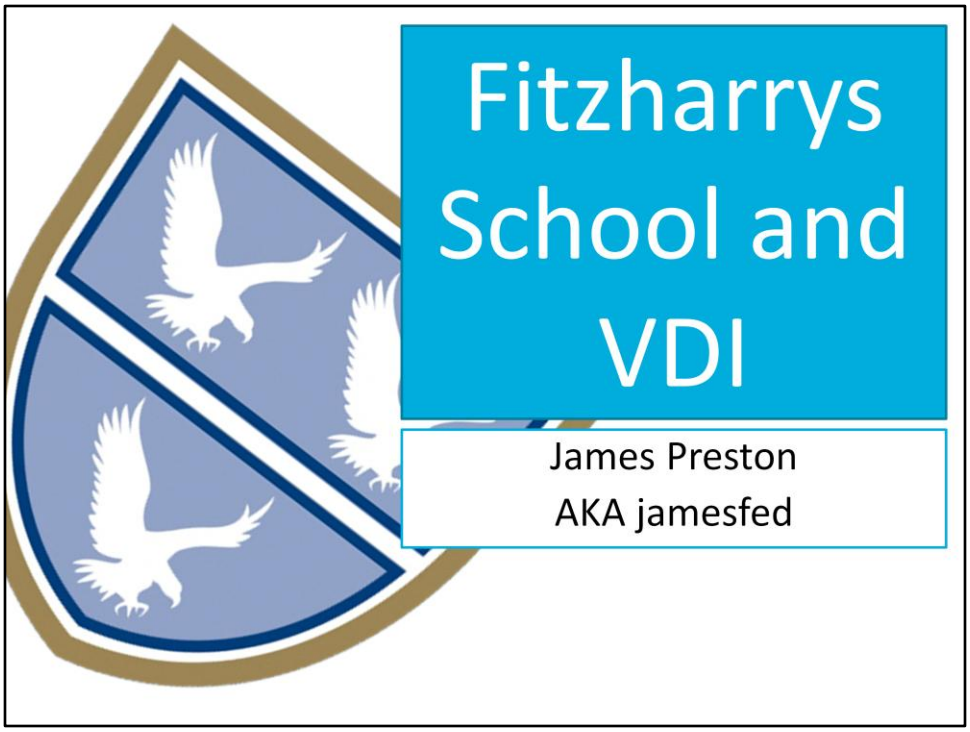
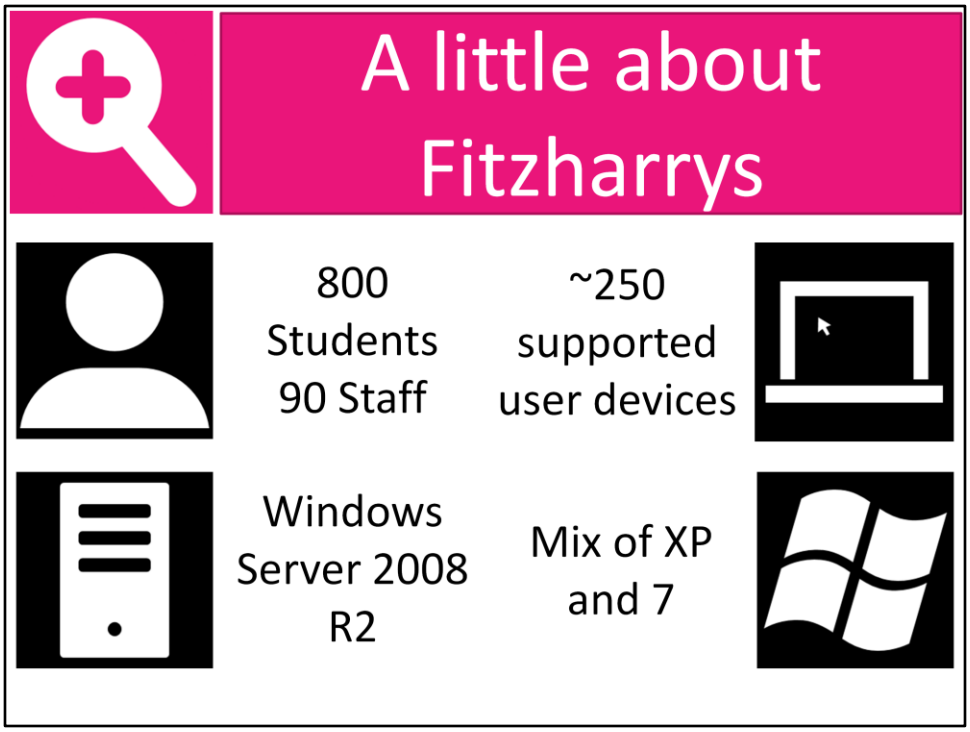
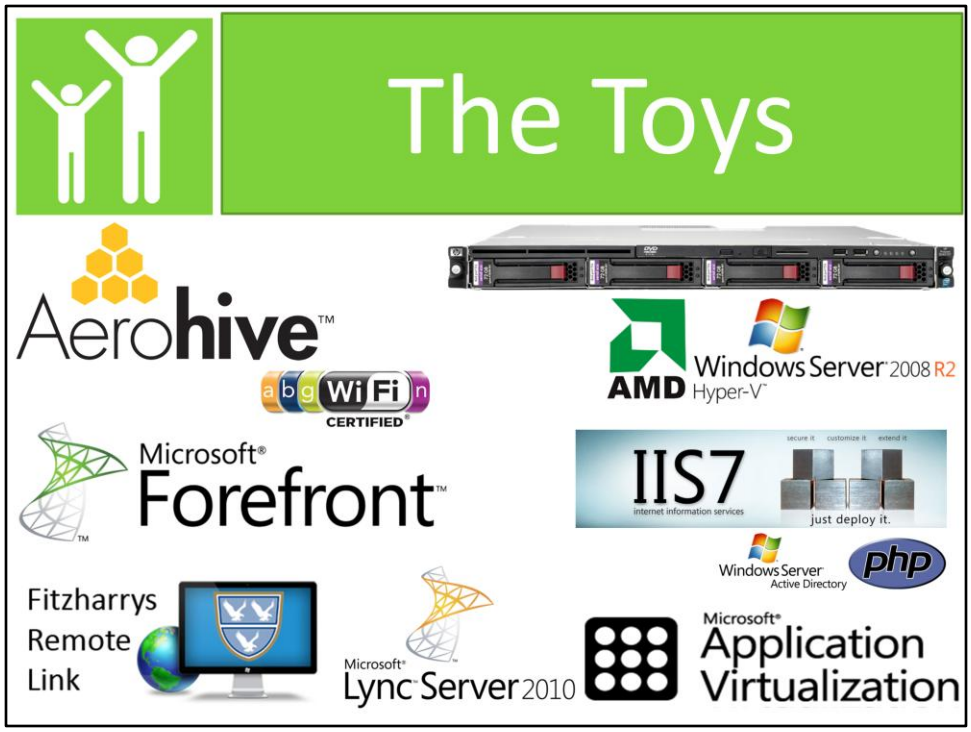


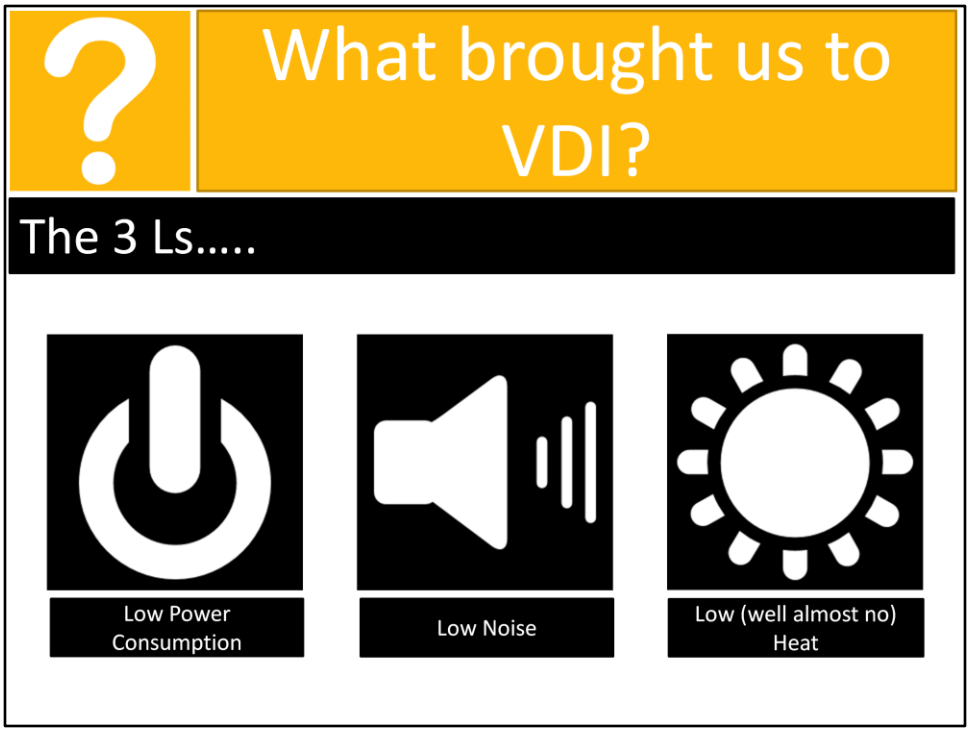
Welcome
Edugeek
What brought us to VDI
How the deployment went
What we are running
How does SSD fit in?
Questions at the end



Includes support/teaching
Teacher Notebooks, Support Desktops, Student Kit
Windows Server 2008 R2 – investigating Server 8
7 on staff, XP on student



Wireless – game changer if done right (Flexibility) - ~150 students signed up for personal use
HP/AMD Servers – Standard
Forefront TMG, Web filtering, Firewall
IIS hosted internal services (Room Booking, PO system, intranet, SharePoint)
Remote Link – VPN (mention HAP)
Lync 2010 – IM,VoIP
App-V – very important



What attracted us?

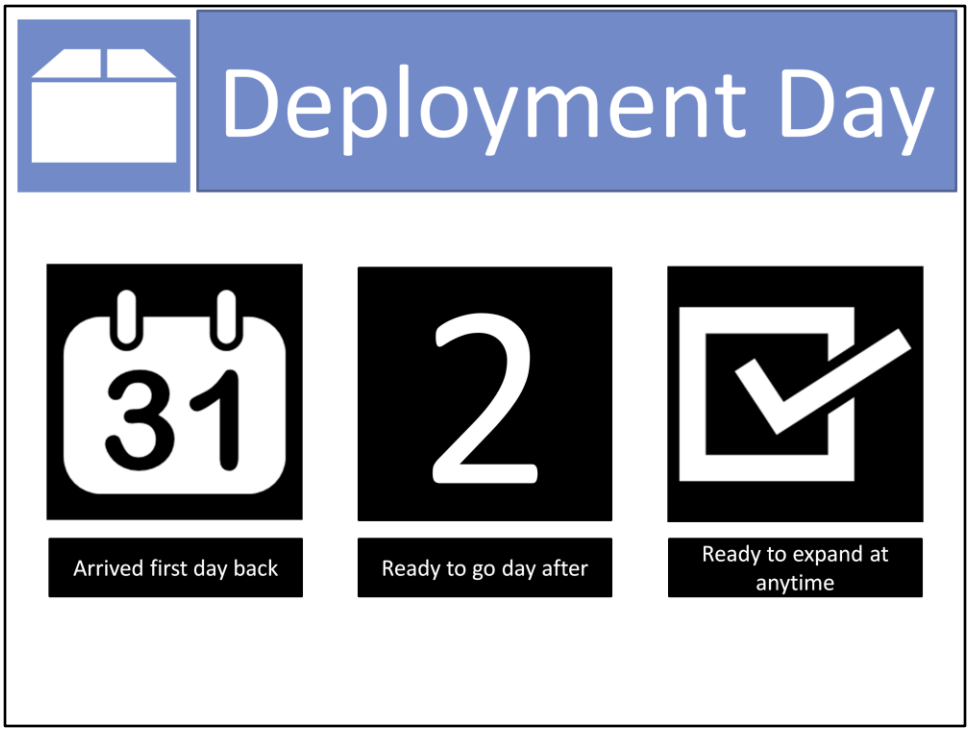
Low Power – 100W PC vs 12W thin client – factor in server
Low Noise – well that's no noise in the classroom (other than keyboards)
Low Heat – student + PC + summer + no air con? Thin clients solve that

Fault fixing – delete/refresh desktop (Virus/Application issue/just not working) same applies to thin client – take it out of action, put a replacement in point at server, less than 5 mins downtime

Easier to manage – completely locked down – do equivalent of refresh every night, just one golden image to manage (no hardware specifics)

Easier to update – Windows 7 migration within 30 mins, deploy new software within 30 mins

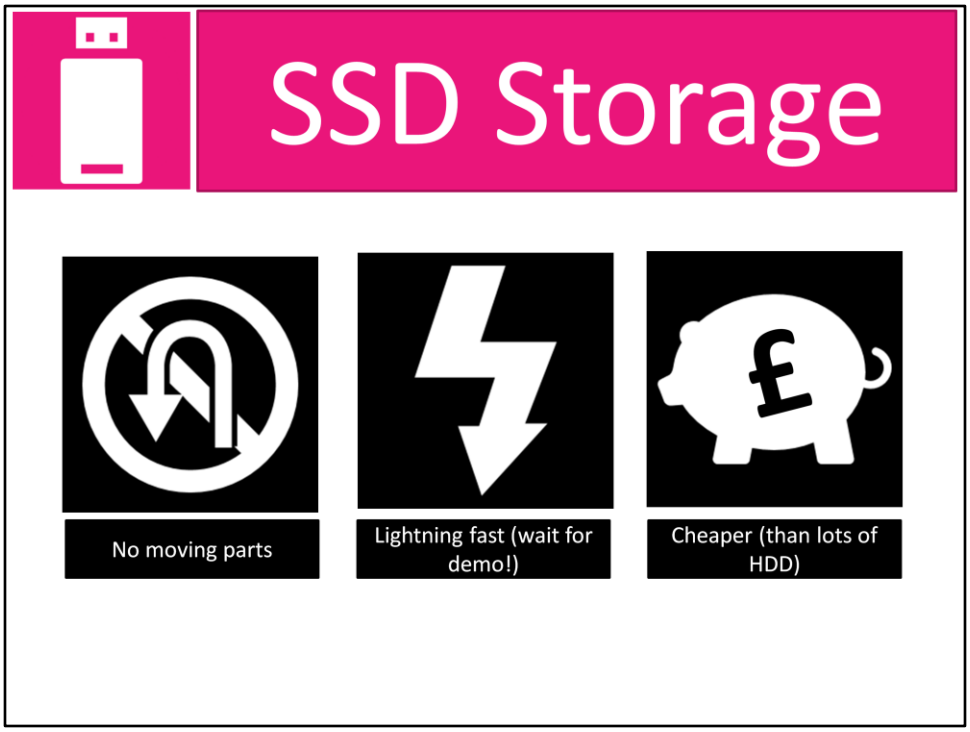
Back in 2010
What we looked into first
Talking to account manager pointed in direction of Kaviza (now VDI-in-a-Box)
Download trial off of website
Put on testing PC (my PC!) – try it out on SSD if you have one
Get 2x thin clients from 10zig
Do some thinking
Deploy!!



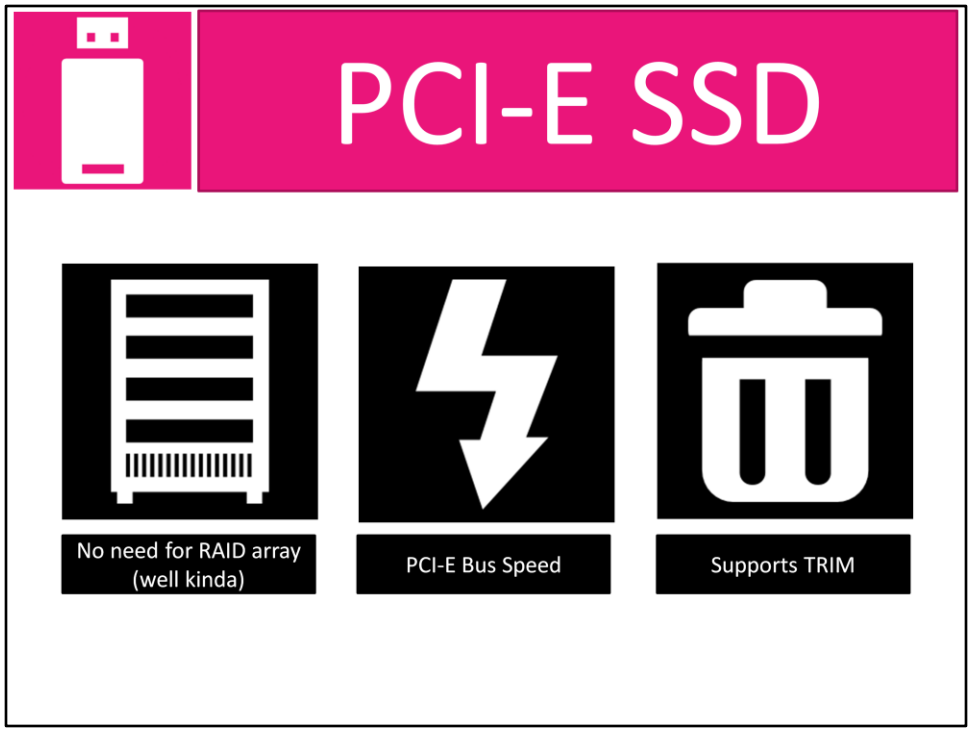
Arrived first day back in January
By end of day the next day we were setup and good to go
Ready to expand at anytime – just a matter of upgrading server/adding new server

The beast
Original XenServer – Windows XP
Now Hyper-V – Windows 7
AMD 8 core HE processor (65W)
44GB RAM
4x15k 72GB SAS HDDs – go for small capacity in large numbers

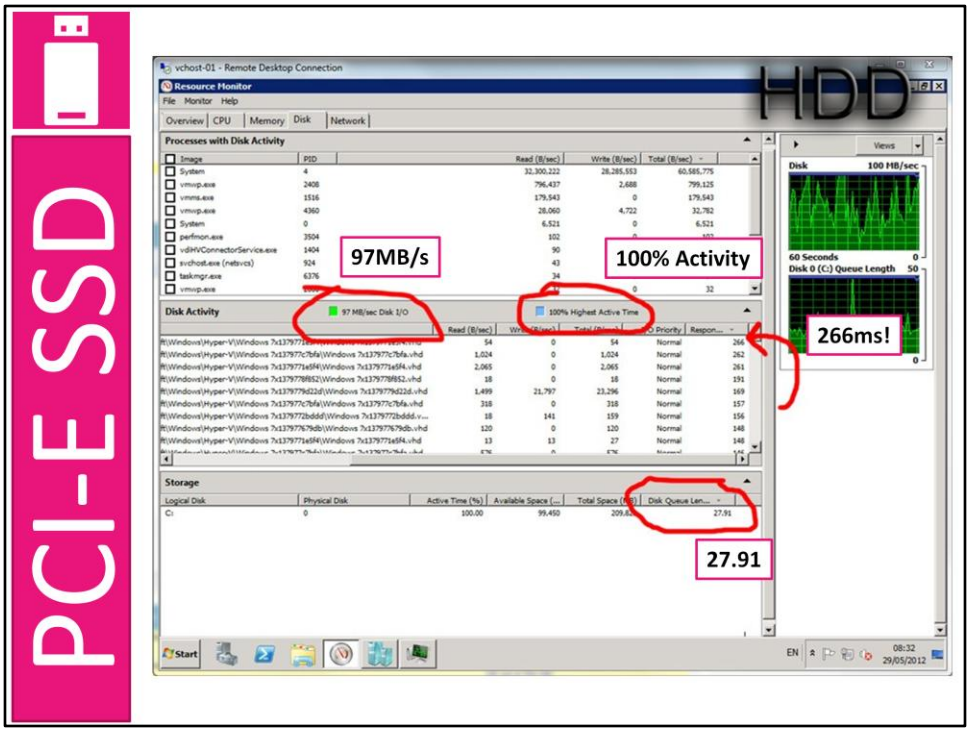
OCZ RevoDrive 3 X2 240GB PCI-E SSD



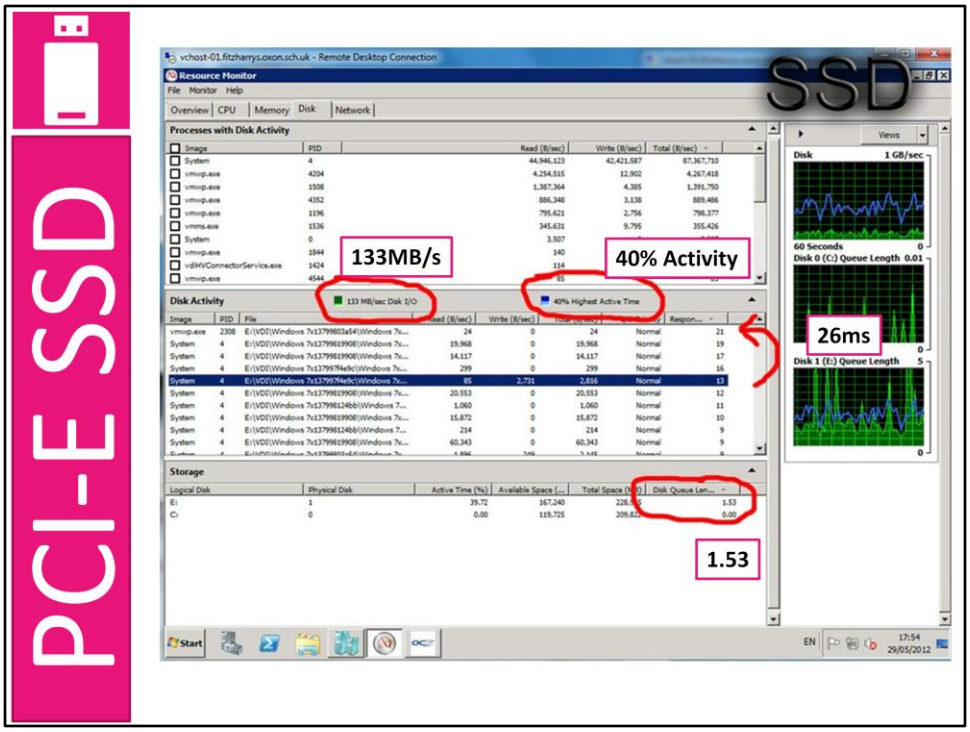
No moving parts – Less potential to break would you enjoy spinning around at 15k?
Lightning fast – No seek times
Cheaper – Than a comparable amount of HDDs (even the £1,000 drives)



RAID – RAID is done on the PCI-E card or through OS, no need for separate controller (like HP p410)
PCI-E bus speed – Right on the PCI-E bus, no controller needed and so much faster (than 2.5" SSD)
TRIM – Longer life as TRIM commands can't passed through (most) RAID controllers – extends life of SSD


PCI-E SSD
HDD
vchost-01 - Remote Desktop Connection
Resource Monitor
File Monitor Help
Overview CPU Memory Disk Network
Processes with Disk Activity
97MB/s
100% Activity
Disk Activity
97 MB/sec Disk I/O
100% Highest Active Time
266ms!
Storage
27.91
Disk 100 MB/sec
60 Seconds
Disk 0 (C:) Queue Length

HDD


PCI-E SSD
SSD
vchost-01.fitzharrys.oxon.sch.uk - Remote Desktop Connection
Resource Monitor
File Monitor Help
Overview CPU Memory Disk Network
Processes with Disk Activity
133MB/s
40% Activity
Disk Activity
26ms
Storage
1.53
Disk 1 GB/sec
60 Seconds
Disk 0 (C:) Queue Length 0.01
Disk 1 (E:) Queue Length 5

SSD