

The Guide to...

Data Centre and Disaster Recovery Information



**Green Cloud
Hosting™**

Hardware Configuration

CISCO FIREWALLS

The Cisco firewalls we use to manage the network are ASA models, we run them in each individual Data Centre/Cabinet applicable to the Hosted Exchange environment. Each Data Centre/Cabinet has its own primary Cisco ASA, which has live configuration trafficking to a standby unit in the same location. This ensures that the Cisco firewall is not a single failover point, as the standby unit will take over in the event of any software/hardware failure on the primary unit. The Cisco firewalls are linked over Cabinet-Cabinet/Data Centre-Data Centre direct 10Gbps links, thus internal trafficking is still available in the event of a network failure at a single/multiple locations.

NIMBLE STORAGE

We have recently incorporated Nimble Storage solutions as to host the desktops, the Nimble storage boxes offer a Flash Optimized Hybrid solution, this allows high performance across all servers by using a mixture of SSD and 15K drives. At the core of every Nimble Storage solution is the patented Cache Accelerated Sequential Layout (CASLTM) architecture that delivers the very best that flash and hard disk have to offer in a solution that offers performance, scalability, and seamless data protection.

LOOKING AHEAD

We are continuously looking at and investigating the latest hardware configurations to ensure that we are providing the best solutions possible. We apply the same technology across both Server 2008 R2 and 2012 R2 environments in order that we may provide an equally fast and fault tolerant system for clients wishing to use the latest Hosted Server technologies.

Software Configuration

CISCO FIREWALLS

The software configuration of the Cisco ASA firewalls is designed in a way that limits only very particular access to the network, thus increasing network fault tolerance with only limited access. The software configuration is live-streamed to standby units with the same restrictive configuration. This ensures that on a software level we are offering the best possible fault tolerance practices.

NIMBLE STORAGE

Nimble Storage solutions are built on the patented Cache Accelerated Sequential Layout (CASL) architecture. CASL differs from the traditional bolt-on approach of using flash as a tier. Instead, CASL was designed from the ground up to leverage the lightning-fast random read performance of flash and the cost-effective capacity of hard disk drives. CASL also incorporates innovative efficiency features such as inline variable- block compression, cloning, and integrated snapshots to store and serve more data in less space.

LOOKING AHEAD

All services are constantly updated on software levels so that the latest updates, service packs and rollups are live as soon as possible on the live environment. We have also implemented a full Veeam backup solution behind the virtual front end infrastructure, thus meaning our virtual server backups have a very high and accurate level of restore capability.

Disaster Recovery Models & Processes

PROCESS IN EVENT OF DATA CENTRE OUTAGE

The system will automatically disable remote access to the affected server models thus routing all traffic through the working locations.

- The affected server models will be temporarily removed from the cluster, the servers would then be booted off our failover servers in one of our other data centres.
- The system will automatically mount the affected hosts on the working data centre locations.
- The Cisco devices at a particular site will then not have to face any traffic so that any work on these devices is not required.
- Once complete, all access is restored for the clients in the affected Data Centre.

PROCESS IN THE EVENT OF CISCO FIREWALL FAILURE

- The standby unit will immediately takeover the services once the failure is seen on the primary unit.
- We would then proceed to physically replace the affected Cisco unit and set the standby unit as the primary unit in the process.
- We expect no downtime, and the device once fixed will be kept as a spare pending any other failures.

PROCESS IN THE EVENT OF NIMBLE STORAGE FAILURE

- If a single Nimble Storage Box fails, the virtual host will be automatically directed to our failover boxes.
- We would then proceed to physically replace the affected Nimble unit and set the standby unit as the primary unit in the process.
- We expect very little downtime, and the device once fixed will be kept as a spare pending any other failures.

PROCESS IN THE EVENT OF OPERATING SYSTEM FAILURE

- Any individual issue Server Operating System is readily in place to bring backup with a minimal amount of downtime.
- Veeam backups are taken at regular intervals throughout the day to ensure there is a constant copy of data available in the place of an OS outage.
- A daily backup is also ran on the virtual host at file level to ensure a daily copy of data is available should it be required.
- Each virtual host is written to a replica throughout the day, this will be booted up should the original system fail and this would then act as the primary unit.

Data Centre Information and Locations

DATA CENTRE LOCATIONS

All of our Data Centres are UK based with multiple locations across the North West and the South.

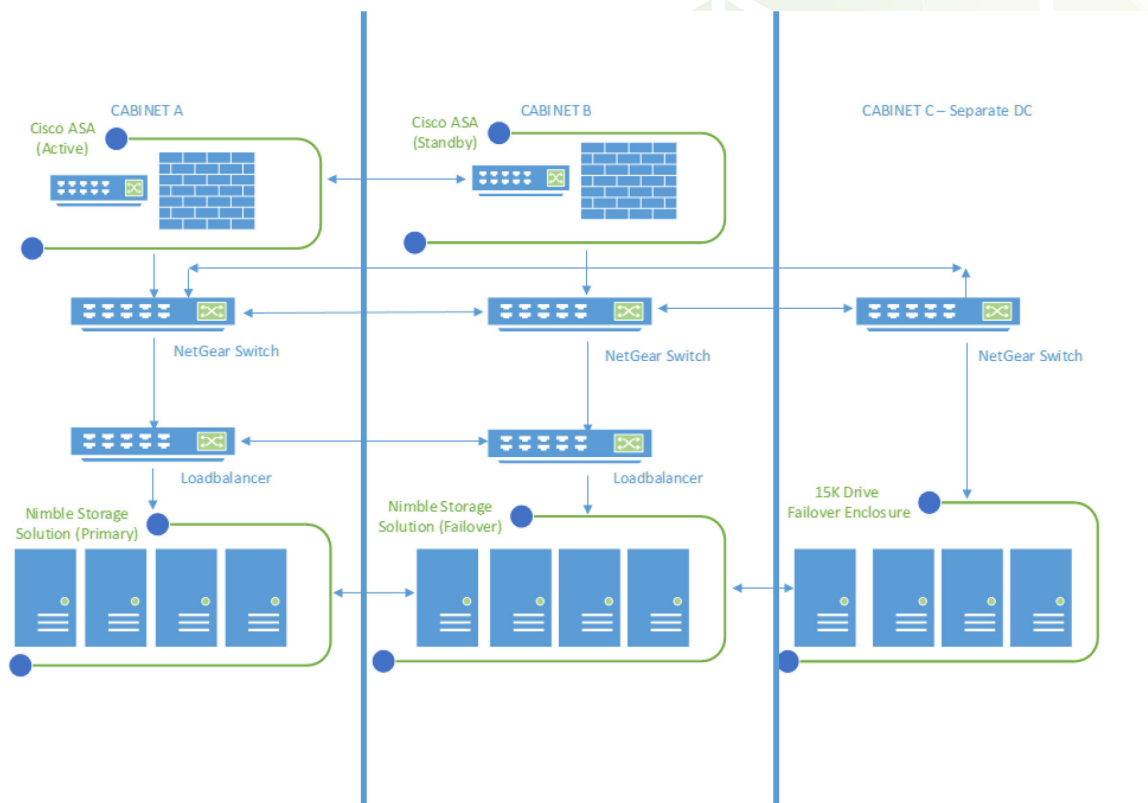
DATA CENTRE SECURITY

All of our data centres are fully secure locations, with no allowance of any unauthorised access. All of the data centres, in which we reside are all ISO 27001 certified. All of our data centres work on uninterruptible power, meaning that even with a full power outage they have on site resources to last a further 7 days. Our data centres offer state of the art fire protection using VESDA systems and FM200 gas suppression. The sites are protected from intruders by a long list of security precautions including secure gated access and the sites are manned 24 hours a day with full protection.

All main and mission critical systems are powered with dual-feeds, this applies globally across all locations.

Additional Information

NETWORK DIAGRAM



HARWARE AND SOFTWARE COVERAGE

We actively hold contracts with all major providers of the equipment we store and house within the Data Centres, these are all contracts holding the most critical support response for all cases, which includes but is not limited to: Barracuda, Nimble, Cisco, VMWare, Veeam, Microsoft, HP, Dell, and KEMP Load Balancers.

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