

Unified Collaboration Tools

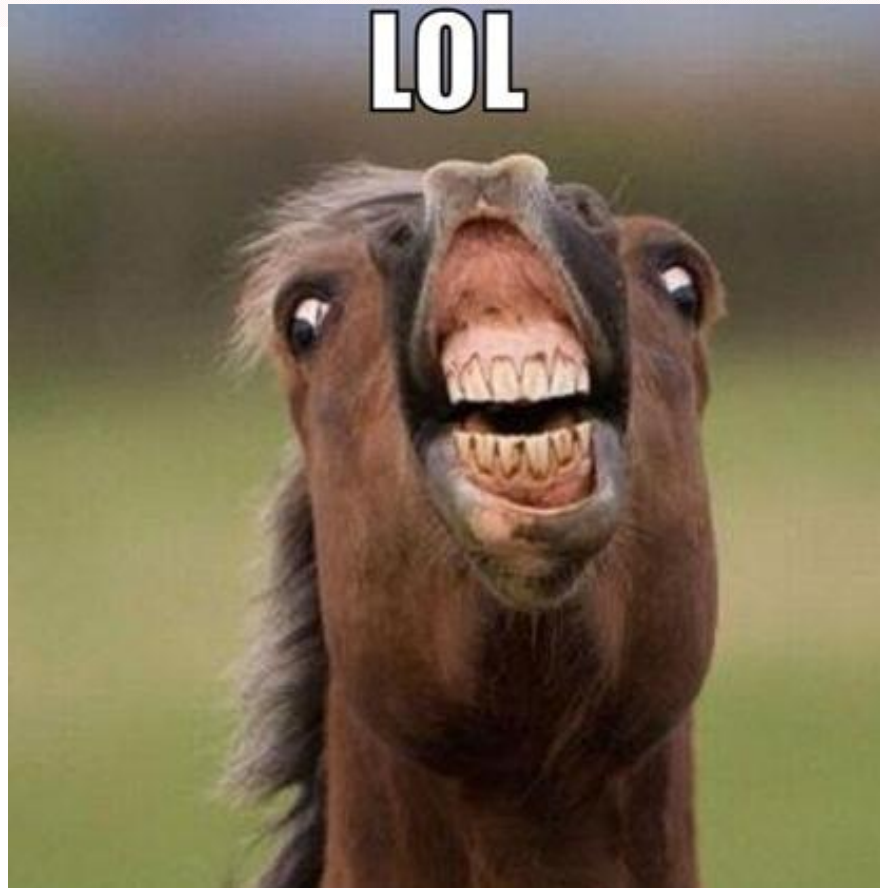
Can they make business sense?

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A day without laughter is a day wasted - Charlie Chaplin

I am thankful for laughter except when milk comes out of my nose - Woody Allen



So hold on we are about to start

Introduction

- INS division is delivering UC technologies across the University's 5 campuses in-line with Griffith's business objectives
- **Video Collaboration pilot** – toe the water
- **IP Telephony** – make ready the Telephone infrastructure for the UC project
- **Unified Collaboration Project** – oversees the IP Telephony and the Video Conference Room upgrade project with the added responsibility of providing the UC tools to the University community

The Problem ... in 2010

1. Make the VC's vision *"use technology to reduce travel"* a reality
2. Make some of the GU Video Conferencing systems talk to each other
 - **Room Based VC Systems** Tandberg Video Conferencing rooms
 - **Cloud based VC systems** EVO, AARNet Anywhere, Webex
 - **Desktop VC applications** Sametime, Movi, Skype, iChat, Wimba
 - **Research VC Systems** Access Grid systems

The Solution

Do a small pilot of video and communication technologies

- NEC/Polycom Video phones – incumbent
- IBM's Sametime Unified Telephony (SUT) – incumbent email + IM
- Cisco Video phones and CUPC good fit with Tandberg investment
- Microsoft was not a option pending the outcome of the staff email project

Pilot Scope

- Grew from 5 video phones to 90+ phones / participants
- Got senior exec buy-in early - VC agreeing to trial the technology
- Testing phase of the pilot ruled out the NEC and IBM solutions
- Cisco solution would be piloted with executive staff

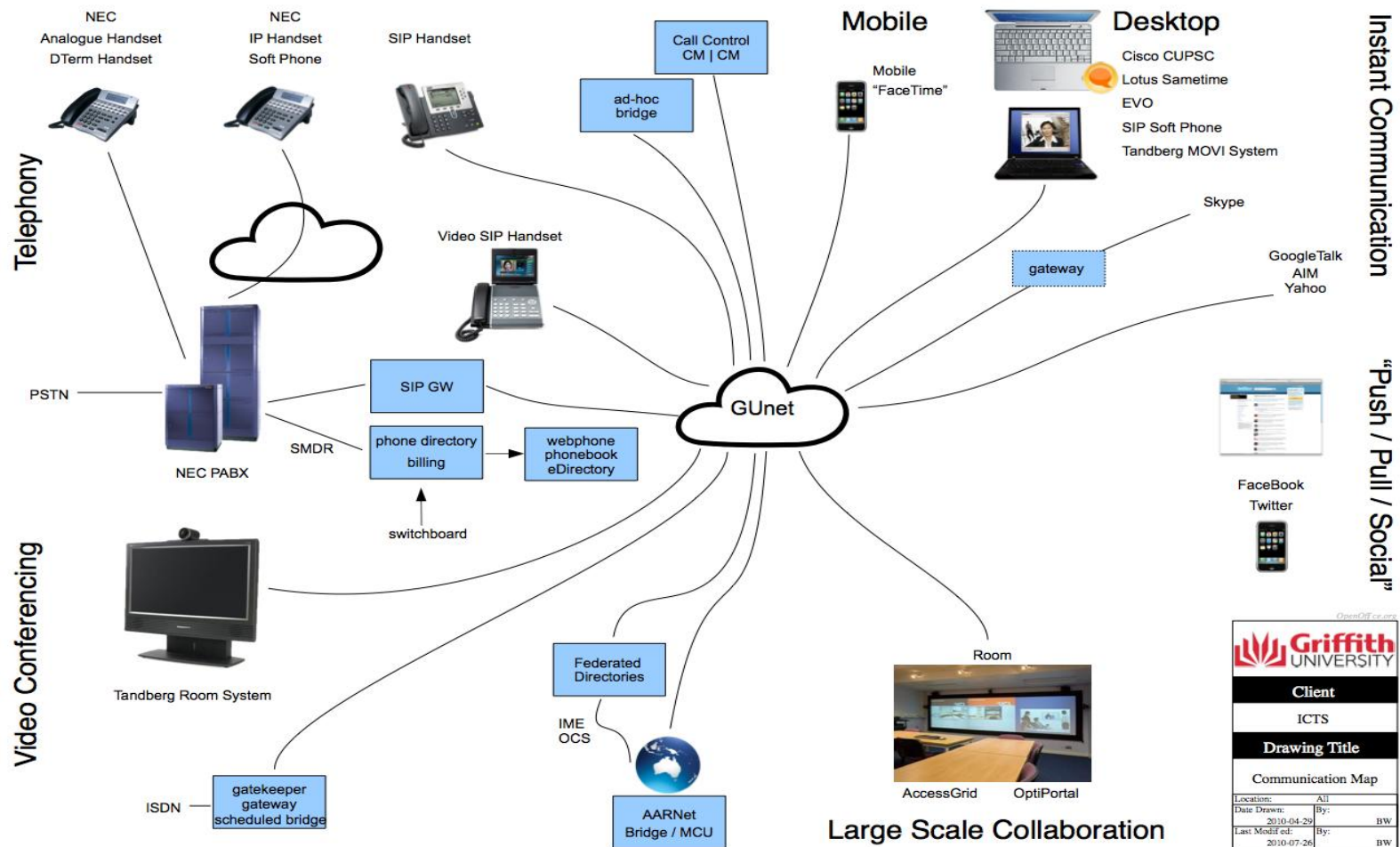
- Trial Comprised:
 - Griffith Executive Staff
 - INS Executive + ICTS Management Team
 - Scholarly Information Research, & Learning and Teaching MT
 - ICTS and SIR technical support staff

Functions Explored

- Making / Receiving Video calls
- Multiway Adhoc Video Conferencing
- Desktop and Application sharing
- Softphone client for desktops and mobile devices
- Power saving capabilities
- Presence & Single Number Reach

V&C Pilot Network

- IP Telephony & Video Conferencing infrastructure was tested in the GU production network
- Call Manager cluster, voicemail, adhoc VC bridge, phone billing, AARNet Gateway, IME, Skype gateway
- Functions were tested by ICTS and SIR support team



	
Client	
ICTS	
Drawing Title	
Communication Map	
Location:	All
Date Drawn:	2010-04-29
Last Modified:	2010-07-26
By:	BW
By:	BW

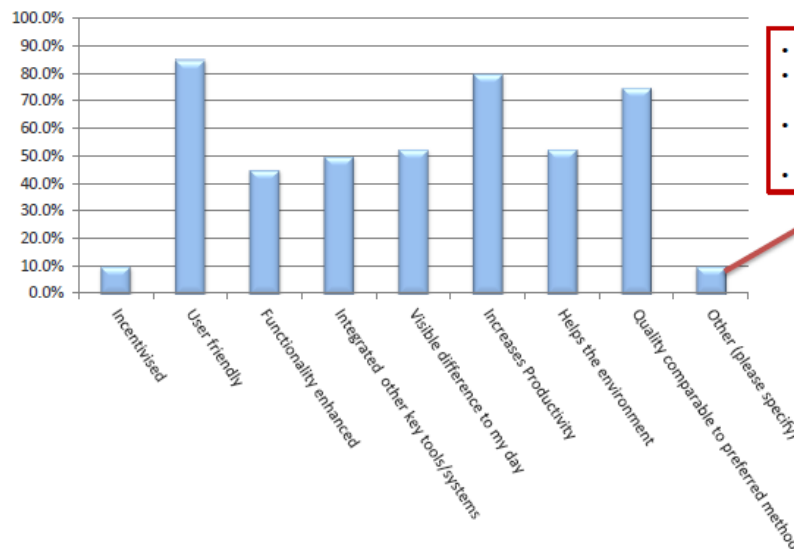
Pilot Participant Survey

- Aim to determine high level themes in collaboration tools, behaviors and needs
- 94 participants in the pilot; 44 responded to the survey and 21 were interviewed

	Workshop Meetings	Presentations	General Communication	Project Co-ordination	Management Meetings	Training Exercises
Email	10%	8%	18%	16%	15%	7%
Messaging	3%	2%	14%	8%	3%	4%
Griffith Portal	3%	0%	4%	5%	3%	4%
Teleconferencing	13%	8%	5%	8%	15%	2%
Telephone	6%	2%	16%	14%	7%	2%
Video Conf.	19%	12%	6%	8%	16%	4%
Wikis	0%	2%	2%	5%	0%	7%
Web Conf.	3%	17%	1%	2%	0%	13%
Discussion Boards	0%	0%	4%	3%	0%	4%
Electronic Calendars	12%	6%	10%	12%	13%	4%
Social Media	0%	0%	3%	1%	0%	0%
Face to Face	30%	44%	15%	19%	29%	47%

- Face to face collaboration - most popular
- Followed closely by Video conferencing

What would influence you to use video collaboration technology more frequently, rather than collaborate in person?



- Mobile access available
- Assists ability to brain storm, collaborate on documents and design
- If it is a universal solution available to ALL staff
- If it is reliable

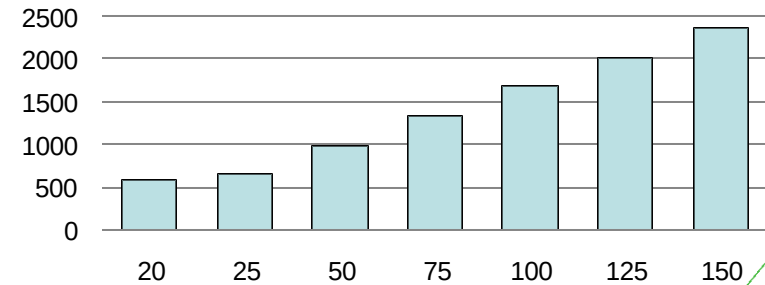
- Easy to use
- Increased productivity

Pilot Survey Results

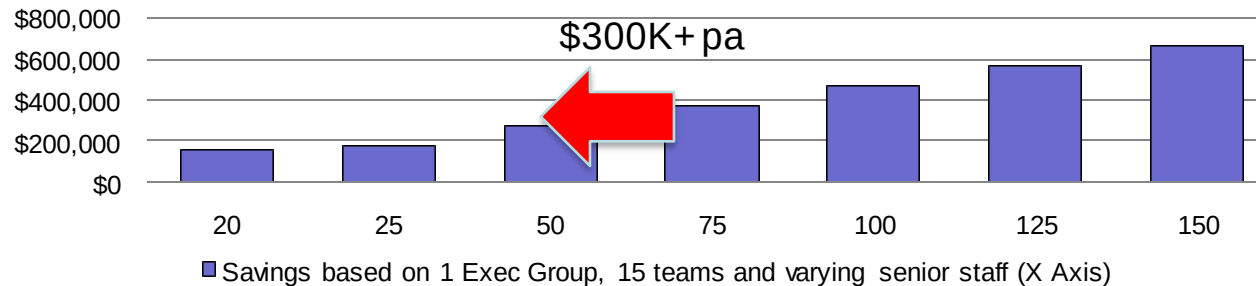
Calculations are based on

- Exec + 15 teams where 2 members of each team travel between campuses
- Pool Vehicle Running costs – GU charge out rates
- Vehicles changed over @60Kkm at \$30K per vehicle
- 210 working days per year used for staff savings
- Annual staff costs including on-costs was \$125K

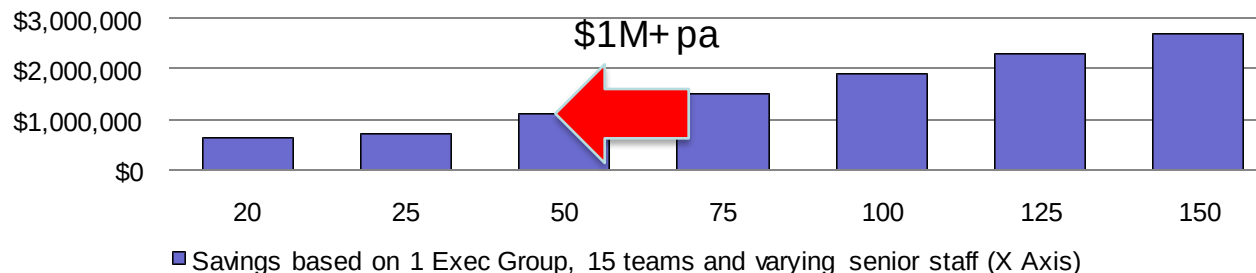
Projected Annual Opportunity Staff Savings - Days



Projected Annual Vehicle Running Costs Savings - Dollars



Projected Total Annual Saving - Dollars



Pilot Recommendations



Top 5

1. Deploy videophones (9971) to the Griffith community
2. Production ready the pilot core infrastructure (CM + VM)
3. Upgrade to the new version of CUPC & integrate Movi softphone assuming it resolves all issues highlighted in the report
4. Use 'AARNET Gateway for making voice & video calls between participating organisations
5. Not to deploy Webex unless the performance and video quality is improved

No.	Recommendation	Approved by Project Board
1	NCS Voice team to follow up with Cisco and ensure supply of more reliable curly chords	Yes
2	NCS Voice team to create more self-help guides for the 9971 video phone	Yes
3	NCS to increase wireless coverage and density as per wireless upgrade project 2012 to support mobile applications. Wireless upgrade project Project Manager Tissa Weerakoon has been informed.	Yes
4	CTS to continually monitor the recommended accessories models along with software services. The current recommendations are: - o Recommended Web Camera: Logitech Webcam Pro 9000 - o Recommended Headset: Plantronics Voyager Pro	Yes
5	Monitor replacement for CUPC/MOVI Client. Cisco Jabber client to be tested extensively.	Yes
6	NCS should continue to monitor CISCO updates to check if Cisco Mobile application becomes more stable and consistent. Current Cisco Mobile is not production ready and is not to be deployed in production.	Yes
7	CTS / NCS to address Skype stability issue (CTS/NCS are currently working with vendor to determine if the stability issue can be resolved.)	Yes
8	If university wishes to proceed with WebEx then provide self-help documents for setting up of WebEx meetings and sort out issues regarding using Traditional Phones and VOIP over a single WebEx session.	Yes
9	CTS to provide personal training to users and improve self-help documents for the video conferencing units	Yes
10	CTS to produce or develop a plan to provide video conferencing units to schools / elements	Yes
11	Collaboration and IT Access (CITA) team and NCS to work together to investigate Google Talk functionality further.	Yes
12	CTS to make ad-hoc bridge available in production environment along with other core infrastructure	Yes
13	NCS to keep IME active in case other universities / organisations of interest start using IME.	Yes
14	NCS to make AARNET video call gateway into a production service in order to allow staff members to make free voice and video calls to other AARNET members.	Yes
15	NCS to interact with S3 in order to acquire a virtual server image that will provide voice mail access to more than 500 users	Yes



STRATEGY

Just having one doesn't guarantee a win.

- *Objective - provide a cost-effective service platform that facilitates the use of UC tools to more effectively meet their research, teaching and administrative needs*

Introduce Productivity Gains – Organisational & Staff

- Handset portability
- Video call capabilities on IP phones & Softphones

Achieve Costs Savings - \$263K+

- Shared Cable Infrastructure - 1 activated port per person
 - On average \$50K pa for new cable installations
 - Over 15 years cable refresh would be \$25K pa
- Reduced conduit congestion over 30 yrs \$60K pa
- Handset portability saves labour costs on average \$73K pa
- Lightning protection saving in insurance costs over 10 years \$55K pa

Why a single vendor solution?

Samuel Griffith Building (Sustainability - Solar / Hydrogen Power)

- Cisco major partner facilitating the implementation of the latest video and energy saving solutions

Unified Collaboration Benefits

- Travel & productivity gains, collaboration tools and sustainable agenda
- Cisco provides desktop, phones, room based VC integration

Cisco Market Leader

- Leader in Unified Collaboration - Gartner's Magic Quadrant UC 2012
- Also leading company in delivering routing & switching

Networking

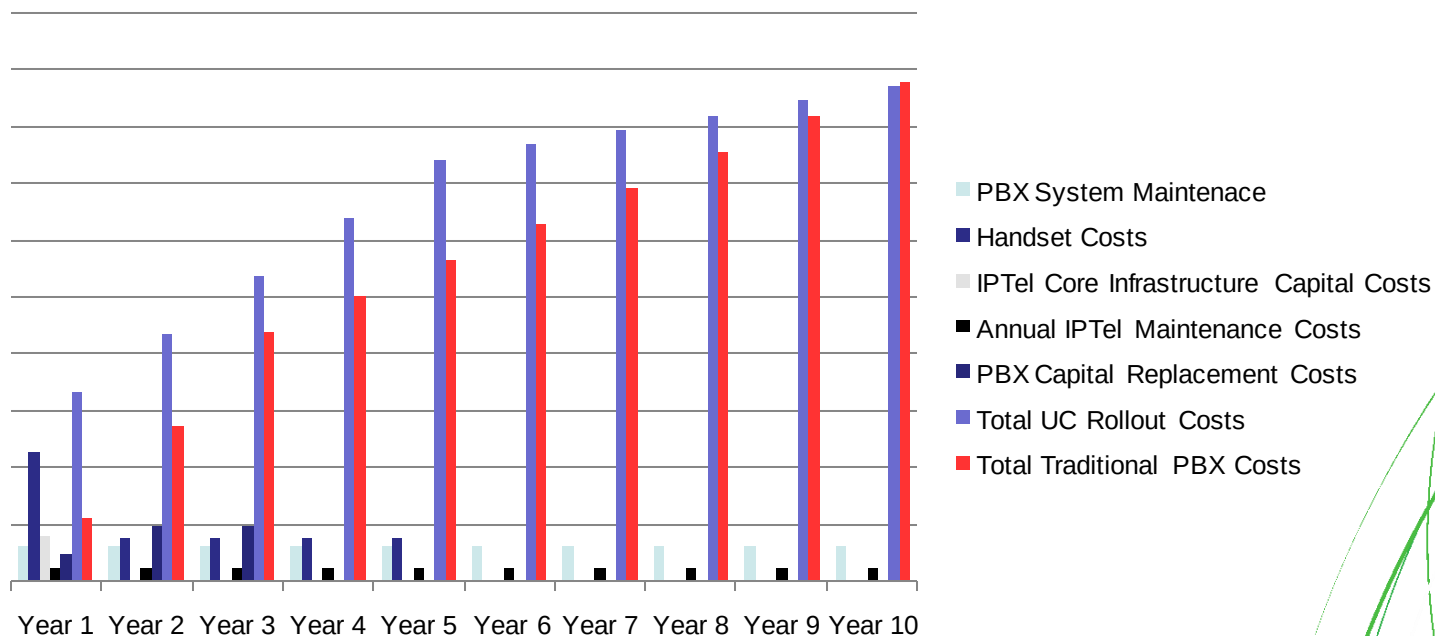
- Cost efficient performance to date
- Large investment in Cisco network equip
- Mixing may cause reliability and performance problems

Skills investment

- Griffith has considerable invest in and developed the skills of its staff in the support and utilization of Cisco equipment

Cisco IPTel Budget Model

- Telephone Service is fully a cost recovery service
- So PABX replacement funding approach must be cost effective
- Must replace 15y/o incumbent phone system hardware
- Cisco solution < TCO for upgrading the incumbent PABX Nodes



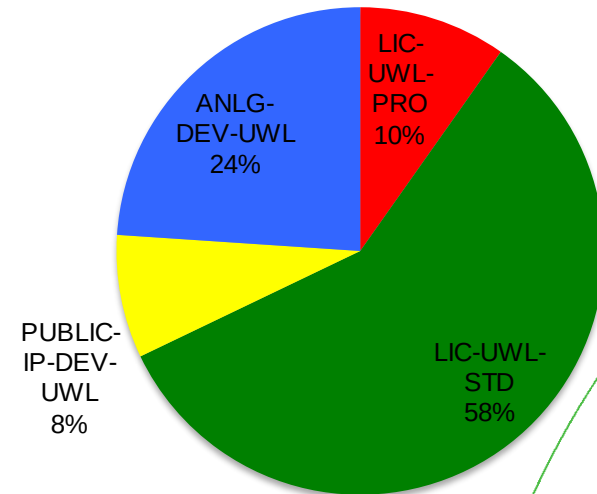
TCO Cisco Call Manager solution including handsets over 10 years

Cisco License Problem

GU Handset Licenses

A La carte Phone License Issue

- Cisco license model was difficult to understand even for Cisco staff
- License structure & functionality keep changing
- Wanted to use at least 4 types of licenses
- Difficult to pigeon hole Staff into a role
 - Pro / Std / Public / Analog



The Solution

- Setup a Enterprise License Agreement (ELA)
- Griffith Uni were the first in Australia which had its pro and cons
- Negotiated a solution to solve the license complexity
- Must have a cost advantage given the large upfront \$\$ outlay
- Full perpetual right to use - what you deploy you own
- Agreement should cover all affiliates e.g. bookshops, QIBT etc..

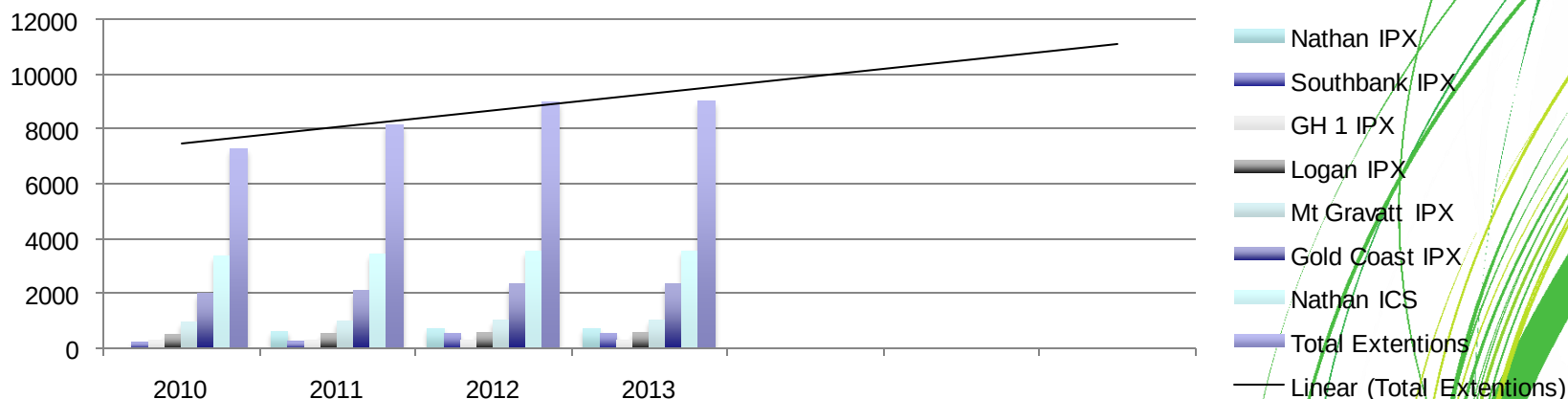
How does it work?

- Min entry of 5000 Knowledge Workers (FTE) - GU has 4379 FTE
- Covers up to 20% organic FTE growth over 3 year term
- All 9025+ Telephone extensions are covered
- Includes Cisco all handsets, Jabber, Cisco mobile etc..

Benefits

- License management overhead and complexity goes away – productivity saving
- Can deploy any license to anybody - better customer experience
- Overall 10% less expensive than a la carte solution
- Handset growth over next 3 years at no cost - saving of \$100K+

Telephone Extension Growth



Standard Call Manager Design

Griffith Voice Network – As Built 1st July 2013

5 x UCS-C210M2 CM
7 x ISR-3945 Gateways
260 x 9971 handsets
415 x 8945 handsets
230 x 6945 handsets

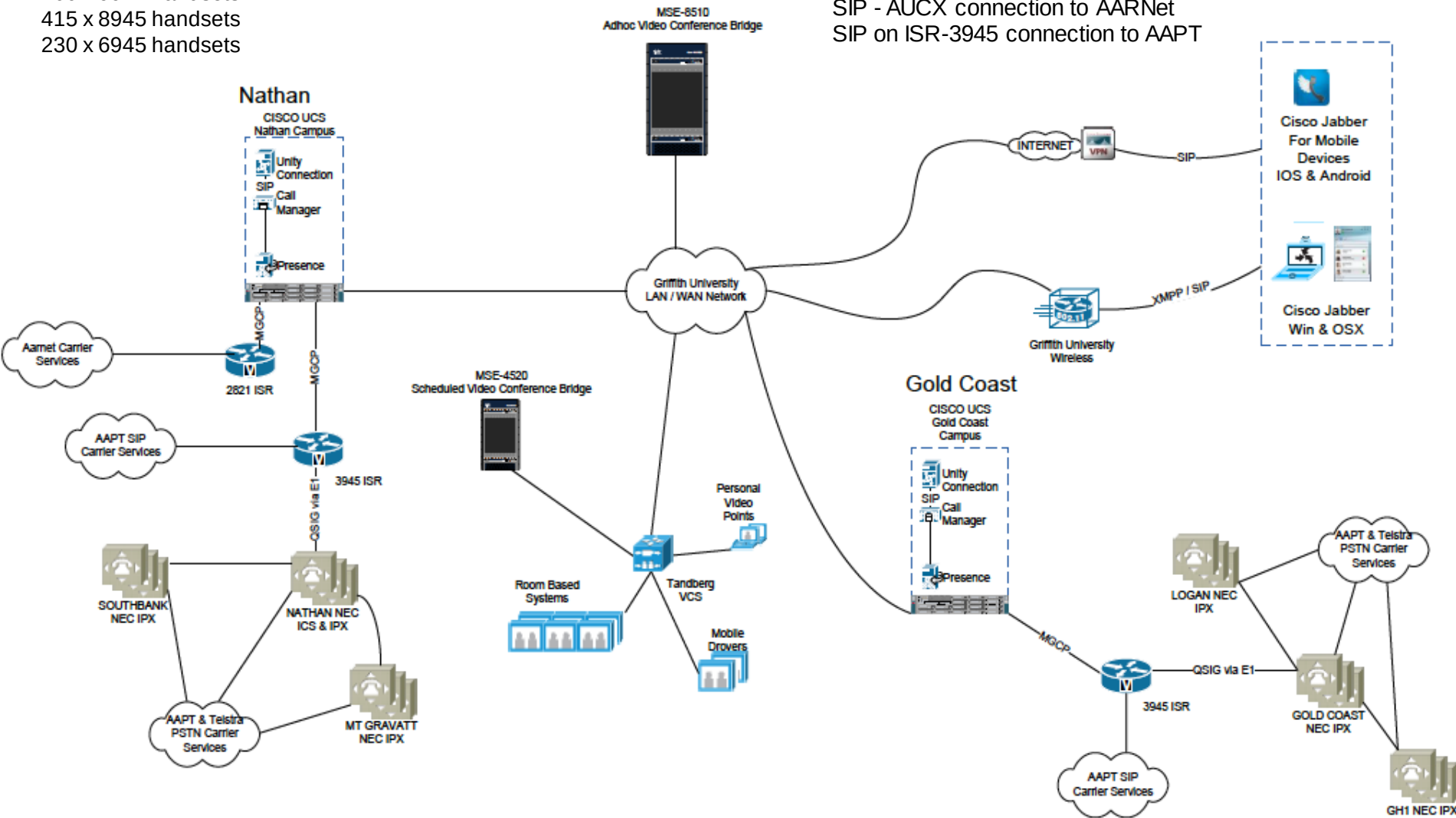
Went Production - 16th February 2013

CUCM 9.1 Cluster fully redundant for Call Processing + Unity
IM&P 9.1 IM & Presence

E1 connection to NEC PABX and Carrier services using Q.Sig

SIP - AUCX connection to AARNet

SIP on ISR-3945 connection to AAPT



▪ Improvements to the client experience

- Phonebook integration
- Zeacom Contact Centre integration
- Extension Mobility
- Cisco speech connect

▪ Handset features that were a backward step

- Cisco Boss Secretary feature not suitable, currently using work around
- Lack of one touch keys, clients need to use additional hardware or software to continue with same functionality

Handset and Systems Faults

- Phone curly cords failed - Cisco sent replacements + manufacturing process fixed
- Unable to do multiway conference between VCS cluster room based endpoints and CUCM cluster endpoints

▪ Improved Efficiencies in Bulk Handset Rollouts

- Designed a client job queuing system to deal with adhoc installs for G40
- Script to automatically commission handsets for users



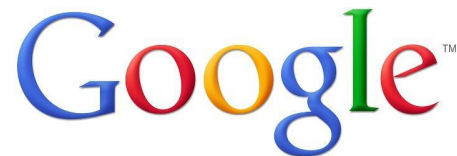
Michael Deayton - Senior Project Manager

Where do I fit in to all of this?

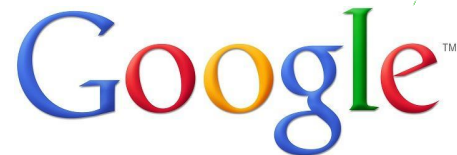
- *2009/2010 - Staff Email Upgrades ~ 8000 staff*



- *2010/2011 - Student Email Migration ~ 80,000+ student accounts*



- *2011/2012 - Staff Email Migration ~ 8500 staff, 1000+ mail-in-databases*



Why Google?



Why Google?

- Couldn't provide same resources in house (20Mb/200Mb mail vs 25Gb)
- No upgrade process
- Change focus from 'keeping the lights on' to providing a service
- Staff and students already using Google tools
- Wasn't just email & calendar, was a whole collaboration suite (additional tools like Vault, Drive, Sites, Groups, Blogger etc.)

Technology easy.. Legals were a lengthy process!

Where were we at?

Many collaboration silos

- Video Phones
- Video Conference Rooms
- Desktop Video Conferencing
- Jabber
- Blackboard Collaborate
- Google Apps
- Sharepoint
- Social Media (incl Twitter, Facebook, Yammer etc..)
- Skype

more..

A series of overlapping, curved lines in shades of green and yellow, starting from the bottom right and sweeping upwards and to the left, creating a dynamic, abstract graphic element.

Collaboration:

Working with each other to do a task. It is where two or more people or organisations work together, unrestricted by boundaries, to realise shared goals; it is a collective effort to reach an objective that is creative in nature by sharing knowledge, learning and building consensus.

Unify:

To make or become united, uniform, or whole; to bring together or combine.

Unified Collaboration:

Bring all of our collaboration tools together in an integrated, easy to use manner that can be accessed on any device, anywhere in the world.

Potential Benefits:

- Integrated collaboration tools
- Break down 'campus silos'
- Facilitate easier external collaboration
- Facilitate collaboration for our online courses
- Enable people to be accessible anywhere on any device
- Increase productive time
- Reduce travel between campuses (time, safety, insurance risk)
- Reduce carbon emissions

Opportunities we do not know exist!

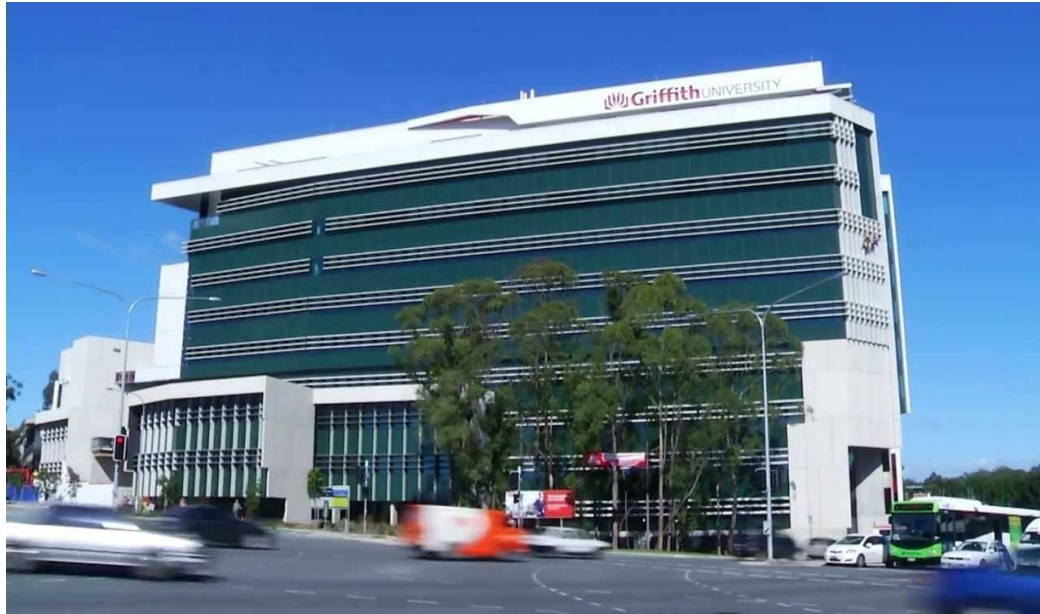
A series of overlapping, curved lines in various shades of green and yellow, sweeping from the bottom right towards the top right of the slide.

Unified Collaboration Project

- Stage 1: Roll out video phones



New Griffith Buildings in 2013



G40 – 450+ video phones in a week!



N78 – 130 video phones in a day



G11 – 95 video phones

Unified Collaboration Project

- Stage 2: Fully Integrate with Video Conference Rooms (Q3 2013)



Unified Collaboration Project

- Stage 3: Roll out the Jabber client (Q3 2013)



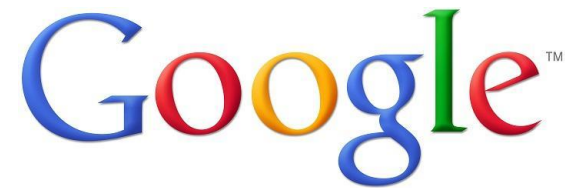
Unified Collaboration Project

- Stage 4: Introduce WebEx (late 2013)



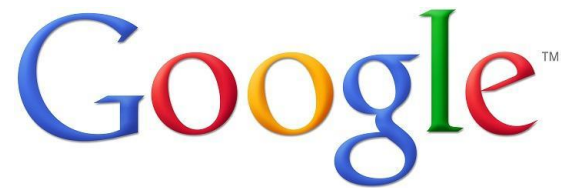
Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)



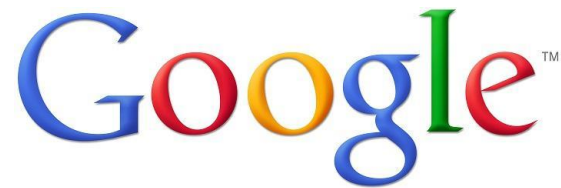
Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)

The Google logo, consisting of the word "Google" in its signature multi-colored font (blue, red, yellow, blue, green, red) with a trademark symbol.

Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)

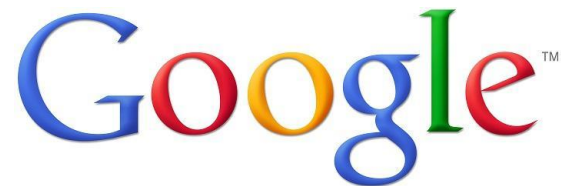
The Google logo, consisting of the word "Google" in its signature multi-colored font (blue, red, yellow, blue, green, red) with a trademark symbol.

Blackboard



Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)



Blackboard



Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)



Blackboard

Google™



Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)



Blackboard

Google™



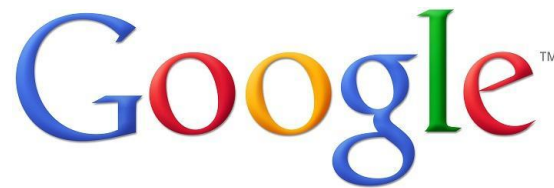
yammer®
The Enterprise Social Network

Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)



Blackboard

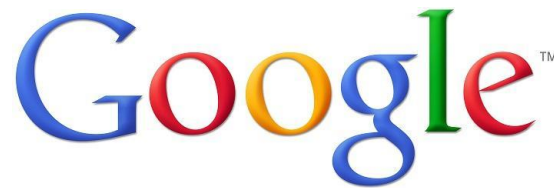


Unified Collaboration Project

- Stage 5: Integrate with other collaboration tools (late 2014 onwards)



Blackboard





Unified Collaboration Project

- Focus Change - From Break Fix to Customer Focused
- Workstation Solution Specialists



Some Cool Stats & Examples

Pool Cars:

Daily

- 32 trips between Nathan & GC
- 2080 kilometers
- 32 travel hours (4.4 FTE days)
- 0.41t CO₂ emissions (14.76 trees)



Annually (210 work days)

- 6720 trips between Nathan & Gold Coast Campus
- 436,800 kilometers
- 6720 travel hours (926.9 FTE work days)
- 86.1t CO₂ emissions (3099.6 trees)

Based on 60 min travel & parking time in each direction, use of a Toyota Corolla (69c km) and 1 tonne CO₂ = 36 trees)

Some Cool Stats & Examples

Hearing Impaired staff

- Video phones
- Signers at Lectures
- Cairns TAFE



A lot of excitement and opportunity among our hearing impaired community

Some Cool Stats & Examples

Physio & Rehab - STEPS Program

- Research Grant
- 4 week program
- 8 students at various locations in Australia
- Central clinic with an actor playing 'patient'
- Video in 2x15 min sessions, twice a week
- Group video discussion at end
- Tried Skype, Blackboard Collaborate & Jabber for Telepresence



WebEx has allowed them to extend their grant and double their student intake

Some Cool Stats & Examples

Nursing & Midwifery

- Silo'd across all campuses
- Want to be one cohesive unit
- See intercampus travel as a barrier
- An example:
 - 4 Associate Directors - each on different campuses
 - Two meetings a week
 - Video phones installed
 - 100 FTE work days saved a year in travel



The phones are a vital first step but the full set of collaborative tools will help to remove the 'campus' silos

Some Cool Stats & Examples

Staff / Student interviews

- Relevant to HR and to Schools
- Interviews with interstate international applicants
- Currently use Skype (predominantly)
- Easy to connect but inconsistent outcomes
- Poor first perception/experience of the University



Want a reliable and consistent tool that is easy to use and doesn't require software installs

Some Cool Stats & Examples

Assistive Technology labs

- Large HDMI screens
Jabber client/Web browser
- Students don't have to move around campus to connect with lecturers/tutors
- Students don't have to come to campus to collaborate



Freedom to work how they want and where they want

Summary

Can Unified Collaboration tools make business sense?

Breaking down intercampus barriers

- Improved communications

Potentially Huge Savings

- Staff Productivity
- Infrastructure Cost
- Travel, Improved Safety, Carbon reductions

Plus New Opportunities... just scratching the surface

Questions?



Collaborating does make sense