
PROJECT CONCEPT

PROJECT TITLE:	DESKTOP VIDEOCONFERENCING – PILOT OF INTERIM DIRECTORY AND CALL MANAGEMENT SERVICES
PROJECT SPONSOR:	Alan McMeekin
INFORMATION PROVIDED BY:	Jamie Sunderland – Project Manager
DATE:	July 2006

BACKGROUND

This small project is proposed to overcome some of the basic obstacles to desktop videoconferencing and to provide a limited scope service to meet demand while the larger projects of the “Workgroup Collaboration Review” (WCR) and the “Internet Communications” (iComms) projects are developed and executed.

It is envisaged that in the 2 to 3 year timeframe, medium quality desktop videoconferencing will be an integral part of the workgroup collaboration suite. A complimentary project on IP communications will provide the underpinning infrastructure and greater enhanced communications tools including Voice over Internet Protocol (VOIP) gateways and Quality of Service (QoS) for real-time communications.

The project proposed in this document will provide a relatively straight forward short term solution to satisfy some needs in this area while the larger project of WCR and iComms are in the planning and implementation phases. It will also allow us to take advantage of the 1000 copies of the PVX desktop videoconference software awarded to Monash by Polycom Australia. It will allow for users of other standards based videoconference software to be able to communicate with each other and with the existing group videoconference facilities managed by ITS at each campus.

PROJECT DESCRIPTION

This project will establish a “virtual exchange” for videoconferencing which will work in a similar way to a telephone exchange or PABX system. It will enable users to register with a central directory service and will facilitate the establishment of point-to-point calls between Monash users and enable them to call standards based videoconference systems outside the University from their desktops.

It will overcome the current issues with the Network Access Control Policy that prevent videoconference calls to and from standard client subnets. It will also provide a web interface where videoconference users will be able to find the contact details and online status of other videoconference users and use that information to call each other.

SCOPE

The scope is to pilot a desktop videoconference service in 2006 that can be made available to all staff of the University from 2007. The pilot groups will include The School of Rural Health, and Selected IT and management personnel from the Faculty of Business and Economics, the Faculty of Education. Some ITS staff from TFSU, Client Services and Monash Malaysia will also be involved in the pilot (up to 10 members from each group).

It is of utmost importance in the development and execution of this project that particular attention is paid to making videoconferencing *accessible* to a video variety of end users. This requires that the user interface be made as simple and intuitive as possible, while still providing a full feature set.

The deliverables will be:

- Establish a central exchange for establishing IP based videoconference calls from all Monash client subnets
- A central directory service with a web interface to identify endpoints and videoconference users
- Linking of the gatekeeper to the country root gatekeeper at AARNet.
- Ability to make use of the AARNet multipoint conferencing unit (MCU)
- A log of all call source, destination and duration for potential billing of external calls in the future.
- A customised Polycom PVX desktop videoconferencing client, with a method for tracking authenticated download of the client and the number of licences in use.
- Published instructions of how to setup some leading h.323 clients that are bundled with the Operating system or are freely downloadable. (eg NetMeeting and GnomeMeeting).
- Authenticated registration to the gatekeeper so that videoconference identity and availability information can be published to the central Monash Directory Service
- Pilot replication of this service at Monash University Malaysia to overcome similar issues caused by the use of Network Address Translation (NAT) at these sites. This may have future benefit for other off-campus sites including South Africa, Prato and Rural Health.

Out of scope:

- VoIP systems including gateways to the Monash PABX system or the public telephone system.
- Integration with non H.323 based videoconferencing systems such as Marratech, Webex and Skype.
- Any infrastructure for the support of Session Initiation Protocol (SIP).

KEY STAKEHOLDERS

Alan McMeekin, Executive Director ITS and ITS directors.

Philip Steele, DVC campus coordination.

Selected staff (Maximum of 10 users) of:

- Faculty of Medicine (Particularly the School of Rural Health)
- Faculty of Education
- Faculty of Business and Economics

ITS Network Infrastructure Services

ITS Identity and Messaging Services

ITS TFSU and Videoconferencing groups

Kewin Stoeckigt, AARNet Melbourne (as technical reference).

CLIENTS

The clients who will benefit from the outcome of the pilot are a subset of all Monash University staff across a number of Faculties, Divisions and Campus locations. The service is intended to meet niche group needs where high quality desktop videoconferencing with connectivity to standards based room systems, theatres and multipoint control units is required.

Pilot participants are listed in the scope.

The IT service desk should also be looked at as a potential pilot group since they will be required to provide client support in the future.

BENEFITS

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The key benefit is to provide a system for establishing videoconference calls as an interim measure to fill a void while waiting for the time it will take to provide more comprehensive communications and collaboration products as part of the WCR and iComms projects.

STRATEGIC BENEFITS

- Allows researchers, academics and general staff to communicate and collaborate more effectively across campuses while reducing the need for travel
- Meets an immediate need by providing a standards based interim solution that will be compatible with future directions.
- Helps to funnel potential users towards standards based systems rather than allowing growth of proprietary public instant-message and VOIP based services such as MSN messenger, Yahoo messenger and Skype.

Enhancements to Services

- Enhances mobile communications.
- Enhances directory systems by adding fields for multimedia communications.
- Could help to facilitate tele-working for home users with broadband connections.
- Integrates videoconferencing at Monash with other universities and Global Directories.

Internal Efficiencies

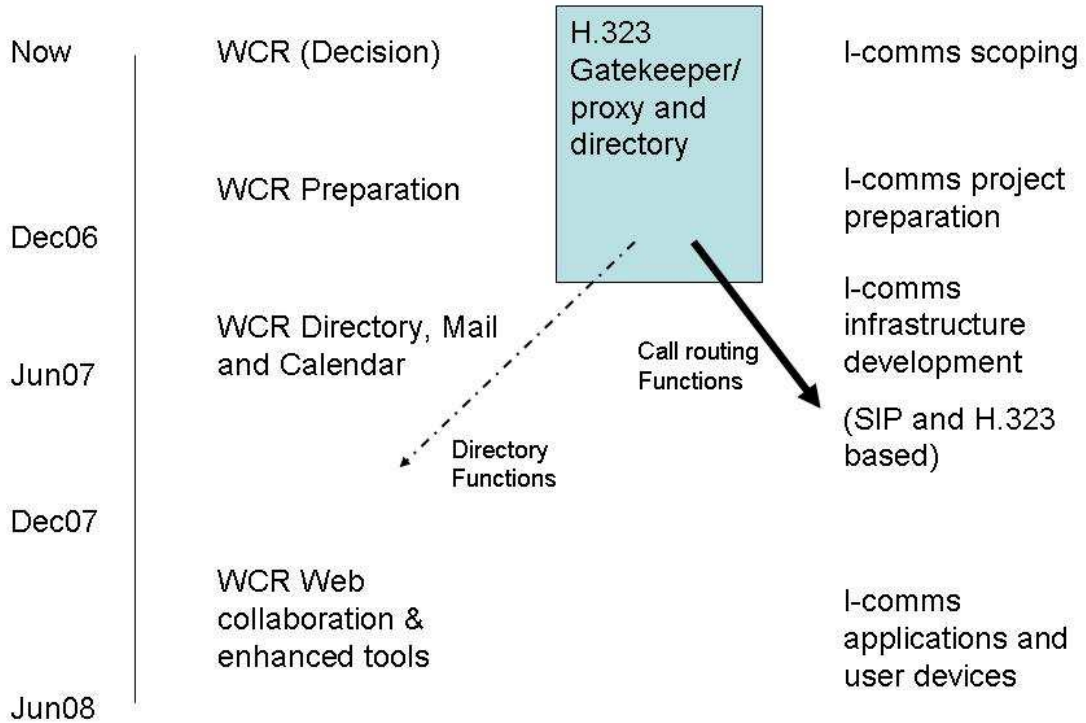
- Potential to reduce travel costs and associated costs in wasted time and safety risks.

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desktop videoconferencing – Pilot of Interim directory and call management services

RELATED PROJECTS/SYSTEMS

This project is designed as an interim measure to provide limited services while waiting for the enhanced services to be delivered by the WCR and iComms projects.



ORGANISATIONAL IMPACT STATEMENT

Project

Faculty IT groups responsible for support of staff identified in the pilot groups will need to be trained in the use of the PVX software and the videoconference directory services offered by ITS.

ITS Service Desk staff will need to have the equipment and training required to remotely support staff

Ongoing

Until this system is superseded by both the iComms and Workgroup collaboration project, there will be in place what is effectively 2 extra services: A H.350 directory server which links to the central Monash Directory Service and a H.323 gatekeeper which acts as a proxy for videoconference calls.

This will require some ongoing maintenance from both IMS and NIS, however this should be relatively small – only in the order of several person-weeks per year.

PROJECT COST ESTIMATES

[The table should be copied from the “Project Costing Model” spreadsheet. The steps are:

- From the “Project Costing Model” spreadsheet, highlight the cells and select “Copy”.
 - In the “Project Concept” document, select “Paste Special”.
 - Select “Microsoft Office Excel Worksheet Object”, and click “OK”.
 - Right Click with the mouse on the object, and select “Format Object”.
 - From the “Size” tab, enter a “Height” and “Width” of 60%, then click “OK”.
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- 2x servers with gigabit network connections.
 - Approximately 4 person-weeks engineer to develop and support proxying gatekeeper over 6 months.
 - Approximately 4 person-weeks for MDS/H.350 directory integration and support over 6 months.
 - Approximately 4 person-weeks to develop end-user documentation, pre-configured clients and training materials.
 - Approximately 2 person-weeks for development of scripts for integration of directory information and presence information with a dynamic web page.
 - Approximately 4 person-weeks for project specification and management reporting.

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PROJECT COSTING SUMMARY

Note: Cells requiring data entry are indicated by grey shading.



PROJECT ID: TBA
PROJECT TITLE: Desktop Videoconference
SUBMITTED BY: Jamie Sunderland
DATE PREPARED: 6/07/2006 - To begin execution ASAP.
YEAR OF STRATEGIC PLANNING: 2007

IT CAPITAL DEVELOPMENT BUDGET	2006	2007	2008	TOTAL
Salaried/Contract Staff:	0	0	0	0
Consultant Staff:	0	0	0	0
Software:	0	0	0	0
Hardware:	15,000	0	0	15,000
Other Costs:	0	0	0	0
SubTotal:	\$ 15,000	\$ 0	\$ 0	15,000
Funding Offsets:	\$ 0	\$ 0	\$ 0	0
IT Capital Budget Submission:	\$ 15,000	\$ 0	\$ 0	15,000
NEW ITS PRODUCTION/OPERATING BUDGET				
Salaried/Contract Staff:	0	13,410	14,152	27,562
Consultant Staff:	0	0	0	0
Software:	0	0	0	0
Hardware:	0	0	0	0
Other Costs:	0	0	0	0
SubTotal:	\$ 0	\$ 13,410	\$ 14,152	27,562
ITS Prod / Op Budget Offsets:	\$ 0	\$ 0	\$ 0	0
Impact on ITS Prod / Op Budget:	\$ 0	13,410	14,152	27,562
EXISTING ITS PRODUCTION/OPERATING BUDGET				
Salaried/Contract Staff:	26,096	0	0	26,096
Consultant Staff:	0	0	0	0
Software:	0	0	0	0
Hardware:	0	0	0	0
Other Costs:	0	0	0	0

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OTHER COMMENTS

Much of the proposed project will be based on “howto” documents produced by AARNet, Videnet and the GnuGK open source project.

“Howto setup and configure an organisational Gatekeeper” – AARNet
<http://www.aarnet.edu.au/services/video/howto-org-gk.html>

GNU Gatekeeper manual: <http://www.gnugk.org/gnugk-manual.html>

H.350 and LDAP integration:
http://www.aarnet.edu.au/events/conferences/2005/questnet/wks-rt_communication-files/h350.pdf