



Avaya Web Conferencing Troubleshooting Guide

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Table of contents

Table of contents.....	i
1 Introduction	1
1.1 Distribution of this document.....	1
1.2 How to use this document	1
1.3 Importance of diagnostics	2
1.4 Related documentation.....	2
2 Avaya Web Conferencing Overview	3
2.1 Server configurations	3
2.1.1 Intra-server communication.....	5
2.1.2 Required services on each server	5
2.2 How does a client connect to Avaya Web Conferencing?	6
2.2.1 How browser (Java) clients connect	6
2.2.2 The HTTP connection between client and server	6
2.2.3 What happens if the connection between the client and server is blocked?	7
3 Hardware requirements	8
3.1 Client requirements	8
3.1.1 Machine specification	8
3.1.2 Access to local disk	8
3.1.3 JavaScript and Java.....	8
3.1.4 Windows Media Player and plug-ins.....	8
3.1.5 ActiveX.....	8
3.1.6 Third Party Ad-Blockers and Security Products.....	9
3.2 Server requirements	9
3.2.1 Machine specification	9
3.2.2 IIS configuration.....	9
3.2.3 Memory dump output files	10
3.3 Network requirements.....	10
3.3.1 Bandwidth.....	10
3.3.2 Latency	11
3.3.3 Avoiding client problems.....	11
4 Troubleshooting hardware failure	12
4.1 Client machine recovery	12
4.2 Server failure.....	12
4.2.1 Master Server failure	13
4.2.2 Conference Server failure	13
4.2.3 Recording Server failure.....	13
4.2.4 Streaming Server failure	14
4.2.5 Database failure	14
4.2.6 File Server failure	15
4.3 Server recovery	15
5 Troubleshooting Avaya Web Conferencing Administration	16
5.1 Install problems.....	16
5.1.1 The install says that product is already installed.....	16
5.1.2 The install claims that the logon account is not an administrator	16
5.1.3 The install fails with "Error number: 0x80040707".....	16
5.1.4 MSDE fails to install/operate.....	17
5.1.5 Install fails on networked drive.....	18
5.1.6 Install fails with "The wizard was interrupted"	18
5.1.7 NTDLL.DLL crashes on first reboot after Recording Option Pack install	18
5.2 Operational problems.....	18

5.2.1	The Conferencing Gateway service will not start.....	19
5.2.2	A Conference Server does not come online.....	19
5.3	Recording problems.....	20
5.3.1	Errors with the Dialogic card.....	20
5.3.2	Cannot record any conferences.....	20
5.3.3	RecordingDirectory inaccessible	20
5.3.4	Conference Server cannot contact the Recording Server.....	21
5.3.5	Recording a conference fails because there are insufficient Recording Licenses	21
5.3.6	Audio is not recorded (no error pop-up).....	21
5.3.7	Audio cannot be recorded (error pop-up)	21
5.3.8	Problems playing back recordings	22
5.3.9	No recordings in the recording list.....	23
5.3.10	Recordings visible but cannot be played by any client	23
5.3.11	Recordings not completed correctly	23
5.3.12	Streamed recordings appear to freeze	24
5.3.13	Video playback window disappears when Windows Media Player is running in full-screen mode	24
5.4	Problems with administration	24
5.4.1	The administrator has errors reaching the Administrator login page.....	24
5.4.2	The administrator is unable to log in to the Administration User Interface?	25
5.4.3	The new users added by the administrator do not appear on the 'Set up users' page	25
5.5	Problems administering Audio Bridges	25
5.5.1	Audio integration	25
5.5.2	Cannot create connection to Audio Bridge	25
5.5.3	I've seen the error 'Bridge exception caught during lock: com.spectel.bcapi.BridgeException: The conference is not allowed this resource' in my event log. What does it mean?.....	26
5.5.4	Error reading PhoneNumber initialisation file.....	26
5.5.5	No phone users show up in the UI.....	26
5.6	Problems with configuration.....	27
5.6.1	External authentication fails	27
5.6.2	No licenses are allocated on my system and the IIS logs show that the requests fail with error 403 (Access forbidden).....	27
6	Troubleshooting end user problems	29
6.1	Is my browser supported?	29
6.1.1	As a basic attendee.....	29
6.1.2	As a presenter	29
6.2	The user has errors reaching the login page.....	29
6.2.1	Page not found (404)	29
6.2.2	Blank page at login	30
6.2.3	SSL certificate warning	30
6.2.4	Compatibility tester	31
6.2.5	When I join a conference using a browser with the Sun JVM installed, two proxy server login dialog boxes appear.....	32
6.2.6	The client fails to connect to a server behind a web proxy server	32
6.3	Errors when logging on.....	32
6.3.1	After logging in, I see a white screen and no error message.....	32
6.3.2	After logging in, I see an error message	33
6.3.3	Conference reference or Security Code not recognized. Please try again.....	34
6.3.4	That conference has not yet started. Please try again soon.	34
6.3.5	That conference has already finished.....	34
6.3.6	Your conferencing service provider has exceeded the number of clients that may be connected to conferences concurrently.	34
6.3.7	The system is too busy right now	34

6.3.8	Unknown login error (n). Please try again.....	34
6.3.9	A data conference has not been set up for this audio conference.....	35
6.4	The user cannot join the conference from an email invite	35
6.4.1	Page not found error	35
6.4.2	User taken to the login page, not directly into the conference.....	35
6.4.3	User taken into the wrong conference.....	35
6.4.4	I cannot enter the conference by clicking on an invitation URL from Outlook Express.....	35
6.4.5	I see an error message saying "An outgoing call cannot be made"	35
6.5	The user can log in but cannot join the conference.....	36
6.5.1	The user is attempting to join the conference over HTTP	36
6.5.2	An error saying the page cannot be displayed	36
6.5.3	A spinning icon remains on the page.....	36
6.5.4	The Avaya Web Conferencing windows open but remain gray	37
6.5.5	The Avaya Web Conferencing windows open but remain white.....	38
6.6	The user can connect to a conference on the LAN, but not when tunneled through a firewall.....	38
6.7	The user is having problems staying in conferences	39
6.7.1	Conference functions are temporarily grayed out and the client disappears from the roster temporarily	39
6.7.2	Conference functions are grayed out and then the client reloads.....	41
6.7.3	An HTTPS connected client stays only momentarily in the conference.....	41
6.7.4	My workspace window keeps reloading and saying there was a problem connecting to the conference	41
6.7.5	My browser hung or crashed while I opened a menu	41
6.7.6	My browser hung or crashed when I opened a new browser window	41
6.7.7	My browser hung when I attempted to use High Color Hosting on a Tablet PC.....	42
6.7.8	My client is ejected from a conference approximately every 7 minutes.....	42
6.8	Function in conferences	42
6.8.1	All function.....	42
6.8.2	Annotations.....	42
6.8.3	Uploading a Slide or PowerPoint presentation	42
6.8.4	Sharing an application	43
6.8.5	Voting.....	47
6.8.6	Full-screen mode	49
6.8.7	Email invites	49
6.9	Recording and playback.....	50
6.9.1	Recording fails at the start, before the red light stops flashing	50
6.9.2	Recording red light goes solid, but the recording stops after about 10 seconds	50
6.9.3	Audio is not recorded.....	52
6.9.4	The user cannot log in to view the recordings from an email invite	52
6.9.5	There are no recordings in the playback list	52
6.9.6	Problems playing back a successful recording	52
6.9.7	Problems viewing a successful recording	53
6.9.8	Recordings are playing back slowly.	54
6.9.9	I have ZoneAlarm installed and get a message from Internet Explorer saying 'The remote system refused the network connection' when trying to play back a recording.....	54
6.9.10	When I play a conference recording, the data appears to lag behind the audio part of the recording	54
6.9.11	I cannot read the text when I play a conference recording.....	54
6.9.12	When I play a conference recording, slides paint slowly.....	54
6.9.13	I cannot install Windows Media Player, or the plug-in.....	55
6.10	Audio integration	55
6.10.1	Problem connecting to the Audio Bridge.....	55
6.10.2	Can't dial out from Avaya Web Conferencing.....	55

6.10.3	Phone user does not appear in the participants list	56
6.10.4	Wrong phone number appears in the participants list	56
6.11	Video Integration	56
6.11.1	Popup says there are insufficient resources to join conference.....	56
6.12	Errors when leaving a conference	56
6.12.1	When I leave a conference, Internet Explorer locks up	56
6.12.2	Logging out doesn't return the user to the login page	56

1 Introduction

This document is the [Avaya Web Conferencing Troubleshooting Guide]. It should be used by Avaya Web Conferencing administrators to help identify and resolve problems with Avaya Web Conferencing.

It also provides instructions on how to collect diagnostics for sending to the Avaya Web Conferencing Support team at Avaya if you cannot resolve the problem by following the information in this Guide.

This is a working document and the contents will change and be updated from user feedback and usage in the field. Please report any feedback on this document to your Avaya Web Conferencing Support contact.

1.1 Distribution of this document

This document is only for the use of Avaya Web Conferencing customers who are directly supported by Avaya. Its contents must not be reproduced or passed on to others without the prior written consent of Avaya.

1.2 How to use this document

This document includes the following chapters.

- Chapter 2 "Avaya Web Conferencing Overview" and Chapter 3 "Hardware requirements" provide background information on Avaya Web Conferencing itself and its hardware requirements.

We recommend that all Avaya Web Conferencing administrators take the time to familiarize themselves with this information, to make it easier to pinpoint the cause of a problem and know where to obtain the correct diagnostics.
- Chapter 4 "Troubleshooting hardware failure" describes the immediate steps to perform when either the client or the server is in a failed state.
- Chapter 5 "Troubleshooting Avaya Web Conferencing" and Chapter 6 "Troubleshooting end user problems" describe how to troubleshoot problems experienced by administrators and end users respectively when using Avaya Web Conferencing.
- Appendix A "Diagnostics to collect" describes the diagnostics that should be collected in the event of a problem, so you can analyze the problem further yourself, and provide these diagnostics to your customer support contact if you need to report the problem to Avaya.

We recommend that all Avaya Web Conferencing administrators familiarize themselves with this Appendix to ensure that they always collect the most useful diagnostics, which will allow for speedier resolution of problems.

- Appendix B "Known problems with other applications" details 3rd-party applications that can affect Avaya Web Conferencing. It describes configuration changes required for those products we know about.

It is expected that all engineers installing, administering and/or supporting your Avaya Web Conferencing-based product will be familiar with all chapters of this document. If problems occur, you will then be able to dip into the sections that are relevant to you.

1.3 Importance of diagnostics

Avaya Web Conferencing is designed to provide diagnostics for a wide range of possible problems, from configuration errors to network problems.

In order to diagnose any Avaya Web Conferencing malfunction, it is vital to gather the available diagnostic information to quickly and efficiently find the cause.

Although it may take an end user a bit more time to send in a problem description and client diagnostic information, it is vital to have this information as soon as possible. Our experience shows that both users and administrators can forget important details quickly and diagnostics will get overwritten with time.

It is, therefore, important to educate users and administrators of the system to provide the complete set of diagnostics available to them at the time of the problem for diagnosis.

Some diagnostics are designed to be readable by system users, others by system administrators and a subset by Avaya Web Conferencing support engineers only. This breakdown is explained in more detail in Appendix A "Diagnostics to collect".

1.4 Related documentation

More information on Avaya Web Conferencing can be found in the other manuals in the Avaya Web Conferencing documentation set:

- Administrator's Guide
- Customization Guide
- Planning and Installation Guide
- User Guide.

2 Avaya Web Conferencing Overview

This chapter gives a brief overview of Avaya Web Conferencing.

2.1 Server configurations

Avaya Web Conferencing can either be installed on one server as a single box server farm, or over many servers thereby providing scalability, redundancy and additional function.

Avaya Web Conferencing requires at least one of each of the following types of server. If a Avaya Web Conferencing system is a single box server farm, the Master and Conference Server components are installed on this server. If you need more information on the different roles of the servers used in a Avaya Web Conferencing deployment, please refer to the [Planning and Installation Guide].

- **Conference Server (access points only)**

Each access point Conference Server needs to be externally visible. If there is more than one access point Conference Server in your deployment, these are configured behind a Load Balancer. The Load Balancer is the single Primary Access Point for the deployment.

Users connect to the single Conference Server or to one of a number of Conference Servers behind a load balancer to access the Avaya Web Conferencing login page and the View Recordings login page.

Once the user has been authenticated, they join the conference running on the same or another Conference Server.

- **Conference Server (all)**

Each Avaya Web Conferencing conference runs on one Conference Server in the deployment and all users in the same conference connect to the same server.

If the deployment is integrated with an Audio Bridge or Media Server to provide audio conferencing, the Conference Server also contains the BridgeManager component which connects to the specified audio bridge.

Each Conference Server is an externally visible machine. If there are multiple Conference Servers in a deployment, they must each be independently visible to end users and must not be set up as a single access point behind a Load Balancer.

- **Master Server**

The Master Server is responsible for starting and stopping conferences, plus housekeeping tasks.

This is not an externally visible machine.

- **Recording Server**

A Recording Server is only required if you are using Avaya Web Conferencing with an External Audio Bridge and have licensed Recording. The Recording Server communicates with the Conference Server and the External Audio Bridge (if it is an integrated deployment). The Recording Server receives conference information which it writes to file on the File Server.

This is not an externally visible machine. If there are multiple Recording Servers in a deployment, they are configured as a single access point behind a Load Balancer but do not have to be externally visible.

- **Streaming Server**

Recordings are read from the File Server and streamed to end-users by the Windows Media Services on the Streaming Server. There is no Avaya Web Conferencing code running on this server.

Streaming Servers are externally visible. If there is more than one Streaming Server in your deployment, these are configured behind a Load Balancer.

- **Database**

Avaya Web Conferencing has an SQL database containing configuration information, details of running and past conferences and billing information.

It may also contain provisioned conference information unless the deployment is connected to an external user database (for conferences already provisioned on an integrated audio bridge) via an external authentication servlet.

This is not an externally visible component and may be located on the same server as the Master.

- **File Server**

This is the location for storing recordings.

The File Server is not an externally visible component and may be a disk on the Streaming Server or Recording Server

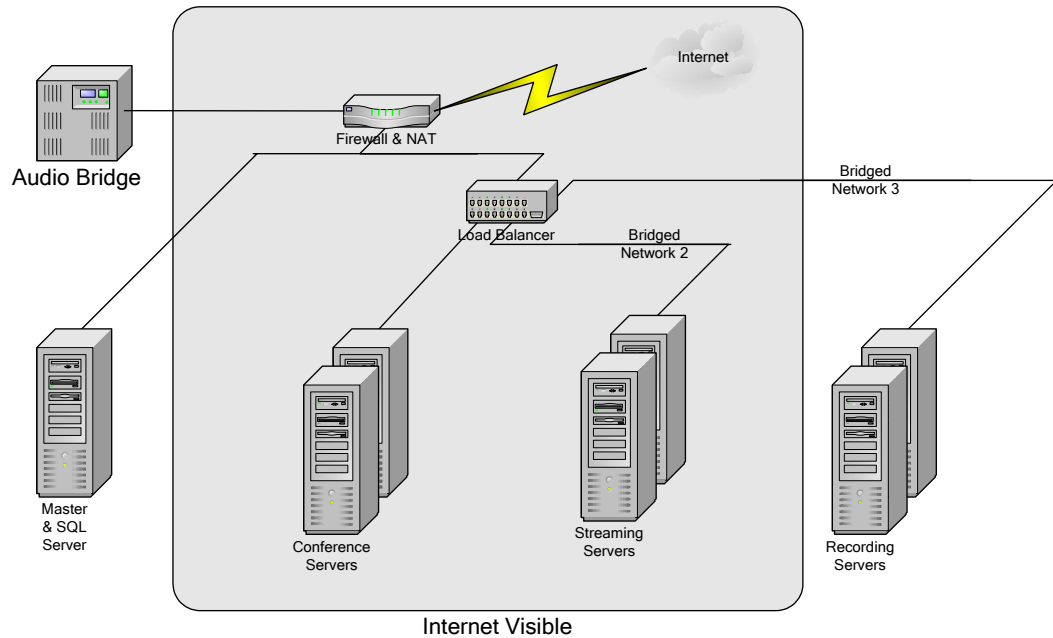
- **Load Balancer**

A Load Balancer is required if there are multiple access point Conference Servers, Recording and/or Streaming Servers. It creates a bridged network and becomes the access point for each type of server it is balancing the load for and, as such, is externally visible.

- **Other network components**

These are the responsibility of the network engineers for the deployment. There should be no firewalls, proxies, etc between the above servers required for Avaya Web Conferencing.

The diagram below illustrates the roles of the different servers in a Avaya Web Conferencing deployment.



2.1.1 Intra-server communication

Ports 80 and 1627 are required for intra-server communication; servers also need localhost access over port 80.

Conference Servers also require port 443 to be open for clients to connect over HTTPS.

The Streaming Server can send information over several ports, depending on your configuration. Please see <http://www.microsoft.com/windows/windowsmedia/serve/firewall.aspx> for more information.

Ports should be configured so that access is enabled for writing recordings to disk on the File Server and so that servers can access the SQL database.

2.1.2 Required services on each server

You can view which services are running on each server by opening the Service Manager (*Control Panel>Administrative Tools>Services*).

The *Conferencing Gateway* service is installed onto the Master, Conference Server and Recording Server components. The *World Wide Web Publishing Service* onto the Master and Conference Server components is also directly affected by Avaya Web Conferencing.

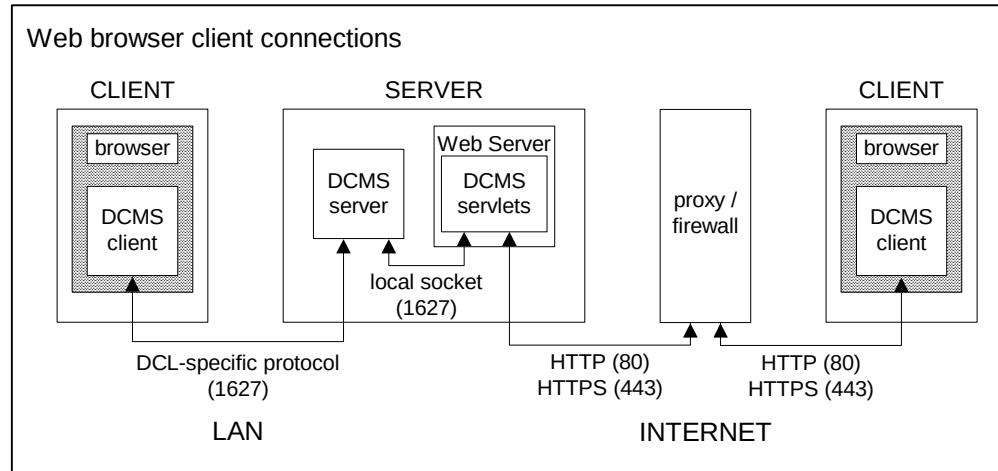
You can check the state of these services using the Services Manager. They should be started, and have their Startup Type set to Automatic. If either of these services has failed to start, Avaya Web Conferencing will not function correctly.

- To start the services, manually right-click on the service name and select *Start* from the popup menu.
- To change the Startup Type of the services from Manual to Automatic, right-click on the service name and select *Properties* from the popup menu. In the properties dialog select the *General* tab, and set the Startup Type to Automatic from the drop down list.

The Streaming Server depends on a single service - *Windows Media Services*. You can similarly check the state of this service using the Services Manager.

2.2 How does a client connect to Avaya Web Conferencing?

2.2.1 How browser (Java) clients connect



Web browser clients can connect to Avaya Web Conferencing even if there is a firewall or proxy between the client and server boxes. They do this by “wrapping” their messages in HTTP or HTTPS and passing them over port 80 (or port 443 for HTTPS).

If there is no proxy or firewall between the client and the server (on a LAN for example), the web clients can establish a faster socket connection to the server on port 1627 and send their data directly.

All clients connect to the same Conference Server to join a particular conference.

2.2.2 The HTTP connection between client and server

If a client is connecting to the server over HTTP or HTTPS there are two connection threads running on the client: a send thread and a receive thread.

The send thread batches up packets and sends them to the server either as a parameter HTTP GET request or as an HTTP POST request (depending on the amount of data to send). A new HTTP request is made for each batch sent and the server sends a single byte status code in response.

On the receive thread the client makes an HTTP GET request to the server. The server then makes an 'extended response' of 100 Kb of data to this request; the content-length header of the response is set to 100 Kb and the actual data is 'trickled' down to the client over time as and when the server has data to send to the client. Once 100 Kb has been sent the response completes and the client makes another GET request, thus repeating the process.

The MIME type used is application/octet-stream.

2.2.3 What happens if the connection between the client and server is blocked?

If the data from the client to the server is blocked the server detects a hung client after 30 seconds and the connection at the server is closed. The client then tries to reconnect to the server, first by a silent reconnect and then by a hard reconnection.

If the data from the server to the client is blocked, the client will timeout after approximately 1 minute. This will then cause an attempted silent reconnection to the server if the client is in a conference. If the connection still cannot be established then a hard reconnect takes place. If this is unsuccessful, the client closes the connection to the server, and the server cleans up its connection.

If the client does not receive any information from the server (i.e. the outstanding GET fails or is blocked) then that client will not be able to join the conference they are attempting to join.

3 Hardware requirements

This section lists the requirements for the client machines, server machines and network to enable Avaya Web Conferencing to run successfully.

3.1 Client requirements

3.1.1 Machine specification

The recommended specifications are 1 GHz processor, 512 Mb RAM and 50 Mb free disk space.

The supported browser and Operating System combinations are specified in the section "Is my browser supported?" in Chapter 6 of this document.

3.1.2 Access to local disk

A user who is participating in a data conference as a Presenter and who wishes to either share an application or upload a PowerPoint presentation will need sufficient permissions for read/write access to the local disk. If this is not permitted, these functions will not be available to this Presenter.

3.1.3 JavaScript and Java

For Attendees participating in a conference, the browser used to connect to Avaya Web Conferencing must support Java and JavaScript before Attendees can be promoted to Presenters. If this is not enabled, further information will be shown in the 'Computer Configuration' section of the login page.

For Presenters, Java must be enabled. Again, if it is not, then further information will be shown in the 'Computer Configuration' section of the login page.

3.1.4 Windows Media Player and plug-ins

In order to view a recording, you must have installed Windows Media Player, version 9 or 10, and a special plug-in for viewing Avaya Web Conferencing data. An additional plug-in is required in order to play back Avaya Web Conferencing recordings that contain video.

The 'Computer Configuration' section of the 'View Recordings' login page will detect whether either is not installed and show further information if required.

3.1.5 ActiveX

It is recommended that the browser supports ActiveX for playing back recordings via the Avaya Web Conferencing User Interface rather than launching Windows Media Player as a separate application.

3.1.6 Third Party Ad-Blockers and Security Products

Certain third-party ad-blocking and security software may cause Avaya Web Conferencing to behave erratically. You will be warned (in the 'Computer Configuration' section of the login page or via an error message when you log in) if such software is detected on your computer.

It is recommended that you disable any such software then restart your browser before logging in again.

Norton Internet Security in particular is known to disable many of the Avaya Web Conferencing features. You can prevent this by disabling the 'Ad Blocking' function from the 'Norton Protection Center' configuration screen within Norton Internet Security.

3.2 Server requirements

Each server used in the Avaya Web Conferencing deployment should have a clean install of the OS and IIS. No additional software above that specified in the Planning and Installation Guide should be installed. Please see Appendix B.2 "Applications on the server" for more information.

3.2.1 Machine specification

Please check the [Planning and Installation Guide] for how the usage profile in a conference will affect the bandwidth, disk size and memory requirements of the server for your minimum supported deployment.

3.2.2 IIS configuration

IIS configuration is done by the Avaya Web Conferencing install process. A description of the corresponding manual processes is listed in the "IIS Configuration" section of the [Planning and Installation Guide].

Each server in the deployment requires the following.

- Access to http://localhost.

It is essential that all machines in a farm are accessible via http://localhost, since this is used for some intra-farm communication. This network address must not be blocked or used by other web server components.

If HTTP (port 80) access to the farm is not required (for example, because only secure https connections are allowed), the firewall/IP splitter should be configured to deny such access from machines not in the farm, rather than configuring IIS to deny it.

Avaya Web Conferencing also requires access to http://localhost for collection of some diagnostics; if this access is denied, we will not be able to collect all the required diagnostics.

- Inter-server communication over port 1627 and port 80.

Intra-farm communication occurs over ports 1627 and port 80. There is an IIS setting to only allow communications over SSL (port 443) - this should not be enabled on any server in the deployment.

3.2.3 Memory dump output files

DrWatson

DrWatson is a simple debugger that comes with all 2003 machines. You should configure DrWatson as your default debugger by going to a DOS prompt and typing: `drwtsn32 -i`.

Once this is configured, when any program on your machine crashes (including services), DrWatson will create a text file `Drwtsn32.log` describing the crash. The file will be created in your `%WINDIR%` directory (usually `c:\windows`), or `%ALLUSERSPROFILE%\Documents\DrWatson`. Note that new crashes will be appended to the end of the file.

UserDump

UserDump is a Microsoft tool that allows you to create a dump file for a running process without killing that process. This can be useful when the services are still running on a server but it has become unresponsive.

To run UserDump, first install it by downloading the UserDump self extracting zip file from the Microsoft website (Part of the OEM Support Tools package)

You can then produce a memory dump for a running process by opening a DOS prompt and typing `'userdump <processID>'`, where the process ID can be found from the Task Manager.

3.3 Network requirements

It is recommended that the client connects to the server over HTTPS. This is because some network hardware inspects the contents of HTTP packets and can either buffer up or change the contents of the packets - both of which will prevent a successful connection to Avaya Web Conferencing.

More information on known causes of network problems can be found in Appendix B.3 "Applications on the network".

In summary, network hardware should do the following to ensure that Avaya Web Conferencing runs successfully:

- allow Java applets
- allow scripts
- allow traffic over ports 80 and 443
- not batch up outstanding GET requests
- accept the MIME type `application/octet-stream`.

3.3.1 Bandwidth

Avaya Web Conferencing uses three different bandwidth groups to send data to clients (Low, Medium and High). Avaya Web Conferencing performs a check of the bandwidth available to a client when that client joins a conference, and places the client in a group with other

clients with similar bandwidth. The server then sends different amounts of conference data out to each group, so that updates to low bandwidth clients do not lag too far behind those with high bandwidth.

This minimizes the time-lag of low bandwidth clients. However users may still have to wait a few seconds for all clients in the conference to receive updates.

Bandwidth availability will particularly affect the time taken to upload and download complex slides.

3.3.2 Latency

If there is a high latency on the connection between the client and the server, this will result in delays to conference updates. Also, the time taken to upload and download slides within the conference will increase significantly.

Note that this may only affect a sub-set of the participants in a conference, depending on where in the network the high latency occurs.

3.3.3 Avoiding client problems

Most problems that arise when deploying services to new customers are caused by incompatible proxy server configurations on customer sites. Before deploying services to a customer site, we recommend that you test their network to ensure that their proxy server does not block Avaya Web Conferencing content or cause periodic client disconnects.

4 Troubleshooting hardware failure

This chapter provides an overview of how to recover from hardware failure on the client or server machines.

Although you will want to reduce server downtime and get your equipment running again as quickly as possible, you should ensure that wherever possible the necessary diagnostics are gathered while the client or server is still in the failed state. Please refer to A.2 "Server diagnostics" for detailed instructions on the diagnostics that should be gathered for the problem you are seeing.

If the diagnostics are not collected immediately, it makes it very difficult for Avaya to diagnose and fix the problem. Lack of these diagnostics will also increase the time taken to investigate the problem and may lead to further client or server downtime in the future.

4.1 Client machine recovery

If a user can successfully join a conference, most problems experienced while the user is participating in the conference can be resolved by exiting the conference, closing all of the browser windows running on the client machine, then rejoining the conference. Please note that occasionally the Internet Explorer process may still be running in the background when all browser windows have been closed. Users should open the Task Manager on their machine and close any instances of the 'IEXPLORE.EXE' process by selecting 'End Process' until no more are left.

Appendix A.1 "Client diagnostics" explains which diagnostics are required from the client machine in the event of a problem. Please obtain a full problem description, screenshots and the contents of the Java Console while you see the problem; you should do the same for the Avaya Web Conferencing client Diagnostic Console, if you are able to view it.

If you still cannot access or join a conference, please continue to read the following sections.

4.2 Server failure

Section 2.1 "Server configurations" describes the role of each server in a MailNGen deployment and this should help you identify which server or component is the likely point of failure in a multi-box server farm.

Appendix A.2 "Server diagnostics" explains which diagnostics are required from the server in the event of a problem. In all cases, the dcmsdiags tool should be run on the server and the output collected from the Diagnostics directory.

In order to know what diagnostics to provide, and which servers may need to be restarted, you need to be able to recognize some of the symptoms of serious errors on your servers.

4.2.1 Master Server failure

If the Master Server encounters a serious error, probable symptoms are:

- No new conferences can start.
- The Conference Server status does not update in the Administration UI (for example newly added Conference Servers stay offline).
- All Conference Servers log the warning *Problem with connection to master* in the Application Log in Windows Event Viewer.

To view these logs, open *Control Panel>Administrative Tools>Event Viewer* and select *Application Log*. Avaya Web Conferencing entries are logged with *DCMS* as the source.

4.2.2 Conference Server failure

If a Conference Server encounters a serious error, probable symptoms are:

- The Administration UI shows failed Conference Server as offline.
- The Master logs the warning *Conference Server ID x has disconnected or failed* in the Application Log in Windows Event Viewer.
- Any clients connected to conferences running on the failed Conference Server are disconnected and joined to a new Conference Server if any more exist.

If the *World Wide Web Publishing Service* has failed on a Conference Server, but the *Conferencing Gateway Service* has not, then

- The Administration UI will show the Conference Server as available (online), but any clients connecting to conferences on this Conference Server will see blank white conference windows.

If an access point Conference Server encounters a serious error, probable symptoms are:

- Clients cannot log in through the failed Conference Server.
- Clients in conferences who logged in through the now failed Conference Server will suffer reduced functionality if no other Conference Servers are available. Specific problems could include not being able to upload slides, start application sharing, add voting slides or switch to full screen mode.
- Clients connected to the Administration UI through the now failed Conference Server cannot request pages.

4.2.3 Recording Server failure

If a Recording Server encounters a serious error, probable symptoms are:

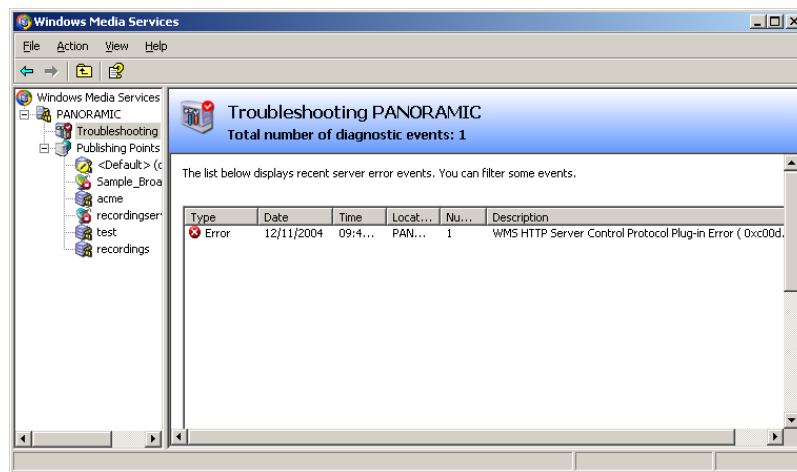
- No new recordings will be created on the failed Recording Server.
- Recordings that are in the process of being created on the failed Recording Server will be stopped. The red 'recording' indicator disappears and Presenters get a pop-up telling them recording has stopped.

- Logs on the Conference Server (for the conference which was being recorded) say that Recording Server has failed to join the data conference or that communications with the Recording Server farm failed.

4.2.4 Streaming Server failure

If a Streaming Server encounters a serious error, probable symptoms are:

- No new recordings will be streamed from the failed Streaming Server.
- Clients who are in the process of streaming recordings from the failed Streaming Server will see recording playback interrupted. Windows Media Player may start buffering, or may stop playing and need to be restarted, while the load balancer fails over to another Streaming Server.
- The Windows Media Services Troubleshooting pane may display errors.



4.2.5 Database failure

If the Database encounters a serious error, probable symptoms are:

- Administrators cannot access the administration login page.
- Clients cannot log in to conferences.
- All servers on the farm log errors relating to the SQL Server connection in the Application Log in Windows Event Viewer.

If you have error logs on the MS Server that indicate it cannot log in to the database, then ensure that the name and password matched the ones you installed Avaya Web Conferencing with. Also you should check that the SQL server has been configured with the correct authentication mode by doing the following:

- Open up Enterprise Manager
- Right click on <server> and select *Properties*
- Select *Security* tab
- Confirm that Authentication method is set to 'SQL Server and Windows'.

4.2.6 File Server failure

If the File Server encounters a serious error, probable symptoms are:

- New recording will not be played.
- Existing recordings will be unavailable.
- The Conference Servers / RecordingServers will log errors indicating they are unable to connect to the share.
- The Recording UI will not show any recordings.

4.3 Server recovery

Once the diagnostics have been collected and stored, use the following instructions to reboot the server.

1. Reboot the affected machine. Avaya Web Conferencing has been designed to be as robust as possible in a high demand, service provider environment. If any component of the server farm fails, it is possible to simply restart the affected machine (*Start Menu>Shut Down>Restart*), and Avaya Web Conferencing will fully recover.
2. Check the services are running correctly.

Avaya Web Conferencing (Master, Conference Server or Recording Server) depends on two Services: the *Conferencing Gateway* service and the *World Wide Web Publishing Service*. You can check the state of these services using the Services Manager (open *Control Panel>Administrative Tools>Services*). They should both be started, and have their Startup Type set to Automatic. If either of these services has failed to start, Avaya Web Conferencing will not function correctly.

To start the services, manually right-click on the service name and select *Start* from the popup menu. To change the Startup Type of the services from Manual to Automatic, right-click on the service name and select *Properties* from the popup menu. In the properties dialog select the *General* tab, and set the Startup Type to Automatic from the drop down list.

Streaming Server depends on a single service - *Windows Media Services*. You can similarly check the state of this service using the Services Manager.

3. Check that all servers in a server farm have synchronized clocks.
4. Check that the database server is running.

5 Troubleshooting Avaya Web Conferencing Administration

This section covers problems that you may come across as the administrator of the Avaya Web Conferencing deployment and covers installation, operation and administration of a live deployment. For any end user problems that you may come across as part of testing your deployment, please see Chapter 6 "Troubleshooting end user problems".

5.1 Install problems

This section covers problems that can occur when running the Avaya Web Conferencing installation set up program.

5.1.1 The install says that product is already installed

If the install immediately puts up a pop-up saying that the install cannot proceed because a previous version of Avaya Web Conferencing is already installed then you need to fully uninstall Avaya Web Conferencing before trying the install again. The chapter "Uninstalling Avaya Web Conferencing" in the [Planning and Installation Guide] provides full manual instructions on how to completely remove Avaya Web Conferencing.

5.1.2 The install claims that the logon account is not an administrator

If the install fails with a pop-up saying "User ... is not an administrator. You must provide an administrator account for Avaya Web Conferencing to use", you should verify that the user you specified is in the Administrators group. For Avaya Web Conferencing to operate correctly, this must be true for all servers in the deployment.

If the user is in the Administrators group but the pop-up still appears, verify the following security policy setting. Go to *Control Panel > Administrative Tools > Local Security Policy > Security Settings > Local Policies > Security Options* and set "System objects: Default owner for objects created by members of the Administrators group" to "Administrators group". Click OK, close the Group Policy Object Editor applet, log out, and log back in again. If the pop-up still appears, verify with your domain administrator that this local security policy is not being overridden by a Group Policy.

Note that "Administrators Group" is the default setting in Windows Server 2003.

5.1.3 The install fails with "Error number: 0x80040707"

If the install fails with the following pop-up, it is because IIS and the World Wide Web services are disabled.



To install Avaya Web Conferencing, you will need to

- manually uninstall Avaya Web Conferencing. The chapter "Uninstalling Avaya Web Conferencing" in the [Planning and Installation Guide] provides full manual instructions on how to completely remove Avaya Web Conferencing.
- enable the IIS Admin and World Wide Web Services
- run the Avaya Web Conferencing install again.

5.1.4 MSDE fails to install/operate

This can happen if you have a machine running ZoneAlarm or a similar program.

Installing MSDE on a Master server which is running Zone Alarm is not supported.

If you have Zone Alarm running on your machine you must ensure that the *Load ZoneAlarm Pro at startup* checkbox on the *Overview* page is unchecked and reboot the machine before installing Avaya Web Conferencing and MSDE.

When Avaya Web Conferencing and MSDE are first installed, the following log is shown in the Application Event Log after the reboot:

```
Created SQL 7 database (CREATE DATABASE DCMS ON  
(NAME=DCMS,FILENAME='C:\MSSQL7\data\DCMS_DATA.mdf',SIZE=5,MAXSIZE=50,FILEGRO  
WTH=1)) LogType: SQL Class: Database. Event Code:64 Module: Java File:  
JavaLog, line 87
```

If you are seeing the following log instead, it is likely that ZoneAlarm, or a similar program, is running on your machine, preventing the database from being created.

```
The database is of type SQLServer. Unable to create the database. Avaya Web  
Conferencing cannot run at this time. Contact your support service.  
java.sql.SQLException: [Microsoft][ODBC SQL Server Driver]Timeout expired.  
LogType: OTHER Class: Database. Event Code:64 Module: Java File: JavaLog,  
line 103
```

In this case you need to uninstall Avaya Web Conferencing and MSDE, disable ZoneAlarm from starting when the machine is rebooted, reboot and install from scratch.

5.1.5 Install fails on networked drive

The install process may report the following error.

```
DoInstall of RecordingServer at <\\machine\installpoint\DCRS\Setup.inx> with /s
/f1"C:\DOCUME~1\meetttest\LOCALS~1\Temp\DCRSUpgradeConfig.iss"
/z"UPGRADE" failed with a return code of -1.
```

This indicates that you are installing via a network share and the network connection to the install point has been lost.

Uninstall Avaya Web Conferencing and try again.

5.1.6 Install fails with “The wizard was interrupted”

If the install proceeds through Copying files, Registering product, and Publishing product information, but fails at the very end with the error below, there may be a problem with the PCs security policy.

The wizard was interrupted before [Avaya Web Conferencing / Recording Option Pack] could be completely installed. The system has not been modified. To install this program at a later time, run the installation again. Click Finish to exit the wizard.

To correct this, go to *Start > Control Panel > Administrative Tools > Local Security Policy > Local Policies > User Rights Assignment > Impersonate a client after authentication*, and add "Administrators" to the list. Log out, log back in again, and attempt the install again. If the install still fails, verify with your domain administrator that this local security policy is not being overridden by a Group Policy.

5.1.7 NTDLL.DLL crashes on first reboot after Recording Option Pack install

If your server crashes in NTDLL.DLL on the first reboot after installing the Recording Option Pack then rebooting again should allow the server to start without error.

The crash occurs where Remote Access Services are installed and running on the Avaya Web Conferencing server. Typically, the Remote Access Services are used by the Remote Access Auto Connection Manager Service and/or the Access Connection Manager Service. Stopping and disabling this service should prevent the crash.

You should also check whether any other programs have loaded rasapi32.dll and/or rasman.dll and, if so, stop them.

5.2 Operational problems

For problems with operating Avaya Web Conferencing, please first ensure that all the server requirements listed in section 3.2 are met.

5.2.1 The Conferencing Gateway service will not start

If the conferencing gateway does not start after first installation then it may be the Windows user configured during the install does not have sufficient permissions. The server will record the following in the System Event Log:

The gwsvc service was unable to log on as <account> with the currently configured password due to the following error: Logon failure: the user has not been granted the requested logon type at this computer.

If this is the case, the user should be given Administrator permissions on all the servers in the deployment.

Note that you must also ensure that the user account has permission to *Log on as a Service*. If the user account has only just been added to the local Administrators group, then it may be necessary to specifically add this permission. This is done as follows.

- Open *Control Panel > Administrative Tools > Services*.
- Right-click on the Conferencing Gateway service and select *Properties*.
- Go to the *Log On* tab.
- Change the Conferencing Gateway service to log on under the LocalSystem account.
- Start the Conferencing Gateway service.
- Change the Conferencing Gateway to log on under the user account that you had previously specified. Windows should now automatically update the user account permissions so that it can log on as a service on the local machine.

If a different Windows user is to be configured on the system, you must uninstall and reinstall Avaya Web Conferencing on every machine in the deployment, specifying a user who has full administrator privileges on the local machine.

5.2.2 A Conference Server does not come online

There are several possible reasons for this.

- It is possible that the Conference Server has been configured to be offline in the Administrator UI. If the 'Make Available' option can be selected for the Conference Server, enable it and click OK to bring the server online.
- It may be that the Conference Server has not been added to the list of servers. Log in to the Administration UI, choose *Manage Conference Servers*, and add a new entry.
- Another possibility is that the entry is incorrect. Check the event log of the Master to see if it is rejecting the Conference Server. If it is, make sure the IP address in the Conference Server entry is correct. If it is not, you must quiesce, delete, and re-add the entry, and then reboot that Conference Server.
- It may be that you have deleted and then re-added a Conference Server without rebooting it. If you have done this then you should reboot the Conference Server, and it should then become available.
- If you are using Master Failover, verify that the Master IP address is correct on the Conference Server. This must be set to the NLB cluster's IP address, not that of

either Master's individual IP address. This is set in the registry at HKLM\SOFTWARE\Avaya\DCMS\Slave\MasterAddress. After changing this, reboot the Conference Server.

5.3 Recording problems

The application event log on the Recording Server contains detailed information if errors in recording are hit. If you are seeing problems, please look for error logs from DCMS and follow the instructions.

5.3.1 Errors with the Dialogic card

Check that the dialogic services have started on the Recording Server in the Dialogic Configuration Manager.

If the errors are displayed about the Dialogic card, it could be that there is a problem with the configuration of the card itself, or with Avaya Web Conferencing's interaction with the Dialogic software. The first thing to do is to run the dialogic test tools, which are independent of Avaya Web Conferencing, and check whether they are successful. If not, please contact your Dialogic or PBX support contact for help; if test tools are successful, please contact your Avaya Web Conferencing Support contact for more information.

Information about the Dialogic test tools are in the [Planning and Installation Guide].

5.3.2 Cannot record any conferences

Check that the recordings can be written to disk on the File Server. The Windows user specified when the Recording Server was installed (configured for the Conferencing Gateway service) needs to have permissions to access the recording directory.

Please refer to section 6.9 "Recording and playback" for more information.

5.3.3 RecordingDirectory inaccessible

Whenever a Presenter clicks the 'Start Recording' menu item, they always get a pop-up telling them that the conference could not be recorded.

The logs on the Recording Server will indicate that:

- The Recording Server failed to create the root directory <RecordingDirectory> due to error <ErrorNumber>. This conference will not be recorded.

Check the following.

- Is the RecordingDirectory specified in the registry of the Avaya Web Conferencing and RecordingServer accessible by all the machines?
- Is it visible on the network?
- Does the logon account specified during install of the Avaya Web Conferencing machine have the correct permissions to read and write from this directory?

5.3.4 Conference Server cannot contact the Recording Server

If the Conference Server cannot contact the Recording Server, a Presenter will get a pop-up telling them that the conference could not be recorded whenever they click the 'Start Recording' menu item.

The logs on the Conference Server will indicate that:

- It timed out waiting for the Recording Server to respond, but will retry.
- After a couple of retries, the Conference Server gives up and returns the error to the user.

The Recording Servers are running, but there are no logs related to a request from the Conference Server to start recording.

Examine the logs on the Conference Server for further information, but a likely cause is that the IP address of the Recording Server farm (configured during the installation process) is wrong.

You should reinstall the deployment, entering the correct IP address.

5.3.5 Recording a conference fails because there are insufficient Recording Licenses

Despite having many unused Recording licenses displayed when you log in to the Admin UI, it is still possible for an attempt to record a conference to display an error message claiming that there are insufficient Recording Licenses.

This is because the `licence.reg` file has not been imported on all machines in the Avaya Web Conferencing deployment. Import the license registry file on all machines and restart each machine.

5.3.6 Audio is not recorded (no error pop-up)

If you have licensed recording and your Avaya Web Conferencing deployment is integrated with an external audio bridge, you may encounter a situation where all of your recordings contain video only (e.g. the recording of the whiteboard or the shared application) with no audio at all.

You should check that you have configured your external authentication (`SP_AUTH_URL`) to return the `ABJoiningDetails`. These are required to tell the RecordingServers how to dial into the audio bridge so that they can join and record the audio conference.

If this does not solve the problem, then examine the Windows Application Event Logs on the Conference Server and the Recording Server to determine the likeliest cause.

5.3.7 Audio cannot be recorded (error pop-up)

If you have licensed recording and your Avaya Web Conferencing deployment is integrated with an external audio bridge, you may find that all of your attempts to record result in a pop-up saying that there was a problem recording the audio for your conference.

- If you only get this pop-up after the red 'recording' indicator has gone solid for 10 or 20 seconds, then there are a number of possible reasons. See "Recording red light goes solid, but the recording stops after about 10 seconds" section.

- Otherwise, you should examine the Windows Application Event Logs on the Conference Server and the Recording Server to determine the likeliest cause. If this indicates a problem with your Dialogic card configuration, then try the following initially.
 - Run the *Dialogic Configuration Manager* (from *Start | Programs | Intel Dialogic System Software | Configuration Manager | DCM*).
 - From the tree menu displayed in the main part of the screen there should be a green circle over the top of the icon for your card.

If the circle is green, the Dialogic card is ready for use.

If the circle is red, select the card's entry and click the green circle on the toolbar - a few seconds later the icon should turn green and the card will be ready for use.

- If the Application Event log on the Recording Server displays a Global Call Error Code and a Dialogic ISDN Error Code that should not cause the recording test to fail, you can configure the registry of the Recording Server to allow this combination. Add the registry key `HKEY_LOCAL_MACHINE\SOFTWARE\Avaya\DCMS\DigitalDialogic` and create two string values, `ExtraGCPermitted` and `ExtraCCPermitted` containing the error code(s).

For example:

- `ExtraGCPermitted = 0x89,0x506`
- `ExtraCCPermitted = 0xaa,0x222`

Would permit two error values:

- Global Call error 0x89 with ISDN error 0xaa
- Global call error 0x506 with ISDN error 0x222

If this does not solve the problem, then refer to the Dialogic documentation.

5.3.8 Problems playing back recordings

If you cannot play back any conferences to any client machines, either because none appear in the Recording Area web pages or because clicking on the links does not start a recording successfully, this points to a problem with the configuration of the Streaming Server. Please try the following.

- Check that the Streaming Server has the Windows Media Service running.
- Play back a default file from the publishing point on the streaming server or a sample broadcast to see if it is a problem with all recordings, or just limited to Avaya Web Conferencing recording files. Use the *File->Open URL* to select a `mms:\` URL to use. If no sample files can be played back, use the Microsoft Help text to check the configuration of your Publishing Point.
- Is the publishing point correctly configured in the registry of the Avaya Web Conferencing servers and the Recording Server in the deployment? Check the entry for the registry key

HKEY_LOCAL_MACHINE\SOFTWARE\Avaya\DCMS\Recorder\PublishingPoint

- Is the DNS name of the publishing point and the recordings directory location externally visible, and does it map correctly to the IP address of the server(s)?
- Check that the Avaya Web Conferencing recording file can be played back on Windows Media Player on the streaming server in case it is a problem with the network.
- Open the Services and look at the user details for the Windows Media Services - does this user have permissions to access the recording files?
- Check the share permissions where the recordings are stored.
- Ensure that IIS is not running on the Streaming Server.
- Finally, check the Microsoft help files for more information in configuring your Streaming Server.

If streamed recordings appear to freeze during playback, please see the Planning and Installation Guide for more information.

5.3.9 No recordings in the recording list

If the Conference Server cannot access the RecordingDirectory, or does not have the correct permissions to read from that directory, the recordings list will be empty, even if successful recordings have been made.

Check that the RecordingDirectory is accessible. See "RecordingDirectory inaccessible".

5.3.10 Recordings visible but cannot be played by any client

This could indicate a problem with the StreamingServer publishing point.

- Is the Publishing Point listed in the registry of all the deployment machines correctly typed?
- Is the DNS name of the StreamingServer externally visible? This is the MyStreamingServer.domain.com part of the example below:
<mms://MyStreamingServer.domain.com/MyRecordings/>
- Does the Streaming Server have read access to the RecordingDirectory for the logon account that Windows Media Services is running under?

You can find this out by testing the publishing point on the streaming server.
(*Publishing Points* -> <name of your publishing point> ->Source. Double click on folders to navigate to a Recording, then double click on the .asf file name.

5.3.11 Recordings not completed correctly

In order for recordings to be playable, Recording Server must have the opportunity to finish writing the headers on the recording file. This may not happen under extreme conditions – for example if another process uses up the last of the disk space very rapidly, or if the power supply fails on a Recording Server that does not have UPS.

A utility **CleanRecordings.exe** is provided to find unplayable recordings and delete them. Run this from the server directory below your installation root.

```
cd "C:\Program Files\Avaya\RecordingServer\server"  
CleanRecordings \SnapFiler\Recordings
```

CleanRecordings.exe must not be run whilst there are Recording Servers actively creating recordings. All recordings currently in progress must be stopped before CleanRecordings.exe is run.

5.3.12 Streamed recordings appear to freeze

A specific problem with Streaming Server Fast Caching has been seen occasionally whereby the recording initially plays back correctly, but if the recording is allowed to play through, then the video freezes at the same point in playback each time.

Other symptoms include the following.

- Using the slider in Windows Media Player to jump forward to another part of the recording causes playback to continue correctly.
- The problem only occurs if the recording is streamed. It does not occur if the file is downloaded and played back directly in Windows Media Player.
- There are no error or warning logs for this conference on the Conference Server or Recording Server.

The problem can be avoided by disabling Fast Caching at the publishing point using the instructions below. (However, this will result in a few seconds initial buffering time, when playback starts and when the slider is used to select which part of the file to play.)

- Open the Windows Media Services management console.
- Select your publishing point in the left-hand tree-view.
- Select the *Properties* tab.
- Select the *General* category.
- Select the *Enable Fast Cache* item.
- Right-click on this item to display its context menu and select *Disable*.

5.3.13 Video playback window disappears when Windows Media Player is running in full-screen mode

This is a known technical limitation of Windows Media Player. A user with a single monitor is not able to use Windows Media Player in full-screen mode when playing back video.

5.4 Problems with administration

5.4.1 The administrator has errors reaching the Administrator login page

The possible causes are the same as when attempting to reach the main login page. Please refer to section 6.1 "Is my browser supported?".

5.4.2 The administrator is unable to log in to the Administration User Interface?

This error can be encountered if the database password in the registry (as defined during the installation process) is incorrect. You should check that it is possible to log into the database using the username and password you gave at installation time. The values that Avaya Web Conferencing is using can be found in the registry. Look in HKEY_LOCAL_MACHINE\Software\Avaya\DCMS\Admin\ at the keys DBUserID, DBPassword, MasterDBName, MasterDBUserID and MasterDBPassword.

5.4.3 The new users added by the administrator do not appear on the 'Set up users' page

This is caused by your browser caching pages. To prevent this in Internet Explorer go to *Internet Options...* in the *Tools* menu. In the *Temporary Internet Files* section click on the *Settings...* button, and then ensure that *Check for newer versions of stored pages* is not set to *Never*.

5.5 Problems administering Audio Bridges

5.5.1 Audio integration

Please also refer to section 6.10 "Audio integration".

5.5.2 Cannot create connection to Audio Bridge

In roster mode, the left-hand pane normally contains the conference details, such as the audio conference joining details. If there is a problem connecting to the Audio Bridge, then the left-hand pane will contain a red error message. For more details, log in to the administration UI and go to the *Manage Audio Bridges* page.

You should check that you have configured your authentication URL correction and that the physical network connection to the Audio Bridge is working.

If you have a Spectel S700/S780 and you see timeout problems reported on the administration UI, this may also be caused by not configuring sufficient operator channels to the bridge. You require an operator channel for every Conference Server as each operator login requires an operator channel. Refer to the Spectel documentation for more details, but in broad terms:

- Check whether this is the cause of the problem by running the Spectel dumpapi tool. You can count the number of logins currently in use by looking for output lines containing "MODAPI".

```
[1] 2 IP="21.191.101.21" signin="bm2" server=MODAPI oper=0 [1]
```

If it gives output with many "blank" logins that look like the following, then you have probably configured insufficient operator logins.

```
[18] 19 IP="21.191.101.23" signin="" server=unknown oper=0 [-1]
```

- You can check or change the number of operator channels using the System Maintenance Menus under 'FDAPI Configuration'.

- The solution is to configure more operator logins. You should then reboot the bridge. This will activate the configuration change, and clear up all logins, including the blank ones. Within five minutes, all active Conference Servers will attempt to log in again.

5.5.3 I've seen the error 'Bridge exception caught during lock: com.spectel.bcapi.BridgeException: The conference is not allowed this resource' in my event log. What does it mean?

You will see this error if a user has tried to lock a Spectel audio conference when the audio conference does not allow locking. When you provision audio conferences on the Spectel bridge, you should always enable the 'Security' option, to allow conference locking. See the "Provisioning Conferences on an Audio Bridge" section of the [Administrator's Guide] for advice on provisioning audio conferences.

5.5.4 Error reading PhoneNumber initialisation file

When adding audio bridges, the Admin UI may report an error and the event log will contain a report that the Bridge Manager failed to attach to the audio bridge, giving the error string "ErrorCode: 101 [Error reading PhoneNumber initialisation file]."

This is because the Bridge Manager couldn't find a DCL.CTC.CTCPhoneNumberX.init file for your authentication group. When you added the audio bridge you were asked to supply an authentication group for this bridge, and the Bridge Manager expects to find a corresponding phone number configuration file in the *install_point*\jenga directory of your installation.

To remedy this create a DCL.CTC.CTCPhoneNumberX.init file (where X is the numeric ID of the authentication group associated with your bridge) for this bridge as described in the "Audio Integration" chapter of the Customization Guide. Once this exists, click on the bridge name again in the Admin UI, and click on *OK* to attempt to connect once more.

Note also that before you attempt to join a conference you will need to have created an spauthurlX.tem template file to configure the authentication mechanism used for this authentication group. This is described in the "Configuring External Authentication" section of the [Avaya Web Conferencing Customization Guide].

5.5.5 No phone users show up in the UI

If no telephone icons show up in the UI when a phone user is in the conference, please check the following.

- The installation is configured to be an integrated deployment, as specified in the [Customization Guide].
- All Conference Servers can connect to the Audio Bridge successfully over the network using the IP address configured in the Administrator UI.
- The phone user is in the same conference as the data conference user.
- The external authentication servlet is returning the correct join details for the conference.
- The Audio Bridge shows that the user is successfully in the conference.
- The authentication URL is correctly configured on all Conference Servers.

If all of the above are true, there may be a problem with the communication between the Audio Bridge and Avaya Web Conferencing. Please send the output of dcmsdiags from both the Conference Server running the data conference and the Conference Server running the Bridge Manager that is connected to the Audio Bridge.

5.6 Problems with configuration

5.6.1 External authentication fails

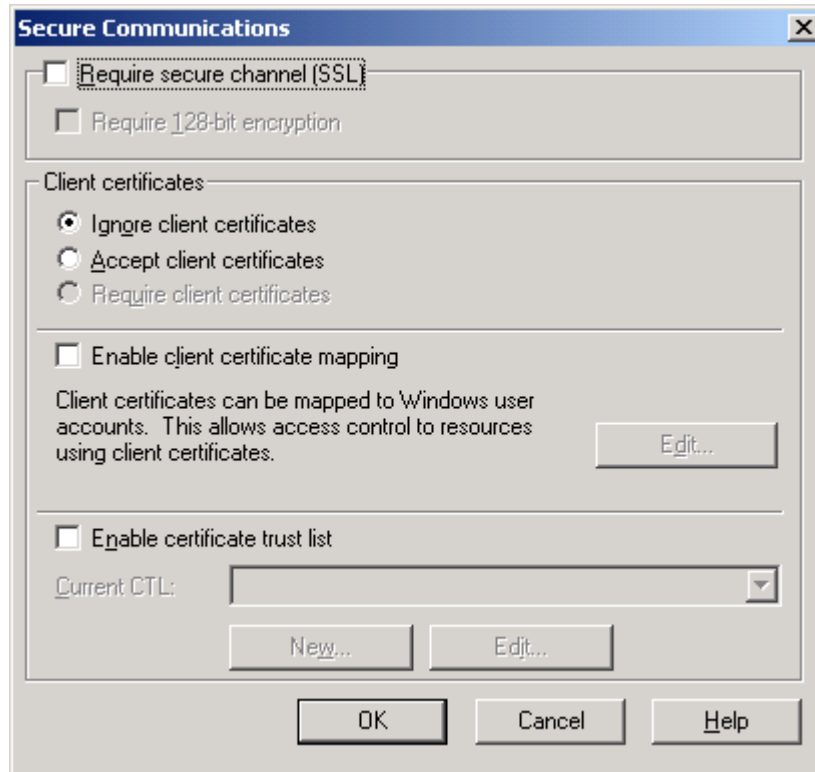
If external authentication is not working, a good debugging step is to enter the authentication URL manually into a web browser on the server machine and check that an appropriate textual response is obtained. If this is not the case, then the authentication service needs configuring to allow the server to make authentication requests.

On a farm, one other reason that the authentication is failing, on a newly installed system, is that the spauthurl1.tem file has not been copied from the Master to the Conference Servers.

5.6.2 No licenses are allocated on my system and the IIS logs show that the requests fail with error 403 (Access forbidden).

Avaya Web Conferencing requires HTTP access to localhost on all servers. Please ensure that IIS is configured to allow this by doing the following:

- go to Administrative Tools and open Internet Services Manager,
- right click on the Default Web Site and select properties,
- under the Directory Security tab, click on Edit for Secure Communications,
- ensure that the Require secure channel (SSL) option is unchecked, as in the screen shot below).



6 Troubleshooting end user problems

The end user scenarios described in this chapter could be due to problems on the client machine, on the network, or on the server. More details on this are included in the sub-sections below. More information on the available diagnostics and which ones to send to your Avaya Web Conferencing Support contact are in Appendix A "Diagnostics to collect".

Before you start trying to diagnose a problem, you should ensure that you have a good description and understand exactly what problem the user is seeing.

6.1 Is my browser supported?

Avaya Web Conferencing v4.1 supports the following browser client for joining conferences (with the described limitations).

6.1.1 As a basic attendee

- Windows XP
- Windows Vista Business

6.1.2 As a presenter

Windows XP SP2 and Windows Vista

- Microsoft Internet Explorer 6 or 7, with the Java (v1.4 or later) Runtime Environment (JRE) and JavaScript enabled.
- FireFox v2.0 (without video)
 - Hitting the "Esc" key may cause the client to reload. This is a feature of FireFox (the "Esc" key stops any communication with the web server).

6.2 The user has errors reaching the login page

There are several different causes for not being able to successfully access the login page, and could be due to the client, network or server configurations.

6.2.1 Page not found (404)

Some possible causes are as follows.

- The URL provided is incorrect, or the DNS resolution is incorrectly configured for the Primary Access Point (the load balancer or single access point Conference Server).

- The Conference Server is offline, or the services are not running. Check that the webserver is running and accepting requests. Load Internet Services Manager (*Start | Programs | Administrative Tools*) and check that the *Default Web Site* entry in the left-hand pane does not say Stopped next to it. If it does, right-click it and select *Start*.
- The IIS virtual directories on your Conference Server are not configured correctly, or cannot find the required file to display your login page.
- The access point Conference Server is not externally visible.
- If there are multiple access point Conference Servers in your deployment, the configuration of the load balancer is incorrect. Remove the load balancer and see if the server can be accessed directly.
- The database server is offline, or the details have been incorrectly configured during the Avaya Web Conferencing installation. Look in `HKEY_LOCAL_MACHINE\Software\Avaya\DCMS\Admin\` at the keys `DBUserID`, `DBPassword`, `DBName`, `MasterDBUserID` and `MasterDBPassword`.
- Your network does not allow traffic over port 80 (HTTP) or 443 (HTTPS).
- Data from the Conference Server is being blocked on the network before it reaches the client.
- Data from the Conference Server is being blocked by the client, for example by a proxy or firewall.
- The client machine does not have internet access.

6.2.2 Blank page at login

If you see a blank (usually gray) screen when you try to start your browser client, this could mean that your browser has failed to download the Avaya Web Conferencing client Java applet.

A common reason for this is that there is a proxy between your browser and the server. The proxy may be configured to block the download of all, or specifically signed, Java applets.

The only workaround here is to reconfigure the proxy or use HTTPS, which will often let you get through proxies that block Avaya Web Conferencing's HTTP traffic.

If you can only see a blank page or a JavaScript "Permission Denied" error when trying to access the login page, you may have added the Avaya Web Conferencing site to your browser's list of restricted sites. You must remove the Avaya Web Conferencing site from your list of restricted sites in order to get to the login page.

6.2.3 SSL certificate warning

A warning is displayed if the SSL certificate for your Conference Server is out of date, from an unrecognized authority, or the certificate is for a different server or DNS name. Please verify you have the correct security certificate on each server, and apply for a new one if required. This may only be seen by external users from your network.

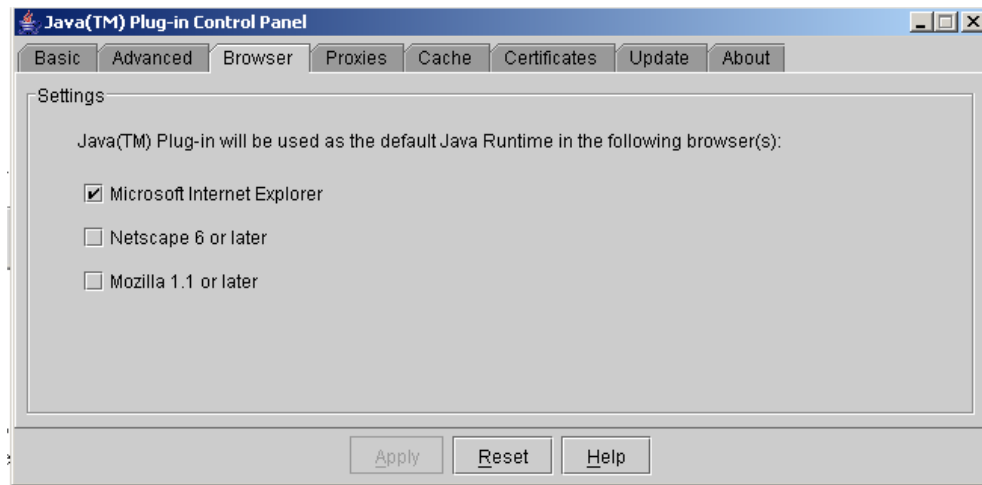
6.2.4 Compatibility tester

The Compatibility tester runs on the login page and detects whether the client machine will successfully be able to participate in conferences. It requires a Java applet to run and stores the information on the client as a cookie.

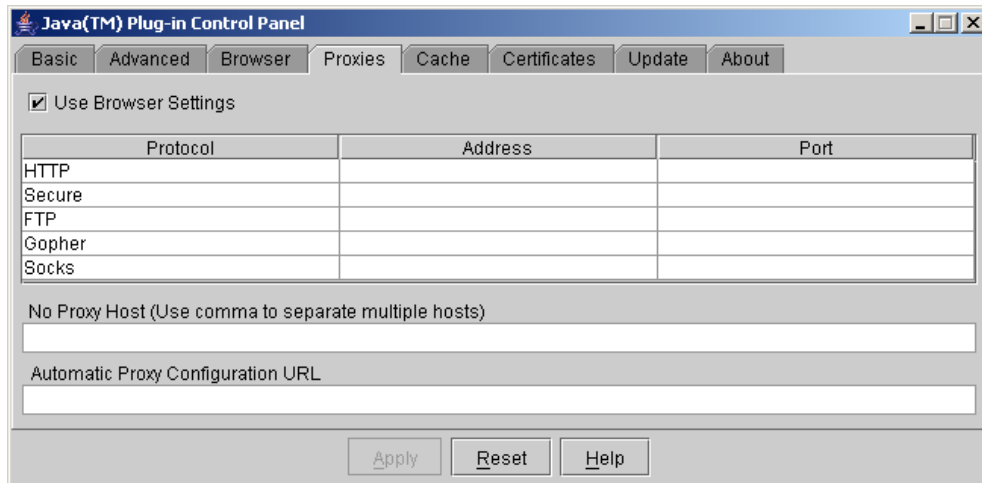
If there is a problem with the Compatibility tester, please follow the information given on the login page and refer to the Help text. If you cannot resolve the problem, please provide the information from your browser's Java console.

The compatibility tester says that Java is not installed, but Java is installed

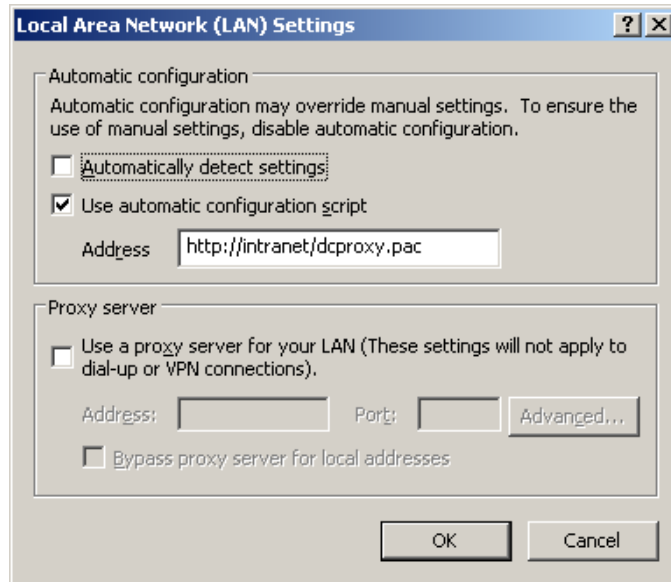
The Sun JRE should be configured for this browser, as follows:



The Sun JRE should be set to 'Use browser settings' as below.



You should also check that the proxy settings for the browser are configured correctly, including the port numbers. You can access the proxy settings on Internet Explorer by going to Tools->Internet Options, clicking on the Connections Tab and clicking on the 'LAN Settings...' button.



6.2.5 When I join a conference using a browser with the Sun JVM installed, two proxy server login dialog boxes appear

Normally the JVM downloads applets from the server using its own connection. However, some web/proxy servers require users to login for authentication. In such cases, the browser will first encounter the request and bring up a login dialog box. After the HTML page is downloaded, the JVM will try to download the class or jar files for the applets. Since the JVM has no access to the login information that the browser previously obtained, it will bring up its own login dialog box. This usually occurs with an MSProxy or ISA2000 proxy server configured to use NTLM (or Integrated Windows Authentication).

6.2.6 The client fails to connect to a server behind a web proxy server

If your Sun JVM is earlier than version 1.4.1_03 and the server is behind an ISA2000 proxy configured to require NTLM authentication, the required proxy server authentication dialog will not appear on the browser. If your server is behind such a proxy and your browser uses the Sun JVM, you must upgrade to Sun JVM 1.5.0_07 or later.

6.3 Errors when logging on

6.3.1 After logging in, I see a white screen and no error message

If “META refresh” is disabled and an error is encountered while joining the conference, the user will see a completely blank browser window. Note that “META refresh” is disabled by default in Internet Explorer for web sites in a Web content zone with security level set to High.

Enable “META refresh” in order to restore normal behaviour and see the error message. Go to *Tools > Internet Options... > Security > Custom level...*, scroll down to the *Miscellaneous* group, and ensure *Allow META refresh* is set to *Enable*.

6.3.2 After logging in, I see an error message

If there is a problem in joining a conference, the user will be given information about the problem and re-directed back to the login page for the following circumstances.

- **Conference not running**

A Presenter must have started a conference before an Attendee can join. Please see the [User Guide] for more information.

If a Presenter is seeing this error, please check the following.

 - Your method of time synchronization is running and accurate across all servers in the Avaya Web Conferencing deployment.
 - HTTP requests to localhost must be allowed on all servers across the Avaya Web Conferencing deployment, so that the Master can start the conference.
- **Authentication error**

If the combination of conference reference and pin provided (or pin only for a single pass code system) is not found in the database then an error is displayed. Please check that the user has the correct credentials for the conference they are trying to join.

If Avaya Web Conferencing is configured to use external authentication, please check that the external authentication servlet is running and returning the expected parameters. Please see the Customization Guide for more information.
- **No available Conference Servers**

Please check that the Conference Servers are online in the Administration UI. If not, check that they are configured correctly and that there are no errors in the Application Event Log on the Master Server.

If a Conference Server has been taken offline, for example to be patched, it can take up to two minutes to come back online.
- **No available licenses**

There are insufficient licenses on your system. Please ensure that you have run the licences.reg file to upgrade the number of licenses on all servers in the Avaya Web Conferencing deployment.
- **Database problem**

If the database log in details in the registry on any of the servers in the Avaya Web Conferencing deployment is incorrect, conferences cannot be managed on the system.
- **Whenever anyone tries to log-in to a conference, they get an unknown login error. Why is this?**

It may be that there is a problem with external authentication. If your system is integrated with an Audio Bridge you should manually check your external authentication servlet is running and returning the correct results. Even if this has worked in the past, it may be that there is a problem connecting to that server at the

current time. See the [Customization Guide] for more information about external authentication.

- I am trying to join a conference but I do not see one or more of the Discussion Area, the Participants List or the shared applications

Sometimes web browsers can encounter resource problems running Java applets. Try closing down all your browser windows and restarting your browser to fix this.

- I have Google Desktop Search running and joining or leaving a conference is very slow.

Please exit Google Desktop Search whilst using Avaya Web Conferencing. If you are unsure if you are running Google Desktop Search, please contact your service provider.

6.3.3 Conference reference or Security Code not recognized. Please try again.

You must obtain a conference reference and security code from your service provider before you can use Avaya Web Conferencing.

You may be using a password manager, such as the one that comes with the Google toolbar. If so, and you have clicked on an invitation email, then the password manager has over-written your login credentials with those it has remembered from a previous login. You can type in the log in details manually by copying them out of your email. Alternatively, turn off the password manager for your Avaya Web Conferencing log in site, and then click on the invitation link again.

6.3.4 That conference has not yet started. Please try again soon.

The conference owner has not yet started the conference. Try again in a few minutes. You may want to phone the person who invited you to the conference to check they have not forgotten.

6.3.5 That conference has already finished.

The conference has already ended.

6.3.6 Your conferencing service provider has exceeded the number of clients that may be connected to conferences concurrently.

Please contact your provider. You may be able to join a conference if you try again later.

6.3.7 The system is too busy right now

The system can only support a certain number of clients at any one time. Contact your service provider and suggest that they add more lines.

6.3.8 Unknown login error (n). Please try again.

Try again. If the problem persists then contact your conferencing service provider.

6.3.9 A data conference has not been set up for this audio conference.

If you are using Avaya Web Conferencing together with audio conferencing then you may see this error message.

To use data conferencing you must select the data conference option when you schedule your audio conference.

6.4 The user cannot join the conference from an email invite

6.4.1 Page not found error

Please see the items in section 6.2.1 'Page not found (404)'.

An alternative cause of this symptom is that the email link may have been split across more than one line in your email client. This may be because the domain name of this access point is too long and so has been split.

6.4.2 User taken to the login page, not directly into the conference

This occurs when some of the details required (e.g. the server address) are on one line in the email, but others have been split onto following lines.

6.4.3 User taken into the wrong conference

You may be using a password manager, such as the one that comes with the Google toolbar. If so, and you have clicked on an invitation e-mail, then the password manager has overwritten your log in credentials with those it has remembered from a previous log in.

You can type in the log in details manually by copying them out of your email. Alternatively, turn off the password manager for your Avaya Web Conferencing log in site, and then click on the invitation link again.

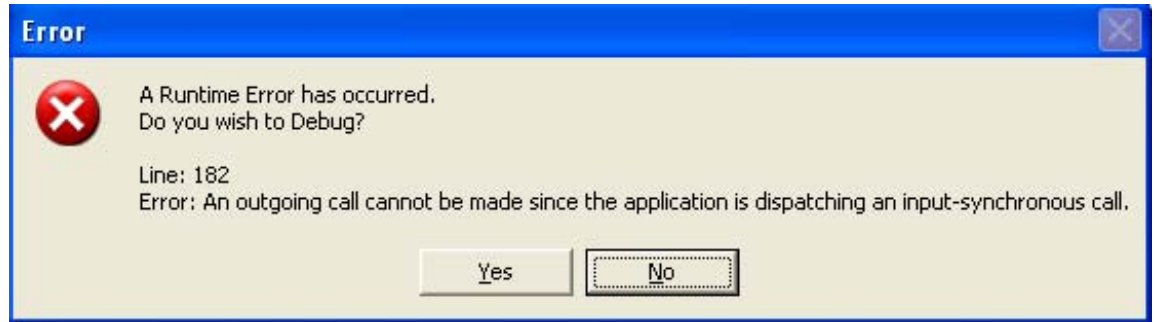
6.4.4 I cannot enter the conference by clicking on an invitation URL from Outlook Express

If your email client is Outlook Express, and you receive a conference invitation email, you may find that you cannot get into the conference when you click on the conference URL in the email. This is because Outlook Express starts Internet Explorer in a mode where Java is not available.

To overcome this, start up a new Internet Explorer session and paste the conference invitation URL into the address bar.

6.4.5 I see an error message saying "An outgoing call cannot be made"

If you see the following error message appearing in your browser, you can safely ignore it.



The operation you were attempting will probably not have succeeded. Simply try your operation again.

You can type in the login details manually by copying them out of your email. Alternatively, turn off the password manager for your Avaya Web Conferencing login site, and then click on the invitation link again

6.5 The user can log in but cannot join the conference

6.5.1 The user is attempting to join the conference over HTTP

Users have a smoother in-conference experience when connecting to Avaya Web Conferencing over HTTPS. This is because there are more likely to be connection problems when using HTTP as it is common for the network hardware to inspect HTTP packets. This can slow down the client-server communication. There have been occurrences of packet corruption over HTTP, which results in these packets being discarded.

6.5.2 An error saying the page cannot be displayed

If joining by HTTPS, try using HTTP. If this resolves the problem, it is probably to do with faulty HTTPS processing on an intermediate proxy or firewall, which should be resolved by your network engineers.

6.5.3 A spinning icon remains on the page

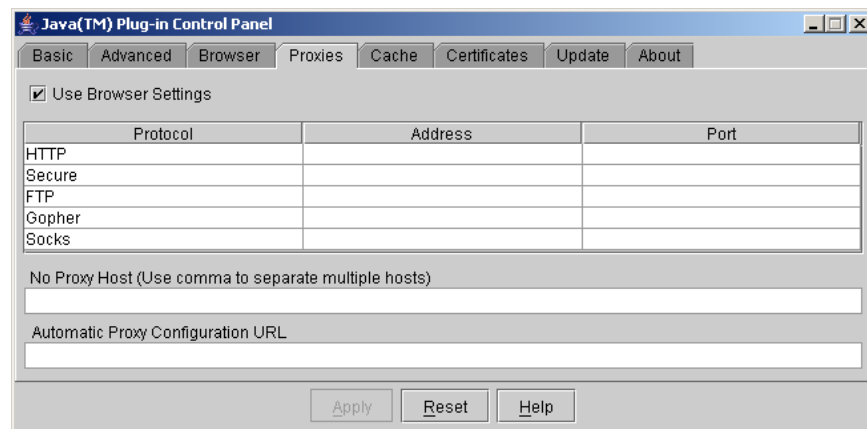
If the spinning icon remains on screen for a very long time it could be for one of the following reasons:

- Low client bandwidth – the java client is taking a long time to download.
- The user is connecting through a proxy that does not allow unsigned content over HTTP. Connect using HTTPS.
- A problem with the Avaya Web Conferencing Master. Check the Windows Event Logs on the Master for any signs of a problem.
- High CPU on the Avaya Web Conferencing Conference Server. Check the Conference Server Windows Event Logs and the CPU level.
- For users not accessing Avaya Web Conferencing over the internet, for example enterprises using internal deployments or during development, it is a good idea to

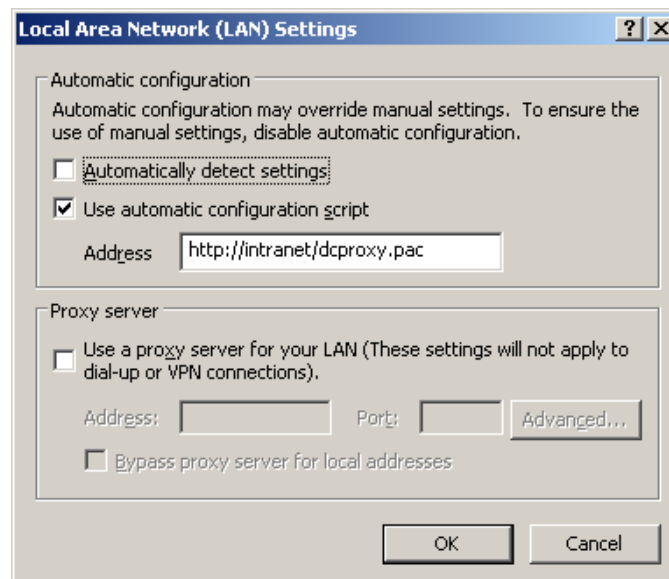
uncheck the check box named "Check for publisher's certificate revocation" in the Security section of the Advanced tab in IE's Options panel (accessed via the Tools menu). This prevents the client from attempting to check up on certificate revocation and subsequently timing out because of the lack of an internet connection. This timing out causes a huge delay in joining a conference.

- The user does not have java installed and is not a local administrator on the machine. Check the Compatibility Test on the login page.
- The user is using the Sun JRE and has misconfigured proxy settings.

The Sun JRE should be set to 'Use browser settings' as below.



You should also check that the proxy settings for the browser are configured correctly, including the port numbers. You can access the proxy settings on Internet Explorer by going to Tools->Internet Options, clicking on the Connections Tab and clicking on the 'LAN Settings...' button.



6.5.4 The Avaya Web Conferencing windows open but remain gray

This often indicates a browser problem downloading and running the Java client. Try the following.

- If all users see this problem, check that the Conference Server details have been entered correctly when adding a Conference Server from the admin UI. A misconfigured Conference Server DNS name causes this problem. When one of these Conference Servers is used for a conference, the client browser cannot download the required applets. Re-entering the conference may cause your browser to choose a different (correctly configured) Conference Server.

The solution is to change the Conference Server's details by removing and re-adding the Conference Server, following the instructions in "Removing a conference server" and "Configuring a new conference server" in the [Avaya Web Conferencing Administrator's Guide].

- Close all browser instances and re-enter the conference, ensuring that Java is installed on the client. Note that Java is not installed on some Windows XP machines, so users of this operating system may have to download and install the Sun JRE. If this is the case, follow the instructions in the Compatibility Tester on the login page.
- If connecting via HTTPS, check that the SSL certificates on the Conference Servers match the DNS names given in the admin UI.

6.5.5 The Avaya Web Conferencing windows open but remain white

This indicates that the Java client has loaded but cannot communicate with the server. This is usually as a result of firewall or proxy limitations. Try the following.

- Close all browser instances and re-enter the conference.
- If Google Desktop Search is installed on the client, check that the version number is 20050628 or later. (Right-click on the icon in the Windows System Tray -> More -> About). The version number is at the bottom of the web page.
- Confirm whether you see the same symptoms using both HTTP and HTTPS.
- If the client is using a proxy to connect to the internet, have it connect directly, bypassing the proxy (if possible).
- Connect to an applet running on a server that is independent of your deployment. For example <http://java.sun.com/applets/other/BouncingHeads/index.html>. If this fails, there is something on the client network blocking applets. If this succeeds, there could be something on the network between the client and the server which is blocking applets. Try putting the applet onto a server in the Avaya Web Conferencing deployment.

6.6 The user can connect to a conference on the LAN, but not when tunneled through a firewall

This could be caused by a firewall blocking port 80/443 on the LAN or the *World Wide Web Publishing Service* failing to start on the Conference Server running the conference.

If the service has failed to start you should do the following.

- On the affected Conference Server, open *Control Panel->Administrative Tools->Services*. Check that the *World Wide Web Publishing Service* has started, and has its *Startup Type* set to *Automatic*.
- To start this service manually right-click on the service name and select *Start* from the popup menu.
- To change the *Startup Type* of the service from *Manual* or *Disabled* to *Automatic*, right-click on the service name and select *Properties* from the popup menu. In the properties dialog select the *General* tab, and set the *Startup Type* to *Automatic* from the drop down list.

6.7 The user is having problems staying in conferences

6.7.1 Conference functions are temporarily grayed out and the client disappears from the roster temporarily

This is due to the Avaya Web Conferencing client temporarily losing its network connection, which is likely to be caused by one of the following.

- Insufficient or fluctuating bandwidth (particularly if the disconnect occurs whilst the client is using a lot of bandwidth - uploading / downloading a presentation, sharing or viewing an animated application etc).
- A proxy periodically terminating open connections.
- A network outage.
- High load on the Avaya Web Conferencing Conference Server. Check the CPU level of the Conference Server, if it is at 100% for more than a few seconds this indicates a problem with this Conference Server.

Single instances do not indicate a problem

Note that single or irregular instances of this behavior do not indicate a problem that requires action. Avaya Web Conferencing will silently reconnect to the server if the network is available again within 30 seconds, and then conferencing functionality will be restored and the conference control elements should re-enable. This is how Avaya Web Conferencing copes with fluctuating network environments.

Frequent disconnects may indicate a problem

If the problem reoccurs very frequently, or at periodic intervals, try the following.

- Check the proxy configuration:
 - That outstanding GET requests are allowed.

As described in Section 2.2.2 Avaya Web Conferencing uses an “outstanding GET” request to transfer information from the server to the client. From the network’s point of view this means that an HTTP request will be sent from the client to the server, and then the server will slowly

trickle information back to the client. It is essential that the proxy is NOT buffering this data, and instead forwards it immediately.

- That the proxy is not batching up requests before forwarding them.
- That the proxy accepts MIME type application / octet stream.
- Check for possible conflicts with the Network applications listed in Appendix B.3 "Applications on the network", or the client applications listed in Appendix B.1 "Applications on the client".

If none of these solves the problem, if possible bypass the proxy.

- Add the following Internet Explorer registry settings on the client and restart Internet Explorer.

```
[HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings]
```

```
"ReceiveTimeout"=dword:00007530
```

```
"MaxConnectionsPer1_0Server"=dword:00000014
```

```
"MaxConnectionsPerServer"=dword:00000014
```

Note that Avaya Web Conferencing does try to add these registry values automatically, if the client accepts the necessary security popup when a network error is detected.

Example of client trace for a silent reconnect over HTTP

This client trace shows an example of a client experiencing a network connection problem, from which it subsequently recovers. The client-server connection has failed, and after about thirty seconds results in a 'NETWORK ERROR DETECTED' log. The client shuts down this connection (shown in the 'Disconnect' log) and then starts a new one ('Trying to make HTTP connection'). This succeeds (Recovered from Network Error) and the client is reconnected to the conference.

Note that the sequence or exact content of the logs may differ. The important things that show a recovery from a connection problem are a 'NETWORK ERROR DETECTED' log, followed soon after by a 'Recovered from Network Error' log.

```
Nov 21 09:58:47 HNC:Problem sending data to server (IOException on SendDataViaGet :  
java.net.ConnectException: Connection timed out: connect)  
Nov 21 09:58:47 HNC:Retrying send via GET  
Nov 21 09:59:09 HNC:Problem sending data to server (IOException on SendDataViaGet :  
java.net.ConnectException: Connection timed out: connect)  
Nov 21 09:59:09 HNC:Send retry exceeded retry timeout  
Nov 21 09:59:09 HNC:Connection failed - disconnecting  
Nov 21 09:59:09 HNC:Disconnect  
Nov 21 09:59:09 HNC:Stop Timeout thread  
Nov 21 09:59:09 HNC:Start Monitor Thread  
Nov 21 09:59:09 HNC:Flag connection down and thread stopping  
Nov 21 09:59:09 HNC:Closed HTTP connection to server  
Nov 21 09:59:09 HNC:Thread stopped or error whilst waiting to receive  
Nov 21 09:59:09 HNC:Problem processing input data (Exception processing HTTP:  
ava.io.IOException: Receive connection break-out)  
Nov 21 09:59:09 HNC:Disconnect  
Nov 21 09:59:09 HNC:Already disconnecting  
Nov 21 09:59:09 NCF:Inbound connection has failed  
* NETWORK ERROR DETECTED *
```

```

Nov 21 09:59:09 NCF:Network Error detected. Attempting recovery
Nov 21 09:59:10 HNC:Disconnect
Nov 21 09:59:10 HNC:Already disconnecting
Nov 21 09:59:10 HNC:Connect to /DCMS-Scripts/TunnellingExtension.dll
Nov 21 09:59:10 HNC:Trying to make HTTP connection
Nov 21 09:59:10 HNC:Servlet location http://satley/DCMS-
Scripts/TunnellingExtension.dll
Nov 21 09:59:13 NCF:Client attempting to connect to server
Nov 21 09:59:13 NCF:HTTP connection established to server
Nov 21 09:59:13 NCF:Recovered from Network Error
Nov 21 09:59:13 PR :Server has acknowledged that the client has joined the conference
Nov 21 09:59:13 PR :Client in HIGH Bandwidth group

```

6.7.2 Conference functions are grayed out and then the client reloads

The client is told 'A problem with the connection to Avaya Web Conferencing has occurred. Your client will now be reloaded'.

This occurs if any loss of network connectivity (mentioned in the section above) has not proved temporary, i.e. there is no longer a route open to the Conference Server that is running the conference. In this case, the client attempts to reload, starting the conference connection process over again from the start.

If this occurs frequently to the same client, check the proxy as above.

6.7.3 An HTTPS connected client stays only momentarily in the conference

This is likely to be faulty HTTPS processing on an intermediate proxy/firewall. Please report this to your network engineer. There may be upgrades/patches for the hardware proxy to resolve this.

6.7.4 My workspace window keeps reloading and saying there was a problem connecting to the conference

The conference may have just closed down as you were trying to join it. Try closing all your browser windows and then connecting to the conference again.

6.7.5 My browser hung or crashed while I opened a menu

If your browser is forced out of the conference while you have a menu open (either in the Participants List or in the Workspace Window) your browser may hang or crash. This is the result of a flaw in the Java language. You can be forced off either because another Participant excluded you from the meeting or because of a connection problem to the server.

6.7.6 My browser hung or crashed when I opened a new browser window

If you do a *File, New, Window* menu selection (or **Ctrl+N**) then Internet Explorer brings up a second copy of the current page. This can cause problems when the current page is one running Avaya Web Conferencing, as the Java applet is reloaded and then tries to do the same operations as the one in the original page. You will need to close down all browser sessions, start up a new browser session and re-enter the conference.

6.7.7 My browser hung when I attempted to use High Color Hosting on a Tablet PC

High Color Hosting is not supported on Windows XP Tablet PC edition. If you attempt to switch to High Color, your browser may hang.

6.7.8 My client is ejected from a conference approximately every 7 minutes

This can occur when the client is connected to a server that is behind a Cisco Content Switch proxy. There is an OS patch to the Cisco Content Switch that corrects this problem. The upgrade is to v5.0B63 of the *CSS11000 Operational Network Boot* available under the maintenance releases section of the WebNS software area for the CSS11000 family of switches. The filename is ap0500063.zip.

6.8 Function in conferences

Some conference functionality is only available to Presenters, with the options greyed out for any Attendees. In addition, Read/Write permission to the local disk is required on client machines in order to share applications, upload a slide or PowerPoint presentation, or to save the client diagnostics to disk; see section 3.1 "Client requirements".

6.8.1 All function

If all function is affected for one end user during a conference, and other users report that they are continually leaving and re-joining a conference, there is a problem with the network connection between their client and the server. In this case, Avaya Web Conferencing is continually renewing the connection to the server under the covers.

You should ensure that they are connected to the conference over HTTPS. If exiting and re-entering the conference does not resolve the problem, try reducing the amount of data they are sending to the server.

Please see section 6.7 "The user is having problems staying in conferences" for more information.

6.8.2 Annotations

Highlights work by swapping colors in such a way that two annotations exactly on top of each other cancel each other out. Try deleting one of the highlights, or arranging your highlights so they don't overlap.

6.8.3 Uploading a Slide or PowerPoint presentation

Only Presenters can upload slides or a PowerPoint presentation into a conference. In addition, PowerPoint 97 or above must be installed on the Presenter's machine to upload a PowerPoint presentation. Note that installing the PowerPoint viewer is not sufficient to be able to upload PowerPoint presentations. JPEG files can still be uploaded even if PowerPoint is not installed on the Presenter's machine.

PowerPoint conversion failure

PowerPoint presentations are converted to static jpeg files before they are uploaded to the server. This means that PowerPoint animations are lost from the original presentation.

If the user tries to upload a PowerPoint presentation, and receives either of the following messages, they must check whether PowerPoint is installed and working correctly.

- Error: PowerPoint could not be started
- Error: PowerPoint is not installed and is required to upload this file

If it is installed, this could point to a problem with PowerPoint. If the problem persists, the easiest workaround is to save the PowerPoint presentation as a series of JPEGs and upload this series. However, to fully overcome the problem, a reinstall of PowerPoint is necessary. For more troubleshooting information from Microsoft on this problem, which is actually a Visual Basic Error 429, see <http://support.microsoft.com/kb/q244264/>.

The default amount of memory available to the Sun JVM is 96MB. In rare circumstances, this limit may be exceeded, resulting in the user experience slowing down immensely and OutOfMemory errors being shown in the Java console. This is more likely to occur if a lot of large and complex slides have been uploaded, all have been viewed quite quickly and the Thumbnail view is open. If this occurs, close down all browser windows and re-enter the conference.

Slides not seen by other users in conference

If you upload a slide into a conference, but it is not displayed to any other users in the conference, even though the slide counter does increment, this points to a problem with URLScan on the server. Please see B.2.2 "URLScan" for more information.

If you upload a slide into a conference, it is possible for the slide counter to increment but for no slide to appear on your machine (or other clients). Instead, you just get a blank screen.

This is because URLScan is configured to prevent download requests from URLs with a dot (.) in them. To remedy this, edit the file `urlscan.ini` (usually found at `c:\WINNT\System32\inet_srv\urlscan\urlscan.ini`) as follows.

- The line `AllowDotInPath=0` needs to be changed to `AllowDotInPath=1`

I get the message "Could not start PowerPoint" or "PowerPoint is not installed" when I try to upload presentations

Uploading of PowerPoint presentations is only supported on Windows systems where Microsoft PowerPoint 97 or above is installed. Receiving one of these messages indicates that PowerPoint is not installed on the computer.

6.8.4 Sharing an application

If you are having problems sharing applications, or if the options on the Share menu are unavailable, it could be due to one of the following reasons.

- Application sharing may not be supported on your client machine. You need a supported browser for Avaya Web Conferencing and access to the local disk to download the files required to share an application.

- Only Presenters can share an application. Are you logged in to the conference as an Attendee? If so, you must ask one of the Presenters to promote you to a Presenter before you can share an application.
- Only one Presenter can share applications at a time. If another Presenter is currently sharing applications this is shown in the main window when you click the Applications tab in the top right corner; you must wait for the Presenter to stop sharing applications before trying to share your applications again.
- The first time you try to share applications a popup window prompts you to accept a security certificate. If you do not accept the security certificate, you will not be able to share applications. If you have not seen the security certificate, check that it is not hidden under another window on your desktop. If you have declined the security certificate and subsequently want to share applications you must exit the conference, close all browser instances and rejoin the conference again.
- Something in the network may be caching downloads – see ‘Application and Content Networking System’

Problems during application sharing

If the shared application is not displayed fully, or is obscured, the user sharing an application should have it in the foreground to ensure that none of it is masked by other applications.

If the colors of the shared application are not displayed properly, but instead appear 'banded', the conference Presenter who is sharing the application has not specified high color application sharing. Ask him/her to turn on high color application sharing via the Share menu.

Other users can't see my shared application

Some movies, games or other DirectX applications will not be shared or recorded. Symptoms of this are:

- the application is shared but no participants can see the shared app at all
- the application is shared but participants only see a black rectangle

Examples of DirectX applications that have exhibited this problem are as follows.

- Games
- Web content such as embedded movies or adverts in a browser window
- Other streaming content

One way to overcome this problem is to reduce the level of hardware acceleration on the sharer's machine. Note that this should not be reduced permanently as it dramatically affects the computer's display. To temporarily reduce the level:

- Right Click on the computer's desktop
- Select Properties to open the Display Properties window
- Select Settings
- Click the Advanced button

- Click the Troubleshooting tab (or Troubleshoot tab for Windows XP)
- Move the slider over to one from the far left (Disable all but basic accelerations)
- Click apply
- After the conference, move the slider back to it's original position to restore hardware acceleration

I am seeing problems while sharing an application and the other Participants say I am continually leaving and rejoining the conference

A poor quality network connection is the likely cause of this. The network is losing your connection to the conference, and so the system has to reconnect you.

Try reducing the amount of data by, for example, not using high color application sharing; sharing fewer applications; sharing a window rather than the whole desktop.

When I try to share an application, several of my windows get shared, not just the one I select

Some applications, such as Microsoft Word, open multiple document windows (within the same process). Avaya Web Conferencing shares all of the windows that it recognizes as being part of the same application.

My shared applications are coming out as black or mostly black rectangles with only small areas that contain application information

Try updating your display drivers to the latest version. If this does not fix the problem then try changing the color depth of your desktop to True Color (24 or 32 bit) mode.

My shared applications are coming out as duplicated rectangles (tiling) and I am using Nvidia TNT hardware acceleration

Avaya Web Conferencing does not support Nvidia TNT hardware acceleration.

When sharing an application on Windows XP or 2003 and the Start Menu is displayed, other clients see the Start Menu border

The Start Menu border is opaque and is shared along with the shared application to other clients. Only the part of the border that is over the shared application is shared, and it disappears when the Start Menu is dismissed.

The colors in my shared application are not displayed correctly—they show banding

The conference Presenter who is sharing the application has not specified high color application sharing. Ask him/her to turn on high color application sharing.

When I control shared applications, the right and left-hand keyboard keys are not differentiated

When controlling a shared application, there is no differentiation between right-hand and left-hand versions of the same key. For example, there is no difference between right and left **Shift** or between the **Enter** keys on the main keypad from the one on the numeric keypad.

This is caused by a limitation of Java applets; they cannot differentiate between right-hand and left-hand keys.

If you share an application that requires those keys to be differentiated, you must change the key mappings to remove that requirement.

When I am in control, Alt+F4 is not sent to remote client

If a client hosts an application and a browser client controls it, the **Alt+F4** key sequence cannot be sent to the hosting client. Instead of sending the key sequence to the host, the controlling browser is closed (since **Alt+F4** is the *Close* keyboard shortcut).

This is the designed behavior.

My chat output panel goes gray, and client inputs become inactive, then activity is restored

The client is undergoing a silent reconnection to the server because of a network problem. After a silent reconnection, the client loses control of shared applications, and the current annotation color may change. You can regain control of shared applications and change your annotation color in the usual way.

I cannot control a browser-hosted command line application

Browser hosting is supported across a range of Windows versions, but the support for controlling text based command line applications varies between versions.

- Windows 95/Windows 98/Windows ME

These versions call their command line window the *DOS prompt* and when controlling remotely input may not be possible into the DOS Prompt or any applications running within it.

- Windows NT 4/Windows 2000

These versions of Windows call their command line application the *Command Prompt*. The Command Prompt is capable of running a wide range of types of text application, these types of text application are

- inbuilt commands, such as `cd` and `dir` - these are fully controllable
- Win32 command line applications, such as `net` - these are fully controllable
- DOS applications - these can be started, but if they pause for input then a remote client may not be able to provide it
- OS/2 command line applications - as for DOS applications
- POSIX applications - these are fully controllable.
- Windows XP

The Windows XP command prompt is only able to run a restricted range of applications compared to previous versions; it has no support for OS/2 or POSIX applications.

Within this range

- inbuilt and Win32 command line tools are fully controllable
- DOS applications can be started, but if they pause for input then a remote client cannot provide it.

6.8.5 Voting

I am trying to download the PowerPoint Add-In for Voting and I get a security warning

The PowerPoint Add-In for Voting installer is a Windows executable. On Windows XP SP2 and Windows 2003 Server, security has been enhanced to warn users when downloading executables.

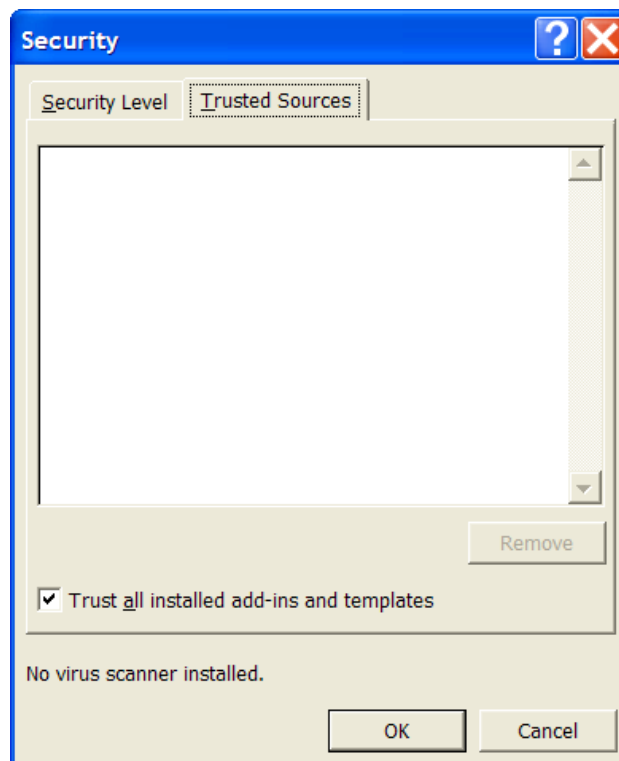
- On Windows XP SP2 you may get the warning 'The publisher could not be verified. Are you sure you want to run this software?' Click *Run* and the Add-In will automatically install.
- On Windows 2003 you may get warnings 'Authenticode signature not found' or 'Enhanced security configuration'.

Either click *Yes* (in the case of the Authenticode signature not found error) or follow the procedure to add the Avaya Web Conferencing site to your list of trusted sites (in the case of enhanced security configuration errors).

I installed the PowerPoint Add-In for Voting but I can't see the 'New Voting Slide' menu item

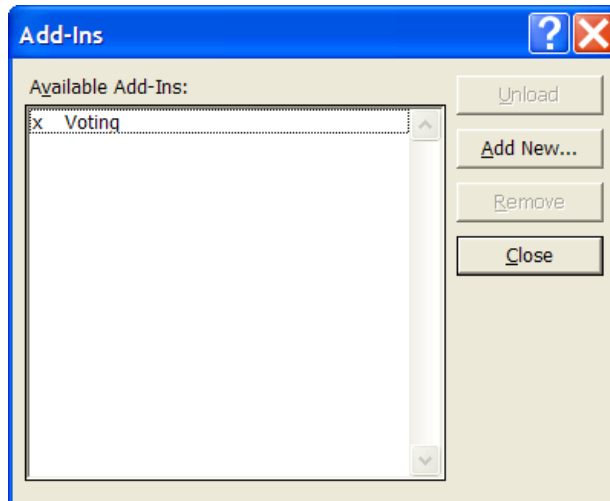
Your PowerPoint security settings may prevent you from using the Voting add-In. If the add-in downloads and installs successfully but you cannot see the *New Voting Slide* menu item in the *Insert* menu, then perform the following actions. The screenshots below are for PowerPoint 2000. Other editions of PowerPoint may look slightly different.

- Open PowerPoint, select *Tools>Macro>Security* and choose the *Trusted Sources* tab. Ensure the *Trust all installed add-ins and templates* box is checked.



- Switch to the *Security Level* tab, remember its current level, and choose the lowest security level.
- Select *Tools>Add-Ins* and examine the list of Add-Ins.

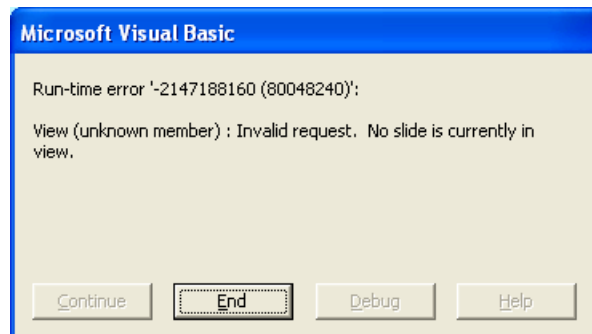
In order to use the Voting add-in, it must be present in the list and checked as *Available*. It will identify itself either as 'Voting' or 'Avaya Web Conferencing'.



- If it is present but not checked as *Available*, then select the Voting add-in and click *Load*.
- If it is not present, click *Add New*. This should open the *Add New PowerPoint Add-In* dialog. Select the Voting add-in and click *OK*.
- If the above does not work, then exit PowerPoint, and change your regional options (*Control Panel>Regional and Language Options>Regional Options*) to English (United Kingdom) or English (United States). Then restart PowerPoint and repeat the above steps. Certain regional options do not work very well with PowerPoint add-ins.
- Select *Tools>Macro>Security* and choose the *Security Level* tab. Return the security level to its original setting.

I get a Visual Basic error when creating a voting slide

If you are creating a voting slide in PowerPoint, you may see the following pop-up.



This happens only when you are in PowerPoint's Slide Sorter (i.e. thumbnail) view. Click *End*. The new slide will not be created.

Change to PowerPoint's Normal view (*View* menu, *Normal* option) and recreate the slide.

The mouse wheel has no effect when I am controlling or sharing an application from a web browser

Application sharing and controlling do not support mouse wheel input.

This is the designed behavior.

However, where the mouse wheel also acts as a third button, applications that use this feature are supported.

My PC stops responding to mouse and keyboard input

When sharing your desktop, you may find that your PC suddenly ignores your mouse and keyboard input. This can happen if you share your desktop then try to control it using your own viewing window.

Press **Ctrl+Esc** or **Ctrl+Alt+Del** to restore normal mouse and keyboard operation.

6.8.6 Full-screen mode

I get a SecurityException when making the workspace window full screen

When using a browser with the Microsoft JVM image resources are lost every time you close and re-open the workspace window. If you switch between the normal and full screen workspace window several times the image resources available to the browser are used up and SecurityExceptions can be reported by the JVM.

This resource shortage can be reported to the user in one of three ways:

- A Avaya Web Conferencing popup indicating the Java Virtual Machine has run out of image resources and the user should restart their browser.
- A Avaya Web Conferencing popup indicating the Java Virtual Machine has run out of memory and the user should restart their browser.
- A Windows system popup indicating an exception of type `java/lang/SecurityException` has occurred.

To recover from this situation you must close down all your browser windows, restart the browser and rejoin the meeting.

If the error is ignored then no images or annotations will be visible in the workspace window.

6.8.7 Email invites

If you click on the *Invitations* link from the *Conference* menu, it produces an email with an invitation URL. However, clicking on the URL, your browser may say that The page cannot be found.

This could mean that the externally visible domain name of the access point for this Avaya Web Conferencing site was entered incorrectly during installation.

An alternative cause of this symptom is that the email link may have been split across more than one line in your email client. This may be because the domain name of this access point is too long and so has been split.

Another symptom of this problem is when a user is only taken to the Avaya Web Conferencing login page, not directly into the conference as required. This occurs when some of the details required (e.g. the server address) are on one line in the email, but others have been split onto following lines.

6.9 Recording and playback

6.9.1 Recording fails at the start, before the red light stops flashing

The recording could fail immediately in the following circumstances:

- The audio conference is locked, so the RecordingServer cannot join as an audio participant.
- The audio conference has reached the maximum number of participants, so the RecordingServer cannot join as an audio participant.
- All the ports on the Audio Bridge are in use (dialing the Audio Bridge produces an engaged signal).
- All the Dialogic ports on the Recording Server are in use.
- If you have an integrated deployment, the ABJoiningString returned by the external authentication servlet is incorrect. Check the Windows Event logs of the Recording Server to find what number was dialed and if the string is correctly configured.
- There are insufficient recording licenses available. If your deployment should not have hit the license limit, ensure that the license update file has been imported to the registry on all servers in the deployment.

6.9.2 Recording red light goes solid, but the recording stops after about 10 seconds

This means that the RecordingServer failed to join the audio conference and so did not join the web conference roster as a phone participant. A temporary recording may have been created; play this back and check what error message is in the audio stream from your bridge.

Possible causes are:

- The ABJoiningString returned by the external authentication servlet is incorrect. Check the Windows Event logs of the Recording Server to find what number was dialed.
- If you have an analog Dialogic card, the DTMF part of the ABJoiningString was entered too quickly, or too slowly. This problem may be temporary, so a second attempt should be made. If this also fails, check that the number of commas in the ABJoiningString corresponds to the time delay required before entering the Conference Reference or Pin code.

- The Telephone Numbers of the Recording Server entered in the admin UI do not correspond to the number that the Recording Server is using to call from. If you see a phone number appear briefly in the roster before disappearing when the error popup appears, this is probably the phone number of your Recording Server.

If you have an integrated system, this error can occur when the Recording Server makes a successful phone call, but was not reported as successfully joining the audio conference. Possible reasons include the following.

- The phone number of the Recording Server was not correctly configured. See the "Managing Recording Servers" section of the [Administrator Guide] for how to configure Recording Servers.
- The Audio Bridge joining details in the authentication URL were not correctly configured so that, for example, the Recording Server joined the wrong audio conference. See the [Customization Guide] for how to configure the authentication URL.
- A limit configured on the Audio Bridge has prevented further users from joining the conference.
- The Audio Bridge was too busy to accept the incoming phone call (e.g. if lots of people dialed into the bridge at exactly the same time as the Recording Server).
- There were network communications problems between the Audio Bridge and the Conference Server.
- The telephone system/Audio Bridge were not correctly configured to pass originator phone numbers. (In this case, if there are users who dial into the Audio Bridge using the same type of connection as Recording Server, you should expect to see them appear in the Avaya Web Conferencing roster as phone user #1, phone user #2, etc, rather than displaying the correct phone number.)
- The telephone system was not correctly connecting into the Audio Bridge. (E1/T1 connections can be difficult to configure, and if the audio on your recording fragment consists only of white noise, this is a possible cause of failure to record.)

To determine the likeliest cause, you should check the Event Logs on the Conference Server and Recording Server, and listen to the fragment of any recording made. This will be placed in an admin subdirectory of the unpublished directory in which recordings are normally placed when they are created. The filename (including the full path) will be contained in the Recording Server's Application Event Log.

Please note the following.

- In order to view the recording, you need to have the correct version of Windows Media Player, and to have downloaded the Media Player plug-in. You can do this by going to the Avaya Web Conferencing login page, and clicking the *View Recordings* tab. The Computer Configuration Check will take you through the necessary steps. See the [User Guide] for more details.
- The recording is not visible to users in the View Recordings UI. Once you have viewed it and determined the problem, you should delete it using normal file operations.

6.9.3 Audio is not recorded

If your Avaya Web Conferencing deployment is integrated with an Audio Bridge, you may encounter a situation where all of your recordings contain screen data only (e.g. the recording of the whiteboard or the shared application) with no audio at all.

You should check that your deployment is configured as an integrated system and that you have configured your external authentication (SP_AUTH_URL) to return the ABJoiningDetails. These are required to tell the Recording Servers how to dial into the Audio Bridge so that they can join and record the audio conference.

If this does not solve the problem, then examine the Windows Application Event Logs on the Conference Server and the Recording Server to determine the likeliest cause.

6.9.4 The user cannot log in to view the recordings from an email invite

Please refer to section 6.4 "The user cannot join the conference from an email invite".

6.9.5 There are no recordings in the playback list

Make sure that the details entered to log in to the View Recordings area were correct. If no recordings have been published for the Conference Reference and Security Code entered, there will be no recordings in the list.

If the Conference Server cannot access the RecordingDirectory where the recordings are stored, there will be no recordings in the list. Check that the RecordingDirectory is accessible.

Have the recordings been deleted from the RecordingDirectory?

6.9.6 Problems playing back a successful recording

If all users are unable to play back a recording, please check the configuration of your Streaming Server; see "Cannot record any conferences" in section 5.3.2.

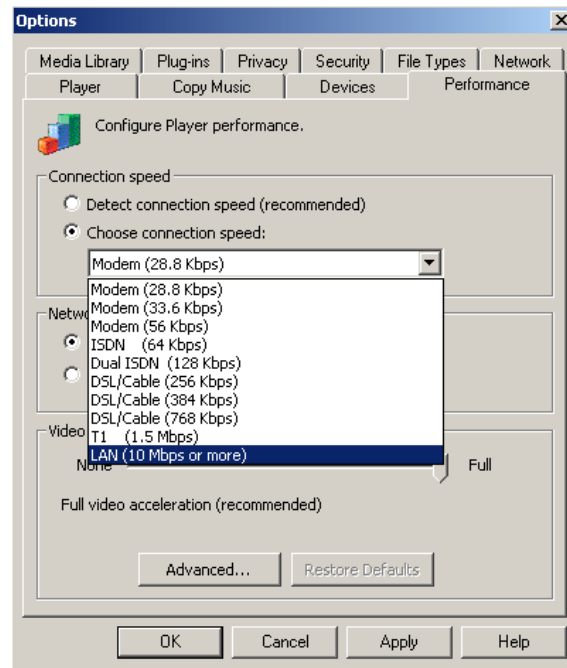
If only one user is unable to play back a recording, there is a problem with their machine configuration or network.

- Click the *Re-check your configuration* link on the View Recordings page to check for any problems with the Computer Configuration.
- If the screen data lags behind the audio stream, the client machine may not be powerful enough to play back screen data sufficiently quickly. One possible solution is to resize the window in which the conference is being played to make it smaller.
- If you can hear a recording, but cannot view it, this could be because either the connection speed is too slow to send the screen data as well as the audio stream, or because the Windows Media Player plug-in is not installed on the client machine. Check the Computer Configuration to see whether the plug-in is installed. If you do not have sufficient administrative privileges to install software on your machine, contact your system administrator to obtain the appropriate permissions. You may also experience problems installing the plug-in if Windows Media Player is already running. If this is the case, close Windows Media Player and install the plug-in again.

- The connection speed available to the client machine may be too low to support playback.

However, if the client has a fast connection and still has problems playing back a recording, it may be because Windows Media Player has incorrectly detected the network settings. If you suspect this may be the case, you can manually configure Windows Media Player with the connection speed by doing the following.

In Windows Media Player, go to the Tools menu, select Options and then the Performance tab. Select Choose Connection Speed, and select your connection speed from the list.



- ZoneAlarm configuration can prevent playback in the embedded Windows Media Player. In this circumstance, the user will see the following error message from Internet Explorer:

'The remote system refused the network connection'

To configure this so that playback is successful:

- Click on the *Play in Media Player* link in the top left frame on the playback UI.
- A separate Windows Media Player window will launch, and at the same time Zone Alarm will create a popup asking if you want Windows Media Player to act as a server.
- Select Yes for Windows Media Player.

6.9.7 Problems viewing a successful recording

If a shared application is appearing as a blank white or black area when you play back a recording, this could be a problem with the conference that was recorded. Please see the "Other users can't see my shared application" section for more information.

6.9.8 Recordings are playing back slowly.

Check the Advanced options for your network cards and ensure that they are set up to use 'Auto Detect' rather than a Duplex mode.

To access this setting

- open the Network Connection Properties (usually by right clicking on the network connection and selecting Properties)
- click on the Configure button at the top right hand corner
- select the Advanced tab
- look at the setting for the "Link Speed & Duplex" option.

6.9.9 I have ZoneAlarm installed and get a message from Internet Explorer saying 'The remote system refused the network connection' when trying to play back a recording

ZoneAlarm configuration can prevent playback in the embedded Windows Media Player. To configure this so that playback is successful, follow these instructions.

- Click on the *Play in Media Player* link in the top left frame on the playback UI.
- A separate Windows Media Player window will launch, and at the same time Zone Alarm will create a popup asking if you want Windows Media Player to act as a server.
- Select Yes for Windows Media Player.

You should now be able to view Recordings in both the embedded and standalone versions of Windows Media Player.

6.9.10 When I play a conference recording, the data appears to lag behind the audio part of the recording

If you notice that the data and the audio parts of the recording are not synchronized, it may be because the machine you are using is not powerful enough to play back video sufficiently quickly. One possible solution is to resize the window in which the conference is being played to make it smaller.

6.9.11 I cannot read the text when I play a conference recording

If you are having problems reading the text in a recorded conference, resize the window in which the conference is being played back so that it is as close as possible to the original size of the conference window (1024 pixels wide by 768 pixels tall). One way to do this is to set your screen resolution to these dimensions and press the *Play Full Screen* button when the recording is being played back to view it in full screen mode.

6.9.12 When I play a conference recording, slides paint slowly

If your conference contained complex slides (e.g. large photos), then you may see these painting slowly when you view the recording. There are two possible reasons for this.

- The connection speed available to your machine is too slow to play back the recording in real time. See section 6.9.6 for more details.
- Your connection speed is fast enough, but the recording has been made to support clients with a minimum broadband connection and hence particularly complex slide transitions will take longer than they did in the original conference. In typical conferences, the slide transitions will, in due course, pause long enough for Windows Media Player to catch up, and the slide will be painted in full.

6.9.13 I cannot install Windows Media Player, or the plug-in

If you have licensed recording, Windows Media Player and the plug-in for viewing conference recordings should be installed automatically. However, if you do not have sufficient administrative privileges to install software on your machine, then you will not be able to install the required software. Contact your system administrator to obtain the appropriate permissions.

You may also experience problems installing the plug-in if Windows Media Player is already running. If this is the case, close Windows Media Player and install the plug-in again.

6.10 Audio integration

If a problem with audio integration needs to be diagnosed, please send the IIS logs for the time in question along with the dcmsdiags output to your Avaya Web Conferencing Support contact.

6.10.1 Problem connecting to the Audio Bridge

If users see a message on the UI in roster-only mode explaining that there is an error connecting to the audio bridge, more information is available in the Administrator UI in the 'Manage Audio Bridges' section. There is also detailed information in the Application Event log on the Conference Server which is running the Bridge Manager used by this Audio Bridge - look for error logs from DCMS. If you have multiple conference servers please follow the instructions in Appendix A.2.7.

This could be a problem with the Audio Bridge or the files used by Avaya Web Conferencing to communicate with the bridge.

6.10.2 Can't dial out from Avaya Web Conferencing

If a user cannot dial out from the *Conference* -> *Call* menu, please check that there are no popup blockers preventing the Dial Out window from opening.

If the call cannot be placed, please verify that the number has been entered correctly for the person you are trying to call.

If no calls can be placed to any users, any external users or any international users, please verify that the correct settings have been configured on all servers in the deployment in the file DCL.CTC.CTCPhoneNumberX.init.

Confirm that out dial is enabled on the bridge/conference for the number you're dialling. This conference may be configured to deny any out dial or to restrict out dial to certain numbers.

6.10.3 Phone user does not appear in the participants list

If one phone user is not appearing with a phone icon in the data conference, please ensure that the phone user and data conference user have joined the same conference using the same set of conference reference and pin codes.

If a user is joining the audio conference from the same phone number as that configured for the Recording Server in the Admin UI, the user will not appear as a phone icon in the Participants List.

6.10.4 Wrong phone number appears in the participants list

The phone numbers that appear in the Participants List correspond to the caller IDs provided by the bridge. If the wrong numbers are displayed in the Avaya Web Conferencing UI, please check with your bridge provider that the correct number is being passed to the bridge.

6.11 Video Integration

6.11.1 Popup says there are insufficient resources to join conference

If no more video licenses are available, or no more Media Server ports are available, the user will not be able to join a video conference. A popup message informs the user of this.

6.12 Errors when leaving a conference

6.12.1 When I leave a conference, Internet Explorer locks up

If a user is running any popup blocking software on their machine then there can be problems when leaving a conference using Internet Explorer. Currently the only workaround for this problem is to disable any popup blocking software when using Avaya Web Conferencing.

6.12.2 Logging out doesn't return the user to the login page

If you see a page that offers you a link to click on to return to the login page, but that page cannot be found, it is usually because the externally visible domain name of the access point for this Avaya Web Conferencing site was entered incorrectly during installation.

A Diagnostics to collect

This chapter outlines the diagnostics that should be collected from the servers and the client machine in the event of a problem. There is a wide range of available diagnostics and engineers should be familiar with which diagnostics should be collected for the type of problem seen.

Problems seen on the client can either be caused by underlying problems on the network or at the server, or are limited to the client machine only. Please ensure that you refer to Appendix A.2 "Server diagnostics" to find out which server diagnostics are required.

A.1 Client diagnostics

You should ensure that the users of your Avaya Web Conferencing deployment are given detailed instructions on what information they need to provide when reporting client failure. The following sections give full details of the information you will need from a user to enable you, or your Avaya support contact, to resolve the problem they are experiencing.

A.1.1 Time and date of problem

This allows us to pinpoint the problem area in the other diagnostics we collect, and for you to correlate whether there are any other reports of the same problem at that time. An approximate time of day is much better than none at all. If possible please include the time zones in your problem report.

A.1.2 Problem description & screenshots

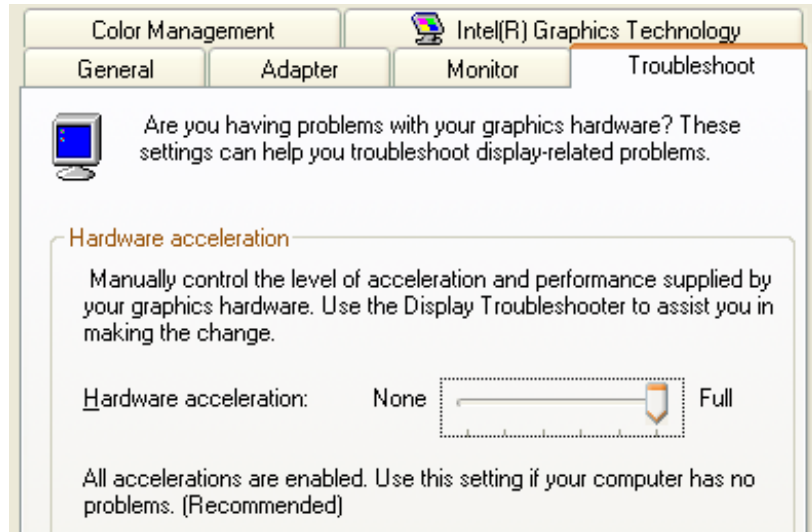
What problem did the user see?

Did other participants in the conference also see the problem?

Has the function in question previously worked successfully? This problem could be caused by recent changes on the network and/or software on the server or user's machine. Have there been any such changes?

To take a screenshot of an application, mouse click on the application (to make it the foreground application) then hit **ALT+PrintScrn** to put the screenshot in the clipboard. You can then paste it into an email as usual (**SHIFT+INSERT** or **CTRL+V**).

If you want to take a screenshot of a recording playing back in Windows Media Player, you will need to turn off your hardware video acceleration by right clicking on your desktop, selecting Properties, then Settings -> Advanced -> Troubleshoot, and move the slider to "None".



A.1.3 Reproduction scenario and frequency

This information needs to be detailed enough so that a Avaya Web Conferencing engineer has enough information to reproduce the problem if required.

You should obtain the following information.

- What is the scenario that led up to the problem?
- Can the user who reported the problem reproduce it?
- Have other people in the conference also seen the problem?
- Have other people in other conferences also seen the problem?
- How often does it reproduce (for example every time the user attempts the repro scenario, about one time in ten, in every conference)?
- Can all users in the conference reproduce the problem?

If the problem can be reliably reproduced, please ensure that the following diagnostics are supplied, along with a description of the repro scenario.

- Java and HTML Console
- Avaya Web Conferencing Client diagnostics
- Screenshot(s) showing the problem

This information helps to diagnose the type of problem. If other users are seeing the problem as well, please provide client diagnostics from their machines too.

A.1.4 Contents of the Java Console

The Java Console is a browser window that the Java VM uses to log any errors it notices (such as a failure to download a java class). This information may be useful in diagnosing client problems. Each browser has a different mechanism for viewing the Java Console and these are described below:

- **Microsoft Internet Explorer on Windows with the Microsoft VM**

The Microsoft Java Console is not enabled by default on IE5 and IE6. Note that enabling the console requires you to restart your browser, so you are advised to do this before joining the first conference, so that the console is available when you want to use it.

To enable the Java Console, select the *Internet Options* dialog from the *Tools* menu. Select the *Advanced* tab and tick the box marked *Java console enabled*. To make this change take effect restart Internet Explorer.

To view the Java Console select the *Java Console* option from the *View* menu.

- **Microsoft Internet Explorer on Windows with the Sun VM**

The Sun Java Console is enabled by default on IE.

To view the Java Console select the *Sun Java Console* option from the *Tools* menu.

- **Firefox**

Firefox does not have a Java Console viewer.

To view the Java Console, right click on the Java tray icon  and click on the *Open Console* sub-menu.

- **Mac OS X**

The output is written instead to the system Java Console, which can be viewed via the Console application. The Console utility can be found in the Finder in the Applications/Utilities folder.

Once the Java console is open, pressing 's' will trace out more information.

Please check these diagnostics for any obvious Exceptions, such as the data being blocked by something on the network, or a connection failure to the server. If you are unable to diagnose the problem, please send these diagnostics to your Avaya Web Conferencing Support contact.

A.1.5 Avaya Web Conferencing client diagnostics

Avaya Web Conferencing logs information about your session in an HTML Diagnostic Console. The information logged includes

- how the client is connected (sockets/http)
- whether any errors have occurred on the connection.

To view the log (in a window) go to the main client page and click on Help/Show HTML Diagnostic Console.

When the client detects unexpected behavior, it will send diagnostics to the conference server. These diagnostics are stored in the server's Diagnostics\logs\client directory. Normally, there are two files for presenters and one for attendees.

The details of these diagnostics are designed to be read by Avaya Web Conferencing Support engineers. Please look for any obvious errors or Exceptions to explain the problem reported, such as a connection failure to the server. If you are unable to diagnose the problem, please

send these files to your Avaya Web Conferencing Support contact. You can collect these files for sending to your Avaya Web Conferencing support contact by using dcmsdiags as described in Appendix A.

A.1.6 Machine specs

The contents of the Java Console and the Avaya Web Conferencing client diagnostics will give information about the user's machine. However, if neither of these is available, please provide details of the browser, JVM and OS versions of the machine and whether the user was connecting to the conference over HTTP or HTTPS.

A.1.7 Video camera details

If there are problems detecting the camera source or in sending video into the conference, even after running the Media Wizard, please specify the make, model and version of the camera(s) you are using and the corresponding video drivers.

Right click on My Computer and go to Properties. Choose the Hardware tab then click the Device Manager button. Select your camera under Imaging devices, right click and select Properties. Click on Driver and send a screen shot of the information.

A.1.8 Windows Media Player plug-in

If the user cannot install the Windows Media Player plug-in, or has problems with the installation, please supply the following files to your Avaya Web Conferencing Support contact. They will be found in your %HOMEPATH%\Local Settings\Application Data directory (typically c:\Documents and Settings\<your user name>\Local Settings\Application Data)

- DCLPluginInstallerTrace.txt
- DCL1PluginTrace.txt
- DCL2PluginTrace.txt

A.2 Server diagnostics

Server diagnostics should accompany most client problem reports, as well as server-only problems.

Before collecting the server diagnostics and sending them to your Avaya support contact, you should check that the relevant services are running as specified in section 2.1.2 "Required services on each server".

A.2.1 Which diagnostics to supply?

As with client diagnostics, when reporting a problem, you should specify the date and time it occurred, and which server the diagnostics have been collected from in your problem report. If the Avaya Web Conferencing installation includes several machines, please also tell us the machine names and IP addresses and role (e.g. Conference Server, Master, etc.) of the various servers in the farm.

There are several types of diagnostics that can be gathered from the server - these are described in the following sections.

Avaya Web Conferencing comes with its own diagnostic gathering utility, dcmsdiags; see Appendix A.2.2 "dcmsdiags.bat". This utility runs on Masters, Conference Servers and Recording Servers. If there is a problem running this utility, please follow the instructions in the following sections to manually collect the required diagnostics.

If your deployment has separate Master and Conference Servers, you will need to collect the output from dcmsdiags from each of the relevant server(s). If you are in any doubt, collect the diagnostics from all servers.

- If users are having problems before joining a conference, the diagnostics from the Conference Servers are required
- If users are having problems during a conference, the diagnostics from the Conference Servers are required
- If there is a problem with communication to the Audio Bridge, the diagnostics from the Conference Server which is running the BridgeManager is required - see Appendix A.2.7 "Which Conference Server is connected to the Audio Bridge?"
- If there is a problem with Recording, the diagnostics from the Recording Server and Conference Server are required.
- If there is a problem with conferences not starting or not ending as expected, the diagnostics from the Master Server are required.

In addition to the diagnostics collected by dcmsdiags, the following situations require additional diagnostics from the server(s).

- If users are having problems connecting to conferences, please send the IIS logs from the Conference Servers in the deployment for the day in question, plus the client diagnostics including client traces, the conference reference and time of the problem. See Appendix A.2.9 "Manually collecting IIS logs".
- If there is a problem with recording or playback, please send the recording file associated with this problem. See Appendix A.2.6 "Recording file".
- If there is a problem with the audio integration, you may need to gather more detailed information showing the communication between Avaya Web Conferencing and the Audio Bridge. See Appendix A.2.8 "Changing the logging level of the bridge communication logs".
- If the CPU usage on any server is very high, send a screenshot showing the details. If the Conferencing Gateway process (gwsvc.exe) is in a CPU spin, follow the instructions in Appendix A.2.5 "Spintool".
- If any server is in an unrecognized state and Avaya Web Conferencing is not responding as expected, check the CPU usage. If this is normal, please do the following while the server is in this state. Afterwards, reboot the server and collect the IIS logs.
 - Check that the IIS servlets are running; see Appendix A.2.4 'Running servlets'.
 - Run dcmsdiags.bat.
 - Run UserDump against the Conferencing Gateway process (gwsvc); see section 3.2.3 "Memory dump output files".

As the Streaming Server does not have any Avaya Web Conferencing code, the logs for this component are created by Windows Media Services, see Appendix A.2.3 "Streaming Server log files".

A.2.2 dcmsdiags.bat

You can run `dcmsdiags.bat` on the Master, Conference Server or Recording Server. Please refer to Appendix A.2.1 "Which diagnostics to supply?" for details of which server diagnostics you should collect.

To run the Avaya Web Conferencing diagnostic gathering utility on a particular server, ensure that you are logged on to the server as a user with Administrator privileges.

1. In a DOS prompt, go to the following directory
 - `<install root>\DCMS\Server` on a Master, or Conference Server.
 - `<install root>\RecordingServer\Server` on a Recording Server.
2. Run `DCMSDiags.bat`. This dumps all Avaya Web Conferencing diagnostic information to the following directory
 - `<install root>\DCMS\Diagnostics` directory on a Master or Conference Server.
 - `<install root>\RecordingServer\Diagnostics` on a Recording Server.
3. The dumped information includes:
 - the Application and System Event Logs (`AppEventLog*`, `SysEventLog*`)
 - the selected installation options (`ConfigLog*`)
 - the local machine configuration (`SysInfo.txt`)
 - Audio Bridge communication logs (`bsp*.txt`)
 - Bridge Manager status information (`CTCSnapshot.htm`)
 - a directory listing for the Avaya Web Conferencing install (`dirlist.txt`)
 - the most recent IIS log file (`ex*.log`)
 - IIS configuration information (`metabase.xml`)
 - Avaya Web Conferencing audit files (`<install root>\Diagnostics\logs`)
 - SIP protocol stack logs (`ipstrc.log` and `pdtrc.log`)
 - the contents of the DCMS database used by this server, if any (`*.csv`)
 - any crash logs

Note that this file may open browser windows, and the local machine configuration file (`SysInfo.txt`) can take some time to create. Please wait for the diagnostics

collection to complete. You can view the status of the diagnostics collection by looking at the output from the command prompt.

Send the contents of the zip file created in the 'Diagnostics' directory to your Avaya Web Conferencing Support contact. If you are sending diagnostics from multiple machines, please make sure it is clear which diagnostics are from which machines.

A.2.3 Streaming Server log files

The Streaming Server automatically generates log files, which you can use to monitor the Streaming Server. The log files are generated in `c:\<windows_directory>\System32\LogFiles\WMS\`. The WMS directory contains one subdirectory for each publishing point.

Please see the Microsoft information on Windows Media Services for more information.

A.2.4 Running servlets

Avaya Web Conferencing requires its own servlets to be running in IIS on the Master and Conference Servers. The following problems could be caused by servlets not running. You should try the following test URLs (ensuring that you have access to localhost) and compare against the expected outcome. Please send this information along with the output from `dcmsdiags`.

Conferences not starting

Run the following URL on the Master server, replacing `<MASTER>` with the IP address or DNS name of your Master server. You should get a "MasterScheduleServlet OK" message unless there is an error (in which case you get this notified to you) or the servlet has not started (in which case you get a 404).

[http://<MASTER>/servlet/DCL.Avaya Web Conferencing.Admin.MasterScheduleServlet](http://<MASTER>/servlet/DCL.Avaya%20Web%20Conferencing.Admin.MasterScheduleServlet)

Can't view the frame content in the login page

Run the following URL on the Conference Servers, replacing `<CONFERENCE SERVER>` with the IP address or DNS name of your Conference Server. You should get a "No Template param specified" message unless the servlet has not started up.

[http://<CONFERENCE SERVER>/servlet/DCL.Avaya Web Conferencing.Admin.DCMSAdmin](http://<CONFERENCE_SERVER>/servlet/DCL.Avaya%20Web%20Conferencing.Admin.DCMSAdmin)

Licenses are not being used

Run the following URL on the Conference Servers. You should get a 403 Access Forbidden error if the servlet is working.

[http://localhost/servlet/DCL.Avaya Web Conferencing.Admin.DCMSLicense](http://localhost/servlet/DCL.Avaya%20Web%20Conferencing.Admin.DCMSLicense)

A.2.5 Spintool

Processes can be affected by a lack of available CPU on the server. If a process is taking up almost all of the CPU for itself, this is normally caused by the code in that process being stuck in an infinite loop. This is termed a 'CPU spin'.

spintool.exe is a tool available from Avaya, which provides thread context information for diagnosing CPU spins in a specified process on the server. If there is a CPU spin in Avaya Web Conferencing, this tool provides information on where the spin is occurring.

This tool is provided for maintenance release 3 onwards in the DCMS\server directory. If you are using an earlier release, please contact your Avaya Web Conferencing Support contact to obtain this tool. Information on how to install and use this tool is provided in the accompanying spintoolreadme.txt file.

A.2.6 Recording file

If there is a problem playing back one recording file (rather than any recordings), please send this recording file with the other diagnostics.

A.2.7 Which Conference Server is connected to the Audio Bridge?

Go to the 'Manage Audio Bridges' page on the Administrator UI and look at the Bridge Manager column. This will show the name of the Conference Server running the Bridge Manager component connected to each audio bridge in the table, and the Bridge Manager identifier (0 to 4).

A.2.8 Changing the logging level of the bridge communication logs

If there is a problem with the communication between the Audio Bridge and Avaya Web Conferencing, more detailed logs can be collected if the problem is reproducible. The Ram Recorder component allows you to collect low-level logging. In particular, this contains the record of all interactions between the DCL code (the bridge specific plug-in) and the bridge API.

Please set the logging level of the relevant Bridge Manager to the detailed level, reproduce the problem, collect the diagnostics then reset the logging level.

Each of the following URLs should be used on the Conference Server running the Bridge Manager which is connected to the relevant audio bridge. You can specify the Bridge Manager identifier (rr=bsp0 to rr=bsp4), or rr=* for all Bridge Managers.

To extract trace from the server running the Bridge Manager:

The following URL dumps the logging information to the DCMS\Diagnostics directory, as bsp*.txt

http://localhost/servlet/DCL.CTCAdmin.CTCAdmin?action=rrdump&rr=*

To change the trace level:

The following URL changes the trace level of the logs. Level 0 is detailed and 3 is high; the default is 1.

http://localhost/servlet/DCL.CTCAdmin.CTCAdmin?action=rrsev&rr=*&level=X

To clear the trace:

The following URL clears the trace.

http://localhost/servlet/DCL.CTCAdmin.CTCAdmin?action=rrclear&rr=*

To get a snapshot of the current status of each Bridge Manager:

The following URL gives a snapshot of the current status of each Bridge Manager running on the Conference Server.

<http://localhost/servlet/DCL.CTCAdmin.CTCAdmin?action=snapshot>

A.2.9 Manually collecting IIS logs

If you need to collect IIS logs made on dates prior to those collected by dcmsdiags, you can do this manually as follows.

- Go to the %windir%\SYSTEM32\Logfiles\W3SVC1 directory on the server
- Identify the log files for the date(s) required. By default the logs are named ex<date>.log where the date is in yymmdd format.

A.2.10 Manually collecting event logs

If dcmsdiags fails to collect the system event logs, you can do this manually as follows.

- Bring up the event viewer by going to Start->Programs->Administrative Tools->Event Viewer
- Highlight the Application event log
- Click on Action->Save Log File As...
- Choose a location to save the file, ensuring that you save it in .evt format
- Repeat for the System Event log.

A.3 Network information

If you suspect that a piece of network hardware is causing problems with the client-server communications, you should ensure that the end user has tried to connect to Avaya Web Conferencing over HTTP and HTTPS.

If this makes no difference, or you are having problems with the intra-server communications, you should contact your network engineers for more information on what network hardware is installed and how it is configured. Please pass on the following information.

- Sections 2.1.1 "Intra-server communication", 2.2 "How does a client connect to Avaya Web Conferencing?" and 3.3 "Network requirements".
- If users cannot view the login page, can you open a browser window on a Conference Server and connect over port 1627 (using http in the URL) and HTTPS?
- If users cannot successfully join a conference, can you open a browser window on the Conference Server running that conference and connect over port 1627 (using http in the URL) and HTTPS?

The contents of the Java Console from the client machine that is seeing connection problems may point to a problem with a proxy configuration. The proxy configuration should be changed, or the proxy bypassed.

If none of the diagnostic information shows that there is a problem, and bypassing the suspected hardware does not resolve it, a network trace should be taken using a network protocol analyzer such as Ethereal (<http://www.ethereal.com>). This should be a simultaneous trace from the source and destination of the problem. For example, if there is a problem with the client-server communication when joining a conference, the network trace should be obtained as follows.

- Configure Ethereal on the client machine, to capture the data between the client machine and the firewall to the internet.
- Configure Ethereal on the relevant server machine, to capture data between it and the firewall to the internet. Refer to section 2.1 "Server configurations" for information on which Conference Server to monitor.
- Start both traces simultaneously, and make a note of the time the traces start.
- Reproduce the problem, and make a note of the time the problem occurs.
- Stop both traces.
- Send the traces, plus details of times, IP addresses of the client and server, client diagnostics (see Appendix A.1) and server diagnostics (see Appendix A.2) to your Avaya Web Conferencing Support contact.

If you are seeing a problem on a LAN and suspect a firewall or proxy then take the Ethereal traces from the client to the suspect hardware and from the server to the same suspect hardware.

B Known problems with other applications

There are several applications that can affect Avaya Web Conferencing. This section details configuration changes required for those products we know about. This is not an exhaustive list.

B.1 Applications on the client

B.1.1 Pop-up blockers

Avaya Web Conferencing is designed to work with popular pop-up blockers, with the following exceptions.

- “Record/view recordings”, which, if a pop-up blocker is detected displays the following message “The View Recordings window was not opened because it was blocked by a popup blocker. Please disable your popup blocker and try again.”
- the “more info” link on a voting slide
- Audio Client Install Wizard
- UI panel (see Customisation Guide for more information)

The above functions require a new window to open, and hence can be stopped when a pop-up blocker is operational. If other functions are believed to be affected by pop-up blockers please take a screen shot before reporting the problem.

There are several sites on the internet which detect whether pop-ups are blocked, which you could use if you are in doubt as to whether a user does have pop-ups blocked, for example: <http://www.cyscape.com/popupcheck.asp>.

B.1.2 Client firewalls

Client firewalls, such as Cisco Security Agent and Zone Alarm, can cause problems for users with these enabled.

In-conference functionality

Some client firewalls have been seen to prompt for permission or block the download of the files required to share an application and upload a PowerPoint presentation.

The following files are downloaded when the user has accepted the security certificate and are required for application sharing or uploading a presentation. They should be permitted by the user, if prompted.

- dcmsspptconverter.txt
- pptconverter.exe

- DCMSAppHost.txt
- host.dll
- HostingInputManagerLib.dll
- HostingInputManager.dll
- HostingInterface.dll
- HostingInterfaceRes.dll
- hostload.dll

The PowerPoint add in for voting, audio client, DCL1 and DCL2 plug-ins for viewing recordings are also required to be downloaded to enable the specific function.

If a client firewall is blocking the download, you can work around this by disabling the firewall in order for the files to be downloaded from the server for the first time. A subsequent download is only required when a software update affecting these files is made on the server.

Playing back recordings

Some firewall/security devices can prevent Windows Media Player from working, so it may be necessary to grant specific permissions to the Player.

To do this in Zone Alarm Pro, specify medium security, or specify ports 554 and 1755 as the outgoing TCP ports.

B.1.3 Google Desktop Search

Google Desktop Search versions prior to 20050628 have an incompatibility with Java applets, resulting in high CPU on the client and the inability to load the Workspace Window correctly (it stays white or partially loads), when using a version of the Sun JVM on the client.

This has been fixed since Google Desktop Search version 20050628.

In the event of any problems, check the version of Google Desktop Search (right-click on the icon in the Windows System Tray -> More -> About). The version number is at the bottom of the web page and should be 20050628 or later.

B.2 Applications on the server

B.2.1 IIS

It is recommended that Avaya Web Conferencing is installed onto a server with a clean installation of OS and IIS.

IIS is required on the Master and Conference Servers and it needs to be configured correctly (the configuration requirements are different for Windows 2000 and Windows 2003). The Avaya Web Conferencing install process configures IIS automatically. However the required settings are also listed in the Planning and Installation Guide in case these need to be overridden.

B.2.2 URLScan

Installing IIS Lockdown also installs a tool called URLScan; this requires manual configuration changes to ensure Avaya Web Conferencing runs correctly (it is not possible to make these changes from the IIS Lockdown Wizard). For more information about these changes, please see the section on "Web Server Software" in the [Avaya Web Conferencing Planning and Installation Guide].

If no users can upload a PowerPoint presentation, or do not see any uploaded JPEGs displayed as a Slide Show, it is likely that URLScan is not configured correctly for Avaya Web Conferencing.

B.3 Applications on the network

In summary, network hardware should do the following to ensure a successful Avaya Web Conferencing experience:

- allow Java applets,
- allow scripts,
- allow traffic over port 443, plus ports 80 and 1627 if possible,
- not batch up outstanding GET requests,
- accept the MIME type application/octet-stream.

Please check the configuration of your network hardware to confirm that all these are allowed.

B.3.1 Symantec Firewall

If you have a Symantec firewall you need to ensure that the following line is added into the config.cf file:

```
Httpd.allow_external_proxy=1
```

Without this, clients experience general connection problems, which include:

- being unable to join conferences
- frequent silent or hard reconnections

This problem is documented on the Symantec website as Document ID:2001101612241354 and can be referenced from the following search page by entering the document id into the search field.

<http://www.symantec.com/search/>

B.3.2 Interscan Virus Wall

The data from the server to the client is buffered by Interscan Virus Wall, which scans all data of type application/octet-stream. This virus scanner does not permit specific sites to be excluded.

This prevents the client from successfully joining the conference and so must be bypassed for clients to successfully connect to Avaya Web Conferencing.

B.3.3 Cisco Content Switch

Clients are regularly thrown out of conferences (every 7 minutes or so), even using HTTPS to connect to the server.

This problem was cured by an OS patch to the Cisco Content Switch:

The upgrade is to v5.0B63 of the "CSS11000 Operational Network Boot" available under the maintenance releases section of the WebNS software area for the CSS11000 family of switches. The filename is ap0500063.zip.

B.3.4 Checkpoint firewall

Application Intelligence on the Checkpoint firewall results in corrupt HTTP packets being sent to Avaya Web Conferencing during application sharing.

Application Intelligence should be disabled if using a Checkpoint firewall and clients should always connect to Avaya Web Conferencing over HTTPS.

B.3.5 Reverse proxies

Avaya Web Conferencing does not support reverse proxies situated at the Avaya Web Conferencing server location.

B.3.6 Application and Content Networking System

Cisco's Application and Content Networking System Software can result in caching of some of the Avaya Web Conferencing downloads. After upgrading a Avaya Web Conferencing installation (either with a patch or to a new version) old versions of some of the files are left cached on the network.

The symptom to end users is that they are repeatedly told that (even after rebooting the client machine) they must close their browser window in order to share an application.

The problem resolves itself when the Application and Content Networking System Software flushes its cache automatically. This may take up to two days depending on the configuration.

Filename: AvayaTroubleshootingGuide.doc
Directory: C:\Documents and Settings\jconlon\Desktop\FRIDAY\Meeting
Exchange 5.1\AWC
Template: C:\Program Files\Microsoft Office\Templates\iag.dot
Title: Troubleshooting Guide
Subject: MeetingServer v4.1
Author: Data Connection Limited
Keywords: OGC-214 index-v2
Comments:
Creation Date: 6/9/2008 3:44:00 PM
Change Number: 19
Last Saved On: 3/25/2009 2:41:00 PM
Last Saved By: jconlon
Total Editing Time: 1,112 Minutes
Last Printed On: 3/25/2009 2:43:00 PM
As of Last Complete Printing
Number of Pages: 78
Number of Words: 25,646 (approx.)
Number of Characters: 146,183 (approx.)