

# Desktop Management

ICT Support Team  
Oxford University

# Agenda

- Overview
  - Bridget Lewis
- Enhancing Altiris for PC Deployments
  - Ian Atkin
- Application Integration
  - Darren Collins
- Questions

# ICT Support Team

- University Department formed in 2006
  - 31 staff
- Remit to provide desktop services to three University departments
  - Libraries
  - University Administration
  - Computing Services
- ECE Programme to integrate and improve desktop services



# Our Environment

- Is complicated...
- 2,500 desktops (mostly Windows XP SP3)
  - 80% staff desktops
  - 20% public access (training, libraries)
  - Around 60 physical sites
  - 40+ subnets



# Our Environment

- 4 Active Directory forests
  - 6 domains
- 2 eDir trees
- 2,000 staff
- >13,000 training places per annum
- 60,000 Library Readers

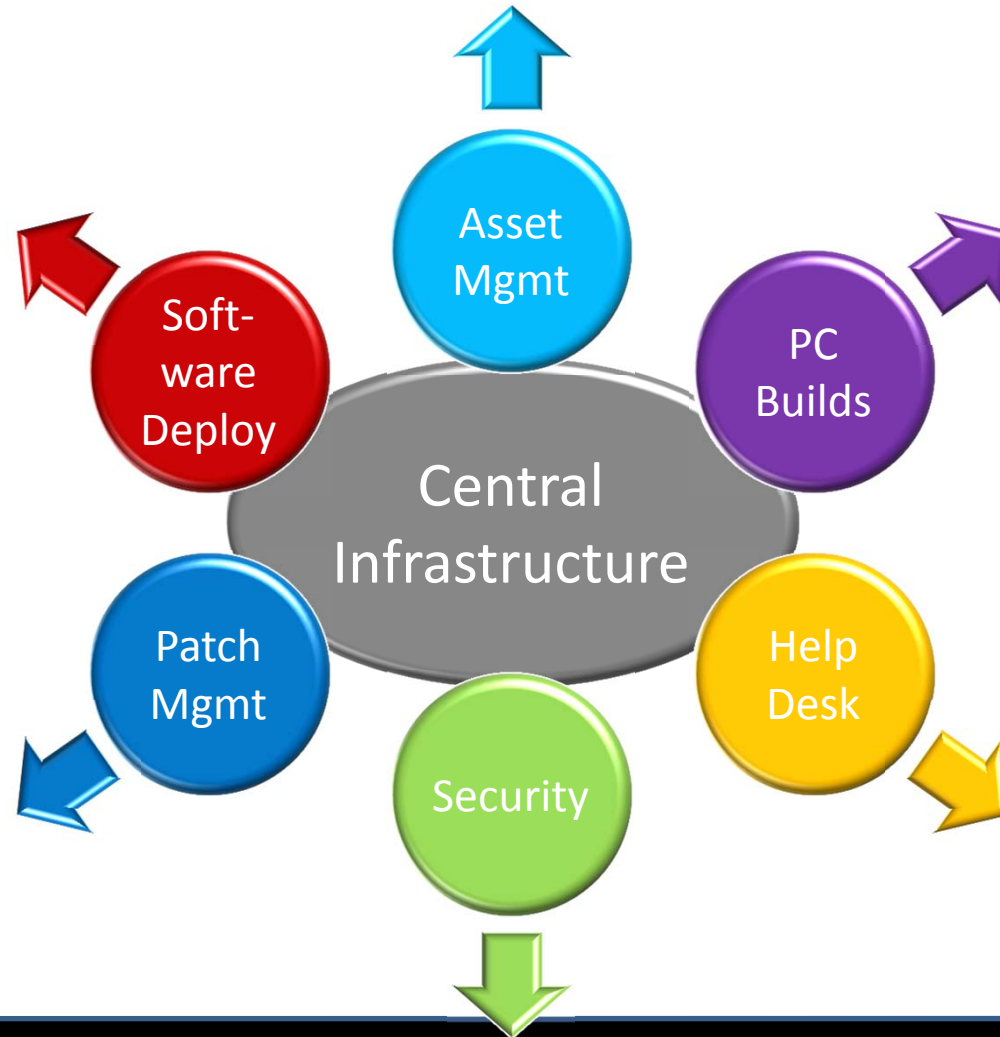


# ICTST Services

- Helpdesk and support
- Server Infrastructure
  - VMware infrastructure, dual site
  - Directory services, file, print etc.
- Network management
- Desktop management
- Security & Backup



# Desktop Management



# Desktop Management Infrastructure

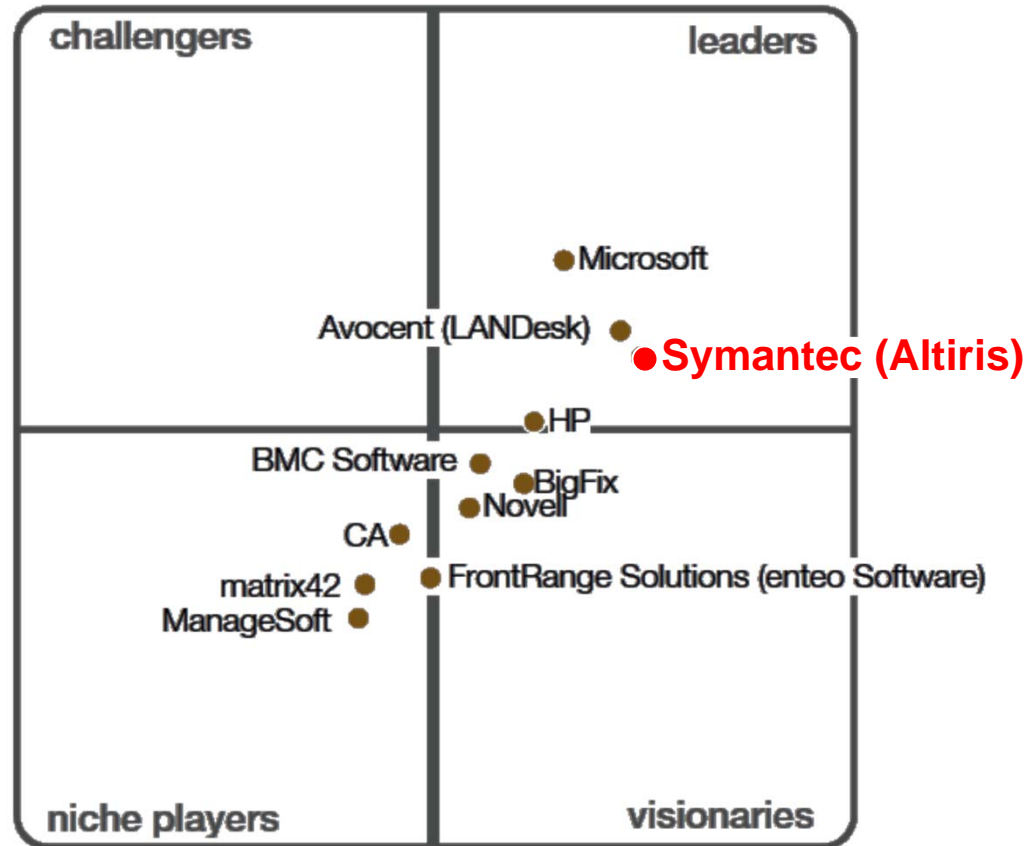
- Altiris products (Symantec)
  - Help desk & remote control
  - Asset & Inventory
  - Software deployment
  - PC Imaging/building
- WSUS for MS patching
- Sophos for Antivirus etc.





# Why Altiris For Desktop Management?

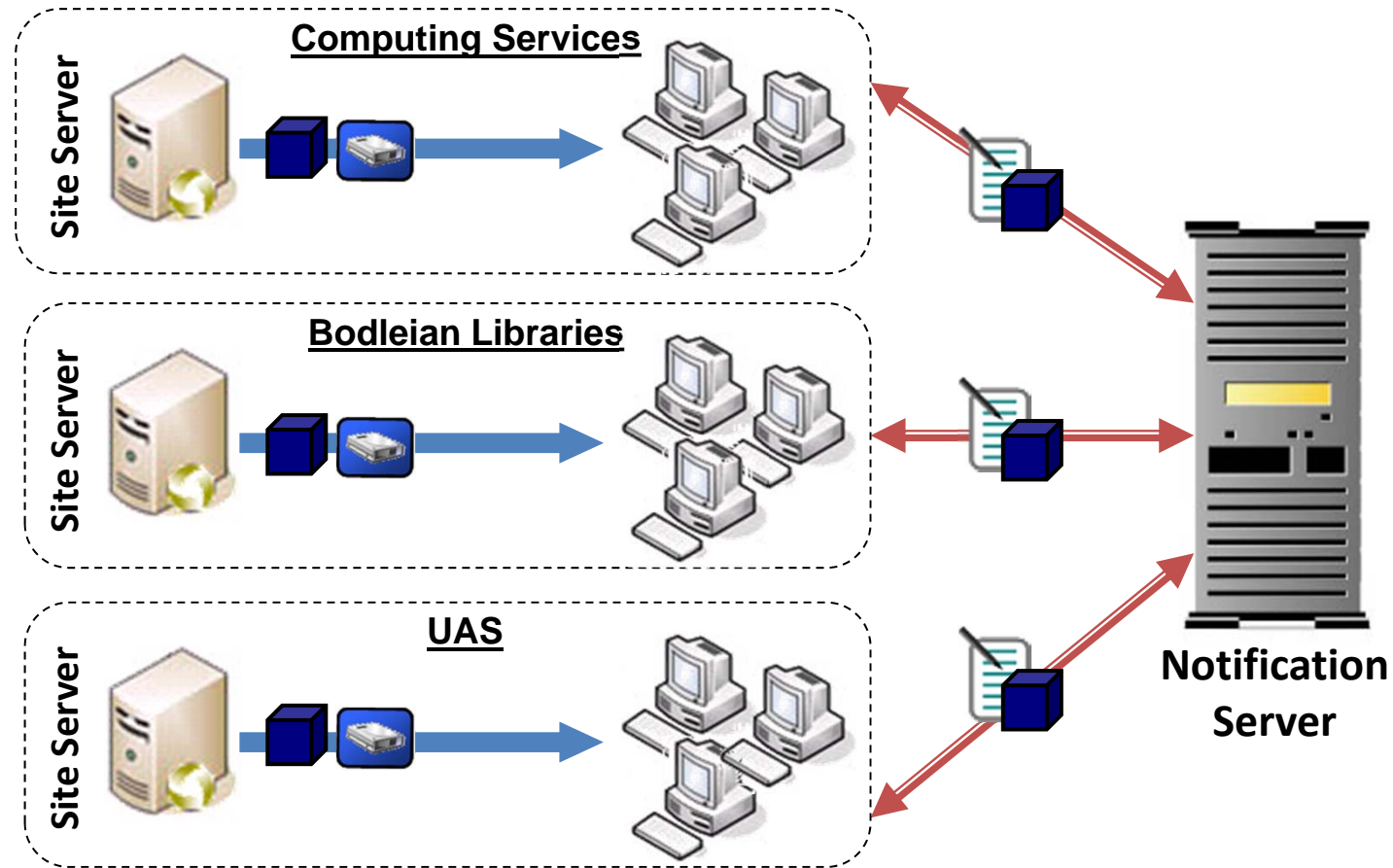
Gartner Magic Quadrant for PC  
Lifecycle Management  
(December 2008)



# Altiris Infrastructure

- VMware Infrastructure
- 8 Core Servers (Windows 2003 R2)
- Microsoft SQL Server
  - 2005 32 bit and 64bit
- Altiris Notification Server 6
- Altiris Deployment Solution 6.9 SP4

# Altiris Infrastructure



# Achievements

- Scalable, flexible Altiris Infrastructure
  - Directory services independent
  - Single Help Desk
- Standardising Imaging
  - 7 out of 10 main builds now via Altiris
  - Build and rollout to 350 Library Reader PCs
- Deployments
  - Security updates e.g. Adobe Reader, Flash Player
  - Major Rollouts e.g. Sophos, IE7, Office 2007

# Enhancing Altiris for PC Deployments

Altiris Development Team

# Overview

- Since purchasing Altiris in 2006, ICTST have enhanced Altiris imaging by
  - Extending its Hardware Independent Imaging capabilities
  - Developing a self-service imaging portal



# Imaging & the Altiris Solutions

- **Deployment Solution for Clients**
- Inventory Solution for Clients
- Helpdesk Solution
- Local Recovery Solution
- Patch Management Solution
- Real-Time Manager
- Software Delivery Solution
- Software Virtualisation Solution
- . . . .

Native Features

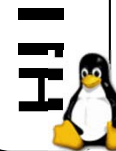
- Computer Imaging
- Software Deployment
- Remote Control
- Inventory

Oxford Add-ons

Image Invoker



DS Replication



# Why Customise Altiris?

- Out-of-box functionality sometimes does not mesh with desired IT process
- To further simplify/automate existing IT processes

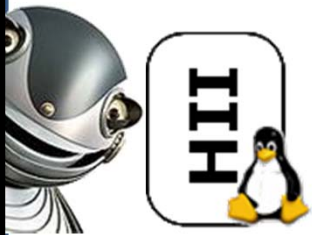


# How do you Customise Altiris?

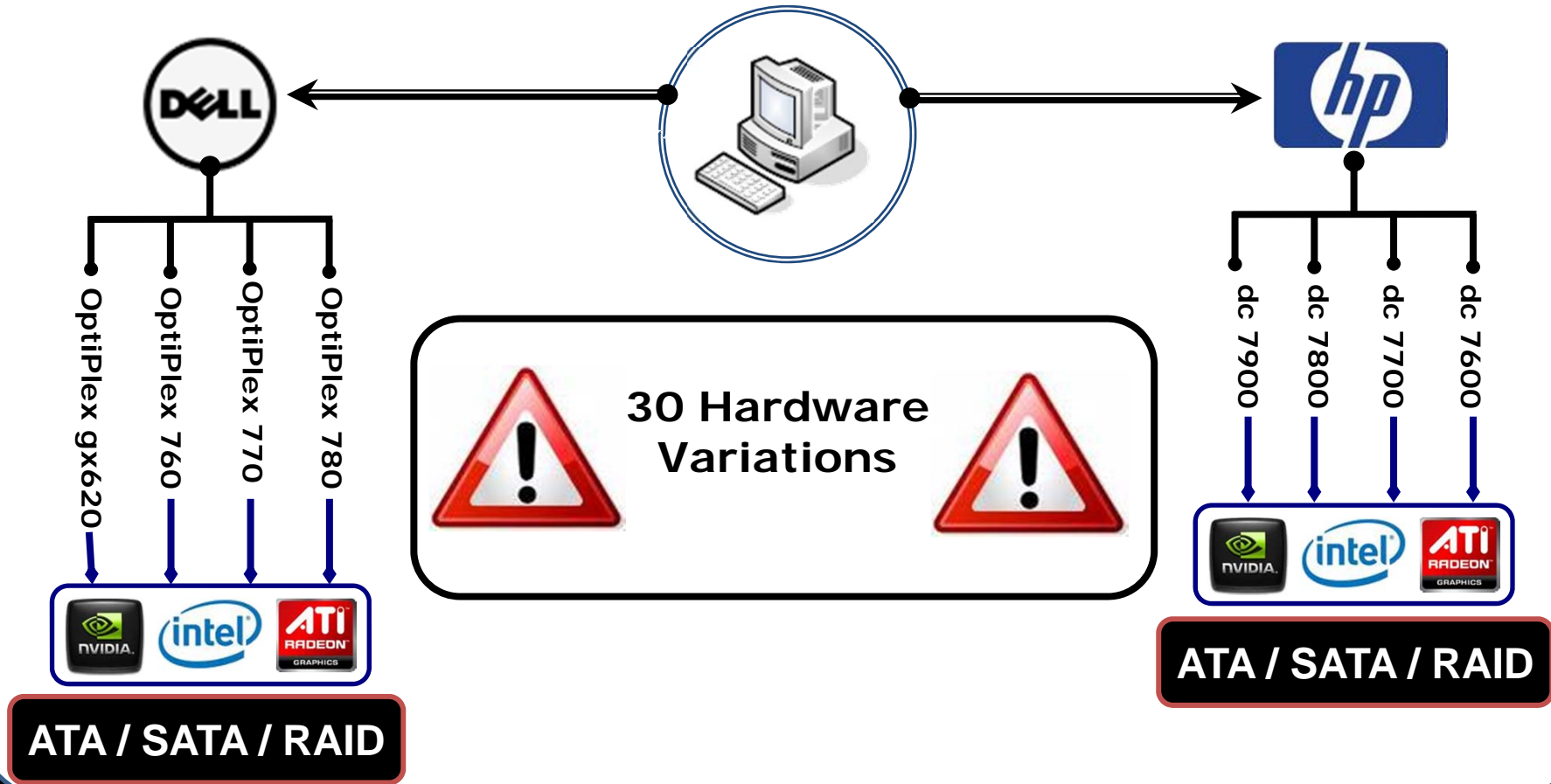
- Altiris facilitates customisations and enhancements
  - Altiris Software Developer Kit (ASDK)
  - Altiris provided Tools and Utilities
  - Data stored in Microsoft SQL Server

# ICTST's Imaging Problem

- How to *efficiently* prepare Windows XP images for delivery to a variety of hardware platforms?



# ICTST Hardware Diversity –How Bad Can it Be?

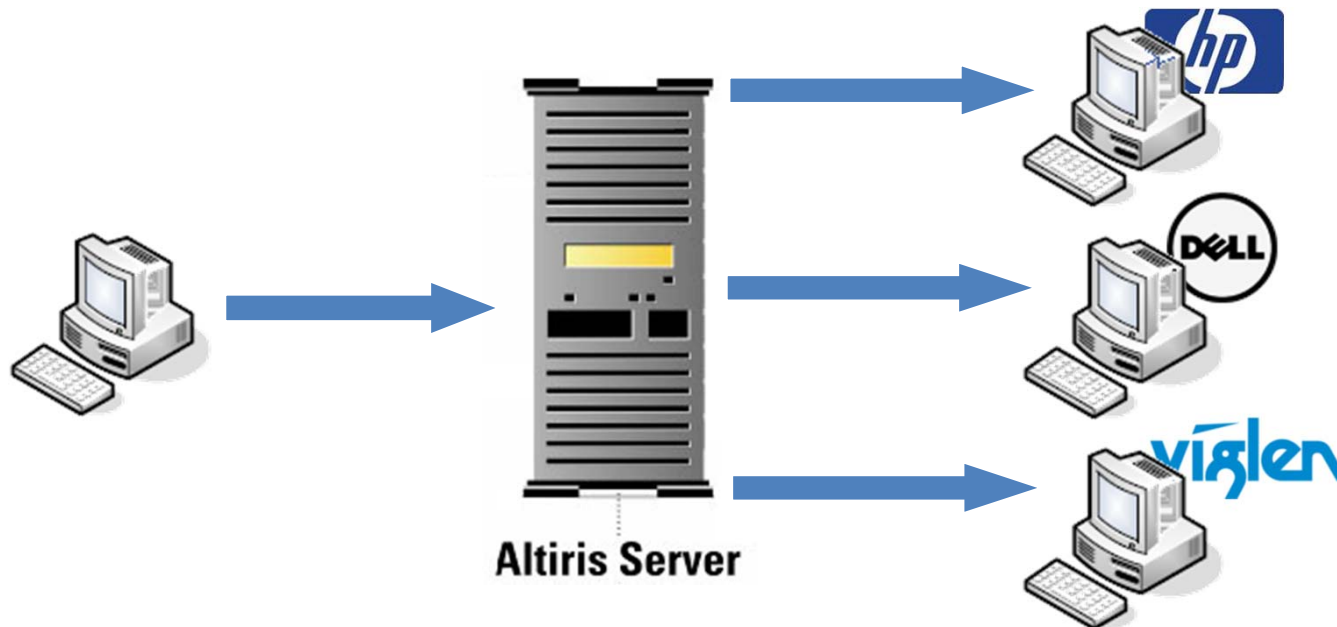


# What To Do?



# Hardware Independent Imaging (HII)

- Allows suitably prepared images to be deployed to computers which differ in hardware



# The Oxford HII Add-on

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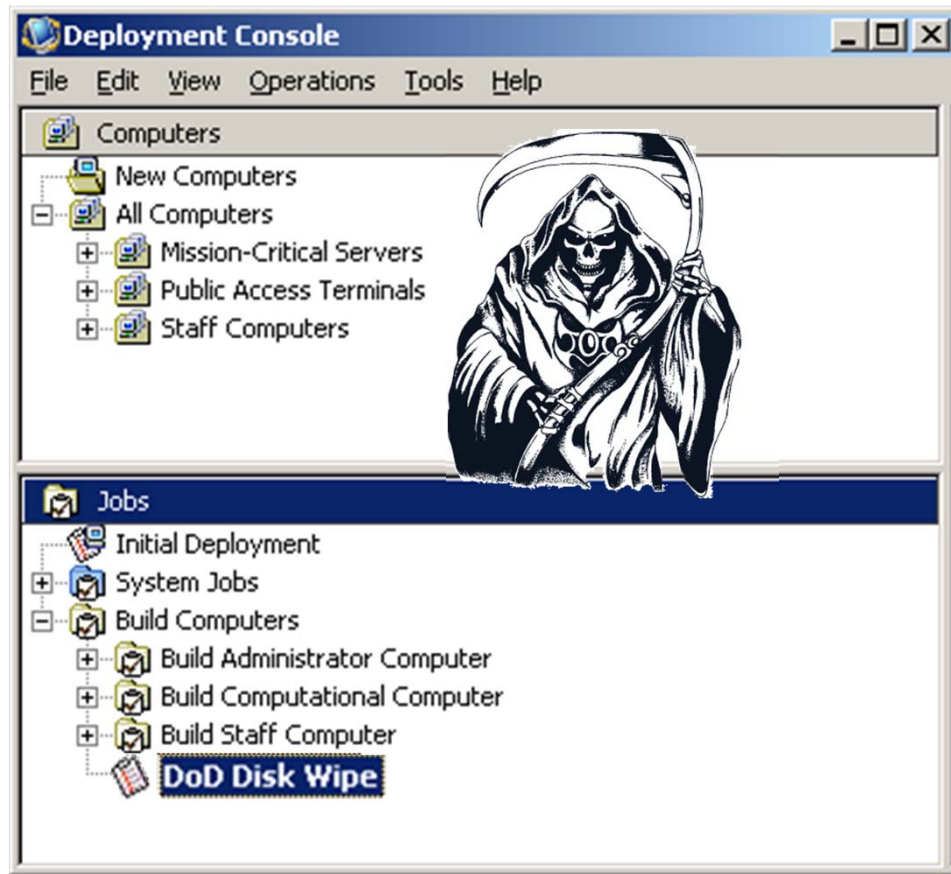
- Leverages Altiris' Linux imaging environment (currently SuSE 11.1)
- Drivers injected as image is deployed
- Mass-storage support now injected offline. No need to 'reseal'.
- **20** desktop models and **16** laptops in pool (with graphics and mass-storage variations).

# Another ICTST Problem

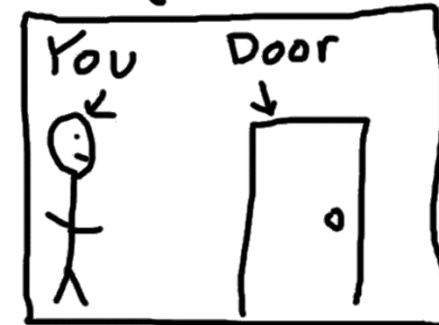
- How can we enable IT officers to safely image computers with minimal Altiris training?



# Deployment Server – A P45 Accelerant



Guess What?  
You're Fired!





# And it really happens....

## Q&A: Benefit computer crash

A massive computer failure has caused chaos at the Department for Work and Pensions (DWP). So what is happening to benefit claimants, and how did the problem arise in the first place?

**I am in receipt of benefits.  
Will I get my money?**

This is likely to prove the biggest single computer failure to hit the UK benefits system, with 80% of DWP computers affected.



Some reports suggest DWP staff are writing benefit cheques by hand

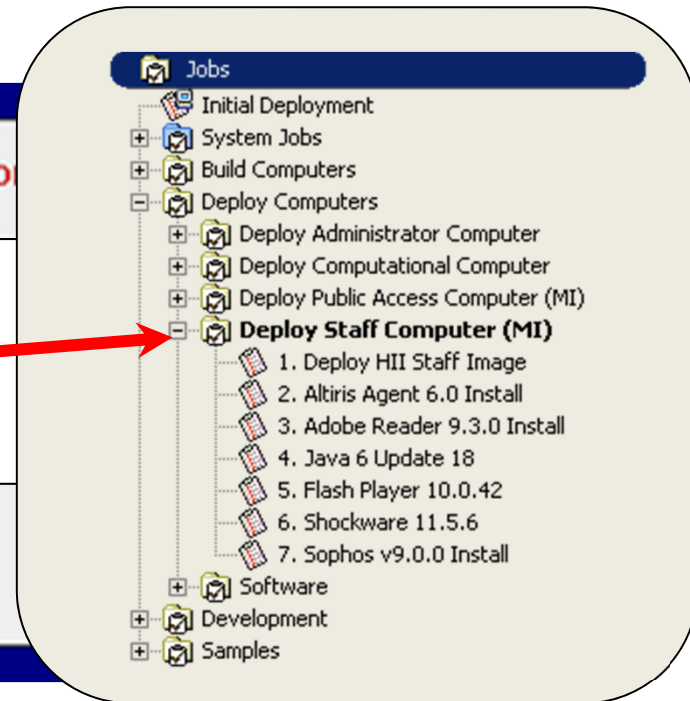
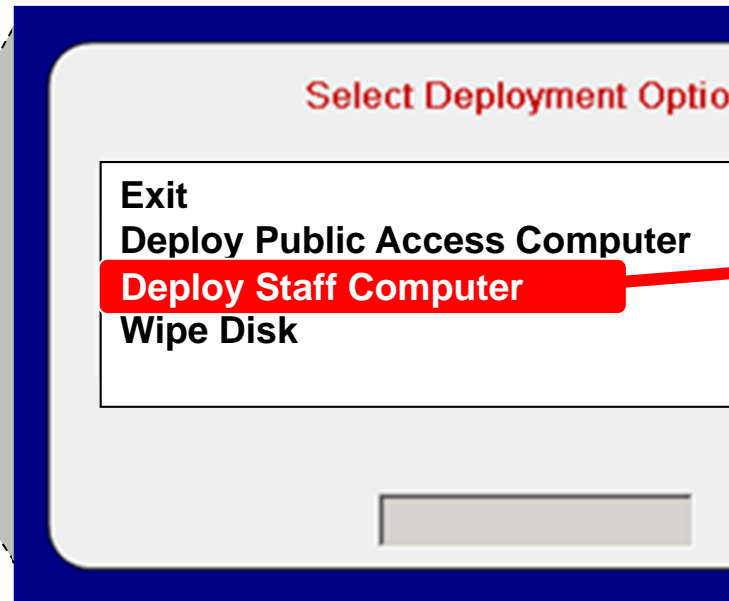
# The ImageInvoker Add-on



- A simplified & Safe interface for imaging computers
  - IT Staff can image computers quickly, and with *minimal* training overhead
  - Failsafe mechanism for imaging the right computer (job security)

# Using ImageInvoker

- Simple menu to drive imaging (WinPE & Linux)



# Apps Integration

## Applications Packaging and Deployment

# Apps Integration

- Application Packaging
  - Unattended installation
- Application Deployment
  - Delivery / installation to the workstation

# Why Package Apps?

- Manual installation to 2,000 desktops.

Over 25 man-days



- Package and deploy:

Two to three man-days



# Why Package Apps?

## Plus:

Standard, Uniform Installations ...



... mean better support for users:

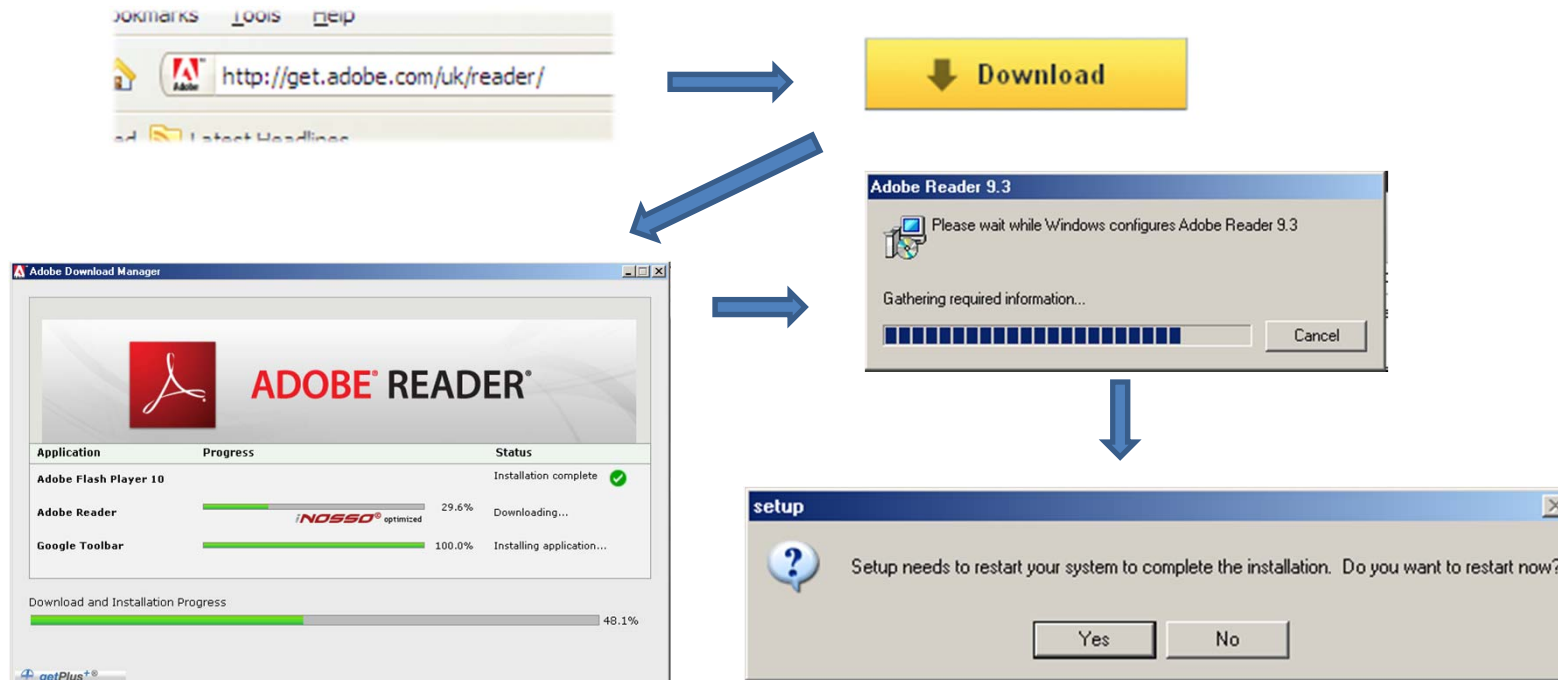
- Replicate faults in controlled environment.
- Rollout standard fixes for all users.



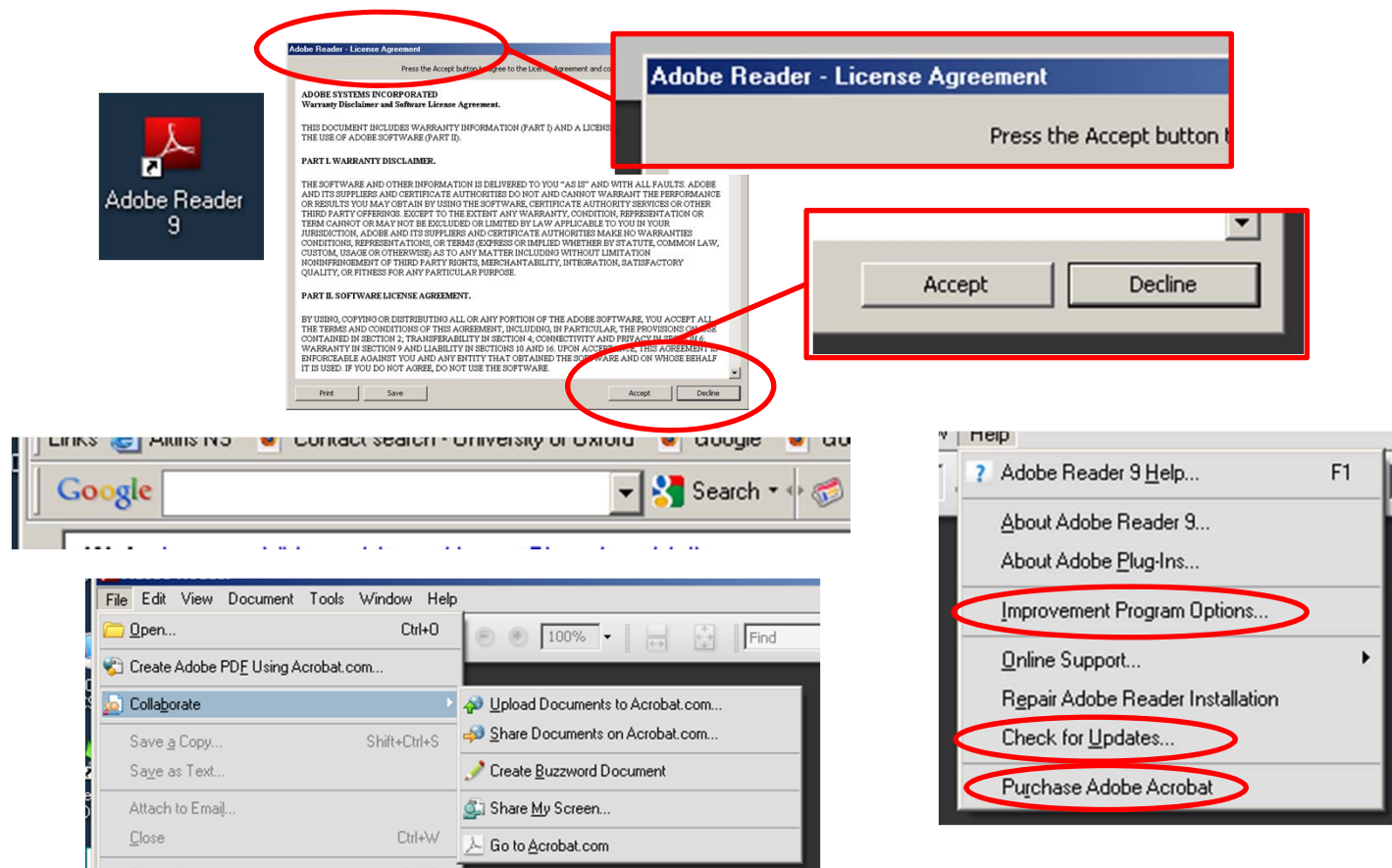
## Adobe Reader (9.3.0)



# Normal Adobe Reader Install



# What does the user get?



Plus: Adobe Update Manager

# What is the solution?



**ICT**  
Support Team

Darren Collins – 14<sup>th</sup> July 2010



# The Magic / Part 1: Packaging

## Create unattended installation package



```
Install_Adobe_Reader.vbs - Notepad
File Edit Format View Help
'# D.Collins - 13:41 20/01/2010
'# Install Adobe Reader 9.3.0

Option Explicit

'
'-----
'      Setup Objects and Variables
'-----
'
Dim strRegVal, wshShell, fso, colName
Dim bINAL, strProductCode, strApp, st

Set wshShell = CreateObject("wscript.
Set fso = CreateObject("Scripting.Fil
Set colNamedArguments = wscript.Argur

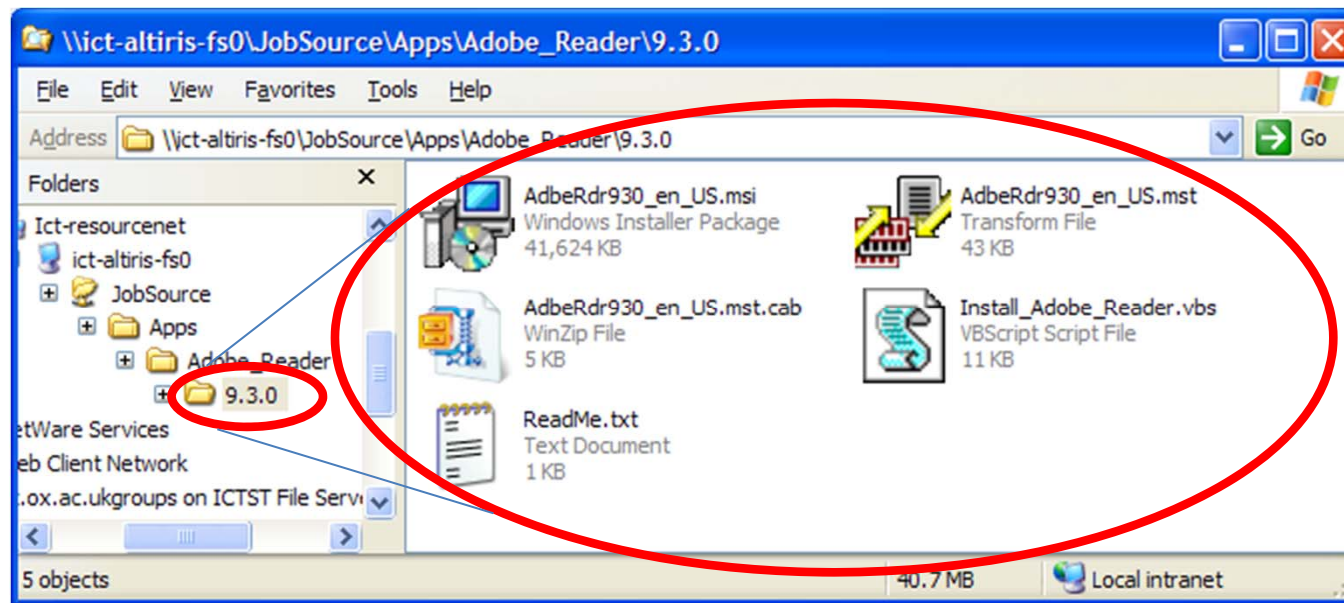
strCurrDir = Replace(wscript.ScriptFu
strRegVal = "HKEY_CLASSES_ROOT\Insta
strProductCode = "{AC768A86-7AD7-1033
strcomputername = wshShell.ExpandEnvi
strLog = "C:\Logs\AdobeReader\Installe
strApp = "Adobe_Reader_9.3.0"
```

- Wise Package Studio
  - Amend msi installation by creating transform (mst)  
(Or use the Adobe Customization Wizard)
- Notepad
  - Batch
  - VBScript
    - Install / Handle errors / Report & log

# The Magic / Part 1: Packaging

## What is the 'package' ?

All the files and folder structure required for the automated installation of the application in a single folder.



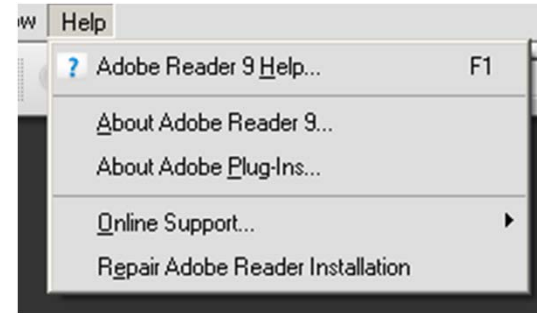
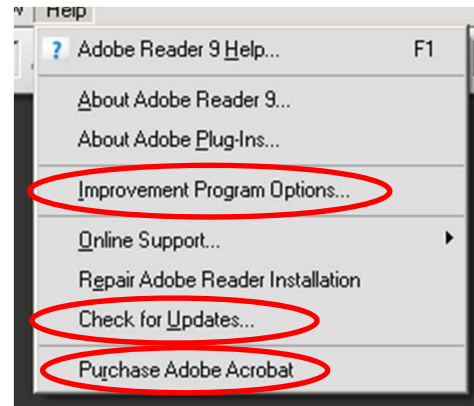
# The Magic / Part 1: Packaging

The result:

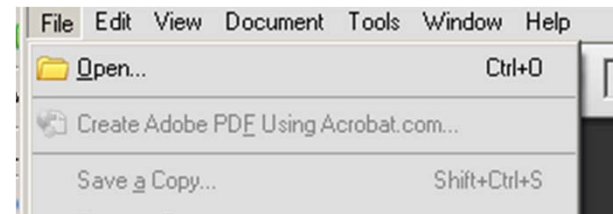
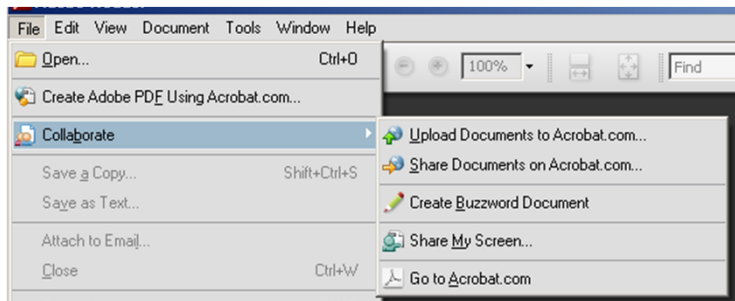
- ✓ No 'EULA' accept required
- ✓ No uncontrolled updating of version
- ✓ No Google toolbar



No icon cluttering up the Desktop



No unwanted 'Help' menu items



Items not required are removed or 'greyed out'

# The Magic / Part 2: Deployment

## Deploy unattended installation package

- **Altiris Deployment Solution (DS)**
  - New builds
  - Ad-hoc installs / Support calls: app re-installation
  - Instant / Urgent Requests
  - Single PC to small known-number deployments
  - No reporting: per-job / per-computer return codes only.
- **Altiris Notification Server (NS)**
  - Unattended / silent / remote delivery and installation
  - Jobs run over a time period when computers 'check in'
  - Dynamic computer collections: mass deployments
  - Reporting via SQL-based queries



# NS Deployment



# Self-Install Method

- Installation delivered via Altiris NS but **not** installed.



- Non-admin user can choose when to install at their convenience.



Are you sure you want to ini

- Installation performed as System account.

# Updating ICTST Managed Computers\*



Flash Player



Adobe Reader



Java Runtime (JRE)



Shockwave Player



QuickTime Player



Firefox



Plus : Sophos; other apps & clients; fix scripts; blocking scripts; agents etc.

# Summary

# Summary

- **We focus on standards to manage diversity**
  - Common infrastructure
  - Common desktop build methodology
  - Common application delivery
- **Altiris Infrastructure**
  - Directory independent
  - Provides extensible framework for enhancements

# Questions?

