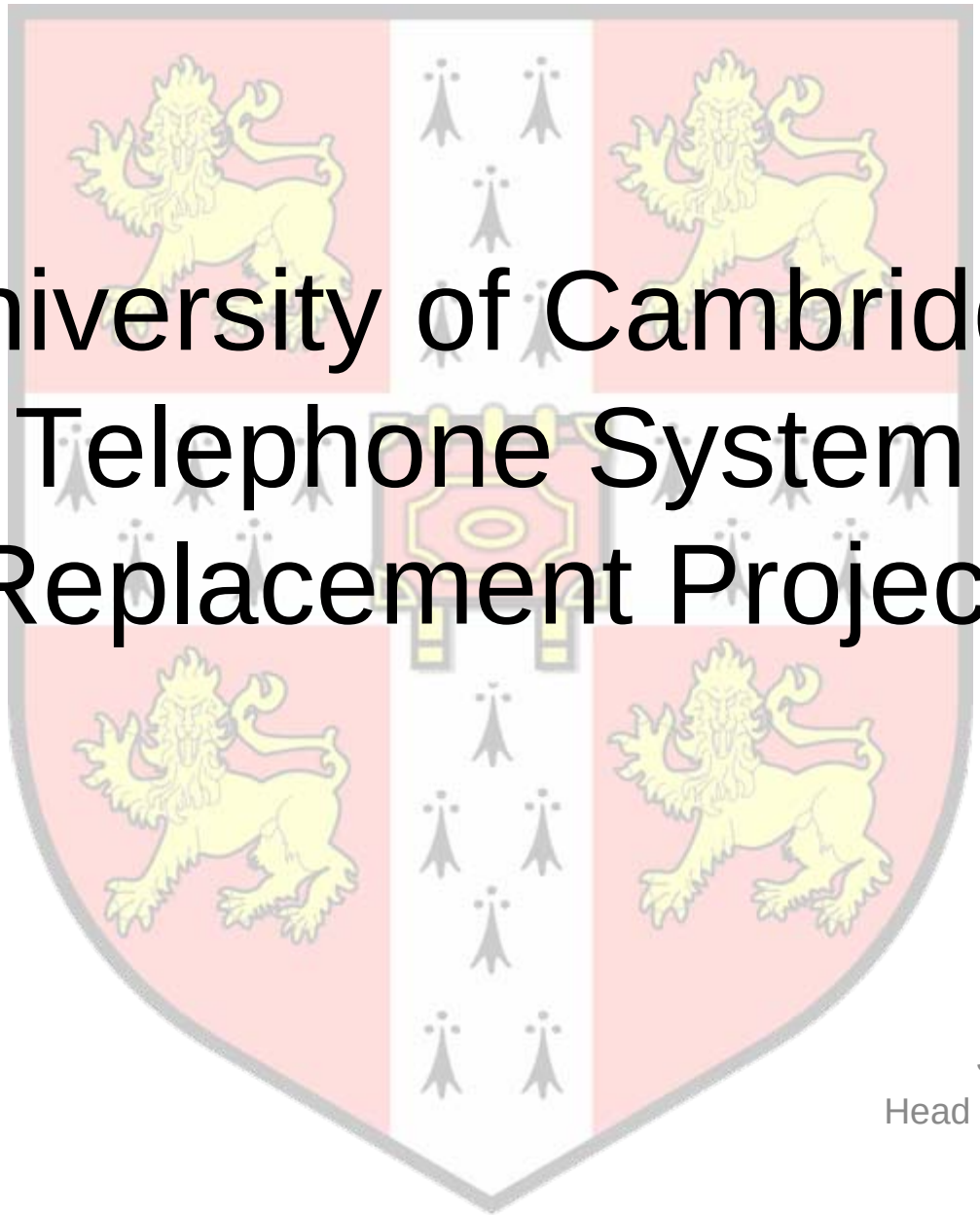


University of Cambridge Telephone System Replacement Project

Jake Hornsby
Head of Network Division
8 April 2008

Agenda

- About the University
- Why Replace the Phone System Now?
- Selection Process
- VoIP Portfolio
- How We are Migrating….
- …How Other Universities Should
- Lessons Learned
- Questions

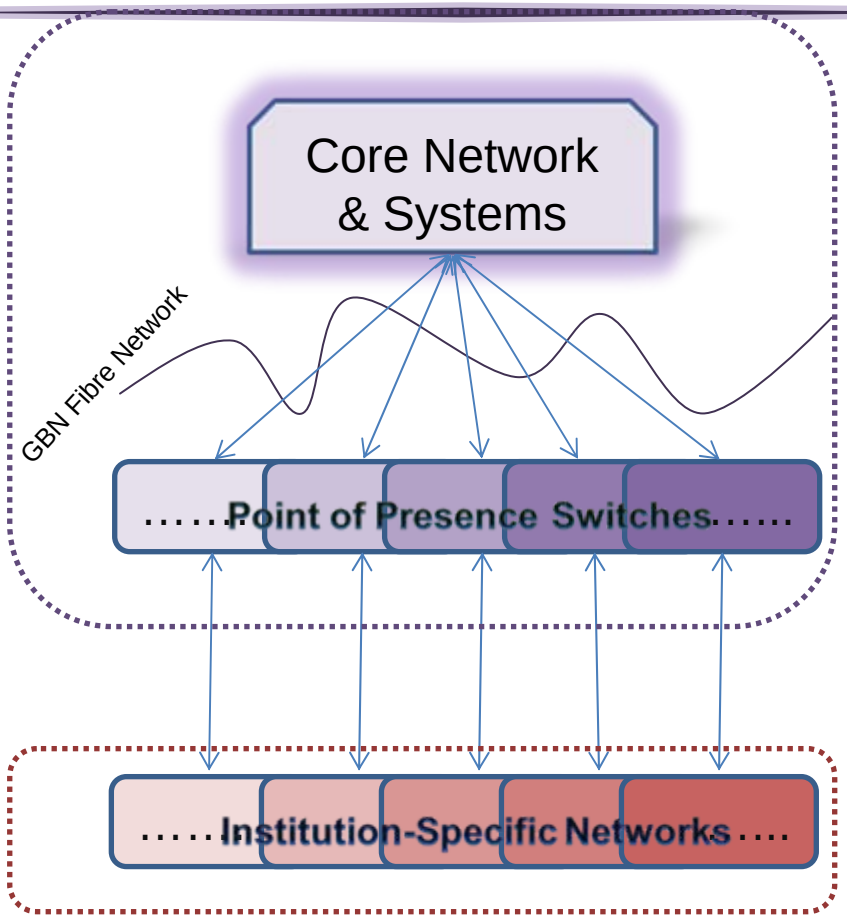
About the University

- 18K students
- 8600+ staff (not including colleges)
- ~£1B in Revenues

- >100 Departments
- 31 Colleges
- 70+ Other Institutions
  - Theological Federation, CUP, MIT, MRC, etc.

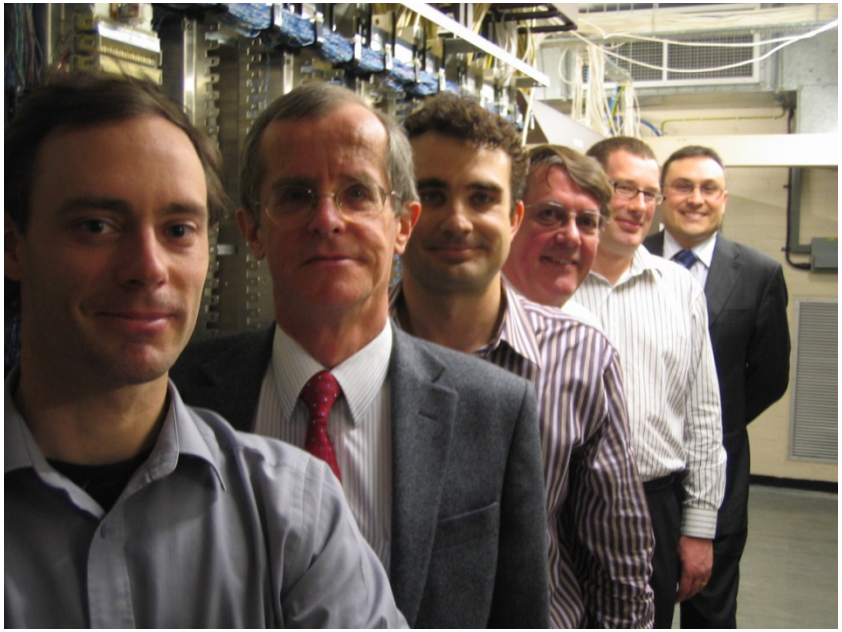
This is why were are different!

Networking at Cambridge



- Distributed Architecture, Management
- Manufacturer Agnostic

Telephony Facts



- 20K devices
- Usage Very Low
- Federated Support Network
- Dist. Architecture
  - Core/RPEs

- Self Supporting Service
- Current Voicemail Hardly Used
  - Of 17k users, <900 actively use it

Why Replace the System?

- Current System (1985) Decommissioning: 2009
  - ISLX beyond end of life
  - Maintenance ceased
  - Parts difficult to source/repair
  - Implies: 20k handsets/18 Months

Bottom Line: No Other Option!

- But why VoIP?

Selection Process 1

- 8 Vendors on Single Framework
- 6 Manufacturers
  - Siemens
  - Nortel
  - Cisco (x3 bids)
  - SpliceComm
  - Mitel
  - Nec/Philips

Selection Process 2

- Shortlisted to 3
  - Siemens
  - Nortel
  - Cisco (BT iNet)
- What We Wanted:
  - Unlimited licenses (sort of)
  - Native SIP
  - Proven delivery partner
  - Support for generic handsets

System Requirements

- In Scope
  - Dial Tone w/original numbers – for all 20k ext (in only 18 months)
  - Feature phones & operator consoles
  - Retention of special analogue lines
  - Native connectivity to outside world
- Out of Scope
  - Encryption
  - Integration
  - Extension Mobility
  - WiFi
  - Direct User Access
  - Voice/Video conferencing

VoIP Portfolio

- Core: Cisco Call Manager, v.6
- 3rd Party Apps:
  - Voicemail (SpliceComm)
    - Web/phone/email delivery
    - The ‘hi-vis’ app……..
  - Call Logging (Softex)
- SER Servers (OpenPhone)
- Handsets
  - Purely SIP (7911/7941/7961)

Cambridge Migration….

- ~200 Sites, 18 Months, Slightly Customised
- Major Steps:
  - Intro Meeting
  - Network Readiness Survey
  - Computer Officer Self-Survey (stickers)
  - Deployment Readiness Survey
  - Creation/Signature of Requirements Specification
  - Training >> 3 Levels
  - Deployment + Snagging/Roaming Trainer
  - Sign Off and Payment

….At Your University

- Plan Around Dependencies
  - e.g. network infrastructure/buildings
- Consider Merge of Telephones/Networks
- Own the Process….and Ensure Governance
- Begin with Master Roll-Out Plan
- Maintain Consistency of Services

Early Lessons

- Technology Not That Important!!!
- Communication/Data are Key
- Beware of ‘Geeky’ Features
  - Stay focused on requirements
- Rolling Out is Work!!!!!!
- Remember Who the Customer is…..
  - …..hint, it’s not Computer Officers
- …..Be Prepared Beforehand…..
- Oh Yes….the Analogue Issue

Questions?

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