



The Case for Virtualisation

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Network Manager
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WWF supports the increased use of IT to enable individuals and businesses to reduce their consumption and emissions by adopting innovative alternatives to activities such as travel.



WWF-UK Background

WWF-UK is WWF's 2nd biggest national office

We raise funds, campaign to the public, industry and government and manage conservation projects all over the world on behalf of WWF International

Head office in Godalming, Surrey

Devolved offices in Scotland, Northern Ireland, Wales and a central London office.

340 staff of whom 260 are at the head office

Windows Server 2003 & 2008

Core applications include MS Exchange, MS-SQL, Citrix, SUN Financials



WWF-UK's Virtualisation Path

- 2006 - first VMware ESX server
 - 2010 – all servers in all locations virtualised
 - 2011 – Mitel 3300 controllers replaced with vMCD
 - 2011 – complete pilot for workstation virtualisation
 - 2013 – all desks in new Living Planet Centre with thin clients
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1

Server Virtualisation

Drivers for Server Virtualisation

- Less “tin”
 - Reduced cost
 - Increased flexibility
 - Fast server provisioning (30 minutes)
 - VERY resilient
-

VM Density

archangel.wwfuk.internal - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Hosts and Clusters Search Inventory

archangel.wwfuk.internal

- CoLo London
 - Panda House
 - Blade Cluster
 - gorgon.wwfuk.in
 - hydra.wwfuk.in
 - medusa.wwfuk.in
 - orochi.wwfuk.in
 - Non Production F
 - CitrixXenApp
 - Oscar1_Citri
 - Tetra1_Citrix
 - Tetra3_Citrix
 - Exchange
 - bonito_BES
 - Char_Exch
 - Elver_Enterp
 - Marlin_Exch
 - Mullet2_Exch
 - MitelVoIPSystem
 - Madtom_MAF
 - vMAS
 - vMCD
 - Acara_CA
 - Akame_SUNSYS
 - Barramundi
 - Bass_vITServer
 - Bichir_Traffic
 - Blenny_MSSQL
 - Cory_SQL
 - Dollar_Mstore
 - Dragonet_FileSer
 - Goby_IIS
 - Hound_Smartclie
 - Mono_Mitel
 - Pacu_ITServer
 - Perch_AlterianTS

orochi.wwfuk.internal VMware ESX, 4.1.0, 348481

Getting Started Summary Virtual Machines Performance Configuration Tasks & Events Alarms Permissions Maps Storage Views Hardware Status

Name, State or Guest OS contains: Clear

Name	State	Status	Provisioned Space	Used Space	Host CPU - MHz	Host Mem - MB	Guest Mem - %	Notes	Alarm Actions
Tetra1_Citrix	Powered On	Normal	43.50 GB	43.50 GB	300	2448	4	Citrix P54 Farm Data Collector	Enabled
CareClient	Powered On	Normal	8.50 GB	8.50 GB	25	243	12	Required for testing CARE 7.0, at le...	Enabled
Frontosa_Alert	Powered On	Normal	30.50 GB	30.50 GB	150	492	22	CentOS 5.4 running Nagios 3.2, Cacti...	Enabled
Sarge_SQL2005_x64	Powered On	Normal	519.80 GB	519.80 GB	1225	24315	6	Shared - SQL2005 64Bit Enterprise ...	Enabled
wwfNCSAdmin	Powered On	Normal	8.38 GB	8.38 GB	75	281	10	For NCS to use to test database mig...	Enabled
UKIntranet_IIS	Powered On	Normal	53.78 GB	53.78 GB	25	509	11	Arena Intranet Server Retirement o...	Enabled
wwfnetadmin3	Powered On	Normal	33.00 GB	33.00 GB	175	993	28	Paul Woodward's Win7 Admin Machi...	Enabled
TN_SERVER01_EVAL	Powered Off	Normal	62.01 GB	31.57 GB	0	0	0	Technet Evaluation Server, unlimited...	Enabled
Pacu_ITServer	Powered On	Normal	122.51 GB	122.51 GB	125	2119	12	Issuing CA, Terminal Server Licence...	Enabled
MStoreClient	Powered On	Normal	8.50 GB	8.50 GB	25	250	13	Required for installation and testing ...	Enabled
Bichir_Traffic	Powered On	Normal	77.00 GB	77.00 GB	125	1614	13	For Comms running FileMaker Pro a...	Enabled
Bass_vITServer	Powered On	Normal	40.76 GB	40.76 GB	175	612	17	Terminal Server Licence Server, Web...	Enabled
Betta3_XA	Powered Off	Normal	52.00 GB	50.00 GB	0	0	0		Enabled
Betta2_XA	Powered On	Normal	52.00 GB	52.00 GB	50	687	5		Enabled
Madtom_MAPI_GW	Powered Off	Normal	20.50 GB	20.00 GB	0	0	0		Enabled
Oscar1_CitrixSG	Powered On	Normal	8.39 GB	8.39 GB	50	281	12	ICA over SSL terminations passing th...	Enabled

Recent Tasks

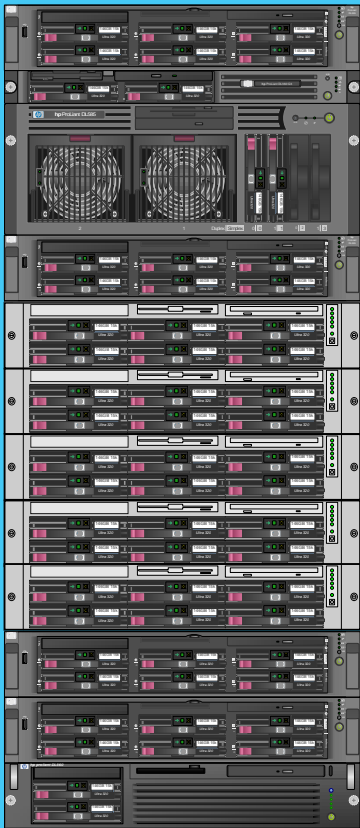
Name, Target or Status contains: Clear

Name	Target	Status	Initiated by	vCenter Server	Requested Start Ti...	Start Time	Completed Time
Check new notifications	archangel.wwf...	Queued	VMware vCen...	archangel.wwf...	11/05/2011 08:38:01		
Check new notifications	archangel.wwf...	Queued	VMware vCen...	archangel.wwf...	11/05/2011 07:38:01		
Check new notifications	archangel.wwf...	Queued	VMware vCen...	archangel.wwf...	11/05/2011 06:38:01		

Tasks Alarms

wwfuk\ixtonadmin

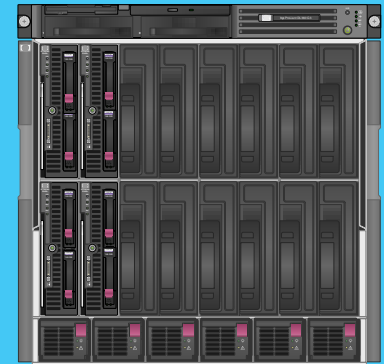
Power, heat and space savings



25 U, 3070 W,
10,481 BTU/hr



13 U, 1957 W,
6,683 BTU/hr



11 U, 1000 W,
4,320 BTU/hr

2

Mitel vMCD



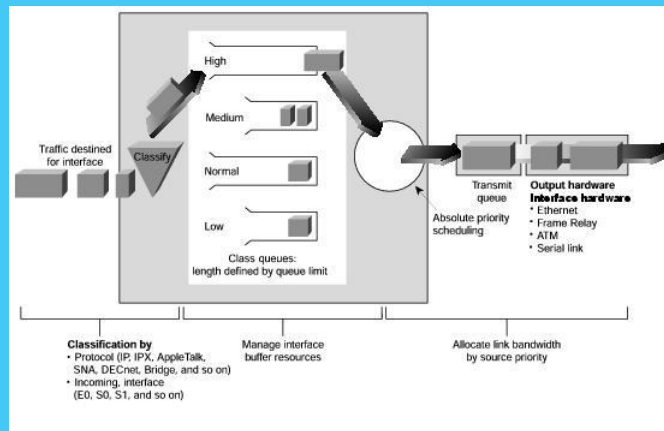
Project Details

- vMCD goes live tomorrow, Friday the 13th
- All 5 sites switch to SIP trunks
- Two geographically separated, synchronised vMCD virtual servers
- Everyone becomes a hotdesk user
- Everyone gets a Mitel NuPoint voicemail account, synced to their Exchange email

Drivers for Virtualising Phones

- Adopting SIP trunks, so no line interface modules needed
- Old 3300 was a single point of failure
- All the benefits of server virtualisation (resilience, flexibility, snapshots, system level backups, etc)

Power Management



Traffic Management



The project partners: WWF, Britannic, Mitel and Telstra

Britannic: NetX SIP services, project management and engineering

Mitel: vMCD and vMAS support

Telstra: MPLS, Quality of Service and resilient links for SIP

WWF: expertise in high density VMware in a medium sized business



3

The Living Planet Centre

WWF-UK's Living Planet Centre

In Woking, Surrey

Opens 2013

BREEAM Outstanding



Enabling Technologies

- Unified Comms
- One Number communications
- Virtual Desktop Infrastructure
- Next generation wireless





Thank you

www.wwf.org.uk