

# **Information Systems and Technology Bi-Monthly Staff Briefing**



# Desktop Futures

## *Changes to the desktop and software delivery*

Richard Smith, Service Manager (Directories & Desktop)

Simon Alexander, Consultant Infrastructure Analyst (Directories & Desktop)



# Current and Future Developments

- Virtual Desktop Infrastructure (VDI) for teaching within ACES
- Windows 10
- Application Jukebox

# VDI for teaching within ACES

- used on two modules for teaching Microsoft SQL
  - Database Administration and Security
  - Data Warehousing
- 218 Virtual Machines
- Server 2008R2 and Server 2012R2 OS on VMWare ESX
- accessed via vWorkspace



# Database Administration and Security

- first course to use this technology
- now in 3<sup>rd</sup> year of operation
- users required own VM with admin rights for Database Administration
- previously used virtual machines on specific physical workstations
- copied large VM files from server to local machine
- limited availability and access to physical workstations during teaching hours



# Data Warehousing



- cubes produced on a single server shared by all students
- if one cube corrupted then locked the server for entire class
- 1<sup>st</sup> year of operation
- VDI allows students to build cubes on own virtual machine so any issue only affects their own server
- work files automatically copied as part of the build process

# Benefits of VDI for ACES

- users can access their VDI workstation from any workstation or personal device within SHU and from home
- SQL Database course now being taught in Harmer and Owen so freed up specialist lab space in Cantor
- teaching more efficient as not copying large files or tied to specific labs
- created 80 VDI desktops in 27 minutes
- *"The only problem is that the classes are running so smoothly that we finished before time was up" - Matthew Love*

# vWorkspace

- access to VDI, Remote Desktop Services and Remote Applications
- <https://myapps.shu.ac.uk/>
- currently used for services including:
  - PIMMS, Staff Remote Desktop, specialist VDI desktops, ACES SAS teaching, ACES Visual Studio teaching, VDI desktops for testing CS services
- dynamically assigns local admin rights to resources during login if required
- currently available via Windows, OS X, iOS and Android with a connector
- January 2016 - upgrade will allow access via HTML 5



# Windows 10



- new process for building and releasing new version of Managed Desktop
- traditional approach is to build, configure and test OS and software extensively within IS&T before releasing as a BETA desktop to SHU. Could take up to 1 year before users outside IS&T used the desktop and 2 years to fully rollout new desktop.
- Windows 10 using Agile approach. New release every month
- each release will include updated settings and configuration, support for additional applications and hardware
- users can have access to Windows 10 when the released sprint meets their requirements and is supported on their hardware

# Windows 10 - Initial sprint

- January 2016
- 1<sup>st</sup> Sprint will include the following features:
  - Microsoft Office 2016, Visio 2016 and Project 2016
  - Google Chrome and core browser plugins
  - core software such as Java 1.8, Adobe Reader
  - Application Jukebox and vWorkspace clients
- basic OS configuration and local firewall settings
- drive mappings and basic login script actions
- 802.1x wired and wireless settings

# Windows 10 - Future sprints

- Future sprints will include:
  - applications delivered with Application Jukebox
  - enhanced laptop support, including better support whilst off site
  - support for corporate applications
  - all workstation hardware used within SHU
  - foreign language and keyboard support

# Application Jukebox



- application virtualization technology
- software is not physically installed on the workstation but available when required
- becoming widely used within UK universities
- will be used for Windows 10 Managed Desktop to deliver applications
- currently being used within Teaching and Learning to resolve a number of current issues

# Application Jukebox - Benefits

- faster startup and login times by not having a large amount of software installed locally
- virtualized applications work across different versions of Windows OS so will enhance our ability to deploy applications to Windows 10, Windows 7 and Remote Desktop Services
- applications can be more widely available rather than limited to specific locations and available off site for laptop users

# Application Jukebox - Benefits

- different versions of the same application can be run side by side, resolving a number of issues and allowing testing of new software
- applications can be deployed and updated immediately by IS&T
- potential to allow staff and students to run our applications on personal devices, licensing allowing. can be time-limited so applications will expire

