Equilibrium Consulting

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**Proof of Concept Plans**

**Justin Waelz**

**Storage Management and File Management:**

*Demonstration of a Configured SAN*

* StarWind SAN configured with iSCSI volumes for application data (SharePoint Foundation 2010 data, logs, and the search index, and mailbox databases) using Raw Device Mapping (RDM) to the ESXi-hosted virtual machines
* Demonstration of the resiliency of RAID 6 for the SAN (removing two hard drives without any impact to the SAN)

*Demonstration of Virtual Machine Backups and Restores*

* Using Veeam to launch a backup of a virtual machine, and then showing restoring a virtual machine from one ESXi host to another

*Demonstration of Document Management*

* With SharePoint Foundation 2010, show uploading a document, checking it out to edit it, uploading it with version information, and content search
* Demonstrate a Domain-based DFS share with access control based on Active Directory groups, showing User 1 being able to create and modify files, and User 2 being restricted to Read-Only permissions

**Server Infrastructure Security:**

*Demonstration of Service Management*

* Demonstrate creating a new user in Active Directory by using the Microsoft Management Console (MMC), and show that same user being denied the permission to use Remote Desktop to the Domain Controller

**Local Device and Remote Access Security:**

*Demonstration of Antivirus Software*

* Simulate a virus infection by plugging in a USB drive that has malicious software, and show Kaspersky antivirus blocking the malicious software

*Demonstration of Secure Remote Access*

* Show connecting, from a simulated Internet, to the internal network, and then accessing the internal shared folder and SharePoint site
* Demonstrate OpenVPN seamless failover by turning off one of the OpenVPN Access Servers while pinging an internal IP address

**Serge Trunkin**

**Virtualization:**

*Virtual Machine Management*

* Demonstrate vCenter management and migrating a powered on virtual machine from one host to another with vMotion

**Daemon Services such as DHCP and DNS:**

*Domain Name System*

* Demonstrate DNS failover by turning off one of the DNS servers
* Show creating a new A Record in DNS via Webmin

*Dynamic Host Configuration Protocol*

* Demonstrate a client obtaining an IP address from a DHCP scope based on the host’s VLAN

**Data Center Infrastructure and Management:**

*Remote Server Management*

* Demonstration of server management via iDRAC

**Anton Shylo**

**Active Directory Architecture and Implementation:**

*Active Directory Objects and Group Policies*

* Show the Organization Unit structure, import the Active Directory objects from the old domain, and demonstrate network logon from a Windows client
* Demonstrate the creation of a Group Policy to change the desktop background and limit the use of the Run dialogue box for certain users, based on their Active Directory group membership

**Mobile Communications:**

*Mobile Device Communication*

* Show sending an email via an iPhone to a BlackBerry device that is on the BES server

**Mail Servers:**

*Exchange Database Redundancy*

* Demonstrate configured DAG redundancy by powering off a mailbox server and still being able to send and receive email via OWA

**Patch Management and Instant Messaging:**

*Centralized Patch Management*

* Demonstrate approving and applying a Windows update to a client

*Lync 2013 Team Communication*

* Show instant messaging between two clients, in different offices

**Travis Vanos**

**Local Access and Distribution Infrastructure and Management:**

*Local Area Network (LAN)*

* Demonstrate failover and Hot Standby Router Protocol (HSRP) by removing networking cables that interconnect the networking equipment
* Show Quality of Service (QoS) in action by saturating the network, and then make a VoIP phone call, without any perceived call quality impact

**Local Wireless Architecture and Authentication:**

*Wireless Network*

* Demonstrate a wireless network with two SSIDs and RADIUS authentication for a laptop user

**Secure Corporate Client Internet Access:**

*Firewalls*

* Demonstrate firewall failover
* Active Directory integration
* Traffic filtering (i.e. blocking access to websites/ports)

**Centralized System Management:**

*SolarWinds*

* Demonstrate SolarWinds monitoring the IT infrastructure, and simulate a failover to see the alerts generated

**Chris Lageer**

**Corporate WAN Infrastructure, Security, and Management:**

*Wide Area Network (WAN)*

* Demonstrate failover at the router and Internet level

**Corporate Telephony Design and Deployment:**

*Telephony*

* Demonstrate Private Line Automatic Ringdown (PLAR) by having two phones setup, with one being in the office, and the other being at the emergency services office for 000
* Show intra and inter-site dialing
* Showcase core phone functionality such as leaving a voicemail, call parking, intercom, and hunt group