

AVISTAR™

Converge
Communicate
Collaborate

Avistar C3 Communicator™

April 2010

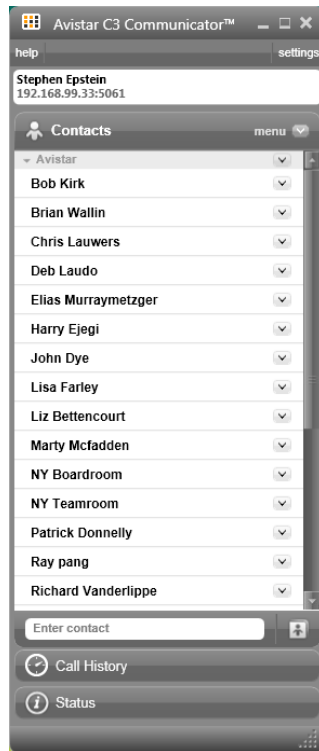


Avistar C3 Communicator™

PRODUCT OVERVIEW

Avistar C3 Communicator™

Avistar C3 Communicator™ delivers a business class, commercial grade, feature-rich desktop visual communications experience that supports industry standards, and fosters greater user productivity, connectivity and collaboration.



Key Benefits

- Increase communication and productivity by connecting distributed users with video
- Leverage existing network, systems and videoconferencing infrastructure
- Improve user time efficiency with presence-based video calling
- Extend the reach of room video conference rooms to the desktop and mobile users
- Increase cooperation and improve information flow with ad-hoc multi-party calling
- Avoid travel costs by hosting multi-party video conferences
- High level quality of experience

Avistar C3 Communicator™

High Quality Visual Communications experience

High quality media experience with support for high definition video

- Up to 720p30 transmit and receive resolutions
- Selectable 4:3 and 16:9 aspect ratios for transmitted video
- Configurable call rates up 1152 Kbps
- H.264, H.263+, and H.263++ video codecs
- AAC-LC, G.711, G.722, G.722.1c audio codecs

Other features

- Full Screen Mode and PIP
- Dial Key Pad for DTMF
- AEC (Acoustic Echo Cancelation)
- Call Hold, Resume and Transfer
- Network Health and Monitor Utility
- Administrative Management Center



Avistar C3 Communicator™

END USER EXPERIENCE

Avistar C3 Communicator™

End User Experience

Placing Calls

- Use the quick connect contact list to place a call
- Call using the type in bar in the contact list
 - Dial SIP URI (e.g. personal meeting room 8888@avistar.com)
 - Dial hostname, IP address

Call Controls

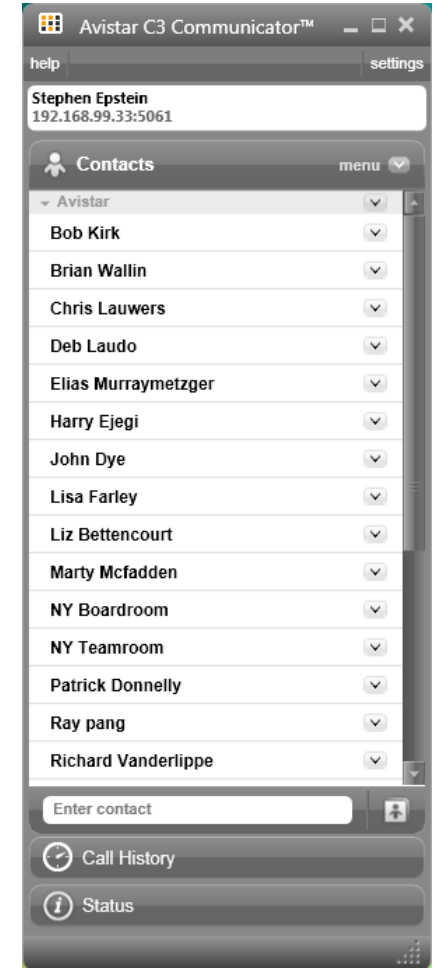
- Full screen mode, Picture-In-Picture (PIP)
- DTMF Keypad
- Speaker volume, Microphone mute
- Hold, Resume, Hang-up

Inbound Calls

- Accept, Reject

Multiparty Conferences


- Calling into multiparty conferences - like any other contact
- Setup a multiparty contact for single click to call conferences



Avistar C3 Communicator™

End User Experience

Network Health (Call Statistics)

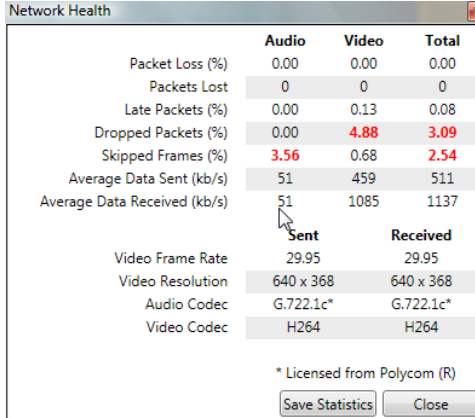
- Click on  to display call statistics
- Useful for troubleshooting network or other issues
- Use this to verify resolution and frame rate
- High number of Dropped Packets/Frames shows likely problem with bandwidth limits for other party

General Settings

- Customize ring timeout, ringtone, answer mode
- Configure maximum call bandwidths (send, rcv)

Audio Video Settings

- Pick audio and video devices
- Control speaker volume, microphone gain
- Create custom device profiles
- One-click switch between profiles
- Link to advanced control settings



	Audio	Video	Total
Packet Loss (%)	0.00	0.00	0.00
Packets Lost	0	0	0
Late Packets (%)	0.00	0.13	0.08
Dropped Packets (%)	0.00	4.88	3.09
Skipped Frames (%)	3.56	0.68	2.54
Average Data Sent (kb/s)	51	459	511
Average Data Received (kb/s)	51	1085	1137
	Sent	Received	
Video Frame Rate	29.95	29.95	
Video Resolution	640 x 368	640 x 368	
Audio Codec	G.722.1c*	G.722.1c*	
Video Codec	H264	H264	

* Licensed from Polycom (R)

Save Statistics Close



Management Center

Address Book Global Directory General Audio/Video Communications Administration Environment

Audio / Video Settings

Active Profile: Office [Create] [Rename] [Delete]

Camera: Current Device Logitech Webcam Pro 9000
Profile Device: Auto
Aspect Ratio: 16x9

Headset / Speakers: Current Device Speakers (2- USB Audio Device)
Profile Device: Speakers (2- USB Audio Device)

Microphone: Current Device Microphone (2- USB Audio Device)
Profile Device: Microphone (2- USB Audio Device)
 Cancel Audio Echo



Avistar C3 Communicator™

PACKAGING

Avistar C3 Communicator™ “Edition” Packages

Packages	Products	Key Features	Target Market
Standalone – Edition	Endpoint only: Avistar C3 Communicator™	Advanced interface design – including: <ul style="list-style-type: none"> ✓ Up to 720p Transmit/Receive ✓ AEC (Acoustic Echo Cancellation) ✓ Full Screen & PIP (Picture in Picture) ✓ Advanced Call Controls <ul style="list-style-type: none"> ○ Hold & Transfer ○ Multi Line ✓ Management Center ✓ Quick Connect Contact List ✓ LDAP Corporate Directory Integration 	<ul style="list-style-type: none"> ➤ Small/Medium Enterprises, 25-5000 users ➤ Users typically in one region ➤ Infrastructure is typically centralized
Pro Edition	Avistar C3™ Endpoint & <ul style="list-style-type: none"> • Avistar C3 Tunnel Server™ 	Basic – Edition Features Plus: <ul style="list-style-type: none"> ✓ Internal and remote users supported ✓ Calling to/from SIP endpoints ✓ Firewall Traversal ✓ SIP Registrar 	<ul style="list-style-type: none"> ➤ Small/Medium Enterprises, 25-5000 users ➤ Users typically in one region ➤ Infrastructure is typically centralized
Business Edition	Avistar C3™ Endpoint & <ul style="list-style-type: none"> • Avistar C3 Tunnel Server™ • Avistar C3 Conference™ 	Pro Edition Features Plus: <ul style="list-style-type: none"> ✓ Multiparty conferencing support ✓ Administrative interface for C3 Conference 	<ul style="list-style-type: none"> ➤ Small/Medium Enterprises, 50-500K users ➤ Users typically in multiple regions ➤ Infrastructure is typically centralized

Ubiquitous Visual
Communications –
Anywhere, anytime, anyplace

Immediate competitive client
communications, customer
intimacy and business models

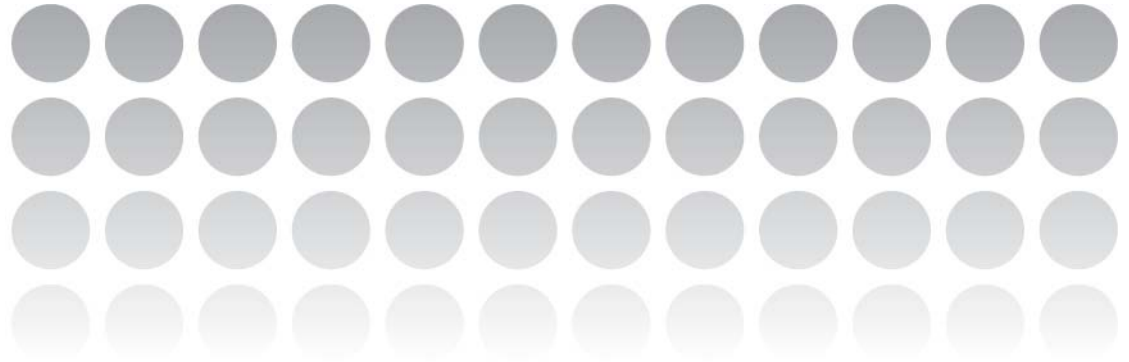
Reduce time and travel expenses,
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Multiparty calls, one click, instant,
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Improve Culture – Break down
silos, improve global
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Speed clear articulation of data

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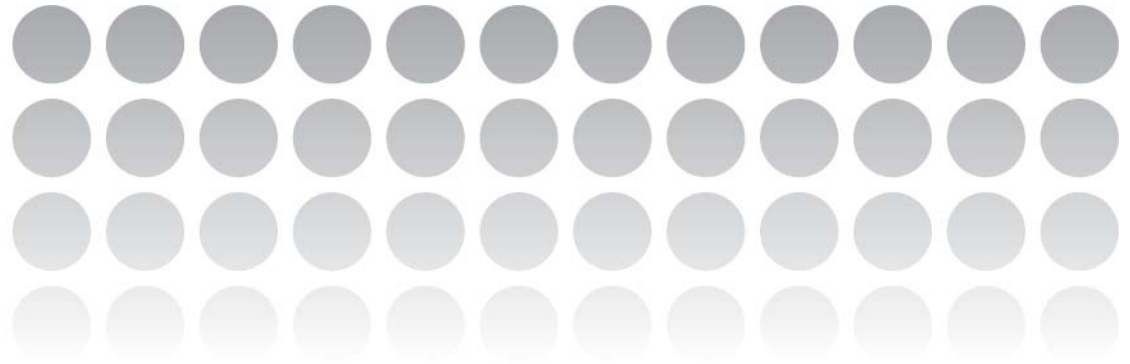


AVISTAR™

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For more information

info@avistar.com



AVISTAR™

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Avistar C3 Unified™ - Microsoft OCS Edition

January 2010

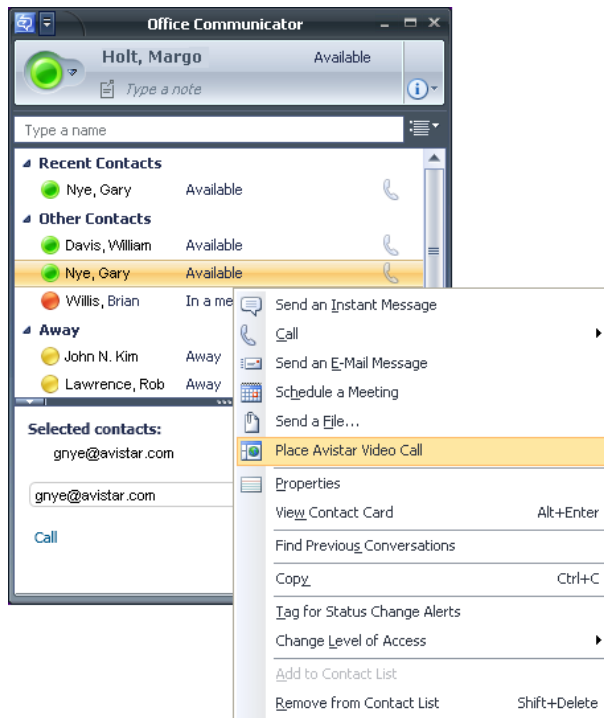


Avistar C3 Unified™ - Microsoft OCS Edition

PRODUCT OVERVIEW

Avistar C3 Unified™ - Microsoft OCS Edition

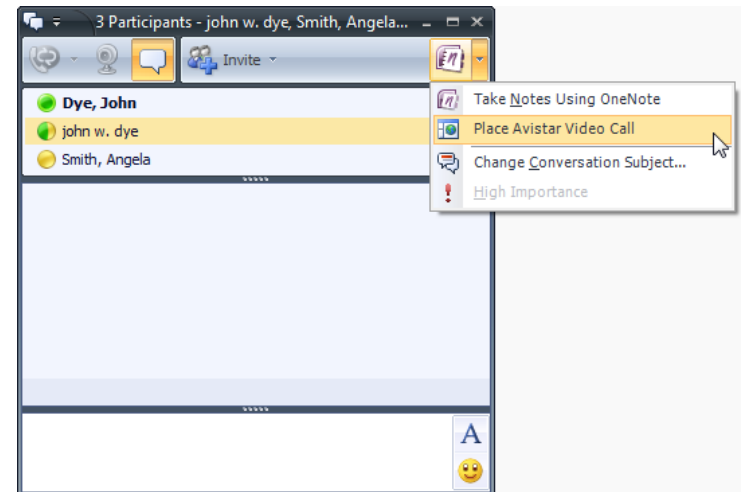
Avistar C3 Unified™ - Microsoft OCS Edition enables Microsoft® Office Communicator users to enjoy a feature-rich visual communications experience that supports industry standards, and fosters greater employee adoption of UC tools.



Avistar C3 Unified™ - Microsoft OCS Edition

Key Benefits

- Increase communication and productivity by connecting distributed users with video
- Leverage existing investment in Microsoft OCS and Office Communicator
- Improve user time efficiency with presence-based video calling
- Extend the reach of room video conference rooms to the desktop and mobile users
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Avistar C3 Unified™ - Microsoft OCS Edition

High Quality Visual Communications experience

High quality media experience with support for high definition video

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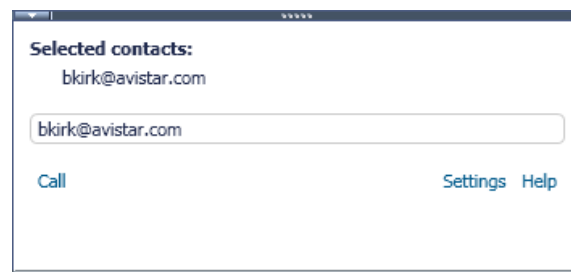
END USER EXPERIENCE

Avistar C3 Unified™ - Microsoft OCS Edition

End User Experience

Placing Calls

- Use the contact list in MOC to place a call by right-clicking on “Place Avistar Video Call”
- Call using the type in bar in the C3 Unified Tab
 - Dial SIP URI (e.g. personal meeting room 8888@avistar.com)
 - Dial hostname, IP address



Call Controls

- Full screen mode, Picture-In-Picture (PIP)
- DTMF Keypad
- Speaker volume, Microphone mute
- Hold, Resume, Hang-up




Inbound Calls

- Accept, Reject, Redirect, Merge




Ad-hoc Conferences

- Invite a user to an existing call by clicking on the  button in the program window
- Invite multiple users to a call at once by control-click on contacts and pressing the Call button
- Escalate a multi-party video chat instantly into a multi-party video call

Avistar C3 Unified™ - Microsoft OCS Edition

End User Experience

Network Health (Call Statistics)

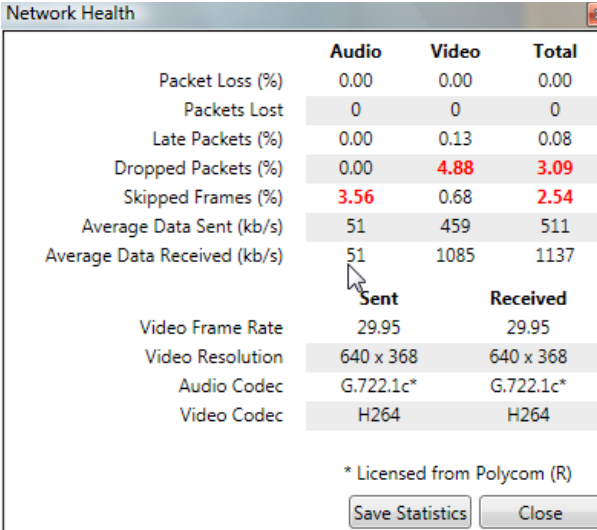
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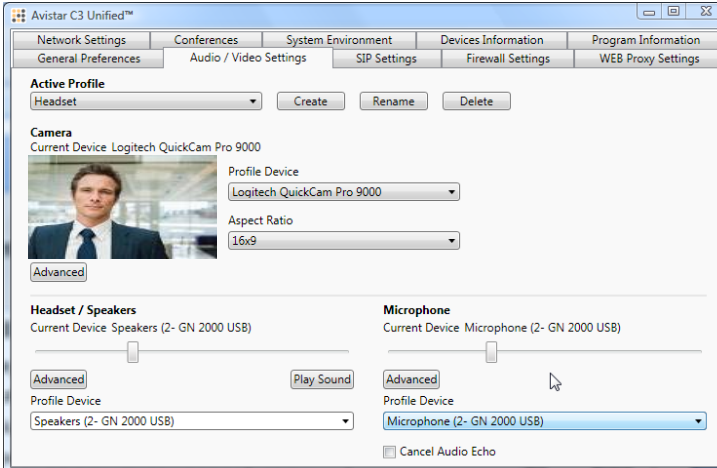
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Video Frame Rate	29.95	29.95	
Video Resolution	640 x 368	640 x 368	
Audio Codec	G.722.1c*	G.722.1c*	
Video Codec	H264	H264	

* Licensed from Polycom (R)

Save Statistics Close



Avistar C3 Unified™

Network Settings | Conferences | System Environment | Devices Information | Program Information

General Preferences | Audio / Video Settings | SIP Settings | Firewall Settings | WEB Proxy Settings

Active Profile
Headset [Create] [Rename] [Delete]

Camera
Current Device: Logitech QuickCam Pro 9000
Profile Device: Logitech QuickCam Pro 9000
Aspect Ratio: 16x9
[Advanced]

Headset / Speakers
Current Device: Speakers (2- GN 2000 USB)
[Advanced] [Play Sound]
Profile Device: Speakers (2- GN 2000 USB)

Microphone
Current Device: Microphone (2- GN 2000 USB)
[Advanced]
Profile Device: Microphone (2- GN 2000 USB)
 Cancel Audio Echo



Avistar C3 Unified™ - Microsoft OCS Edition

MARKET POSITIONING

Avistar C3 Unified™ - Microsoft OCS Edition

Competitive Differentiators

Avistar C3 Unified™ vs. Microsoft OCS video

- Arguably superior user experience
- Ad-hoc multi-party calling with continuous presence and choice of layout
- Truly Standards-based (SIP, H.264, Etc.) means you can call other third-party endpoints
- HD video quality (send / receive)

Scalability & Economical

- No need for Microsoft Media Servers
- Avistar C3 Conference™ delivers an economical and exciting multi party experience
- Avistar “Edition” pricing makes purchasing much simpler and economical
- No “hidden” charges or user up lift fees - such as Microsoft Client Access Licenses (CALs)
- Designed to deliver a scalable and manageable video conferencing experience

Avistar C3 Unified™ - Microsoft OCS Edition

Market Opportunities

Large and Medium sized businesses

- ❑ LMB are the likely OCS adopters due to infrastructure requirements
- ❑ Distributed organizations
- ❑ Pressure to reduce costs and travel
- ❑ Desire to leverage existing investments in conferencing systems
- ❑ Will insist on bandwidth management

Microsoft reseller channel

- ❑ OCS vendors will have an opportunity for add-on sale
- ❑ Need to drive increasing bookings and revenue
- ❑ Need to deliver a scalable and manageable OCS video experience



Avistar C3 Unified™ - Microsoft OCS Edition

PACKAGING

Avistar C3 Unified™ - Microsoft OCS Edition

“Edition” Packages

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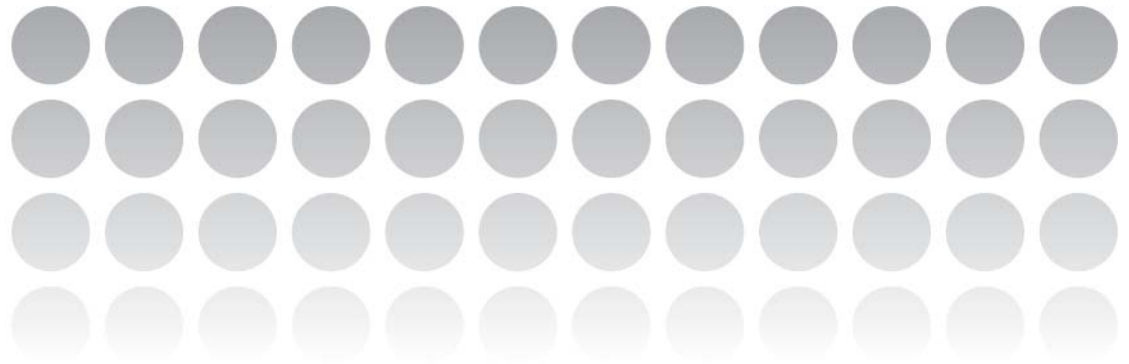
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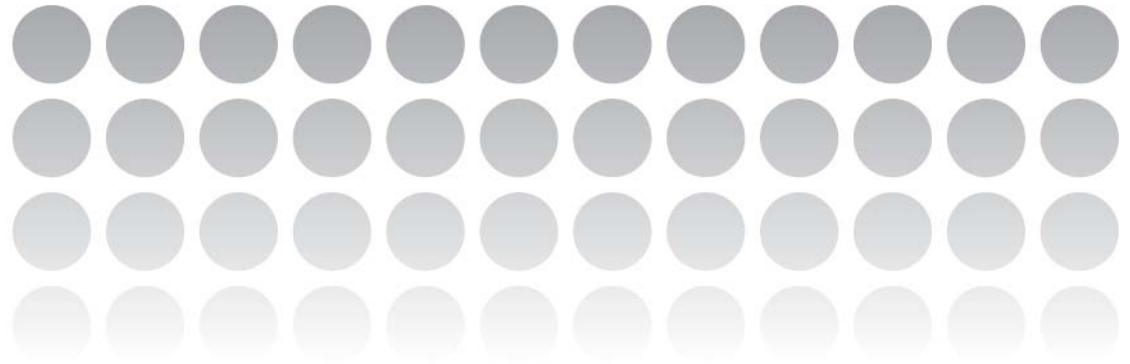


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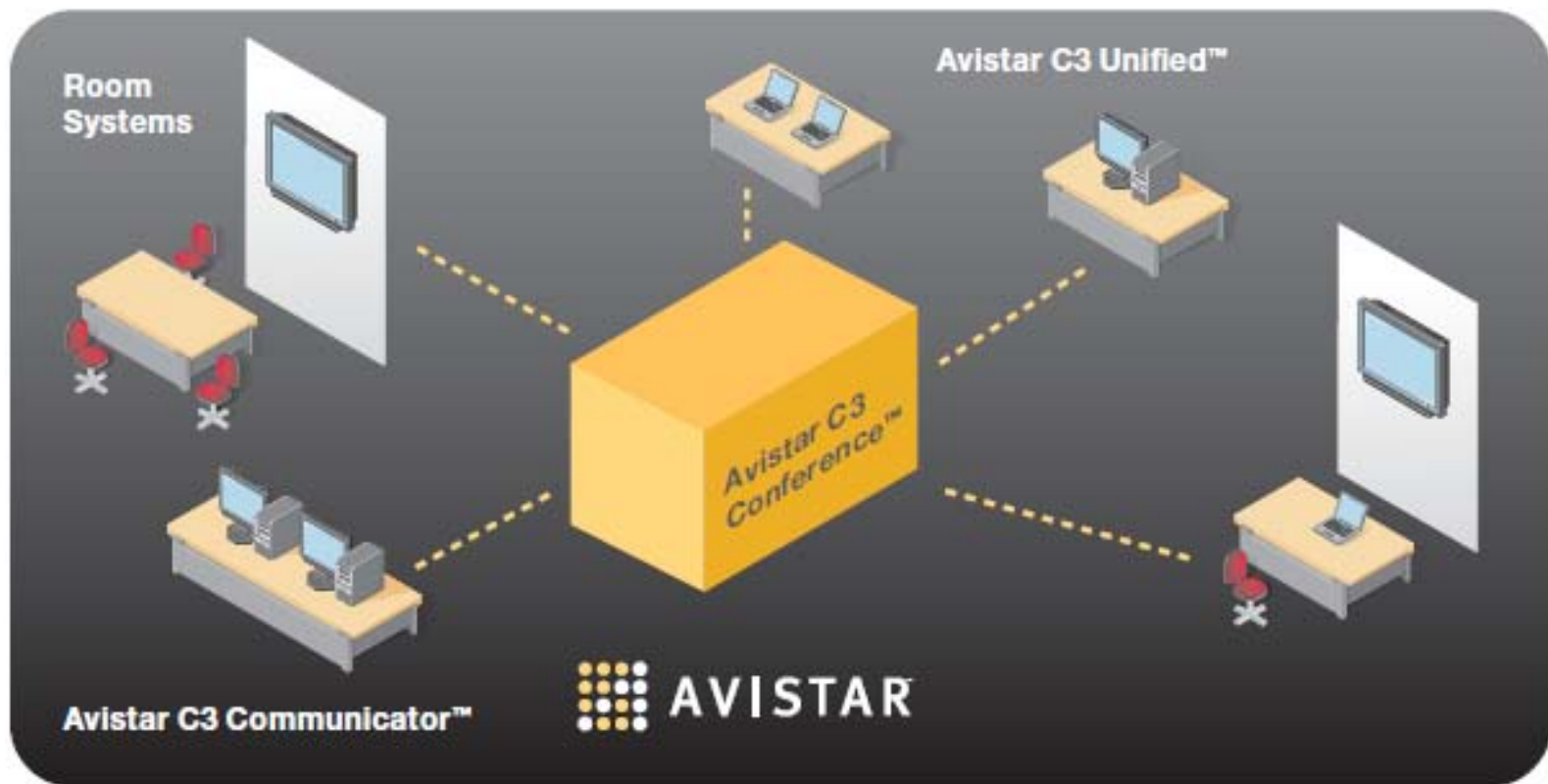
Avistar C3 Conference™

Release 2.0

January 2010

Avistar C3 Conference™

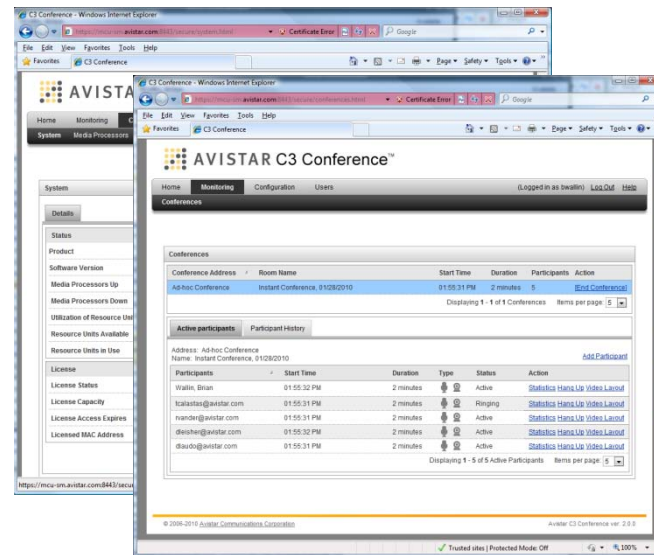
Avistar C3 Conference is a standards-based, software multipoint control unit (MCU) that provides high quality voice and video conferencing.



Avistar C3 Conference™

Key Benefits

- Increase communication and productivity by connecting distributed teams in a single conference
- Increase the value of existing endpoint investments with multipoint voice and video conferencing that is compatible with all major vendors' endpoints via SIP
- Investment protection through software deployed on standard servers
- Right-sized buying enables a company to manage the risk and cost associated with deploying new solutions



Ad-hoc Conferences

- Invite a user to an existing call or merge two calls together to create an ad-hoc conference
- Once connected to the conference, invite other users to join via your existing address book
 - Invite method prevents unauthorized access and maintains conference privacy
- Requirements for ad-hoc conferencing
 - Client supports the Avistar C3 Conference Client API (currently implemented in Avistar C3 Unified – Microsoft OCS Edition)
 - Configure the ad-hoc conferencing service (example: ad-hoc@avistar.com) in the client

Personal Meeting Rooms

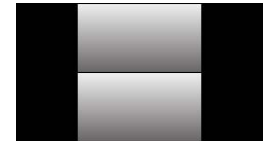
- Users call the personal meeting room address and are instantly connected to the conference
 - Address examples: **100@192.168.15.15** and **100@company.com** (when registered with a SIP Registrar/Proxy)
- Use for scheduled or ad-hoc meetings
- Assign a personal meeting room address to every video user
 - Resources are not used until users connect to the meeting room
- The number of participants supported in a conference is only limited by the capacity of the MCU

Avistar C3 Conference™

High Quality Conferencing Experience

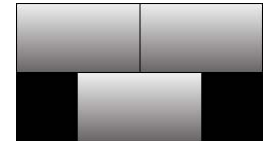
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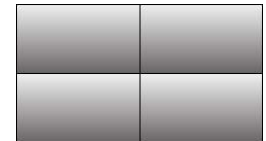
Full transcoding and transrating for all users in a conference

- Seamlessly supports endpoints with different capabilities



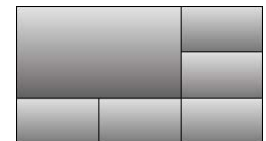
Hide-self option eliminates the distraction of seeing yourself in a conference

- It also enables an additional user to be shown in continuous presence layouts



Automatic continuous presence layout selection

- The continuous presence layout automatically changes based on the number of users in the conference
- For conferences with more than seven users, the six most recent speakers will be displayed in the video window



Personal layout selection

- Users can choose between continuous presence and current speaker using '5' on the keypad

Supported Continuous Presence Layouts

Avistar C3 Conference™

Right Sized Purchasing and Deployment Flexibility

Avistar C3 Conference is purchased on a per port basis

- One port allows one endpoint to connect to the MCU using a resolution of widescreen VGA (368p30)
- One port provides a license for 26 resource units
- A license key specifies the server MAC address, resource units and license expiration

Capacity is managed using ‘Resource Units’ to ensure maximum usage flexibility

- The configured resolution of a meeting room determines how many resource units are used when an endpoint connects to the MCU
- Higher resolutions use more resource units

Processor speed determines the resource unit capacity of the host server

- Any dual-core processor or higher is supported
- Avistar C3 Conference will automatically profile the server to determine resource capacity

Resolution*	Minimum Call rate	Resource Units / Endpoint
320 x 176	128 Kbps	7
400 x 224	128 Kbps	10
512 x 288	256 Kbps	16
640 x 368	384 Kbps	26
704 x 400	384 Kbps	30
848 x 480	512 Kbps	43
1024 x 576	768 Kbps	62
1280 x 720 (720p30)	1024 Kbps	97

*Additional Resolutions Supported

Example Processors	Ports Supported	Resource Units
Dual Intel Xeon CPU X5570 @ 2.93 GHz	53	1388
Dual Intel Xeon CPU L5420 @ 2.50 GHz	29	771
Intel Core 2 CPU 6400 @ 2.13 GHz	4	124
Intel Pentium D CPU @ 2.8 GHz	4	106

Avistar C3 Conference™

Simple to Deploy and Manage

Install and use in minutes

- Install Avistar C3 Conference software
 - Accept the license agreement
 - Specify the default administrative user
- Upload license file
- Configure a meeting room
- Call the meeting room

Web-based administrative interface for ease of management

- Manage settings, meeting rooms, and administrative users
- Monitor MCU status and resource usage
- Manage and monitor conferences
 - Start conferences and add users
 - Hang up and end conferences
 - Control video layouts
 - View media statistics
- Multi-level administrative access control using Windows domain and local host authentication authorities

Analyze conference usage and resource utilization

- All details can be logged to a Microsoft SQL Server 2008 database

The screenshot shows a web interface for managing conferences. At the top, there is a table with columns: Conference Address, Room Name, Start Time, Duration, Participants, and Action. One conference is listed: Ad-hoc Conference, Instant Conference, 01/28/2010, 01:55:31 PM, 2 minutes, 5 participants, with an [End Conference](#) link. Below this is a summary: "Displaying 1 - 1 of 1 Conferences Items per page: 5".

Below the summary are two tabs: "Active participants" (selected) and "Participant History". Under "Active participants", there is a sub-header: "Address: Ad-hoc Conference Name: Instant Conference, 01/28/2010" and an [Add Participant](#) link.

The main table lists active participants with columns: Participants, Start Time, Duration, Type, Status, and Action. The participants listed are:

Participants	Start Time	Duration	Type	Status	Action
Wallin, Brian	01:55:32 PM	2 minutes	📹	Active	Statistics Hang Up Video Layout
lcalastas@avistar.com	01:55:31 PM	2 minutes	📹	Ringin	Statistics Hang Up Video Layout
rvander@avistar.com	01:55:31 PM	2 minutes	📹	Active	Statistics Hang Up Video Layout
dleisher@avistar.com	01:55:32 PM	2 minutes	📹	Active	Statistics Hang Up Video Layout
dlaudo@avistar.com	01:55:31 PM	2 minutes	📹	Active	Statistics Hang Up Video Layout

At the bottom, it says: "Displaying 1 - 5 of 5 Active Participants Items per page: 5".

The "Add Meeting Room" dialog box contains the following fields and options:

- Meeting Room Number: 100
- Meeting Room Name: Personal Meeting Room
- Maximum Call Rate: 384 Kbps
- Aspect Ratio Sent: 16:9
- Maximum Video Resolution Sent: 640 x 368
- 4:3
- Maximum Video Resolution Sent: 640 x 480

Buttons: Save, Cancel

Avistar C3 Conference™

Competitive Differentiators

Software-only solution

- No proprietary hardware appliance required, customers can deploy on their corporate standard Microsoft Windows server

Right-sized buying and deployment flexibility

- No pre-set port configurations optimized for the hardware vendor, customers can purchase conferencing capacity based on their needs
- Distribute conferencing licenses across one or more servers based on regional deployment requirements; easily adapt if usage patterns dictate

Lowest per port price on the market for external, stand-alone video bridges that support standards based codecs and protocols

- \$999 per port for widescreen VGA (368p30) conferencing
- Included with Avistar “Business Editions”

Usage flexibility ensures maximum return on investment

- A 24 port license can support conferencing for any of the following scenarios:
 - 6 HD video participants (720p30) plus 42 audio-only endpoints
 - 24 video participants at Widescreen VGA resolution (368p30)
 - 62 video participants at Widescreen FCIF (224p30) plus 4 audio-only endpoints
 - 624 audio-only participants using any supported audio codecs

High quality audio and video experience

- Optimized for a natural interaction

Avistar C3 Conference™

Market Opportunities

Avistar Desktop Products

- Add multiparty conferencing for Avistar C3 Communicator™ and Avistar C3 Unified™ – Microsoft OCS Edition
- Sell stand-alone or as part of the Business Edition package

3rd Party Room Systems

- Add multiparty conferencing for room systems that don't include embedded MCUs
- Avistar C3 Conference is compatible with all major vendors' endpoints including LifeSize, Polycom, Tandberg, Aethra, and Sony.

Voice Over IP systems with video softphones

- Add multiparty conferencing for VoIP system with video softphones providing a lower cost alternative to hardware-based MCUs
- Avistar C3 Conference can register via SIP with the VoIP system

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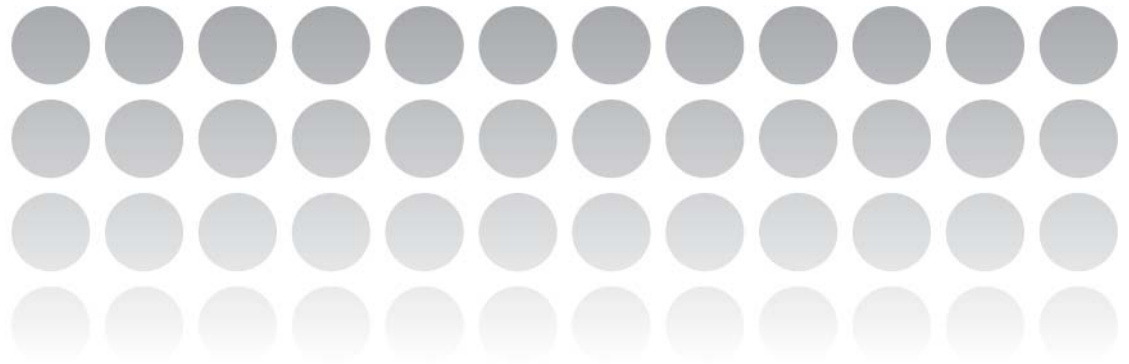
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