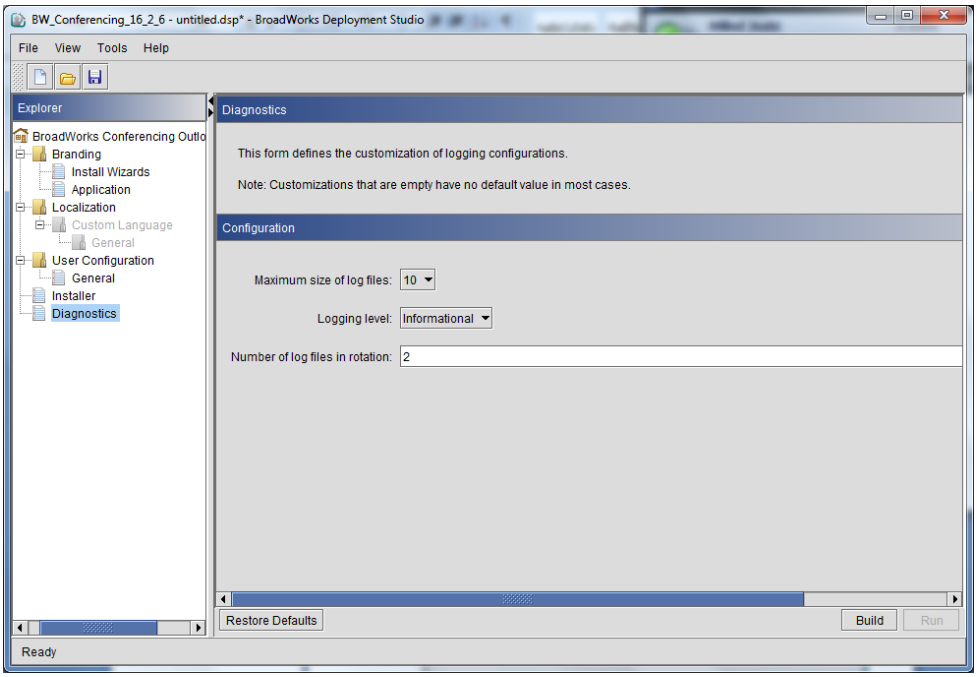

Figure 49 Diagnostics Page

Diagnostics:

- The *Maximum size of log files* determines the maximum size of the log files produced by the client application in megabytes (MB). This can be altered from 1 through 20.
- The *Logging level* can be set to “DEBUG”, “INFORMATIONAL”, “WARNING”, “ERROR”, or “CRITICAL”.
- The *Number of log files in rotation* indicates the number of log files used in a round-robin fashion to save the logs.

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4.8 Call Me Now Link

The Call Me Now Link can be found on the *Meet-Me Conference Modify* web page. The link can be sent by e-mail to all participants or accessed directly from the web page.

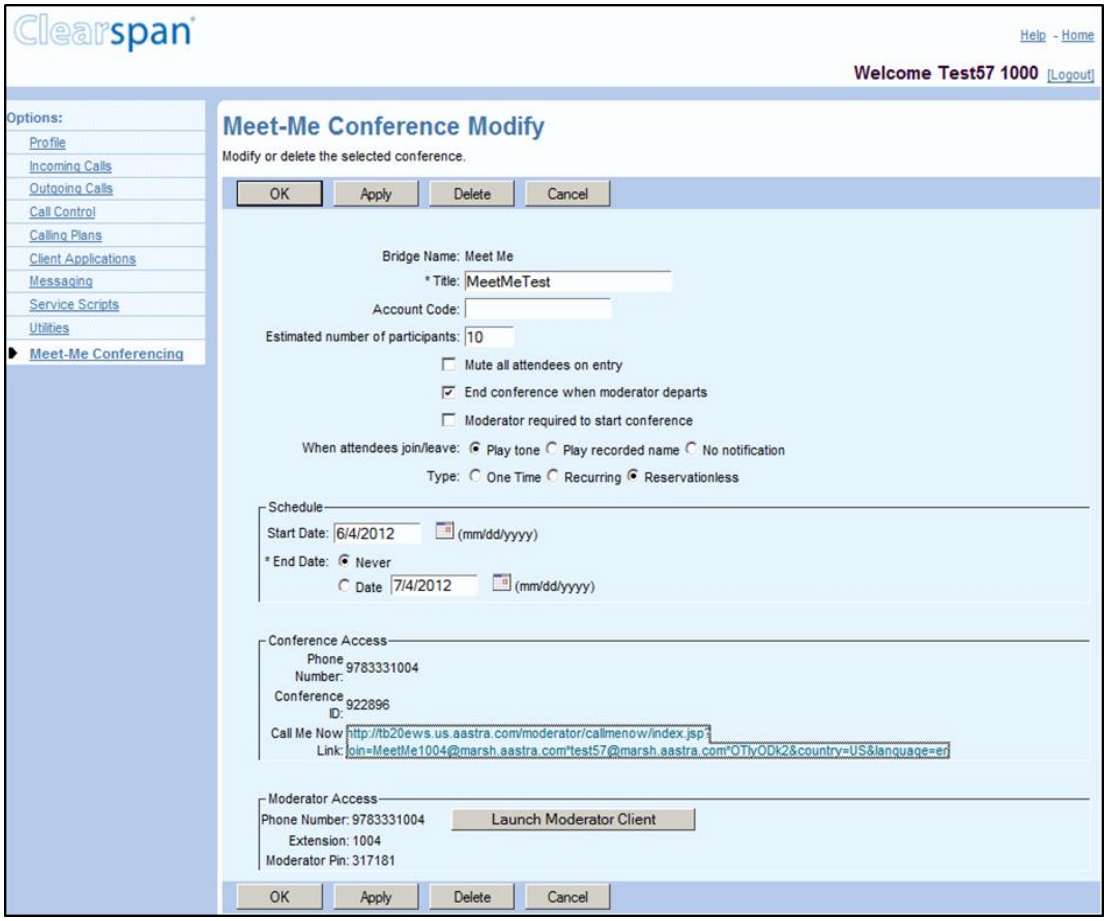

Figure 50 Meet-Me Conference Modify Web Page – Call Me Now Link

Click on the *Call Me Now Link* to bring the user to a Call Me Now web page, which is described in section *4.7.3 Call Me Now Web Page*.

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5 Migration Utility

The migration utility is used to migrate the existing Instant Conferencing bridges and conferences to the new Meet-Me conference bridges and conferences. The Instant Conferencing bridges and conferences should be migrated before upgrading to Application Server Release 18.0, since those conference bridges and conferences are removed in Application Server Release 18.0.

The migration utility is available in Application Server Release 17.sp4. If you are running an Application Server Release other than 17.sp4, you would have to upgrade to Application Server Release 17.sp4 first to migrate all conference bridges and conferences to the new Meet-Me conference bridges and conferences. After running the migration utility, upgrade to Application Server Release 18.0.

The migration of customers from the existing conferencing solution to the new Meet-Me Conferencing solution is performed on a per-group basis within a service provider or an enterprise. During the transition period, both services are active at the same time within a service provider or an enterprise.

5.1 Commands

The *meetmemigrate* command, available at */usr/local/Clearspan/bw_base/sbin*, implements the migration procedure described in section *5.2 Migration Automated Steps*. The command is run by the user bwadmin at the ssh command prompt. It contains four operation modes:

- Check Migration
- Run Migration
- Post Migration
- Error Handling

Following is an example of the *meetmemigrate* tool usage:

```
./meetmemigrate -h
meetmemigrate Version 1.00
USAGE: meetmemigrate <-check|-migrate|-revert|-cleanup>
                     <-serviceProvider serviceProvider |
                      -enterprise enterprise>
                     [-group group targeted for migration]
                     [-bridge bridgeId]
                     [-v, --verbose]
                     [-h, --help]

Parameters:
<Action>
--check  : Perform a pre-migration validation that checks if service
           sets and licensing requirements are met for all
```


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```
            bridges/conferences in the group list
--migrate: Perform the migration of all bridges/conferences in the
            group list
--revert : Reassign phone numbers to instantConf bridges, reverting
            to the pre-migration configuration
--cleanup: Remove all obsolete instantConf bridges/conferences from
            the group list

<Identifiers>
--serviceprovider: the service provider id
--enterprise     : the enterprise id
--group          : A group targeted for migration, multiple groups
                   can be processed by providing multiple
                   -group arguments.
--bridge         : A bridge targeted for revert, multiple bridge can
                   be reverted by providing multiple -bridge
                   arguments.

<Options>
-v, --verbose : run in Verbose mode
-h, --help    : print this Help

Description:
This utility migrates all InstantConf from a given group (or from a
list of groups) to Meet-Me conferences.

Examples:
sbin/meetmemigrate -migrate -serviceProvider sp1 --check
sbin/meetmemigrate -migrate -serviceProvider sp1
sbin/meetmemigrate -revert  -serviceProvider sp1 \
                   -group group1 -bridge bridge1@systemUrl
sbin/meetmemigrate -cleanup -serviceProvider sp1
```

The *meetmemigrate* utility provides a comprehensive summary of the actions. It reports the list of bridges migrated, and the list of bridges that could not be migrated along with an explanation of the error. It has a verbose mode option that should be used when reporting any errors using the utility.

5.1.1 Check Command

This mode validates that the Instant Conferencing bridge is only assigned supported services and that licensing allows enough capacity to perform the migration to Meet-Me Conferencing. It reports errors when the licenses are not installed or there are some unsupported services on the Instant Conferencing bridge(s).

The tool can be run with this mode at the bridge, group, and service provider/enterprise levels.

./meetmemigrate -–check –enterprise/serviceprovider <ent/sp ID> –group <grp ID> -bridge <Instant Conferencing bridge ID>

./meetmemigrate -–check –enterprise/serviceprovider <ent/sp ID> –group <grp ID>

./meetmemigrate -–check –enterprise/serviceprovider <ent/sp ID>

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NOTE: The check command can be issued before attempting the migration to make sure that the migration will be successful. It is recommended to validate the migration prior to execution.

5.1.2 Migrate Command

This mode performs the migration of Instant Conferencing bridges and Conferences to Meet-Me Conference Bridges and Conferences.

When the migration succeeds, Meet-Me Conferences are accessible via the same phone number/PIN as those previously assigned to their Instant Conferences. The old Conference Bridges and Conferences are left on the system, but they are unreachable.

The tool can be run with this mode at the bridge, group, and service provider/enterprise levels.

./meetmemigrate –migrate –enterprise/serviceprovider <ent/sp ID> –group <grp ID> -bridge <Instant Conferencing bridge ID>

./meetmemigrate –migrate –enterprise/serviceprovider <ent/sp ID> –group <grp ID>

./meetmemigrate –migrate –enterprise/serviceprovider <ent/sp ID>

5.1.3 Revert Command

This removes the migrated Meet-Me conference bridges and conferences and re-activates their Instant Conferencing bridges and conferences equivalent.

The tool can be run with this mode at the bridge level only.

./meetmemigrate -–revert –enterprise/serviceprovider <ent/sp ID> –group <grp ID> -bridge <Instant Conferencing bridge ID>

5.1.4 Cleanup Command

This operation removes the obsolete Instant Conferences and Conference Bridges. The tool can be run with this mode at the bridge level.

./meetmemigrate –cleanup –enterprise/serviceprovider <ent/sp ID> –group <grp ID> -bridge <Instant Conferencing bridge ID>

5.2 Migration Automated Steps

5.2.1 Bridge Level

Bridge-level migration converts the specified Instant Conferencing bridge, and all conferences on the bridge, to the Meet-Me Conferencing bridge and conferences respectively.

```
./meetmemigrate --migrate -enterprise/serviceprovider <ent/sp ID> -group <grp ID> -bridge <Instant Conferencing bridge ID>
```


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Bridge-level migration:

- Authorizes and assigns the Meet-Me Conferencing service to the group, if not already assigned.
- Converts the specified Instant Conferencing bridge to a Meet-Me Conferencing bridge and:
  - Migrates only the services supported by the Meet-Me Conferencing bridge. A warning message appears with the list of services that are not migrated.
  - Converts all conferences on the migrated bridges to Meet-Me Conferencing conferences.
  - If the previous step is successful, then the phone number and alternate numbers of the corresponding Instant Conferencing bridge are assigned to the new Meet-Me Conferencing bridge. The corresponding Instant Conferencing bridge is no longer reachable.
  - However, if the previous step fails, the Meet-Me Conferencing bridge is automatically deleted and the Instant Conferencing bridge is restored. An error message appears.

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5.2.2 Group Level

Migration at the group level converts all Instant Conferencing bridges and conferences of the specified group to the Meet-Me Conferencing bridges and conferences respectively.

```
./meetmemigrate --migrate -enterprise/serviceprovider <ent/sp ID> -group <grp ID>
```

Group-level migration:

- Authorizes and assigns the Meet-Me Conferencing service to the group, if not assigned.
- Converts all Instant Conferencing bridges assigned to the specified group to Meet-Me Conferencing bridges. For each bridge, it:
  - Migrates supported services. Unsupported services are simply not migrated, and a warning message appears.
  - Converts all conferences on the migrated bridges to Meet-Me Conferencing conferences.
  - If the previous step is successful, then the phone number and alternate numbers of the corresponding Instant Conferencing bridge are assigned to the new Meet-Me Conferencing bridge. The corresponding Instant Conferencing bridge is no longer reachable.
  - However, if the previous step fails, the Meet-Me Conferencing bridge is automatically deleted and the Instant Conferencing bridge is restored. An error message appears.

Upon successful completion, system administrators can un-assign the Instant Group Conferencing service for the specified group.

5.2.3 Service Provider/Enterprise Level

Migration at the service provider/enterprise level converts all the Instant Conferencing bridges and conferences of all the groups for the specified service provider/enterprise to Meet-Me Conferencing bridges and conferences respectively.

```
./meetmemigrate --migrate -enterprise/serviceprovider <ent/sp ID>
```

For all groups under the specified enterprise or service provider, the migration:

- Authorizes and assigns the Meet-Me Conferencing service to the current group.
- Converts all Instant Conferencing bridges assigned to the current group to Meet-Me Conferencing bridges. For each bridge:
  - Migrates supported services. Unsupported services are simply not migrated, and a warning message appears.

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- Converts all conferences on the migrated bridges to Meet-Me Conferencing conferences.
- If the previous step is successful, then the phone number and alternate numbers of the corresponding Instant Conferencing bridge are assigned to the new Meet-Me Conferencing bridge. The corresponding Instant Conferencing bridge is no longer reachable.
- If the previous step fails, the Meet-Me Conferencing bridge is automatically deleted and the Instant Conferencing bridge is restored. An error message appears.

Upon successful completion, system administrators can un-assign the Instant Group Conferencing service for all groups under the specified service provider/enterprise (if all the bridges for a group have been successfully migrated).

5.3 Prerequisites and Assumptions

The system or service provider administrator informs subscribers of a group that the transition will occur on a specific date and time. Typically, the administrator sends an e-mail to all subscribers in the group.

5.3.1 Licensing

The number of virtual licenses should be higher than the Instant Conferencing service quantity limit. Make sure to have enough licensed Meet-Me Conferencing ports. The number of ports should be equal to or higher than the Instant Conferencing ports allocated to a service provider or an enterprise. For more information, see section *3.1.1 Licensing*.

5.3.2 PIN Length

By default, Meet-Me conferencing service PIN length differs from Instant-Conference PIN length. For the migration to succeed, Meet-Me conferencing PIN length must be set to the same length as those of Instant Conferencing service, which is “7” (by default).

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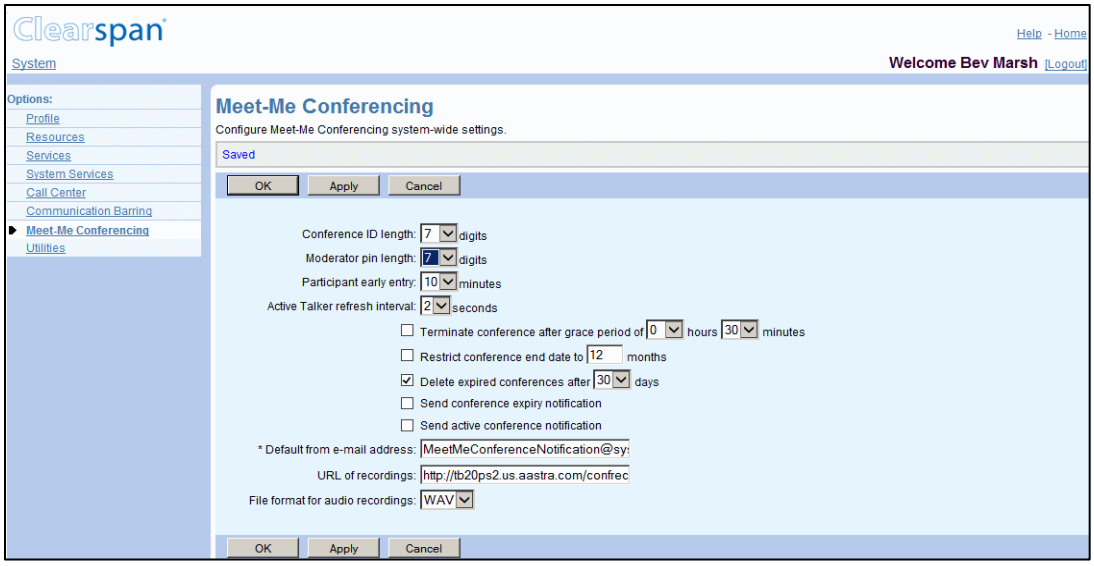

Figure 51 Meet-Me Conferencing PIN Length Settings for Migration

Once the migration is complete, the system administrator can safely revert the Meet-Me conferencing PIN length to its original value.

5.3.3 Database Backup

Make sure to back up the database before starting the migration. Use the importdb.pl or bwcli and run the *AS_CLI/Maintenance/Tools>* backupdb command to create an Application Server database backup. For more information, see the *Clearspan Maintenance Guide*.

This backup is helpful to restore the database to its original state in case the migration utility crashes unexpectedly thereby leaving the database in an inconsistent state.

5.4 Migration Process

> **NOTE**: The procedure described in this section should be executed during a planned maintenance window. It is recommended that the migration is validated first prior to execution. For more information to use the Check command, see section *5.1.1 Check Command*.

The procedure describes the migration process of an Instant Conferencing solution to use the Meet-Me Conferencing solution. Follow these steps in order.

1. **Prerequisites and Assumptions**

Complete the steps defined in section *5.3 Prerequisites and Assumptions*.

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2. Choose Migration Level

Before starting the migration, you must choose whether to migrate the conferences of a particular Instant Conferencing bridge or conferences and bridges of a group or service provider.

3. Check Migration

Run the check command at the chosen migration level to validate the migration process for any known errors.

4. Run Migration

Run the migrate command to start the migration process. All steps described in 6.2 are automated according to the specified migration level.

5. Post Migration

Run the cleanup command to remove the disabled or unusable Instant Conferencing bridges and conferences from the Application Server.

After the migration is complete for a group, subscribers can use the Meet-Me Conferencing service by calling the bridge phone number that was previously in use.
Note that if a conference call is active when the migration utility is started, new participants are not able to join the conference. Invoking functions such as originating a new call to invite a new participant are denied.

6. Error Handling

If an error occurs, then you use the revert command. Note that it automatically reverts bridges on migration errors, however you would manually revert a bridge when Mobile Manager is not performing as expected, or whenever configuration was not properly migrated.

If a fatal error occurs, restore the database backup.

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5.5 Migration Troubleshooting

This section provides a brief listing of the most common issues likely to be encountered while running the *meetmemigrate* utility. For each issue, the most probable causes and solutions are provided.

Missing action, please use -check, -migrate, -revert or -cleanup

Cause:

No action was provided on the *meetmemigrate* command line.

Solution:

One of the following must be specified: -check, -migrate, -revert, or -cleanup. There is no default action.

Missing bridgeIDs, at least one bridge must be specified via --bridge <bridgeId>

Cause:

The revert command was used without specifying a bridgeID.

Solution:

Re-invoke the *meetmemigrate* utility along with the bridgeID targeted for revert.

Some bridges targeted for migration do not exist in group <groupId>

Cause:

The *meetmemigrate* utility was invoked with a bridgeID that does not exist in the <groupId>.

Solution:

Verify the valid bridgeIDs within the <groupId> and then re-invoke the *meetmemigrate* utility.

Neither InstantConf nor Meet-Me conferencing assigned, skipping group

Cause:

The *meetmemigrate* utility was invoked for a group that does not have the Instant Conferencing feature assigned.

Solution:

The group was skipped, so unless the wrong groupID was provided on the command line interface, no other actions are required.

Unsupported service

Cause:

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One of the services assigned to the Instant Conference bridge is not supported by the Meet-Me Conferencing bridge.

Solution:

The service was not migrated. The Meet-Me Conference bridge is usable, but it lacks the functionality offered by the unsupported service. If the service was essential to the bridge, consider reverting that bridge and then contacting BroadSoft TAC to find an acceptable workaround.

Maximum PIN length exceeded (*leaderAccessCode* len: 7, max len: 6) (*participantAccessCode* len: 7, max len: 6)

Cause:

The PIN length configuration differs between the Instant Conference service and the Meet-Me conference service.

Solution:

To solve this problem, see section *5.3.2 PIN Length*.

Number of *InstantConf allocatedPorts* (unlimited) exceeds number of Meet-Me allocated ports (10)

Cause:

The number of *InstantConf allocatedPorts*, which is set to “unlimited”, exceeds the number of *Meet-Me* allocated ports, which is set to “10”.

Solution:

Set the number of *Meet-Me* allocated ports at the service provider or enterprise level to “unlimited”.

Exceeding authorized Meet-Me group quantity

Cause:

There are more Instant Conference bridges than the number of available authorized ports at the group level.

Solution:

Augment the number of authorized ports available at the group level.

There are not enough *Service Name* licenses available

Cause:

There are no more *Service Name* license ports available.

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Solution:

Get a new license file with more *Service Name* license ports to accommodate for migrated Meet-Me Conference Bridge users.

Some bridges targeted for migration were not successfully migrated

Cause:

One of the bridges targeted for migration could not be migrated or checked due to a migration error (for example, a PIN length configuration issue, the edial server is unreachable, and so on).

Solution:

Browse the *meetmemigrate* logs and search for an ERROR or WARNING tags. ERROR always shows the corresponding OCI-P error number.

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Received an Error Response from Clearspan

Cause:

An error response was received from the Profile Server. For example:

```
appserver$ ./meetmemigrate -ent MtlASDev -gr South_as92 -check
Please enter the administrator id: [admin]
Please enter 'admin' password:
Received an Error Response from Clearspan: [Error 4962] Invalid password
2011/05/19 16:19:23 OCI::ociLogin: Login failed.
```

Solution:

To resolve this situation, see the OCI-P error codes and error messages. The *meetmemigrate* utility automatically reverts all operations on the faulty bridge.

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6 Troubleshooting

This section provides a brief listing of the most common issues likely to be encountered by users of the Meet-Me Audio Conferencing solution. For each issue, the most probable causes and solutions are also provided.

Recording menu option (*5) is not available to the moderator.

Cause:

The Recording's URL on the *System → Services → Meet-Me Conferencing* web page is empty.

Solution:

Set the Recordings URL appropriately to point to a location on the Profile Server and try again. If the URL is valid and the Profile Server is accessible to the Application Server, the recording is started.

Moderator hears "The conference recording could not be started. Please try again later" when the conference recording is initiated.

Cause:

The Recordings URL on the *System → Services → Meet-Me Conferencing* web page is incorrect, that is, it is not pointing to a valid Profile Server directory.

Solution:

Provide a valid Recordings URL and try again.

Cause:

Profile Server is down.

Solution:

Start the Profile Server and try again.

Cause:

Profile Server is not accessible to the Application Server due to network issues.

Solution:

Resolve the network connectivity issues between Application Server and Profile Server and try again.

Cause:

Meet-Me Conference Recording web application is not running on the Profile Server.

Solution:

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Verify whether the Meet-Me Conference web application is active on the Profile Server.

Cause:

Application Server is unable to create required directories on Profile Server.

Solution:

Verify whether the Application Server and Media Server are allowed to create files and directories, that is, whether they are included on the access control list of the Profile Server.

Transfer to Operator menu option (*0) is not available to the moderator.

Cause:

The operator phone number or SIP-URI has not been provisioned for the bridge.

Solution:

Provision the operator phone number or SIP-URI for the bridge and try again.

Transfer to operator fails.

On transferring the call to the operator, the moderator hears “We are sorry; your call cannot be completed at this time. Please hang up and try your call again later. Thank you”.

Cause:

Operator is not available since their phone is not registered.

Solution:

Try again once the operator has registered and is available.

On dialing to conference, users hear silence.

Cause:

The Xtended Services Platform is down or inaccessible from the Media Server.

Solution:

Start the Xtended Services Platform or resolve the network connectivity issues between the Media Server and the Xtended Services Platform.

Prompts stop working in the middle of the conference, that is, users hear silence.

Cause:

The Xtended Services Platform is down or inaccessible from the Media Server.

Solution:

Start the Xtended Services Platform or resolve the network connectivity issues between the Media Server and the Xtended Services Platform.

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On dialing to conference, the user hears "We are sorry; your call cannot be completed at this time. Please hang up and try your call again later. Thank you".

Cause:

License exceeded for the Meet-Me Conferencing service.

To verify whether this is the case, do the following:

1) Log in to the Application Server CLI.
2) Go to AS_CLI/Monitoring/PM/ApplicationServer/Clearspan/executionServer/services/meetmeConferencing.
3) Check the *bwMeetMeNumJoinFailureLicensing* value.

Solution:

- If there are a sufficient number of licenses at the system level, allocate more licenses to the group that owns the conference bridge hosting this conference.
- If there are no licenses available at the system level, contact BroadSoft to obtain more licenses.

Cause:

The number of ports exceeded for the bridge or maximum participants exceeded for the conference. To verify whether this is the case, do the following:

1) Log in to the Application Server CLI.
2) Go to AS_CLI/Monitoring/PM/ApplicationServer/Clearspan/executionServer/services/meetmeConferencing.
3) Check the *bwMeetMeNumJoinFailureMaxBridgeCapacity* value.

Solution:

Increase the number of ports for the conference bridge or increase the maximum number of participants for the conference depending on the case.

Cause

No ports are available on the Media Server or the number of participants exceeded the conference limit. The maximum conference limit for a small conference is 147 and for a large conference it is 294. To verify whether this is the case, do the following:

1) Log in to the Application Server CLI.
2) Go to AS_CLI/Monitoring/PM/ApplicationServer/Clearspan/executionServer/services/meetmeConferencing.
3) Check the *bwMeetMeNumJoinFailureOthers* value.

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Solution:

- If the conference limit is reached, new participants cannot be added.
- If the ports limit reached on the Media Server, add new Media Servers.
- In either case, the changes do not apply to the current conferences in progress.

First participant dials into the conference, enters PIN but the call is ended suddenly after announcement says "Please wait".

Cause:

The Media Server connection issue is due to a stale entry in Application Server database, the cause of which is an abrupt Application Server shutdown or failover.

Solution:

Try again. It should work.

Cause:

The Media Server is not configured for the Meet-Me Conference Cr interface.

Solution:

Log in to the Media Server CLI and verify that *enableCfw* is set to "Y" as shown in the following example:

```
MS_CLI/Interfaces/CFW> get
enableCfw = Y
```

User does not hear expected prompt.

Cause:

The language-specific prompts are not available. An error message indicating a missing prompt file is logged in Execution Server logs.

Solution:

The appropriate language prompts need to be installed on the Application Server.

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