Strategic Overview

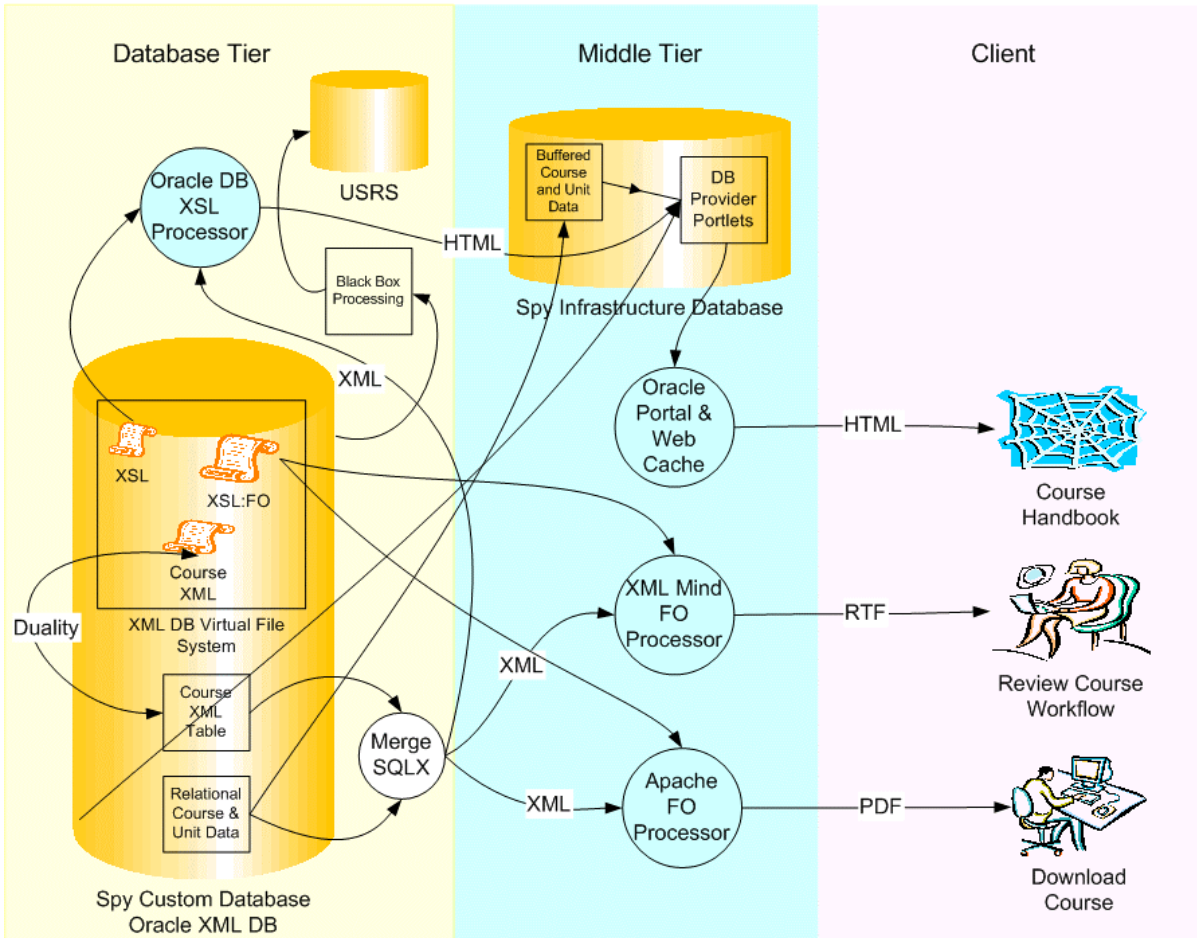
- **T**asmanian **R**esearch & **E**ducation **N**etwork
  - Partners
  - Bandwidth
  - CBD dark fibre
- UTAS Network
  - Current Status
  - Upgrades Planned
- Faculty IT Managers Group

Management Information Systems

- SCAPSE (Student & Client Administrative Processes & Systems Enhancement)
  - Student Record System (USRS)
  - CASMAC, iSIS, BPR
  - 2 parts
    - Course & Unit Management
    - Fees Redevelopment
  - Authoritative source of Course and Unit information
  - Developed in-house, using Oracle XML Db structures and Oracle Portal

Management Information Systems

- Course and Unit Management System



Management Information Systems

- Course and Unit Management System Data Stores
  - **XML Document Repository**. Oracle custom database on Spy used as a WEBDAV XML schema based document repository to manage semi-structured information describing courses, units and disciplines. XML documents are manipulated with the Authentic 2005 XML editor from Altova Corporation (demo).
  - **Relational Table Stores.** Course and Unit information based on simple and scalar data types are stored in relational tables in the custom database. Relational stores are manipulated with a rich graphic user interface using Oracle Forms.

Management Information Systems

- Course and Unit Management System Data Processing
  - **XML from stored XML + Relational Data**. Using SQLX in the custom database to fabricate new XML streams based on scalar relational data and XML elements in stored course and unit XML documents. Structured data meets semi-structured data.
  - **HTML from XML**. XML streams are converted into HTML for presentation on the course and unit web site using XSL style sheets and the XSL engine in the Oracle XMLDB custom database.
  - **RTF from XML**. XML streams are converted into zipped RTF for editorial review by faculty staff, draft copies of unit, course and discipline printed manuals and for student download. Using XML Mind's XSL:FO java based engine and a java servlet developed by MIS.
  - **PDF from XML**. (future) XML streams will be converted into PDF using the Apache XSL:FO processor for student download of courses and units. Pre-processed files pulled from a content area.
  - **Integration of Course & Unit Data with USRS**. Unit only at this stage. A sequence of low level jobs run through the requests system to synchronize the units in the CU System with USRS units. Original goal of implementing an integration solution has not occurred.

Management Information Systems

- Course and Unit Management System Oracle Portal Web Site
  - **Portal Framework.** Portal provides us with session management, user context management, top level page design and web caching for performance and scalability. Portal also provides an intimate ability to source and display Oracle data and many other non-Oracle data-sources. Oracle Portal is provided standard as part of UTAS licensing of Oracle Application Server. Portal also provides a content management system with publishing workflow which at this stage we are not using.
  - **Web Page Design**. Top level design using Portal Pages.
  - **Database Provider Portlets**. A library of dynamic portlets was created using PL/SQL web tool kit to pass HTML calls from Oracle HTTP Server to the client web-browser. Each dynamic portlet would use PL/SQL web tool kit procedure calls to either wrap relational data in HTML or pass on HTML generated from XML using the database XSL engine.

Communication Technologies

- Network Upgrades
  - Firewall (155M) new code/syntax
  - Internet Router
  - Core Switches – July 04 temporary measure
  - Departmental Access Switches (10/100)
  - Further gigabit fibre between buildings
  - IPv6 still to be started
  - Multicast to Internet/AARNet still to be started
    - Needed for Access Grid technology
- WAN Link Upgrades
  - Hobart CBD – Completed! 2M now 28M each
  - 2M are still in place as backup links
  - Launceston new links to AB and Clarence House Planned
  - CCC new link to TAFE
  - 2M BDSL (VPN) links to Rural Health Hospital Sites (10)

Communication Technologies

- UTas-UANA
  - University Authenticated Network Access
    - 802.1x username/password on wireless AP
    - 802.1x username/password on selected wall sockets
    - UTas-UANA wireless SSID campus wide
    - Departments still can have their own hidden SSID but still used UANA for security
    - Lecture theatres (subnet 69) may go UANA to prevent unrestricted use – install client on images
    - Will be used in Student Residences 2005
    - Panther (10.3) or Win2000 or XP = $0
    - www.utas.edu.au/itr/UANA

Communication Technologies

- Learning Hubs
  - Student personal laptops
    - Both wireless (5 AP) and wired (400 sockets)
    - Utilises UTas-UANA 802.1x security
    - Private Addresses (10.100.*.*)
      - » No direct firewall traffic (streaming etc)
    - Restricted traffic flows
      - » SMTP/POP/IMAP, WWW, HTTPS, Proxies
      - » File/Print via portal server
    - Access each other still
    - System deployable in multiple areas
    - Self-Registration of mac-address/username
    - One registration for all areas (3 months?)

Communication Technologies

- Network Resilience/Security/Performance
  - DHCP/DNS servers to smaller campuses
  - Sandy Bay broken into smaller zones, multiple fibre feeds
  - Duplicate RADIUS/UANA servers
  - Removal of non-managed hubs, minimum speed 10/100 switched
  - NAM (Network Analysis Module)
    - Traffic Flows, jitter, latency, losses
  - IDS (Intrusion Detection System)
    - 600 Mbit module
    - Sited near FW and most WAN links
    - Report suspicious behavior – leading to possible automatic disabling of devices (what about little hubs?)

IT Procurement Services

Tender for Supply of PC Desktop, Portable and Server Equipment

Appointed to Dell Computer in October 2004 for 2 year period

Pricing – Available on Leasing/Lease without support/purchase
www.utas.edu.au/itr/procserv/leasescheme

Decrease in pricing

Standard desktop models include 17” Ultrasharp monitors

IT Procurement Services

Laptops (pricing includes):

Gold Technical Support – Phone Number:

Laptops include: Complete Cover – on central processing unit, keyboard, mouse, internal hard drives and computer's original monitor (not casing). Dell Complete Cover Service Agreement available on request.

Service:

Any warranty or service problems with Dell – contact Glenda Wardlaw (email or phone)

Staff Purchases:

Set up from January 2005

- Models from Lease Web Page plus GST
- Payment via Cashier upfront prior to ordering
- No support provided on system

IT Procurement Services

Online Ordering:

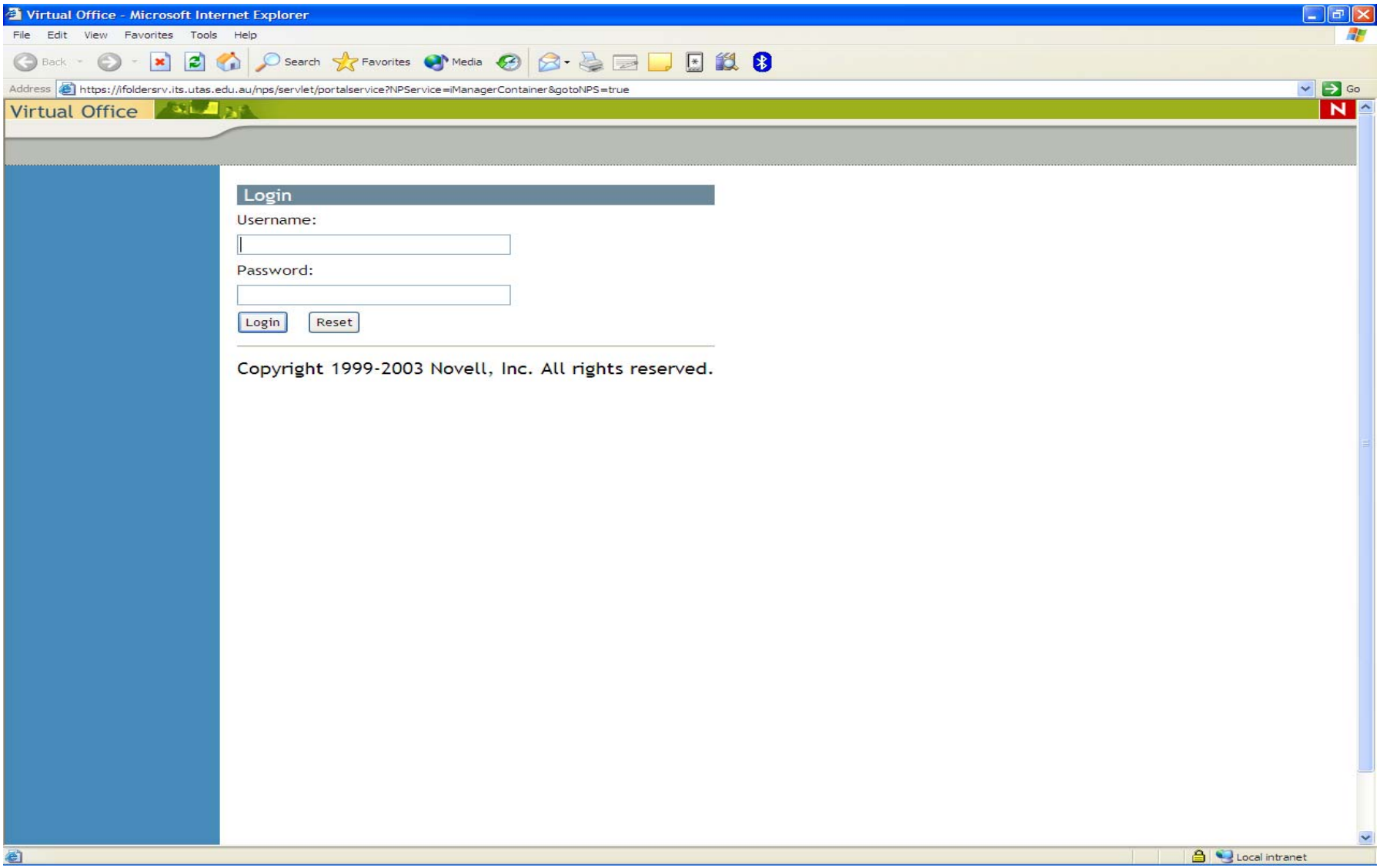
Dell – proposed for all support staff to quote from the on-line Premier Page and orders will be placed centrally by ITR

Apple – I now have on-line ordering. Proposed for all support staff to have access to the quoting page and orders will be placed centrally by ITR

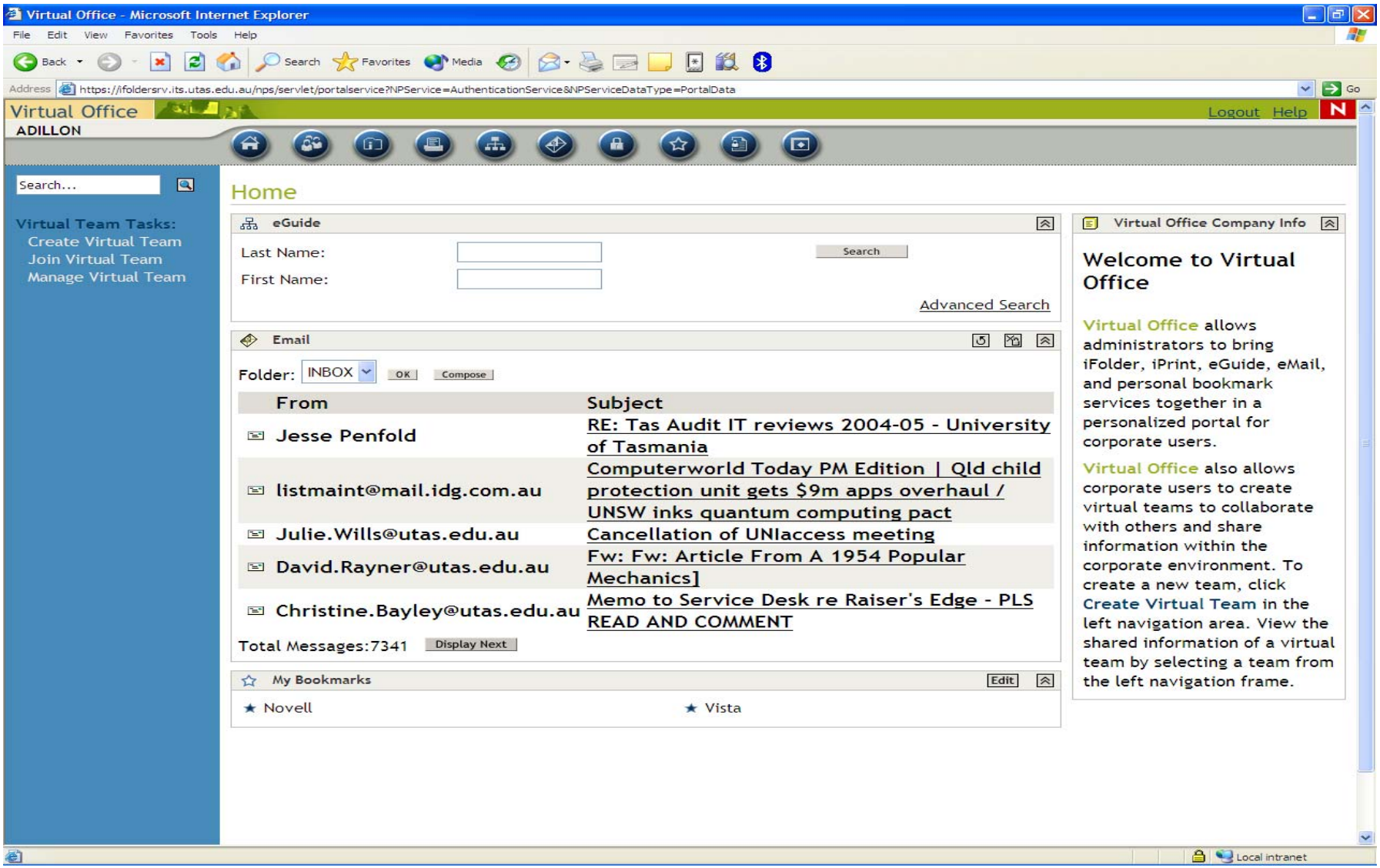
Computing & Distributed Systems

- Enterprise Backup
  - Generic SLD Developed
  - Initial Clients: Faculty of Art and School of Architecture
- AntiVirus
  - Internet Gateway (Trend Micro) & Desktops (McAfee)
  - Evaluation of products saw McAfee subscription renewed
  - McAfee 8.x
- Learning Hubs
  - Quarantine subnet
  - Novell ‘Virtual Office’ Portal
    - Access to student’s P: Drive
    - IPP through CAPS
    - Creation of Virtual team areas for collaboration

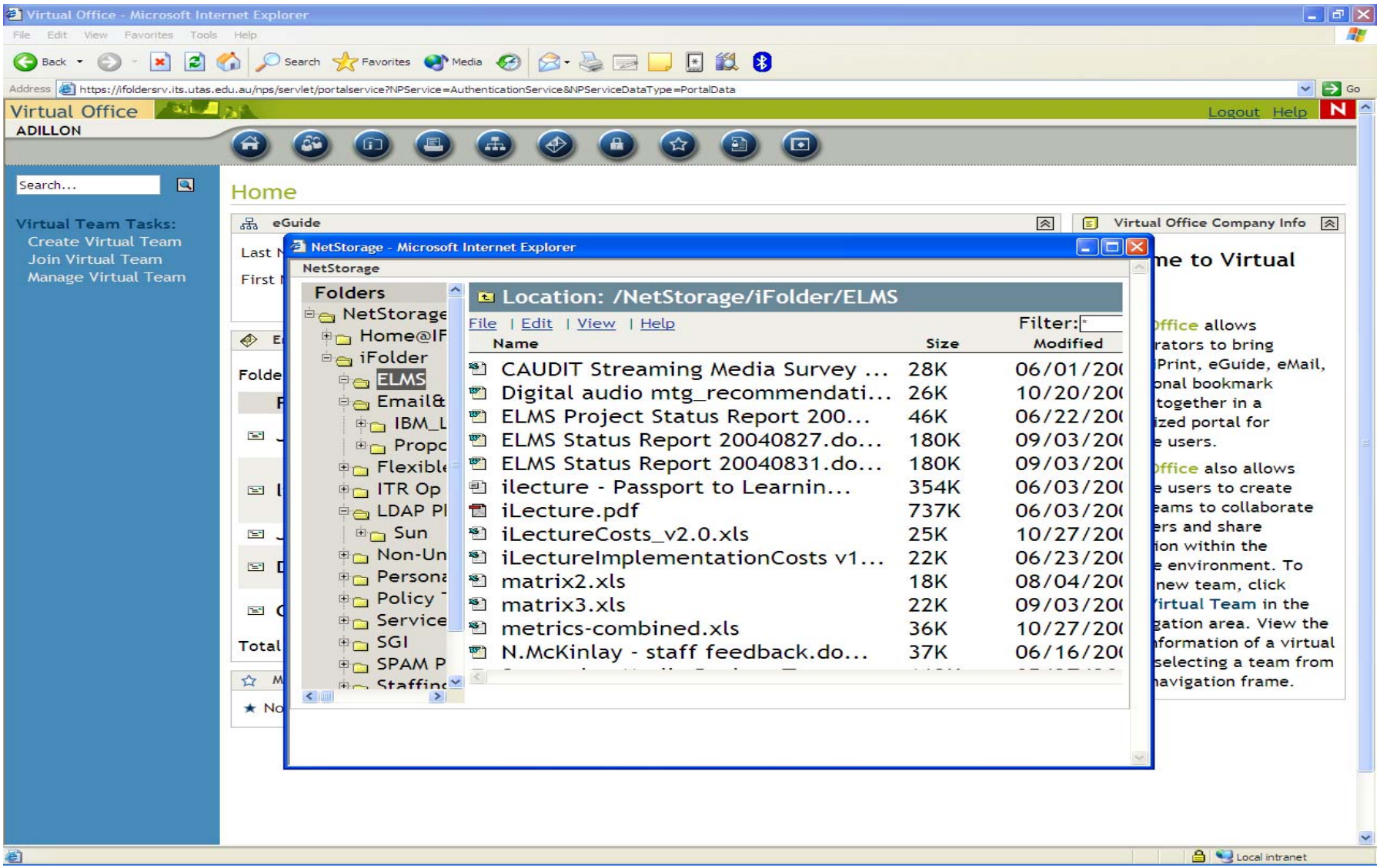
Computing & Distributed Systems



Computing & Distributed Systems



Computing & Distributed Systems



Computing & Distributed Systems

- Enterprise Email/Calendaring/Groupware
  - Finalise requirements/evaluation criteria
  - Undertake closed RFI
  - Select and undertake pilot implementation
- ELMS
  - Automated Lecture Recording/Streaming
  - ‘Pilot’ in 5 Lecture Theatres Semester 1
  - Extend rollout to 10 Lecture Theatres, if successful

Computing & Distributed Systems

- LDAP project – Phase 2
  - Identity Management Infrastructure (Whole of organisation approach)
  - Goal of achieving more than same username & password
  - Key Benefits and Business Priorities
    - Synchronise identity data across the organisation and link user accounts to that identity information.
    - Administer access by applying rules that reflect business priorities and polices in a way that prevents the unauthorised disclosure of private and sensitive information.
    - Efficiently manage changes to both the information and accompanying rights (effectively implement a security policy), which forms the basis for access decisions, self-service, authorisation and personalisation.
  - Deployment of a metadirectory (bi-directional feeds to/from applications/databases/directories as appropriate)
  - Authoritative data sources read-only

Computing & Distributed Systems

- Recent Activity:

  Overview and Planning Aspects white papers have been prepared and forwarded for consideration of the LDAP Steering Committee

  Planning Aspects outlines a number of keys milestones to be achieved, namely:

  - Discovery
  - Requirements and Design Analysis
  - Proof of Concept
  - Data Validation and Preparation
  - Production Pilot
  - Production Rollout Planning
  - Production Deployment

Computing & Distributed Systems

- Currently status:
  - At the *Discovery* stage of authoritative data sources within ITR.
  - Followed by a discovery process of administrative systems (HR, USRS, etc)
  - Then a discovery process within the faculties, schools and departments.

Results of Discovery will feed into the next stage.

Current (and future) requirements will be accommodated in the *Requirements and Design Analysis* (with additional or more complex requirements factored into future development).

Computing & Distributed Systems

- CAPS
  - Application Manager
  - Overview of system
  - Current Status
  - Cost Recovery Business Case: ICT Cttee to consider
    - Transparent costing model that details cost per sheet dependant upon printer/photocopier hardware
- Service Level Agreements
  - Commerce, AgSci/TIAR, TAFI, SciEng Faculty Office
  - Two new SLA's: ACE CRC/TPAC and School of IS
  - Services offered: server hosting to full IT management

Computing & Distributed Systems

- Mini Projects (DMS)
  - PDA Standards (inc. server synchronization infrastructure)
  - ADSL Solutions
  - Zen 6.5
  - Web Kiosk (email only) Desktop
  - Patch Management Solution
  - Virtual PC / Virtual Server

Questions ?