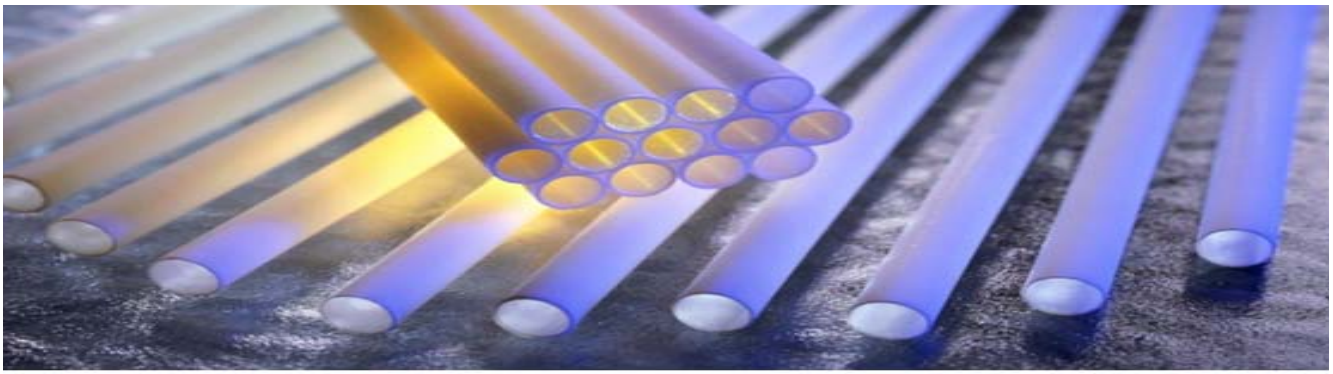




Ubiquitous Communications - CSIRO Mobility and Unified TelePresence Programs

11th July 2012 – Nigel Barling

CSIRO INFORMATION MANAGEMENT & TECHNOLOGY
www.csiro.au



CSIRO Overview

CSIRO, the Commonwealth Scientific and Industrial Research Organisation, is Australia's national science agency.

National Research Flagships

Improving lives, through partnerships focused on Australia's most significant challenges and opportunities.



[Climate Adaptation](#)

Finding ways to adapt to the impacts of climate change and variability.



[Energy Transformed](#)

Developing clean, affordable energy and transport technologies for a sustainable future.



[Food Futures](#)

The programs of Food Futures Flagship will transform the agrifood sector of the nation through new technologies and collaborations.



[Future Manufacturing](#)

Developing cleaner advanced materials and manufacturing technologies to grow Australia's future productivity and prosperity.



[Minerals Down Under](#)

Coordinating minerals research to ensure the competitiveness of Australia's resource base.



[Preventative Health](#)

Our goal is to improve the health and wellbeing of Australians through research into prevention and early detection of common chronic diseases.

Also, Wealth for Oceans, Water for a Healthy Country



Information Management & Technology Overview

Support for multi-disciplinary and inter-disciplinary research collaboration

- **Make it easy to participate in collaborative team activities, so that results and advances can be merged or reconciled with the work of others whilst still empowering individual progress**
- **Support remote connectivity – the mobility that allows researchers to easily access their colleagues and research systems from anywhere, and**
- **Manage security and privacy appropriate to the needs of research teams and enterprise responsibilities.**



CSIRO Demographics

Context of what is being deployed

Some Numbers

- 6500 FTE Staff
- 60 sites across Australia
- 60% of Staff located at 10 largest sites
- 5% of Staff located at 30 smallest sites
- 98% of Staff have a Cisco IP Phone on their desk ; mostly Cisco 7965 – deployed with donut encouragement.



CSIRO Conferencing

Some Numbers

- Video Conference Rooms located at 44 sites
- 152 Video Conference Room deployed
 - 62 High Definition/Telepresence Rooms
 - 90 Legacy Video Conference Unit
- Upgrading approximately 1 room a week to High Definition/Telepresence
- 1600 Web Cameras deployed [not including laptops with webcams]
- All CSIRO Desktops/Laptops have Cisco Unified Video Advantage deployed
- 25% of internal phone calls have a video component in at least one direction
- Average 8300 hours of conferencing per month
- Room based units average approximately 1500 hours per month
- No Video Network Operations Centre; Supported by Enterprise Service Desk; staff encouraged to dial there own numbers by training

CSIRO Staff expect any to any device calling



Client Infrastructure Services

Networks and Unified Communications

Networks and Unified Communications Team

10 person converged team responsible for the CSIRO Enterprise Network (from Edge to Core), Unified Communications, Security, Authentication and Messaging including all enterprise Video Conference Deployments

Applications and Service Desk Group

Mobility Devices and Lvl1/Lvl2 Service Desk functional.



Telepresence Program

Networks and Unified Communications

Video Conference Room Lifecycle Refresh

Upgrade Legacy VC Endpoints to High Definition

Meetingplace Upgrade

Upgrade from Legacy Meetingplace 6 to Meetingplace 7

Session Border Controllers

To allow peering and ad-hoc collaboration with other institutions that CSIRO collaborates with for seamless Voice and Video and future services such as shared presence.

Telepresence/High Definition MCU Installation

High Definition Capacity for CSIRO Internal MCUs

Telepresence Program

Networks and Unified Communications

Communications Manager Single Cluster

Single CuCM cluster for ease of administration and deployment of advanced services

Ad Hoc Conferencing

Desktop Mobility Client for external collaborators and standards based SIP calls

Video Advantage (CUVA) Upgrade

Desktop Mobility Client

Recording and Content Servers

Seminar Recordings and Podcasts etc

Telepresence Program

Video Conference Room Lifecycle Refresh

Standard Room Specifications

- Multipurpose room
 - Dual Screens – Left People/Right Content
 - (Projectors or 52"/60"/70" LCD – Full HD/1080p)
 - Right LCD Screen with Embedded Interactive Whiteboard on 60" and 70" rooms
 - Web Collaboration Ready – Content via BFCP/H239 or Web Collaboration
 - VGA/DVI/HDMI Inputs on table for IPAD/Iphone/Laptops etc
 - High Definition Codec
 - AMX Control for later integration into AMX RMS
 - Dial into your own conference; CSIRO isn't suited to auto-dial or one-touch
 - Central purchasing; installation; administration; management
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- Immersive Telepresence on hold; greater ROI seen in upgrading multipurpose rooms to High Definition

Telepresence Program

Video Conference Room Lifecycle Refresh



Telepresence Program

Video Conference Room Lifecycle Refresh



Telepresence Program

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Telepresence Program

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Telepresence Program

Video Conference Room Lifecycle Refresh

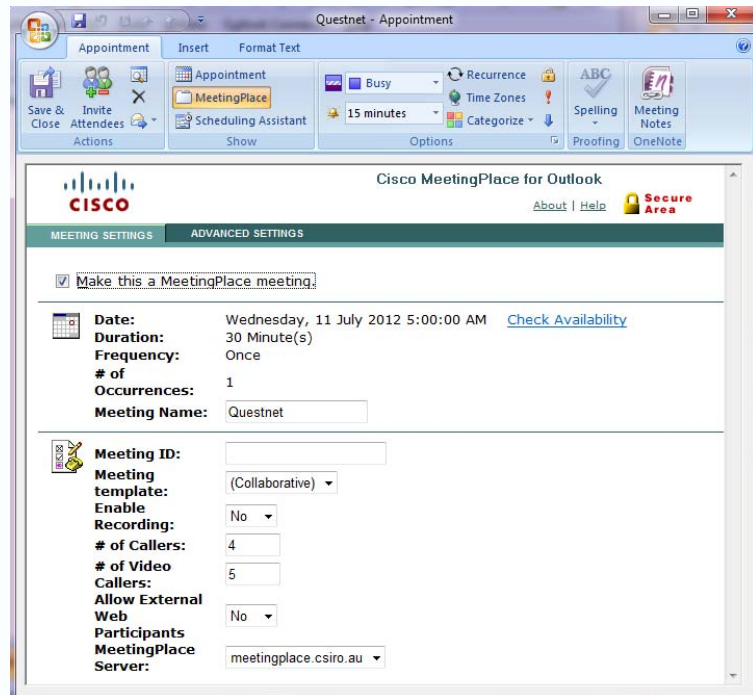


Telepresence Program

Meetingplace Upgrade (Meetingplace 6 -> Meetingplace 7)

Web Collaboration

- CSIRO is an extensive user of Meetingplace 6; a on-prem Cisco Web Collaboration tool based on Adobe Connect
- 200 to 300 meetings a day booked
- Outlook Plugin for all Video/Audio/Web Scheduling
- Conferencing Scheduling in CSIRO is based on resource port bookings rather than room bookings; users self dial into meetings due to changing meeting schedules
- Users typically overbook resources by 100%



Telepresence Program

Meetingplace Upgrade (Meetingplace 6 -> Meetingplace 7)



Telepresence Program

Session Border Controllers

Making CSIRO easier to collaborate with using video/video

- 2 Session Border Controllers – Cisco/Tandberg VCS Expressway
- Peered with the AARNET Unified Communications Exchange; default Search Rule on Single Cluster hosting 40% of CSIRO Staff [40,000 SIP invites a month; expecting about 100,000 attempts a month once single cluster migration complete]
- Peered with Bureau of Meteorology
- Preference is for research/education institutions wishing to peer with CSIRO is to peer with the AUCX for the benefit of all.



Telepresence Program

AdHoc Conferencing

Making CSIRO easier to collaborate with using video/video

- [URI Dialling sip:csirotelnumber@csiro.au](mailto:sip:csirotelnumber@csiro.au) (including CSIRO deskphones etc)
- Test MCU Number – sip:0262463194@csiro.au (or +61262463194@csiro.au) from SIP device
- www.ciscojabbervideo.com
- Internally, the present client for HD Desktop Video Conferencing is Cisco Jabber Video for Telepresence (Movi)
- All Endpoints can external by the VCS Expressway; all VC Endpoints have access to ISDN Gateways by the VCS Expressway



Telepresence Program

Telepresence/High Definition MCUs

- Mainly used for Seminars; Meetingplace 6 still used for majority of video conferencing. Expect rapid uptake of High Definition MCUs over the course of next 3 months now that critical mass of HD endpoints reached and upcoming mass deployment of HD to the desktop.
- Scaled to accommodate HD to the desktop; usage shows regular meetings with up to 16 parties – all desktop endpoints.
- Scheduling (Ad-Hoc vs Scheduled)



Telepresence Program

Recording and Content Servers

- Presently only have the ability in-house to record content and audio via meetingplace.
- Increasing requests for seminar and ad-hoc recording
- Content Servers deployed for Recording and Playback; 150 mini-recording studios

Telepresence Program

Communications Manager Single Cluster

- Core Technology for Ubiquitous communications across devices in CSIRO
 - Historically CSIRO has had state based CuCM Clusters (7) and associated Contact Centres (3) and Presence Servers (3). Not all clusters had access to Presence and Contact Centre services. 53 Bare Metal Servers. CuCM 7.1
 - Migration in progress of all IP Telephony to Single Australian Cluster – reduced to 13 UCS servers running CuCM 8.6 SRST for remote sites. All users to have access to presence.
 - Default Search Rule to AARNET Unified Communications Exchange
 - Expected completion early October
 - Portal planned for Level 0/1 Moves/Add/Changes and integration into Staff Commencements/Cessations.
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- Cisco VCS Control is interop point (SIP/H323) between Single Cluster (SA/NT/TAS/WA/NSW); old State Based Clusters (QLD/VIC/ACT); room based VC Units; and Session Border Controller



Telepresence Program

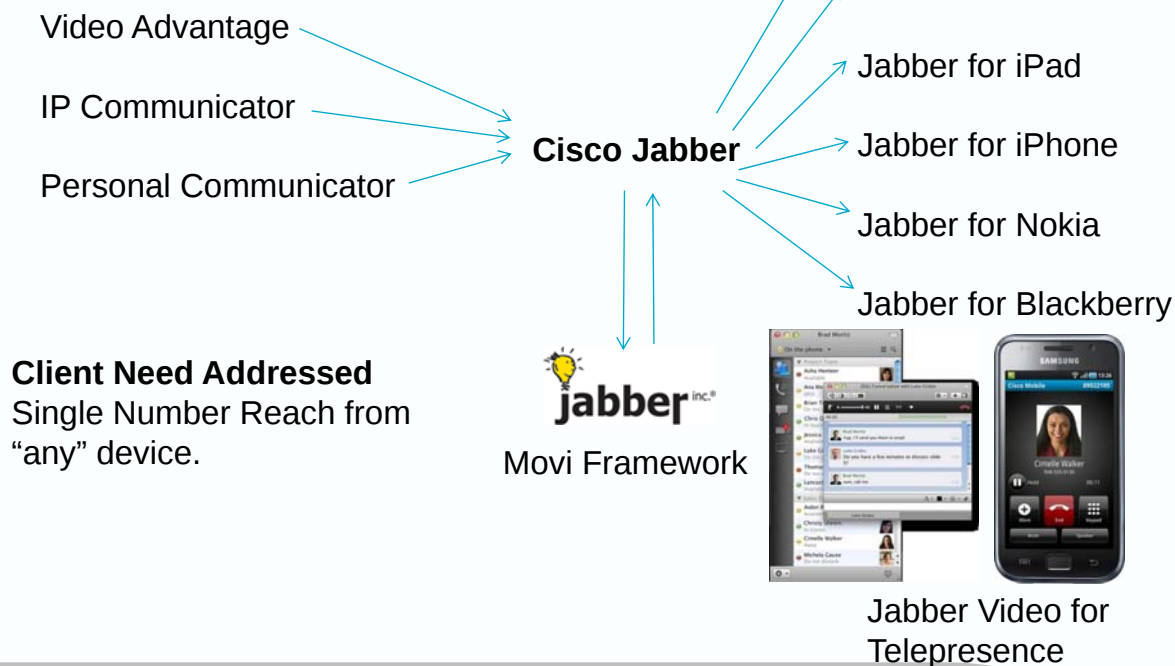
Video Advantage (CUVA) Upgrade

- Depending on who you ask it was a “stroke of genius” or a “sheer madness” to deploy to every desktop.
- In hindsight, the product was ahead of its time [desktop video on PC; while still using desk phone]. No thought required as to whether to make a video call – it just worked.
- Cisco Jabber for Windows [with Video in conjunction with desk phone control] will be deployed later in the year.



Telepresence Program

Video Advantage (CUVA) Upgrade



Mobility Program

Applications and Service Desk Group

“To support the ‘Post-PC’ era by providing appropriate and seamless access to CSIRO applications and data irrespective of the user device and location”

Provide a choice of CSIRO owned mobile devices available to our clients that are manageable and secure.

Granular application level security and improved remote access user experience.

Provide enterprise mobile application solutions and a mobile development capability across CSIRO.

Enterprise IPAD/iPhone/Blackberry

Currently Supported if purchased via Internal Purchasing Portal; Email/Calendar/Contacts/Phone Supported Access to Enterprise Applications – Confluence, SAP, Sharepoint (for IPAD/iPhone)

Android and BYOD

Currently under evaluation;

Mobility Program

Applications and Service Desk Group

Helpdesk									
2 10/07/2012 4:55 PM Send SMS Unlock User Update Token									
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Username	User Status	Phone #	Model	Device State	Last Check-In	Compliance Expiration	Has Pending Actions?	MDM Enabled?	
nexus\bar667	Enabled	61419217330	iPhone 4S	Available	10/07/2012 4:47:04 PM	10/07/2012 8:47:04 PM		✓	
nexus\bar667	Enabled	61419339206	iPad 3	Available	10/07/2012 4:49:38 PM	10/07/2012 8:49:38 PM		✓	

Device Details	Applications	Certificates	Config Profiles	Pending Actions	Provisioning Profiles	Security Details	Hide Details
Display Name: nexus\bar667 Phone Number: 61419217330 Device ID: ApplC39GJVHYDT06 IMEI/MEID: 01 294000 887584 4 UDID: 3ab6e258532068aff991527747823086532cc576 WiFi MAC Address: d0:23:db:b4:1b:e7 Last Updated: 10/07/2012 8:37:39 AM Is Compliant: True			Device Name: Nigel Barling Device Model: iPhone 4S Device Platform: iOS OS Version: 5.1.1 Jailbroken Status: No Device Status: Available Device Carrier: Telstra Supports DAR: True			Policy Name: CSIRO NSW Policy Version: 14 Last Compliance Check: 10/07/2012 4:47:04 PM Compliance Expiration: 10/07/2012 8:47:04 PM Compliance Override: Registration Time: 10/07/2012 8:36:31 AM Is Authorized: True Device Ownership: Personal	

Query	Wipe	Delete Email & PIM Data	Uninstall	Lock	Reset Password	Compliance Override	Change Ownership	Delete
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Mobility Program

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Currently Supported if purchased via Internal Purchasing Portal; Email/Calendar/Contacts/Phone Supported Access to Enterprise Applications – Confluence, SAP, Sharepoint

Android and BYOD

Currently under evaluation; Eduroam deployed and Guest VLAN for Meeting Rooms



Mobility Program

IM&T delivering the Business workflow for the modern era

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MOBILE DEVICES	MANAGEMENT	APPLICATIONS
iPAD iPhone	Mobile Device Management	Mobile Application Development Framework
Blackberry	Mobile Application Management (under consideration)	Mobile Development Community / Mobile User Community
Android (under evaluation)		Internal App Store
		Internal Application Development

Future Services (Currently in PoC / Trial)

Mobile content delivery, Next Gen MDM, Application Management/App Store, Unified Comms/Presence, vUSB & Dropbox, Secure remote desktop virtualization



Thank you

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