



Registry Infrastructure Transformation

April 2014

Brett Carr

Introduction

- Nominet (Who/Why/What)
- Nominet Core Customer Systems
- Legacy Infrastructure
- Requirements
- Datacenters
- Virtualisation and Storage
- Inter site Recovery
- Major DR

Nominet Who/Why/What

- .uk Registry
- Non Profit organisation with Charitable foundation
- Moving into GTLD markets
- Registrations within.uk
- EBERO

Nominet Core Customer Systems

- EPP
- Automaton
- DAC
- Whois
- DNS
- Web based Services

Legacy Infrastructure

- Own datacenter within Oxford HQ
- Backup DR Center within a Colo in Kent
- Network prescence (Transit and Peering) in THN
- 99% Physical Hardware (lots of old kit)
- Mixture of Linux/Solaris
- Small virtualization environment

Requirements

- Agile rapid deployment of new servers/services
- Regular transition of services between DC's
- Rapid failover between DC's in the event of a failure.
- High utilization of hardware
- Automation
- Service Orientated Monitoring

Datacenters

- DC1 Slough
- DC2 Acton
- DC3 Geneva

Virtualisation and Storage

- 99% of new Infrastructure is virtualised (Vmware)
- Following services are physical
 - Oracle Databases
 - Windows Domain Controller (1 Per DC)
- HP 3Par Storage Arrays at DC1 and DC2, synch replication

Inter Site Recovery

- All Virtual machines replicated between DC's (via Storage Replication)
- VMWare Site recovery manager used for recovery and transition

Monitoring

- Vcenter Operations
- Vmware Hyperic
- HP IMC
- Microsoft SCOM
- Servicenow

Configuration Management

- Puppet Enterprise
- Redhat Satellite
- SCCM

Major DR

- DC3 (Geneva) will contain core services

DB

EPP

Whois

DNS/DNSSEC Provisioning

Questions/Comments