HEIDS

Voice over IP at University of Dundee

ITIL at University of Dundee

VOIP

- Background
- Options
- Implementation
- Issues

Background

- IT Network Infrastructure Review Working Group (2002)
  - Surveying in detail the current configuration and management of the University's network
  - Identifying the mechanisms that have led to the current instability and unreliability;
  - Determining a new core network configuration and management structure that will serve the requirements of the University's staff and students for the foreseeable future (at least 4 years);
  - Fully costing the revised network infrastructure and management scheme;
  - Producing a set of recommendations for implementation.

Background

- **Existing PABX (iSLX) obsolete; iSDX also in place**

- **Network and Communications Project Paper (2003)**
  - To aid the decision making process relating to the choice between PBX-based and IP Telephony
  - Established initial design objectives
  - Established TCO figures for all options
  - Set operational objectives
  - Opportunity taken to visit various sites

- **Netcomms project**

An Aside

"A network is not just about fast switches or routers. You must have the essential elements in place to support the equipment. The objective is to deliver services. For this you need staff and you need a service management framework."

Two main aspects to the findings:

- Need to invest more in upgrading Technology, its management and use
- Need to develop and implement a suitable framework for the management and delivery of services

UNIVERSITY OF
DUNDEE

Netcomms

- Develop a world class Network to support:
  - Learning, Teaching, Research, Administration
  - High performance
  - Highly reliable
  - 5-year design life
  - New and better features
    - off-campus access
    - wireless access etc

Information & Communication Services

UNIVERSITY OF DUNDEE

Netcomms

- **Telephony system**
  - Replace obsolete main campus PABX with IPT
  - Deliver new features (eg voice mail)
  - Integrate with Ninewells, etc.
  - UPS to maintain 20 mins after loss of power

- **University of Dundee Appoints Affiniti to deliver converged IP network**
  - **May 5, 2005** - Affiniti, a communications integrator, today announces that it has been awarded the £2.4m contract to deliver a new converged voice and data infrastructure for the University of Dundee.

Implementation of VoIP

- Massive project
- Not big bang but one continuous project
- Cabling, Switches, new rooms, IPT
- Needed to maintain services during implementation
- Big advantage being able to run parallel systems
- PABX and IPT integrated

IP Telephony

- Chosen supplier – Omnetica (later Affiniti)

- Chosen product Cisco Call Manager

- Largest academic deployment in the UK

- Telephony over the data network
  - Cabling
  - Resilience

IP Telephony

- Everyone on main campus provided with a new phone

- Standard Model is Cisco 7940

  - Cisco 7912 for public areas etc.

- Enhanced facilities

  - CLI, Directory on phone, web page, visual display for features, received calls, missed calls etc., Voicemail and ring tones, easy phone moves – cost savings, hotdesking, homeworking

- Information Gathering

No account codes but….

- Approx 30 fields of information for each phone (includes PC information)

- Majority of fields contain information already held - to be verified or updated i.e.
  - Facilities of phone (three fields)
  - Phone Book entry (nine fields)
  - Handset, voicemail allocation, headset use, fax lines (5 fields)
  - Some yes/no fields

Challenges

- Deployment
  - 3000 phones to be installed on City Campus
    - (most PCs plug into phones)
  - Starts with the new buildings in July, rolls out to the rest of the campus from then on
  - Training issues
  - Number Change

Information & Communication Services

Post Migration Issues

- Train the Trainer
- Helpdesk support
- Floorwalkers
- Laminated cards
- Training workshops
- Number Change

HEIDS

ITIL at University of Dundee

Topics

- ITIL

  - Status

  - What does it aim to do?

  - How can we implement it?

ITIL

- ## What does it aim to do?

  - Adopting best practice in managing and delivering services to our customers

  - ITIL Processes; Incident, Change, Configuration and Release

  - Improve internal communications and better understand how we relate to ICS

- ## Status?

  - Initial training and briefing sessions, 95% complete; Feedback from staff?

  - Work done to date; process owners, Service definitions, Change, reviewing Help Desk processes, Service Catalogue, Continuity, Service Desk

ITIL

- Not a simple thing, several years to complete and embed the appropriate ITIL processes

- Opportunity to get other units on board with us; Life Sciences showing interest

- Dependencies will play an important part in the implementation and a key part of the implementation will be the new Service Desk
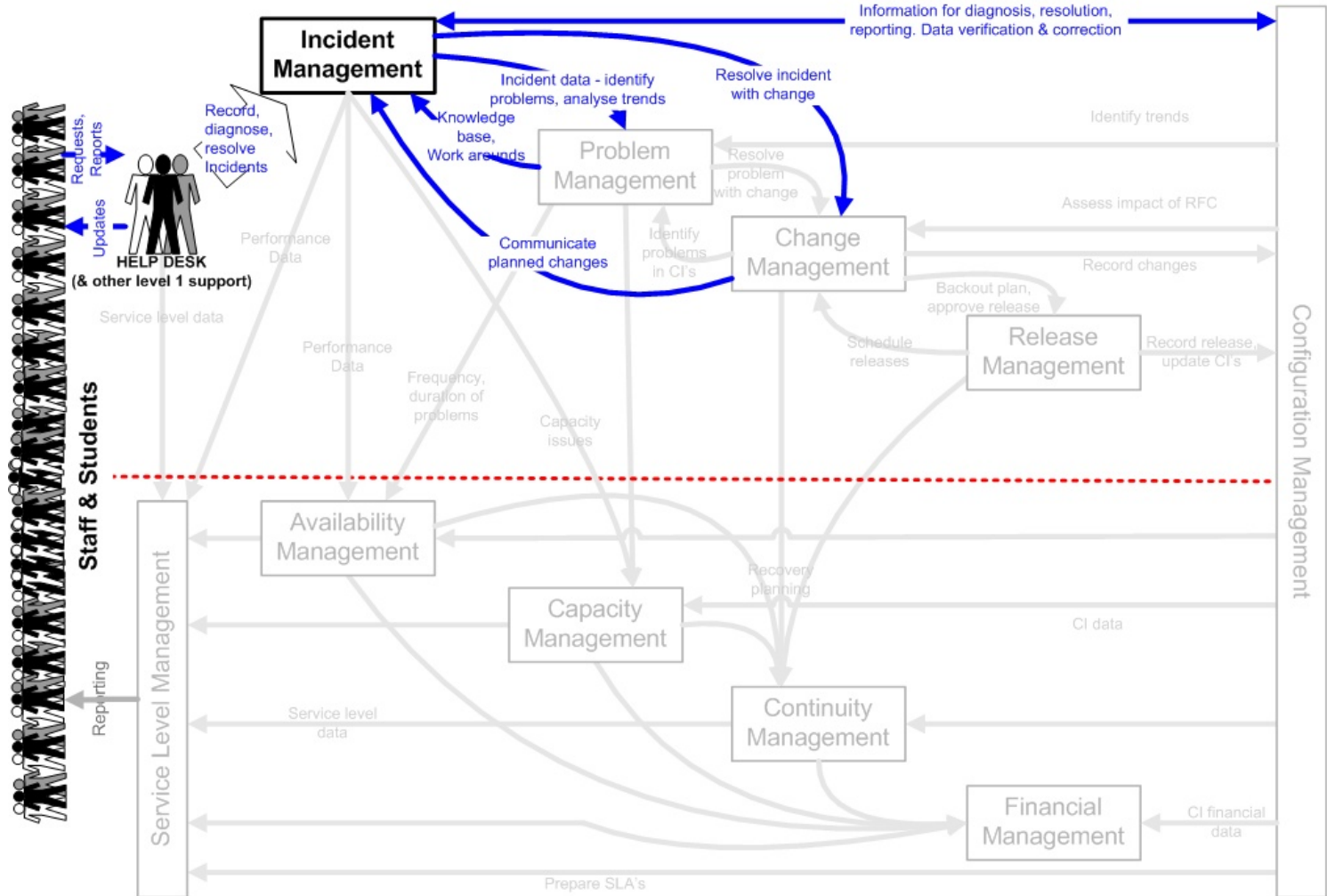
- Outline Plan

How do we decide on the order?

- Dependencies – in ITIL terms, what areas rely on others being in place?

- Business impact – what is threatening us most, what are our priorities?

- Resources – what can we realistically achieve?

Dependencies

Dependencies

- So much depends on SLAs and CMDB being in place

- Change & Release Management are linked

- Availability & Continuity Management are linked

Business Impact

- Change/release management – some systems are already in use, but we need to unify them and ensure procedures are followed

- Continuity/availability management – the provision of CER2 gives the opportunity to provide resilience for critical systems

Resources

- We cannot do everything at once, so:

    – Appoint process owners now

    – Arrange appropriate training for them

    – Break down each process into achievable chunks and plan to implement over several phases

    – Address priority areas first

Questions?