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Migrating to Windows Server 2012

Make a virtue out of necessity

2015

	January								February								March								April					
Mo Tu We Th Fr Sa Su								Mo Tu We Th Fr Sa Su								Mo Tu We Th Fr Sa Su								Mo Tu We Th Fr Sa Su						

392 Days remaining

Server migration: 200 days

Application migration: 300+ days

Microsoft   hp   (intel)   Windows Server 2012

Why are we here?

Extended support for Windows Server 2003 ends on 14 July 2015

... so you need to plan migration now.

392 Days remaining
Server migration: 200 days
Application migration: 300+ days

On our Regcast today

Julius Davies, **Microsoft**

Tony Lock, **Freeform Dynamics**

Tim Phillips, **The Reg**

End of support

No updates	37 critical updates released in 2013 for Windows Server 2003/R2

No compliance	Windows 2003/R2 servers will not pass a compliance audit	Lack of PCI compliance could mean that Visa and Mastercard will no longer do business with your organisation

No safe haven	Impact on both physical and virtualised servers	Discontinued support for many applications	Impact on Microsoft Small Business Server 2003

Now is the time to act	Start planning your migration today

Reg readers:
what does your Windows Server 2003 do?

- **Widely deployed**

- **Business workloads**

  - Exchange

  - SharePoint

  - Business applications

  - File and print

  - Infrastructure management (DHCP, DNS, etc)

Quick wins

- **Virtualisation Hyper-V 3**
- **High availability**
- **Linux guests**
- **Storage**
- **Networking**

Server consolidation
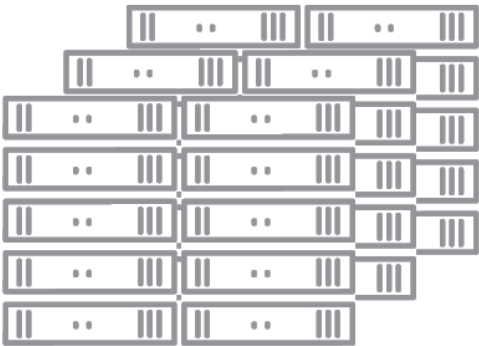
30x

5 year old 2-socket Intel® Xeon® processor based servers

5x

Intel Xeon processor E5-2600v2 Family based servers

$296,000
lower total cost
of ownership

17%
performance
increase

143,422 lbs
reduction in CO2
emissions

http://www.intel.com/go/xeonestimator

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Supporting virtualisation

64 vCPUs/VM[3] **1TB** Memory/VM[3]

1.5TB Per 25 system[1] **6TB** Per 45 system[2]

Stronger Virtual Machines

Hypervisor + VMDq Support
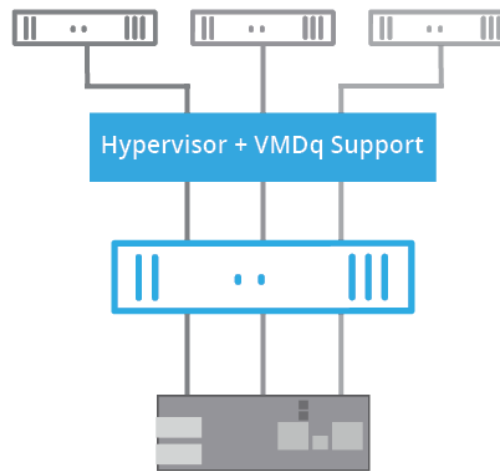
Near Native I/O Performance
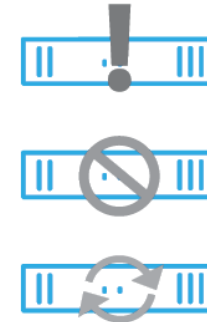
Isolate

↓

Teminate

↓

Restart

Advanced Error Recovery[4]

Real-world impact

Virtual Machine Densities

	2.3x	**3x**	**3.5x**
Baseline: Intel Xeon processor 5600 Series, HDD	Upgrade: Xeon Processors E5-2600v2 and Windows® Server 2012	Upgrade: Intel Solid State Drives	Upgrade: Intel converged Network Adapters

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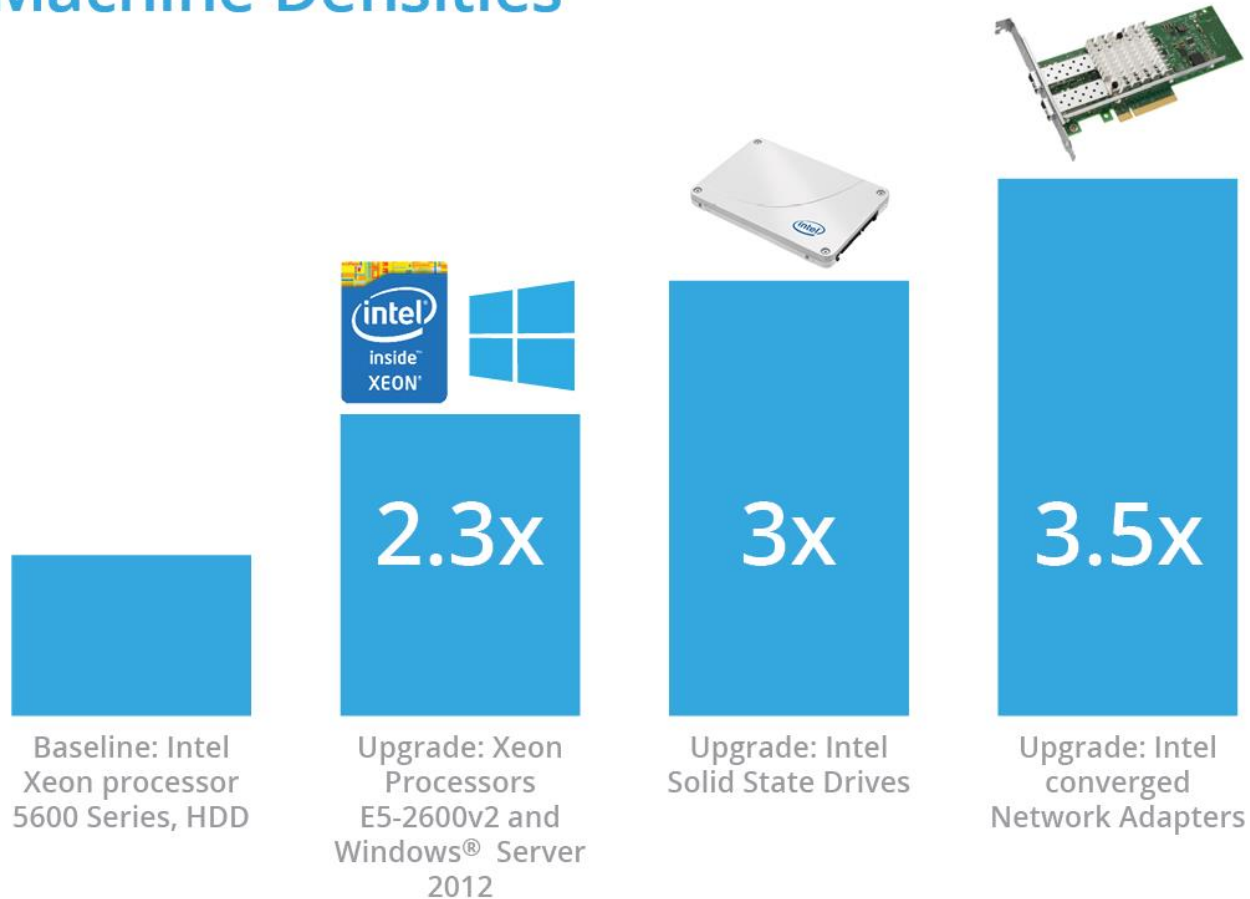
Migration process

1 Discover
Catalogue your software and workloads

2 Assess
Categorise applications and workloads

3 Target
Identify your destination(s)

4 Migrate
Make the move

Discover what you have

Catalogue your software and workloads

Self-service tools

Microsoft Assessment and Planning (MAP) Toolkit

Lakeside Software SysTrack

HP Universal Discovery

System integrators

Microsoft Services JumpStart for Windows Server 2003

HP Windows Server 2012 Migration Services

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Assess your inventory

| 1 Discover | 2 Assess | 3 Target | 4 Migrate |

By type

| Microsoft server roles | Microsoft applications | Custom applications | Third-party applications |

By criticality

| Mission critical | Important | Marginal | Can be retired |

By complexity and risk

| Low | Medium | High |

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Target your destination

Evaluate options for each application and workload

Windows Server 2012 R2 New Hardware or Virtual

Windows Azure

Cloud OS Network Service Provider

Office 365

Or SaaS Solution

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Target your destination

Windows Server roles

Web Servers	File Server	Active Directory	Domain Controller	Terminal Servers

Windows Server 2012 R2

New hardware or hypervisor	OR	Windows Azure IaaS	OR	Windows Azure Web Sites

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Target your destination

Microsoft applications

SharePoint

Exchange Server

SQL Server

SharePoint Server 2013 SP1

Windows Server 2012 R2

New hardware

OR

Windows Azure IaaS

OR

Office 365
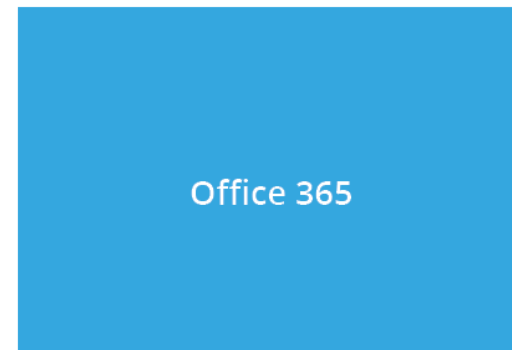
Target your destination

Third party applications

Custom applications

Third-party applications

Windows Server 2012 R2

New hardware   OR   **Windows Azure IaaS**   OR

Windows Azure PaaS   OR   **Saas**

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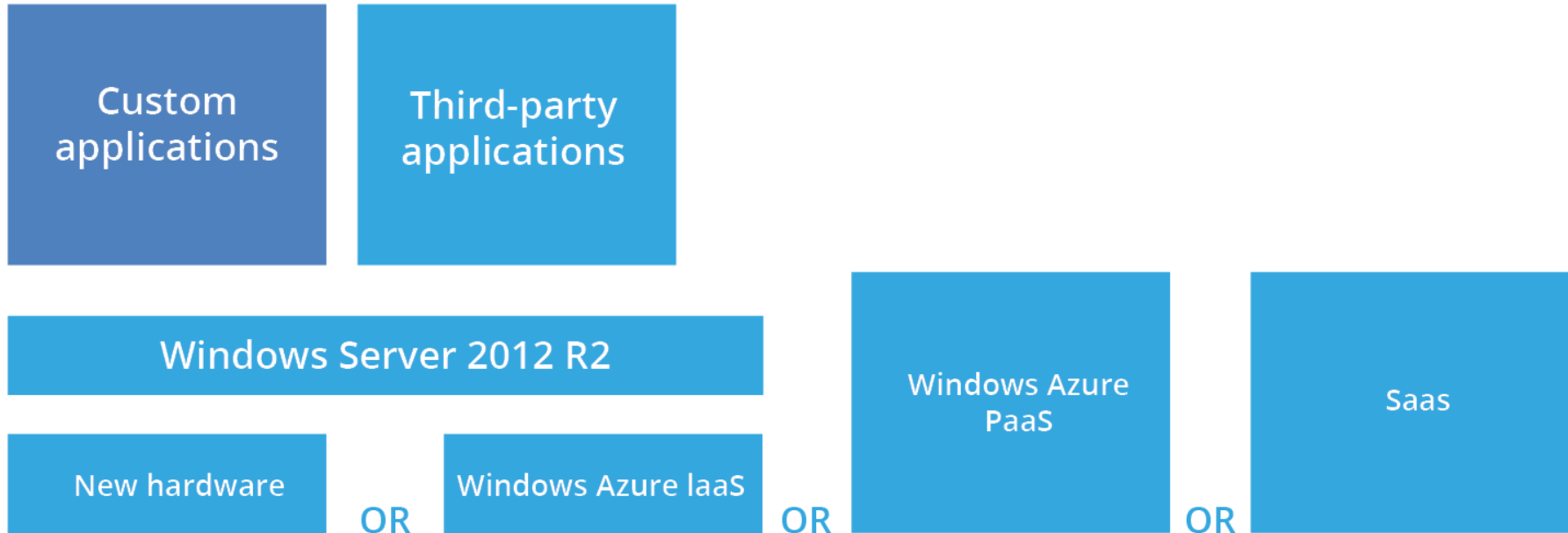
Target your destination

Think not just "where?" but "how?"

1 Discover	2 Assess	3 Target	4 Migrate

Migrate "as-is" →	Upgrade +1	Repair, rewrite or refactor	Virtualise or shim	Find alternate
Application can be migrated without change	Application must be upgraded to latest version	Modify application to work on new platform	Use technologies like AppZero to counter incompatibilities	Use different app or SaaS offering to achieve same business result

Target your destination

Choose your journey

ID	Application	Owner	Discover				Assess						Target (destination and journey)								
			Server role	Microsoft app	Third-party app	Custom app	Retire	Marginal	Important	Critical	Complexity (1—3)	Risk (1—3)	Windows Server 2012	Windows Azure	Microsoft Office 365	Cloud OS Network	Migrate as is	Upgrade version	Switch app vendor	Virtualize or shim app	Repair, rewrite, or refactor
00001	Exchange	Denise Smith		X						X	1	1			X		X	X			
00002	Web Server	Qiong Wu	X						X		2	2	X				X	X	X	X	
00003	Shipping Services	Naoki Sato			X					X	2	1	X				X	X			
00004	Quick Quarter Close	Daniel Roth			X			X			2	2	X				X	X			
00005	Lucerne Publishing Document Converter	Andrea Dunker		X					X		3	2	X				X	X			
00006	Trey Research Lookup Tool	Eric Gruber		X				X			2	3			X		X				
00007	A. Datum Index	Oliver Kiel				X	X				3	3									
00008	Inventory Key	Robin Counts				X			X		2	2					X	X		X	X

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Migrate your workloads

Key words: test, test and test

1 Discover	2 Assess	3 Target	4 Migrate

Do it yourself

Consider service offerings

Plan

Execute

Citrix AppDNA

AppZero

Microsoft Services JumpStart for Windows Server 2003

HP Windows Server2012 Migration Service

HP Windows 2012 Migration Service

What does it do?

The HP Windows 2012 Migration Svc eases the implementation effort from Windows 2003 and 2008 to 2012. HP will collect the necessary technical information and configure the converged system in a prescribed environment, complete the required preparation steps, execute the Windows OS, Application and Database Migration, test and certify the Windows 2012 install, and gracefully prepare the client staff for the delivery of a system in a "ready-to-use" state.

How it helps with Window Server 2003/R2 migrations. Copy checked box to those that apply

- ☑ Discover
- ☑ Assess
- ☑ Target
- ☑ Migrate

This service provides a number of key provisions, including:

- Business Case / ROI study
- Gather Technical & Business Requirements
- Review Server levels and components
- OS, Hypervisor and Database assessment
- Workload profiling
- Custom Application Review
- Detailed Design
- Implementation Planning, On / Off-shore resourcing
- Migration Prescription Strategy & Roadmap Deployment Plan, including Risk assessment
- Server, OS, DBMS and Hypervisor Upgrades
- Custom Application Remediation
- Deployment of future state Reference Architecture [HW, OS, DBMS, Server]
- Migration Tests, Adjustments and Tuning
- Upgrade and Migration Test Validation
- Backups and Recovery Points
- Deployment of Windows Server, Organizational & Process Changes
- System Certification/Acceptance and Cutover from Systems & Infrastructure, Organization & Processes
- Completed Training & Knowledge Transfer
- Operations & Support processes transitioned
- Legacy Systems & Infrastructure Decommissioned
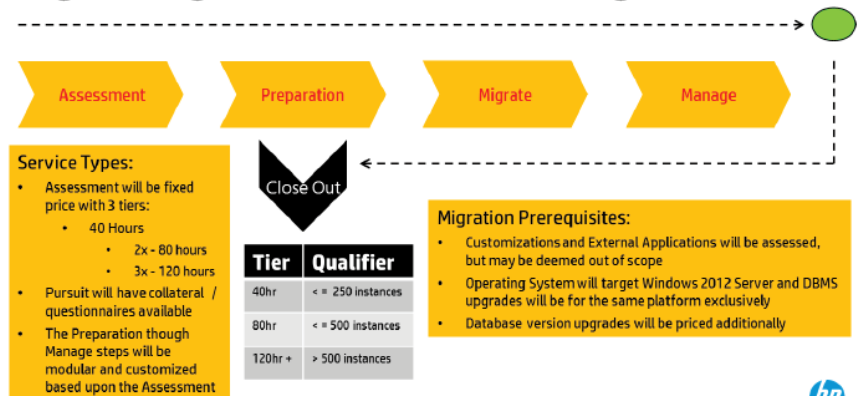- System Results Monitored and other Improvements Identified

How is it sold or offered. How does the customer buy it or engage?

- As part of a planned HP Converged System Implementation
- As a stand-alone service, based upon the customer's existing infrastructure
- Please contact your HP Account Manager

Other key information

Windows 2012 spans all customer segments due to its versatile business approach and functionality. May be sold at time of the HP Converged System sale as an optional service to ready system to be introduced into customer's Windows Landscape and production environment, or as a stand alone service.

Logical Stages in Windows Server Migration Model

Assessment → Preparation → Migrate → Manage

Close Out

Service Types:
- Assessment will be fixed price with 3 tiers:
  - 40 Hours
    - 2x - 80 hours
    - 3x - 120 hours
- Pursuit will have collateral / questionnaires available
- The Preparation though Manage steps will be modular and customized based upon the Assessment

Tier	Qualifier
40hr	< = 250 instances
80hr	< = 500 instances
120hr +	> 500 instances

Migration Prerequisites:
- Customizations and External Applications will be assessed, but may be deemed out of scope
- Operating System will target Windows 2012 Server and DBMS upgrades will be for the same platform exclusively
- Database version upgrades will be priced additionally

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Reg readers:
is Windows Server 2012 ready for live use?

"Windows Server 2012 just stays up – but even if there are problems it is better... The new clustering capabilities allowed business to carry on without interruption."

"We will roll Windows Sever 2012 out... knowing that for 10 months of early deployment it's been rock solid."

"Even from the previews and Release Candidate we gained confidence to deliver Windows Server 2012 live, which is not really something you expect from Microsoft."

Reg readers:
what about app compatibility?

Most common from RDP program members: don't force fit existing workloads onto Windows Server 2012, and wait for ISVs to formally support workload.

"We've not had any compatibility issues to speak of, but we waited for updated releases of software to be ready and supported."

Reg readers: challenges

- Licensing: "Standard" or "Data Centre"

- Automation: early adopters like PowerShell and GUI enhancements

- Infrastructure administration:
  runs infrastructure components such as DNS, DHCP and Active Directory more flexibly in fully supported virtual environments.

Reg readers: "It is a step change"

"Get all the administrators certified for Windows Server 2012... a game changer for IT service delivery, not just a more modern version of what's in place."

"Embrace Server Manager, you'll love it."

"Don't do a big bang - prioritise and then factor in the rest.

"The dedupe options, DHCP, SMB 3 and Hyper-V improvements are just the tip of the iceberg. There are a lot of changes and it's easy to forget about new features."

Further reading

Microsoft:

Windows Server 2003
Migration Website   http://reg.cx/2aH2

Microsoft Virtual Academy   http://reg.cx/2aH3

Attend a Microsoft Transform
your Datacenter Workshop   http://reg.cx/2aH6

Windows Server 2003
EOS Leaflet   http://reg.cx/2aH7

HP, Intel and Microsoft Event

Windows Server 2003
Workshop in London June 26   http://reg.cx/2abg

HP:

HP ConvergedSystem 700x Engineered
for Microsoft - Solution Brief   http://reg.cx/2aH8

HP ConvergedSystem 700x Engineered
for Microsoft – Brochure   http://reg.cx/2aHa

HP Server Refresh   http://reg.cx/2aTn

FFD links:

Windows Server 2012 -
Insights from early deployments
of Windows Server 2012   http://reg.cx/2aHb

Thanks for joining us

An archived version of today's event will be made available on The Register in the near future.