

# AliceStreet Conference Center

A **real** conference room on your desktop

## Administration and Deployment Guide

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# 1. System overview

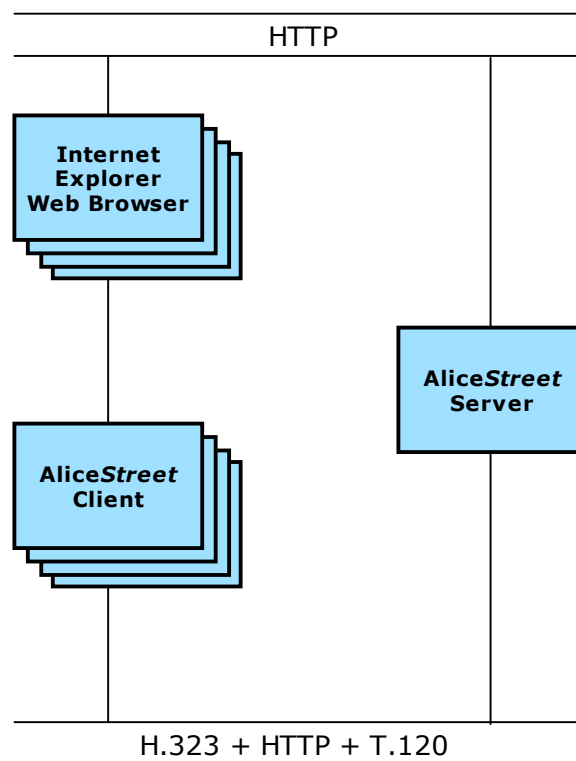
## 1.1 System architecture

Figure 1 shows the overall architecture for deployment of the AliceStreet Conference Center.

The diagram shows the following components:

- an AliceStreet Server
- multiple AliceStreet Clients
- regular Web browser (only Internet Explorer with ActiveX is supported at present for automated downloads). FireFox and Netscape are supported.
- communication between AliceStreet Clients and AliceStreet Servers using H.323, HTTP and (optional) T.120 protocols over a regular IP network.

**Figure 1 - AliceStreet deployment architecture**



## 1.2 System description

With reference to Figure 1, the key workings of the system are as follows.

### Server-side deployment

One or more AliceStreet Servers is provisioned onto the IP network. The server software is deployed as a Windows Service which starts automatically when the system is started.

The server requires a permanent host name which users can use to connect to the server with a web browser (i.e. [http://\[host name\]/](http://[host name]/)).

### Client-side deployment

AliceStreet Client software is installed via a download from the server when the user navigates to the server with their Internet Explorer web browser. The installation is provided via an ActiveX object.

No drivers or other low-level system tools are installed, and no PC reboot is required.

### Connecting to the Conference Center

Users request access to the Conference Center via their web browser. The ActiveX (if using IE) object launches the AliceStreet Client software, automatically providing the client software with the details (from the web page) of the host name or IP address to which it should connect.

Users running FireFox, Netscape, IE with ActiveX disabled will need to pre install the NAX Client.

The client application then tries to connect to the server using the H.323, HTTP and T.120 protocols. Any problems encountered during this process are likely to be due to firewall or virtual private network (VPN) issues. Consult the separate *document Firewalls, NATs and VPNs*.

## 1.3 Room design

The AliceStreet Conference Center graphics can be customised to suit the customer's requirements, such as:

- interior and exterior views
- use of corporate logo
- tabletop material.

Contact AliceStreet sales for more information on design and implementation of a new room model.

To specify a different room model for use with your server:

- obtain a new .dat file from AliceStreet
- edit the file —Launch.html" which can be found on your server in the .webfiles\html subdirectory of your AliceStreet installation directory

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- change the name of the .dat file specified in the line: <param name="RoomModel" value="xxx.dat">

## 2. Installation and compatibility

### 2.1 Server software

#### 2.1.1 Server requirements

##### Server hardware

The AliceStreet Server software operates on a standard PC architecture. We recommend a minimum hardware specification of:

- Intel Pentium IV processor at a speed of 3.0 GHz or higher
- 512MB of RAM
- Ethernet connectivity.

In order to ensure optimal voice and video performance, we recommend that the server not be used for any other tasks whilst a meeting is in progress.

##### Operating system

The AliceStreet Server currently runs on a Microsoft Windows platform. Suitable Windows versions are:

- Windows 2000
- Windows XP
- Windows Server 2000/03/05

##### IP network connectivity

Each AliceStreet Server requires a consistent host name (WINS or DNS) by which users can identify the server and navigate to it using a web browser.

In order to support the maximum (16) number of concurrent users, each server should be capable of reliably communicating at 3 Mbps from the server to the network, and at 2 Mbps from the network to the server, based on average use. Refer to document: *Bandwidth Specifications* for more detailed information.

#### 2.1.2 Server installation process

The server installation process is

- run the file **ACCServerSetup.exe**

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- at the end of the installation, restart the machine. After restarting, the AliceStreet server will start automatically.
- From a client, browse to the local server using: [http://\[host name\]/register](http://[host name]/register), and enter the licence number provided.
- Following registration, from a client, browse to the local server using: [http://\[host name\]/meetings](http://[host name]/meetings), and enter the room names and associated passwords. See *Manage Meetings* for more detailed instructions. Note, if you are using Alice On Demand Conference Manager, delete the room names after testing the licence is installed properly.

The server software is installed as a Windows Service and restarts automatically each time the machine is rebooted.

## 2.1.3 Administration

Each AliceStreet Server provides an HTML/HTTP administration interface, which can be accessed using a standard web browser. Access to this administration interface is password protected. Refer to section 3.1 Configuring System Parameters for further information

The administration interface allows configuration of:

- server interface binding for multi-adapter hosts
- port usage
- optional connection security using an H.323 gatekeeper.

## 2.1.4 Server uninstall

The server uninstall process is:

- use add/remove programs from the control panel.

## 2.1.5 Alice On Demand Conference Manager

The installation process is dependant upon the type of email delivery service. AliceStreet or its partners will provide the necessary files and installation documents for your specific AoD solution:

- AoD-CM Outlook (for MS Exchange users)
- AoD-CM Lotus (for IBM Domino users)
- AoD-CM AoD (for users with neither of the above corporate mail servers)

## 2.2 Client software

### 2.2.1 Client hardware requirements

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## Hardware

We recommend running the AliceStreet client software on an Intel Pentium III 1,6 GHz platform with 256MB of RAM, or higher specification PC.

The client software has successfully been used on an 1GHz PIII platform, but is not expected to operate smoothly on platforms of lower specification.

Graphics Card (Supports 3D): Recommend the latest 3d graphics cards from Nvidia or ATI. Laptops using the Intel® Extreme Graphics 2 for Mobile are also suitable, but will run at slightly less performance. A suitable amount of graphics memory is 32meg, though less is needed - it depends on the screen resolution and colour depth in use. The card must support 3d acceleration; otherwise the main processor performs all of the calculations and gets very busy.

Sound Card: Poor quality cards are rare - the easiest way to test is to use a Logitech or Plantronics (or similar) USB headset if the regular, commercially available RCA jack headsets do not perform.

Refer to *Recommended Hardware* for further information

## Operating system and DirectX

The AliceStreet client software can operate on any version of Windows which supports DirectX 8.1 or higher. In practice, this excludes the following Windows versions:

- Windows 95
- Windows NT.

Suitable DirectX version is already installed by default on Windows XP. For other Windows versions it may be necessary to install the latest version of DirectX which can be obtained from [www.microsoft.com/Windows/DirectX/](http://www.microsoft.com/Windows/DirectX/).

## Web browser

Access to the AliceStreet Conference Center, launch of the AliceStreet Client software, and download and installation of the AliceStreet Client software, are controlled via a web browser.

Successful operation currently requires:

- Microsoft Internet Explorer version 5 or higher
- Javascript and ActiveX enabled.

## Bandwidth

Maximum client bandwidth necessary to run AliceStreet is 400 Kbs (150 upload and 250 download). For detailed information, refer to *Bandwidth Specifications* for further information.

## 2.2.2 Client software operation

The AliceStreet Client software loads and runs **only** when users choose to connect to the AliceStreet Conference Center.

## 2.3 Audio, video and PowerPoint

### 2.3.1 Audio

Audio input and output are provided via a standard PC sound card. A full duplex sound card is necessary.

For PCs without suitable sound cards installed, a USB headset can be purchased which includes all necessary sound card functionality. See the separate document *Recommended hardware*.

Operation using PC speakers (—"speakerphone mode") should be possible on Windows XP. However, we recommend using a headset in all cases for optimal sound quality and echo suppression. See the separate document *Recommended Hardware* for suggested headset models.

### 2.3.2 Video

Video input is captured via a standard USB camera (—"webcam"). AliceStreet has tested a number of leading camera brands: for recommendations see the separate document *Recommended hardware*.

Users connecting to the conference center from a PC which does not have an attached camera will be represented by a static image. Users can select an image of their choice, or be represented by the standard default image provided.

Users can also choose to be represented by a static image even when there is a camera attached to their PC. Simply use the **Change...** button on the initial application dialog

If you do not have a camera attached to your PC, other participants in the meeting will see a static image on your video screen. Unless you specifically choose, a default picture will be used (the default picture is a line drawing cartoon of a generic face).

In order to show a static image of your own choosing, you must select an appropriate bitmap (.bmp file) when starting up the AliceStreet Conference Center application.

#### **Steps to select a custom image**

- At the initial startup dialog, click on the "Video" button in the top right.
- At the next dialog, select the "Choose custom image..." option and select a bitmap to use.

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## Considerations

The image that other participants see will be scaled to a ratio of 11 units width x 9 units height.

If the bitmap which you select is of a significantly different shape (much wider, or much taller) then the image will be stretched to fit the 11x9 ratio, and this could lead to a rather strange end result. If possible, choose an image which is close to the 11x9 ratio.

## 2.3.3 PowerPoint

Microsoft office is required in order to run the PowerPoints in the AliceStreet Conference Center.

## 3. Configuration

### 3.1 Configuring system parameters

Server parameters are set using the web page:

[http://\[server host name\]/admin](http://[server host name]/admin).

On installation, the username and password for this page are set to:

- username: admin
- password: (no password)

The following parameters can be set. After changing an option, you will need to stop and then restart the AliceStreet Conference Center service.

#### **Admin User Name**

The user name for [http://\[server host name\]/admin](http://[server host name]/admin). Defaults to —admin“

#### **Admin Password**

The password for [http://\[server host name\]/admin](http://[server host name]/admin). Initially blank.

#### **Meeting User**

The user name for [http://\[server host name\]/meetings](http://[server host name]/meetings). Defaults to —admin“

#### **Meeting Password**

The password for [http://\[server host name\]/meetings](http://[server host name]/meetings). Initially blank.

#### **HTTP Interface Address**

For a server with multiple NICs, specifies which adapter(s) will accept inbound HTTP requests. Specify —\*“ for all adapters, or use the IP address of a specific adapter

#### **HTTP Interface port**

Default value is port 80.

#### **Local User Name**

If user authentication is implemented using an H.323 gatekeeper, this is the H.323 alias of the server.

#### **Gatekeeper Required**

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Specifies whether calls to the server need to be made via an H.323 Gatekeeper. Defaults to off.

## Gatekeeper Name

An H.323 Gatekeeper can be specified. If this field is left blank and Gatekeeper needed is set to on, the server will try to autodiscover a gatekeeper.

## H.323 Listener port

Specifies the NIC and port on which the server will listen for connection requests. For any NIC and port 1730, specify —\*:1730“. To specify port 1720 on the NIC with IP address — a.b.c.d“ specify —a.b.c.d:1720“.

## Fix Port Range

If unset, the server may ask the client to establish a TCP connection, or send RTP packets, to it on any unused port number.

## Base Port Range

If Limit port range is set, the lowest port number on which the server will ask the client to connect to it via TCP, or send RTP packets

## Max Port Range

If Limit port range is set, the highest port number on which the server will ask the client to connect to it via TCP, or send RTP packets

## Enable QOS

For future release

## NAT Routed

Should be set if the server is located behind a NAT.

## NAT Router Addr

Should be set if the server is located behind a NAT. See the document Firewalls, NATs and VPNs for further details.

## Tracing enabled

Enables tracing of H.323 connectivity for fault resolution purposes.

Sets the level of detail of trace logging for fault resolution purposes. Setting this to a level higher than 3 is not advised except as instructed by AliceStreet technical support.

## Tracing level

Set trace levels 1, 2 or 3 for review by AliceStreet technical support

## Tracing Directory

Sets the filename to which trace logs will be written. Note if no filename is written, the AliceStreet log can be found by searching for \*.log in the WINDOWS/system32 folder. The file is called AliceStreet-YEAR-MO-DA-1.log (ie: AliceStreet-2006-11-16-1.log).

## 3.2 Gatekeepers

The AliceStreet Conference Center is based on industry-standard H.323 and T.120 protocols and can therefore be deployed in an environment which makes use of appropriate gatekeepers to provide call security. Contact AliceStreet for further information.

## 3.3 Firewalls and Network Address Translation (NAT)

If any client is to be located on the opposite side of a firewall from the AliceStreet server, that firewall must be configured to permit outbound port opening on the following ports. Note that most of the following ports and port ranges are configurable on the server:

- TCP on port 1503
- TCP on the H.323 listener port (defaults to 1730 but configurable on the server)
- TCP and UDP on the port range used for media. By default this could be any port range but can be configured on the server using the —Fix Port Range“ option. Note that an average of 5 ports should be allowed for each concurrent user. AliceStreet generally defaults to the range 5000 to 5079.

In addition, UDP on port 1719 should be used if the default H.323 Gatekeeper option is used (contact AliceStreet for more information about this option).

No inbound port opening is required at the client end. If the server is located behind a firewall, then the same port ranges listed above must be opened for inbound access.

Further details on issues surrounding firewalls and NAT are available in a separate document *Firewalls, NATs and VPNs*.

## 3.4 Virtual Private Networks (VPN's)

AliceStreet Conference Center can be successfully used over VPN, subject to the quality of the underlying IP connection. There are some known issues relating to specific VPN clients:

Microsoft VPN client using L2TP/IPSec has been seen to drop a large percentage of UDP packets, making voice and video unusable. PPTP connections using the Microsoft client do not appear to suffer from this problem

Cisco VPN client has only been tested with version 4 or later. There may be issues with version 3 of this software.

Use of voice and video over IP typically involves the use of a large number of comparatively small packets, and the AliceStreet Conference Center is no exception. The large number of

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packets traversing the VPN may cause problems for some software VPN servers which may lack the processing power to cope with this number of packets.

Currently Netilla SSL VPN, Cisco and Checkpoint based can be deployed remembering that additional bandwidth will be required. Please contact your local partner to discuss VPN options.

For further information, see the document *Firewalls, NATs and VPNs*.

## 3.5 Server status

The current status of any meeting taking place on the server can be found via the web page:

[http://\[server host name\]/meetings/](http://[server host name]/meetings/)

If trace logging is enabled, the complete log can be viewed via the web page:

[http://\[server host name\]/viewlog/](http://[server host name]/viewlog/)

If trace logging is enabled, the most recent entries into the log file can be viewed via the web page:

[http://\[server host name\]/taillog/](http://[server host name]/taillog/)

## 3.6 Managing Meetings

NOTE: This section only is applicable if the Alice On Demand Conference Manager for Microsoft is NOT installed, or if you are going to run in a mixed mode.

The system supports two modes whereby users can enter the Conference Center:

- “named meeting” mode - in this mode, users navigating to [http://\[servername\]/](http://[servername]/) are prompted to enter a meeting password and only if they enter the correct password can they enter the Conference Center to the specific room.
- “Alice On Demand” mode – in this mode, users navigating to [http://\[servername\]/](http://[servername]/) are prompted to enter a meeting password, as generated and found their email through the invitation received and only if they enter the correct password can they enter the Conference Center to the specific room associated to the password.

The system administrator can set up and terminate named meetings as described below. Figure 1 is the entry screen.

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## 3.6.1 Setting up a named meeting

The system administrator can set up a named meeting by navigating to <http://servername/meetings>. There is a link to this page from the meeting status page.

The username and password required to enter the meetings page are the same as for the main system configuration page (see section 3).

To set up a named meeting (s) from this page:

- Enter the name of the meeting. This will be displayed to anyone browsing to the server's hone page (e.g "Marketing department weekly meeting")
- Enter the chosen password for the meeting.
- Click on "Create meeting".

Once the meeting is set up, anyone who knows the meeting password can join the meeting.

Figure 3.6.1 is a typical 5 room configuration.

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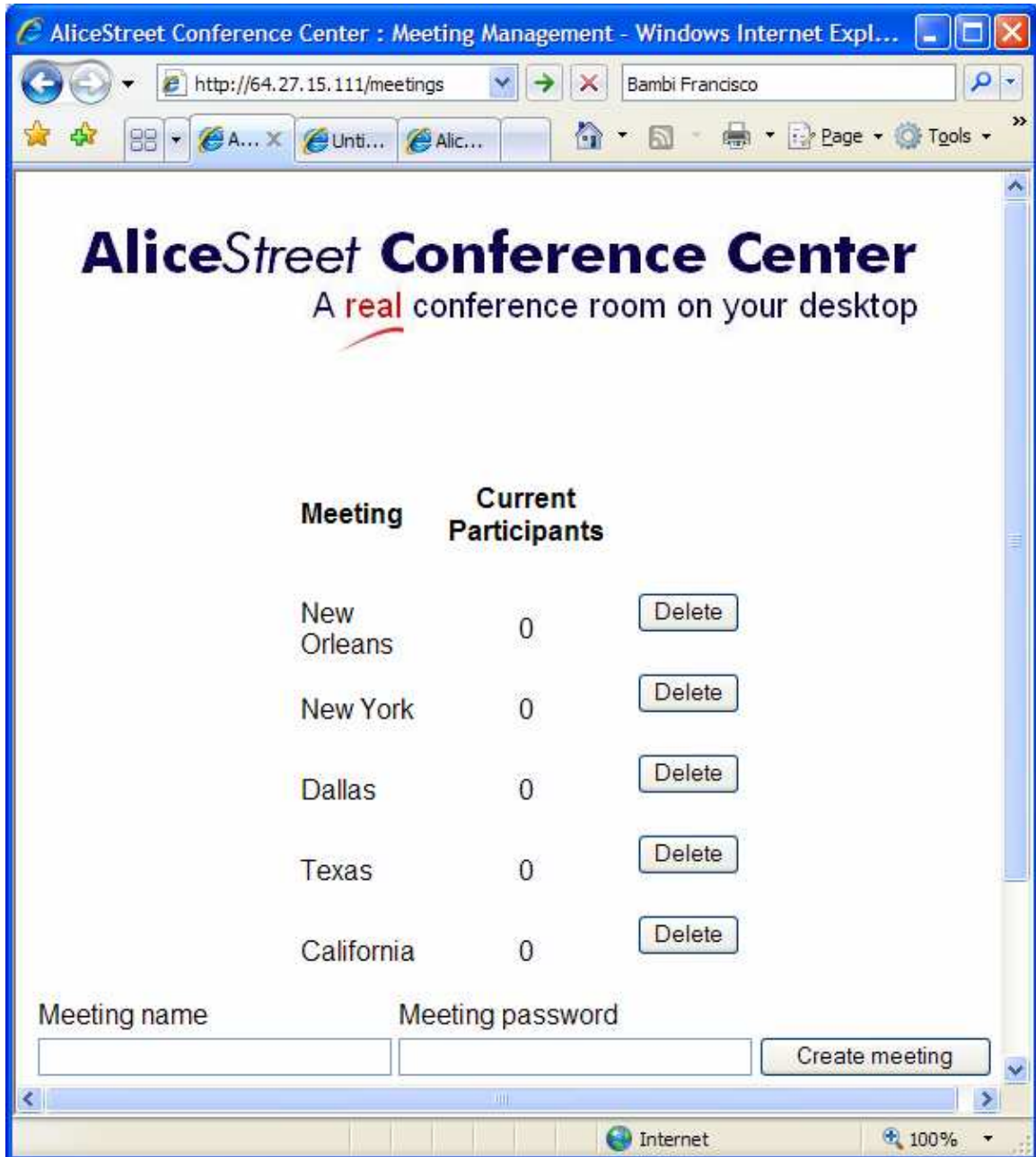


Fig 3.6.1 - 5 simultaneous meeting set up

## 3.6.2 Terminating a named meeting

The system administrator terminates a named meeting by navigating to [http://\[servername\]/meetings](http://[servername]/meetings). There is a link to this page from the meeting status page.

The username and password required to enter the meetings page are the same as for the main system configuration page (see section 3 of Admin Guide).

To terminate a named meeting, click on the "Delete" button.

## 3.7 IP QoS support

Support for IP QoS varies by operating system (the same for both client and server). Details are as follows.

### 3.7.1 Windows XP and Server 2003

On these platforms, the AliceStreet Conference Center supports both Diffserv COS marking and 802.1p using Windows GQOS support. Specifically:

- voice RTP packets are marked as Guaranteed service type
- video RTP packets are marked as Controlled load service type
- all other packets default to Best effort service type.

By default, Windows uses the following (decimal) values for these service types:

	Diffserv DSCP	802.1p value
Guaranteed service type	40	5
Controlled load service type	24	3
Best effort service type	0	0

The system administrator can change these values at a system level using **Group Policy**. Either use group policy update, or to change it for a specific machine:

- from the Start menu, run —mmc“
- choose File Add/Remove Snap-ins...
- add the Group Policy object
- within this object, select
- set the system-wide values you wish to use for the different service types.

#### **Computer Configuration\Administrative Templates\Network\QoS Packet Scheduler**

- set the system-wide values you wish to use for the different service types.

### 3.7.2 Windows 98, Windows NT

Note: Windows NT is only supported for use with the server since NT is unable to support a high enough version of DirectX to run the client.

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On these platforms, the system supports Diffserv DSCP marking. The following (decimal) values are used:

- voice RTP packets: DSCP = 46 (EF)
- video RTP packets: DSCP = 26 (AF31).

### 3.7.3 Windows ME

No QoS support is currently enabled on Windows ME.

### 3.7.4 Windows 2000

On Windows 2000, the system supports Diffserv DSCP marking as for Windows 98. However, in order to enable the Diffserv support, the following DWORD registry entry needs to be made (and the machine then restarted):

HKLM\System\CurrentControlSet\Services\Tcpip\Parameters\DisableUserTOSSetting = 0