

IOCOM Visimeet - a Janet-connected desktop client

Introduction

This report is one of an on-going series of evaluations of desktop videoconferencing software that is being produced by the Video Technologies Advisory Service (VTAS). The tests and evaluation have been conducted in accordance with the principles and procedures that you can read by following the link to the [Overview of Videoconferencing Desktop software](#) ^[1] document.

Janet IOCOM Visimeet is a fully featured desktop videoconferencing client that is capable of High Definition (HD) resolution. It offers many of the features of a stand-alone videoconferencing appliance, but on a Microsoft® Windows® personal computer (PC) or Apple Macintosh. It is also available for iOS and Android devices. This evaluation focuses on the PC version. It was found to interoperate well with a number of different manufacturers' equipment (including the market leaders: CISCO, PolyCom®, and LifeSize®) and it offered a very good quality experience in every case. The software comes in one standard format. This software is not standards-based and does not use the H.323 standard to make and complete calls. It uses a proprietary method to initiate and support video and audio calls. It also inter-operates seamlessly with H.323 equipment (both MCUs and videoconferencing terminals) via its own gateway/bridge. As a result it features the calling, video, audio and data-sharing features found in H.323 clients, as well as some features that are not normally found in those clients, such as instant messaging, and presence awareness (i.e. whether someone is available or busy). These features are more commonly found in proprietary solutions, the most well-known of which is Skype.



Figure 1 The Janet IOCOM User Interface during a meeting

Basic Details

Application: Janet IOCOM Visimeet

Software Version Tested: Version 12.6.14.1

Product Website: janet.iocom.co.uk

Test Dates: July 2012

Testers: Geoff Constable and Shafiq Latif.

Janet IOCOM Visimeet (hereafter referred to as 'Visimeet') is an application that can be installed on a PC or laptop running the Microsoft Windows operating system (XP or later). It is also available for Apple Mac OS X 10.5 or later (an older version is available for previous Mac

IOS's).

Visimeet allows users to make video and audio calls between other Visimeet users and any other software clients, or videoconferencing equipment that support the H.323 standard. This makes it extremely versatile and fully compatible with Janet's supported services. The client is easy to use, and offers many of the features found in dedicated videoconferencing equipment as well as some that aren't, including:

- Higher than standard resolutions (receive only in testing) – up to 1080p at 30 frames per second, depending on PC and camera capabilities.
- Presence awareness
- Text chat
- File share window or desktop sharing (in addition to the video)
- Recording feature
- Telephone network integration
- Multiple video and/or data streams simultaneously.
- File sharing via 'cloud' – file(s) can be uploaded to Visimeet server for others to download.

Janet's involvement

The version of the IOCOM software that was tested for this evaluation had been branded with the Janet name and logo. There is also a non-Janet version of the software available for businesses and other organisations and individuals that are not eligible to use the Janet network. The non-JANET version of the software is available from: <http://www.iocom.com/> [2]. Janet has an agreement with IOCOM to offer this supported version of the software from the Janet cloud (in fact a server on the Janet network). This server also has an IP port on which sits a bridge to the H.323 videoconferencing network, and this is how calls between H.323 endpoints and the Visimeet software are made possible.

Costs

A fully featured and fully licensed version of the software can be downloaded and evaluated for 30 days at no cost. This can continue to be used for one-to-one calls indefinitely for no further cost. It can also continue to be used to join webinars, events, meetings or classes initiated and scheduled by fully licensed users, by email invitation. It is not possible to send video, audio or desktop to these meetings without having purchased a licence. It is however, possible to use the Instant Messenger to interact with the meeting moderator and others using text chat.

It is necessary to purchase a subscription to the service in order to schedule multi-way meetings or to initiate multi-party ad hoc meetings after the first 30 days. Subscriptions can be purchased by individuals or institutions. Full details of the subscription/licensing model and current prices **can be found by following this link** ^[3].

	Free Version	£15 / month	£75 / month
Meeting Size Limit	2	99	99
Camera/video inputs	1	1	4
Camera Control	X	Yes	Yes
Audio Quality	Standard/wideband	Standard/wideband	Standard/wideband
Video windows	1 upstream/1 downstream	Unlimited	Unlimited
Video Transmit	H.264 (QCIF and CIF)	H.264+ VGA, HD	H.264+ VGA, HD
Desktop, application sharing	Yes	Yes	Yes
Chat	Yes	Yes	Yes
Instant Messaging	Yes	Yes	Yes
File transfer	X	Yes	Yes
Moderator	X	Yes	Yes

Free phone calls	X	Yes	Yes
H.323/SIP connect	X	Yes	Yes
Recording	Playback only	Yes	Yes
Support	Knowledge base, email	Knowledge base, email, chat, phone, visimeet	Knowledge base, email, chat, phone, visimeet

Table1. Visimeet Pricing Options

There are various other pricing and deployment models that are available by contacting IOCOM directly.

Standards and Security

Visimeet does not use the H.323 or SIP standard protocols. It does, however, use standard encoding algorithms to compress the audio and video data. For video these include H.264, H.263, and H.261 video codecs as well as various HD and SD formats including 1080p30, 1080i30, 720p30, VGA, CIF, and QCIF. For audio, the default codec is the patent-free speex CODEC.

All video, audio and data content is encrypted with AES 128 encryption.

Visimeet interworks seamlessly with H.323 by bridging from the Visimeet network to the H.323 network. This allows it to inter-operate with existing H.323 studios and other endpoints. When inter-operating with the H.323 network however, some functionality is lost: There is no presence awareness in H.323 and the data-sharing stream replaces the camera video, rather than being sent in addition to it, as it is for solely H.323 or solely Visimeet environments. Thus the desktop will replace the image of the speaker for H.323 (i.e. standard Janet videoconferencing) participants if it is sent from a Visimeet participant.

Interworking with SIP applications and environments is also possible, and this was informally tested by calling different SIP clients. The results were mixed, which may be due to interoperability issues.

Installation

Before downloading the client it is necessary to register with IOCOM, supplying name, an email address, and a password. This gives a login to the site which offers support, management of groups or 'communities' and access to a web client. The program can be

downloaded from the Janet ICOM website (janet.iocom.co.uk). It is a 20.9 MB download. The system requirements are far more modest than other desktop products that have been evaluated. They are as follows: Pentium 4 (2.0GHz) or faster, 512mb RAM, Integrated/USB camera & headset or echo-cancelling microphone, high-speed internet connection.

The download and installation process is straight-forward and simple. The installation finishes with a set-up wizard which collects your personal information and displays it in the interface (you are initially shown as busy). The software takes you through setting up video and audio devices (camera and headphones/speakers). Once this has been completed your status is updated to 'available' and you can start to add contacts or be called by colleagues.

One useful feature is that the software recognises when you are using a function of the software for the first time, and it automatically pops-up a window with explanatory help tips. This only occurs on the first use of each function and so does not become a recurring or irritating feature.

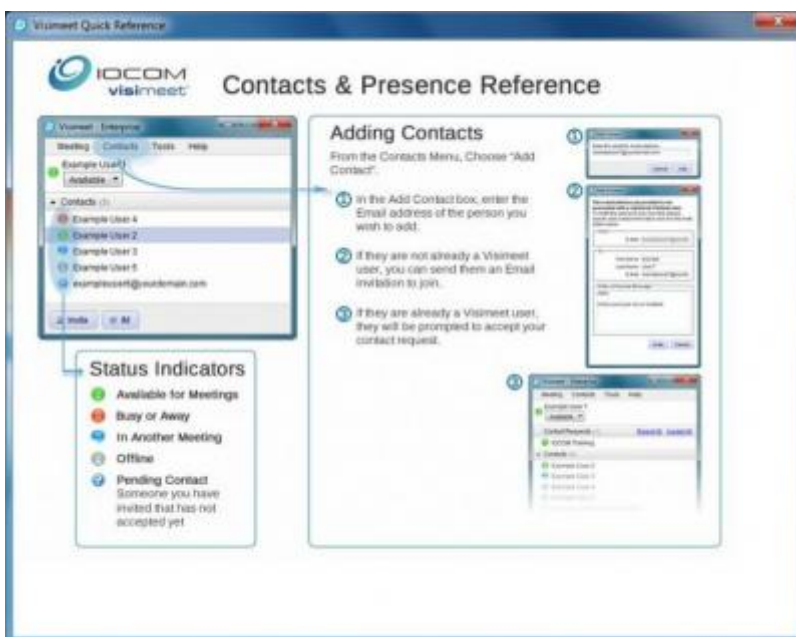


Figure 2 An example of a pop-up that occurs on first use of a feature

Documentation

There is extensive documentation available for the product. This is accessed in two ways: via the support website (to which all registered users have access); or via the application itself, using the Help menu.

On the product website are various help documents: New User Guides, FAQs, as well as help pages, PDFs and diagrams that are divided by subject: audio, video, meetings, etc. There are also instructional videos which walk the user through some of the operations and functions available. There is also a 'Contact Us' option. Contact details are American, and the only way to contact the support desk is using email or by filling in a web form. There are release notes available from the web site, although these only list the new features introduced in the latest version of the software.

The help pages that are reached from the Help menu on the application itself include:

- A link to an 89 page User Guide, which is a PDF that is full and detailed and covers every aspect of use
- A link to the support pages for the product
- A pop-up with the most common commands and keyboard shortcuts to those commands
- The option to report a problem
- Quick reference pages on contacts, meetings and scheduling
- 'About Visimeet' (version details)

General Keyboard Shortcuts		General Mouse Commands	
Commands & Shortcuts Help	⌘ ?	IM a Contact	Double-click Contact
Visimeet Options	⌘ O	Change Handle	Click Your Name
Add Contact	⌘ A	Contact Options	Right-click Contact
New Meeting	⌘ N	Community Options	Right-click Community
Join Meeting Dialog	⌘ J	Group Options	Right-click Group
Meeting Scheduler	⌘ S	In-meeting Mouse Commands	
In-meeting Keyboard Shortcuts		Video Options	Right-click Video Window
Meeting Chat	⌘ C	Camera Pan/Tilt	Drag within Video Window
Visimeet Dialer	⌘ D	Camera Zoom	Scrollwheel within Video Window
File Sharing	⌘ F	Mute/Unmute Audio Input	Left-click Microphone
Moderator	⌘ M	Audio Input Options	Right-click Microphone
Recorder	⌘ R	Mute/Unmute Audio Output	Left-click Speaker
Network Statistics	Ctrl + ⌘ N	Audio Output Options	Right-click Speaker
User & Meeting Limits	⌘ L	Bring Video Windows to Front	Left-click Webcam
Quit Visimeet	⌘ Q	Video Device Selection	Right-click Webcam

Figure 3 Commands and short cuts pop-up

User Interface

When not in a call (or 'meeting') the user interface is simply a summary of your own availability status and your communities and contacts.

One software feature that is lacking is the ability to check the video you will be sending (your hair, camera angle, framing, lighting, etc.) until you have actually joined a meeting – there is no video preview option. Configuration of default settings, such as which camera is selected for a meeting (where two are connected), and default window positions and sizes, etc., is not immediately obvious. This is done by selecting 'Tools', then 'Options' and selecting the relevant item (audio, video, messaging, etc.) to adjust.

Once in a meeting all of the features of the user interface become apparent, and the video preview starts up.

The user interface now consists of:

- Your own microphone, speaker, and camera controls; these allow you to mute/unmute your microphone, speaker and video, and change the gain on the microphone and the playback level of the audio
- Other user(s) in the meeting. This allows you to have control over the volume and flow of audio and video from each participant in the call. If one participant's audio is louder or softer than another's then you can use the sliders to tailor the levels to your own equipment, thus levelling up the disparate levels you may receive. You can also

mute/unmute audio and/or video from each participant.

- The Janet branding logo (no functionality)
- Desktop sharing icon; dialer (to bring in phone and/or SIP or H.323 endpoints);
- File sharing icon; allowing you to upload a file from your PC and allowing others to download it and run it if they wish
- Recording icon; the recording feature works well, but the resultant file is stored in the cloud and can only be viewed from within a meeting. Recordings can be shared with other contacts or made public.
- Meeting notes icon: Allows all participants to enter chat-like notes during the meeting. These can be saved but they are saved as a rather unwieldy text file. The meeting notes also record when files or uploaded or 'Pix' are sent (see below)
- The moderator interface icon gives the initiator management of the others in the meeting
- The contacts list icon

The area below the function icons changes according to the function that is currently selected.



Figure 4. The Visimeet 'in meeting' functions

While not in a meeting it is possible to minimise the interface, or reduce it to an icon in the system tray. You will continue to remain logged in and your status will persist. Should someone invite you to a meeting you will see the invitation pop-up which gives you 15 seconds to respond. This can be disconcerting if you are engrossed in some other activity, and it is probably better etiquette to use the instant messenger (IM) facility to request a meeting before a meeting invite – the IM method doesn't seem as dramatic.



Figure 5. The meeting invitation alert

When someone is called, they will get an invitation to a meeting (as in Figure 5) and when they accept the invitation, the user interface immediately reverts to the 'meeting mode' and all of the buttons become live. You start to send and receive video by default, immediately after you have joined a meeting. The video images are arranged as small windows at the top right hand side of the desktop, but they can be resized or minimised according to preference, as well as being set to stay on top of other windows. The user interface and each video

participant is presented in a separate window, each of which can be resized, although the application window can only be shrunk to a certain extent. It has no 'mini-mode' and is not configurable in any way by the user.

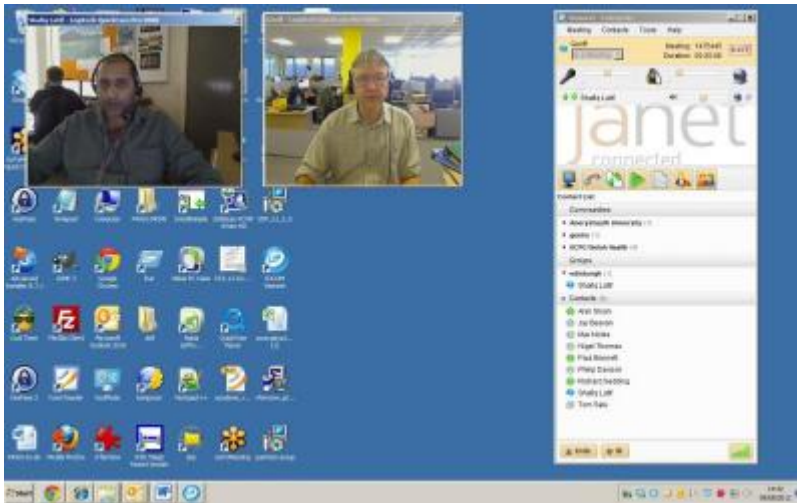


Figure 6. Default lay-out on the desktop while in a call

As long as the user interface window remains the active window, tool-tips are enabled for all of the function buttons.

Right-clicking on a transmitted video or data file allows for a 'Pix' to be sent. This is simply a screen grab of the video or shared data. This could be helpful in low bandwidth (or limited processor) situations, as the Pix can be sent as an alternative to the video – especially where the image is not changing (a presentation slide for example).

Connectivity

In testing there was no need to change any firewall settings at all. On the testers test PCs, office PCs and at home, there was connectivity through the router and firewalls with no additional configuration. For this reason (no need to worry about NAT, ports, gatekeeper registration, etc.) the overall configuration of the software seems easier and less intimidating or technical than the configuration needed for H.323 clients in some environments.

The connection is initiated by the client, which leads to less firewall issues than if the connection was initiated from outside the network and the client was called. On start up the client registers with the server so the connection is established. In some cases it might be necessary to configure the firewall – the software uses TCP port 46000, but will fall back to port 443 or port 80 if port 46000 is blocked outbound.

Call Procedures

The paradigm in the Visimeet world is not one of 'calls', but one of 'meetings'. You don't make calls but join meetings. You do this with contacts that are advertised as being available. This is a familiar method for users of Skype software, where others have to be listed as contacts in order to be called.

To start a meeting you either highlight a contact and invite them, or, if you are direct dialling an H.323 endpoint you start a new meeting and then use the dialler to dial their E.164 number or IP address. Setting calls up using the Janet Videoconferencing service is described in detail in Appendix 4. This involves calling the Janet videoconferencing system using an E.164 number to join a Janet conference via the 'dialer' function.

It is also possible to use the dialer to invite SIP participants to a meeting, but this does not work well currently with the Janet videoconferencing system and is still being tested.

Unlike similar desktop clients that have been tested in this series, it is not apparent how the user can control the bandwidth sent (this is in fact done by adjusting the send resolution of the video being sent). The default is CIF, which sets the bandwidth at 256kbps. This default is automatically set by the software and not configurable by the user until the meeting has started. It is possible to access real-time technical and network statistics regarding the call but the user has no control over them. Connections to standards based systems use H.264 video encoding and the G.711u audio algorithm, which gives reasonable (but not the best) quality.

Meetings can also be scheduled in advance and the creator of the meeting has fine control over the settings of the participants this way. This would be useful for teaching scenarios, as there are 'presenter' options available. A scheduled meeting has a number of configuration options that will make the meeting more like a 'webinar' if required. The scheduler also allows people to be emailed an invitation to the meeting, and also provides a standard calendar file that will put the meeting into a standard user calendar.

Data Sharing

Visimeet offers a proprietary method of data sharing that works in a very similar fashion to H.239 standards-based data sharing. It is possible to share the entire desktop, or an application that is running on the desktop.

The user has some control over the quality and refresh rate of the shared application that is sent to other meeting participants.

However big the window that is being sent the data always opens in a default small window, necessitating that those who are receiving the data will need to resize it to a more suitable size.

Data sharing between H.323 endpoints and Visimeet is possible, but the data sent from a Visimeet client replaces the camera image – it is not seen in addition to the remote camera, but as an alternative. Data sharing from an H.323 endpoint needs to be sent as main image – so replacing the camera as the primary output, so that for Visimeet viewers it replaces the image from the remote camera. The data sharing protocol (H.239) is not supported between the two networks.

The user has some control over the frames per second that are sent (the refresh rate) for the data that is being sent. If there are problems with data sharing it may be worth experimenting with these. The highest setting worked best when testing to an Android tablet, for example.



Figure 7 Data sharing during a call

Quality Testing

These tests were performed on the PC and equipment described in Appendix 1 below. It should be noted that tests are conducted on a live network and so any results could be affected by the state of the live network at the time of testing.

Audio Tests

The standard equipment (i.e. headsets with microphones) was used for all of the audio and video tests.

Tests were conducted at 384kbps and also at unlimited bandwidth. The capped calls (at 384kbps) were set up to simulate an ADSL broadband connection.

Audio tests were conducted in a talking heads scenario, and in a scenario with movement and data sharing.

Video Tests

All tests were made with the picture at full screen. Because it is not possible to set a particular

bandwidth within the software the 1920kbps were in fact whatever bandwidth was negotiated across the network. For the 384 kbps calls a router was set up to restrict bandwidth to the required level in both directions

When using a USB microphone and speaker set, the Logitech® Webcam Pro 9000 and the Windows 7 PC in full screen mode, results were generally excellent, and it felt as though you were sitting in front of a dedicated unit rather than a PC running a software videoconferencing application.

For both the audio tests and the video tests, evaluators experimented with sending and receiving at 720p resolution (High Definition) but the results were not as good as when using the lower resolution VGA format. This was possibly due to the camera not being HD, so the software was scaling up the image, using a lot of PC resources.

All testing was done with a good quality Logitech Pro 9000 camera and using a modern Windows 7 PC. The various test criteria are described in the 2012 version of the Evaluations Documentation [REF], and the detailed results are reproduced in Appendix 2 below.

Tests conducted

All tests were conducted first at 384kbps and then repeated at unlimited bandwidth. In all tests the send/receive video format was VGA, Initially some preliminary testing was done with the video format set at 720p but because HD cameras were not being used the results were not as good as using VGA.

Audio evaluation tests

Talking heads – The audio was consistently of good quality in the unlimited bandwidth tests, but did suffer in the 384kbps testing. Double talk (both ends talking at the same time) led to only a slight stuttering perceived at one end. There were serious discrepancies in the quality perceived by the testers at 384kbps, which may be down to the asynchronous nature of the link: one tester had all traffic throttled between himself and the Visimeet server; the other did not. To see if this reflected what a real ADSL (broadband) link would be like, Visimeet was tested from home by one tester, using a typical rural 2Mbps download, 256kbps upload home internet link. In these tests audio was perfectly acceptable, and in general the ‘real’ ADSL testing was far superior to the ‘simulated’ ADSL testing in the lab.

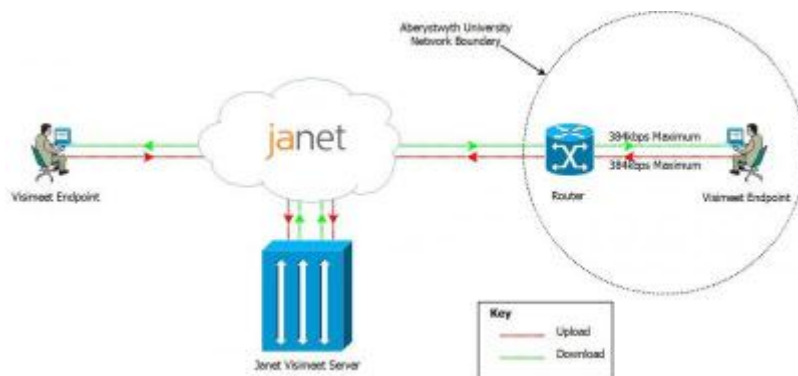


Figure 8. Network configuration for 384kbps tests

Constant movement both ends with shared data – Results for audio were very similar to those without movement and data, although there was a slight clipping experienced at the throttled end of the call.

Video evaluation tests

Talking Heads, 384kbps – The low-bandwidth throttling affected Visimeet video badly. The poor quality of the visual image was such that the testers felt that a phone call would have been more successful. The lip-synchronisation was so delayed that to look at the video was a distraction to the conversation.

Talking Heads, unlimited bandwidth – In marked contrast to the 384kbps test; the video was excellent on all points during these calls.

Movement and data, 384kbps –.Again, the low bandwidth really hit the call quality, although it should be stressed that these results were not experienced when the software was tested from home using a genuine internet broadband connection, rather than artificially generated traffic blocking.

Movement and data, unlimited bandwidth –.with constant movement and data sharing, one tester did notice a slightly perceptible deterioration in lip-synchronisation, blockiness and blurriness, but these were very slight and the results were generally excellent at this bandwidth.

Conclusions

With its easy to use interface, multi-way communications and presence awareness, as well as the ability to inter-work with the Janet videoconferencing system and standards-based equipment, Visimeet combines 'the best of both worlds' in that it offers the functions and features of a proprietary product (like Skype) with most of the advantages of a desktop H.323 system.

It has a simple and intuitive interface, with no 'technical' configuration necessary, and has useful 'extras' like the instant messaging and recording features.

A small niggle is that the data sharing window always starts in a ridiculously small mode. The biggest failing in interworking with H.323 during the VTAS testing was not being able to send data without it replacing the video (speaker) image – in either direction. IOCOM is working on enabling this in the next version of the software.

Also, when H.323 participants conference with a multi-way Visimeet meeting, there is no automatic voice-switching, so if this is not done manually by the visimeet user selecting the appropriate window, the H.323 participant(s) do not always see the person who is currently speaking.. This can be resolved if the videoconference is enabled via the Janet videoconferencing service (which uses an H.323 MCU and performs automatic voice switching).

The software has a different default pricing model to the other desktop videoconferencing

systems reviewed in this series, as it is generally by a monthly fee (although free for one-to-one use and as 'webinar' recipients). It is also possible to host a licensed version on-site, or purchase the software for a one-off payment (although this is not apparent from the website). With current charging models, some of the other desk-top systems reviewed would be paid for after just four months of using Visimeet. It appears to be a trend that the monthly charge model (instead of a one-off purchase) is becoming more prevalent as videoconferencing becomes a cloud-based service and there are many alternative products that perform the same functions as Visimeet with similar pricing models. What this Janet version of Visimeet has over those others is that it is Janet-connected (its hosted on the Janet network), and it inter-works directly with standards-based equipment (which most clients don't do).

One extra advantage of the software is that once the user has created an account at IOCOM (which is necessary to download the software), their single registration allows them to download and install the software on all their devices: office PC or Mac; office laptop, Android/iOS phone or tablet. There is also a web-client version of the software which requires no Flash or Java (etc.) installation – this does not include audio or video transmit however. It is also possible to join any meeting by telephone. This was tested and worked well. The experience for the person on the end of the phone is similar to being in a conference call.

Only limited ad-hoc testing of these versions for other devices was conducted but was generally successful.

Pros:

- Turns a PC or Mac into a videoconferencing unit effectively and affordably
- Fully compatible with the Janet videoconferencing system and H.323 endpoints
- Excellent quality High Definition (720p) received
- Quick and easy to call other Visimeet users
- Clean, simple, intuitive user interface.
- Meeting recording facility
- Single sign-in can be used on multiple devices
- Single registered user can invite multiple guests into a meeting

Cons:

- Lack of user control over default bandwidth and call settings
- Did not appear to support data and video simultaneously with H.323 devices
- Not possible to download recorded meetings
- Lower quality audio when conferencing to the Janet videoconferencing system or H.323 clients
- Shared data window is unshared when minimised
- No video preview window

Appendix 1 – Description of the PCs and cameras used for the testing

During all the tests, the PC specifications (at both ends) were as follows:

Windows 7 PC

Purchased in the spring of 2009, this is a Dell™ OptiPlex™ 360 series PC. It has an Intel® Core™2 Duo processor E7400 running at 2.80GHz. It has 4GB of Random Access Memory (RAM) and a 150GB New Technology File System (NTFS) hard drive. It is running Windows 7 Professional Edition and has a Windows Experience Rating of 3.5.

The attached USB camera is a Logitech® Webcam Pro 9000 – a near top-of-the-range camera at the time of purchase (2009).

This system is intended to replicate an average priced typical PC purchased in 2009 to be used for videoconferencing.

Appendix 2 -Interoperability tests

Point-to-point dialling

The test calls listed below were made without the use of a Multipoint Control Unit (MCU) (i.e. they were point-to-point calls) except where indicated. However, they were made using a TANDBERG Video Communication Server (VCS) Control and TANDBERG Expressway™ acting as gatekeeper and firewall traversal respectively. Bandwidth was set to 1920kbps to try to encourage the two ends of the call to negotiate the best possible encoding and formats. Table 1 shows the results experienced. These are shown as an illustrative guide and only relate to the set of tests made during this evaluation. Other testers using alternative hardware and different networks might experience different results.

Table 1 – Point-to-point and MCU interoperability testing

Remote Equipment	Video encoding	Video format transmitted	Video format received	Audio encoding	Notes
TANDBERG MXP 6000	H.264	640x480	4CIF	G.711/Speex	Audio notice quality in a than when only call; b useable.
Polycom® VSX® 8000	H.264	CIF	CIF	G.711/Speex	
TANDBERG MXP 1700	H.264	VGA	768 x 448p	G.711/Speex	

Cisco C20	H.264	640x480	768 x 448p	G.711
LifeSize ® Room™ 200	H.264	VGA	704 x 480p	G.711
Visimeet to CODIAN MSE MCU	H.264	VGA	720p	AAC-LD/PCMU 16K mono
Visimeet to Polycom MGC				

Appendix 3 – Full results of Evaluation testing of Janet ICOM Visimeet

Tests were conducted at the different bandwidths, from both ends of the call, and the call quality was rated by the receiving end in each case. The following potential impairments were considered and rated by the evaluators, and marked on a scale of one to five, where:

1 = imperceptible;

2 = slight or occasional perceptible impairment;

3 = perceptible impairment;

4 = constant (significant) impairment;

5 = impairment to a disruptive degree.

The actual tests carried out were:

Audio - Talking Heads videoconference, Talking heads with movement and data sharing videoconference. These are repeated at each bandwidth while audio quality is rated.

Video - Talking Heads videoconference, Talking heads with movement and data sharing videoconference. These are repeated at each bandwidth while video quality is rated.

The quality issues considered for video (i.e. the subjective video impairments tested) during these test calls were as follows:

- **LS** Lip synchronisation
- **BLK** Block distortion (tiling)

- **BLR** Blurring (reduced edge sharpness and spatial detail)
- **CLR** Colour error
- **JRK** Jerkiness (distortion of smooth motion)
- **OP** Object persistence (lagging images from previous frames as faded or outline images)

The following test results should be read in conjunction with the above information.

Audio Tests

Talking HeadsTest	384kbps SL	384kbps GC	1920 kbps SL	1920 kbps GC	Average over all tests
Audio levels?	1	1	1	1	1
Audio quality?	1	2	1	2	1.5
Echo cancellation?	1	1	1	1	1
Double talk?	1	3	1	2	1.75
Audio drop-outs	2	1	1	1	1.25
Audio stuttering/ clipping	2	1	1	1	1.25
Talking Heads + Movement + DataTest	384kbps SL	384kbps GC	1920 kbps SL	1920 kbps GC	Average over all tests
Audio levels?	1	1	1	1	1
Audio quality?	1	2	1	1	1.25
Echo cancellation?	1	1	1	1	1

Double talk?	1	4	1	1	1.75
Audio drop-outs	2	1	1	1	1.25
Audio stuttering/ clipping	2	2	1	1	1.25

Video Tests

384 kbps Talking Heads Test (VGA sent and received)

Scorer	LS	BLK	BLR	CLR	JRK	OP
SL	5	2	1	1	2	3
GC	5	3	2	1	3	3
Average	5	2.5	1.5	1	2.5	3

384 kbps Talking Heads, Movement and Data Test

Scorer	LS	BLK	BLR	CLR	JRK	OP
SL	5	2	3	1	2	3
GC	5	4	2	1	3	4
Average	5	3	2.5	1	2.5	3.5

1920 kbps Talking Heads Test

Scorer	LS	BLK	BLR	CLR	JRK	OP
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SL	1	1	1	1	2	1
GC	1	1	1	1	1	1
Average	1	1	1	1	1.5	1

1920 kbps Talking Heads, Movement and Data Test

Scorer	LS	BLK	BLR	CLR	JRK	OP
SL	2	2	2	1	2	1
GC	1	1	1	1	1	1
Average	1.5	1.5	1.5	1	1.5	1

Appendix 4 – Using the Janet Booking System to book H.323 endpoints into a Visimeet meeting

1. Make the booking on the Janet Videoconferencing Booking Service, adding any H.323 endpoints, Janet Desktop Users, and/or IP guests in the usual way. If you are not sure how to do this, see the animated guides available at the booking service home page.
2. Add an IP guest with unknown IP address
3. Enter the email address of the Visimeet user
4. The Visimeet user will receive an email giving them the details that they need to join the videoconference (IP address to call, and conference ID)
5. At the time the conference is due to start the Visimeet user joins a new meeting and uses the dialer to select an H.323 call and dials the supplied IP address and conference ID in the format <number>@<IP address> (for example 56789@193.60.198.137). The easiest way to do this is to copy and paste from the confirmation email into the Visimeet dialer window. This will work if the Visimeet meeting has a single user or multiple users (but the Janet videoconferencing participants will only see one talker at a time from the Visimeet meeting).

New guest venue:

Guest type: ★
☒ IP
☐ ISDN
☐ SIP
☐ JVCs Desktop
☐ Telephone (Audio Only)

Guest name: ★
Geoff Constable

E.164/IP address: ★

☒ Address unknown: the guest will be emailed an address to call
For information on IP dial-in see [Help](#).

DTMF string:

If you have been provided with an extension code (eg. PIN, conference ID) for this venue, enter it here as the DTMF string.

Email address: ★
ccc@aber.ac.uk

Figure 9. Booking a Visimeet meeting into a Janet videoconference

One or more Janet videoconferencing or other H.323 endpoint(s) can be added to a Visimeet meeting by dialling the endpoint using IP address or E.164 number, although it is recommended that multiple H.323 or SIP participants join via the Janet system and then connect to the Visimeet meeting.

Source URL: <https://community.jisc.ac.uk/library/advisory-services/iocom-visimeet-janet-connected-desktop-client>

Links

- [1] <https://community.ja.net/library/advisory-services/overview-videoconferencing-desktop-software>
- [2] <http://www.iocom.com/>
- [3] <http://janet.iocom.co.uk/pricing/>