**Jay N. Thompson**

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Systems Engineer with 15+ years of experience contributing to the lifecycle of small, medium, and Fortune 500 business infrastructure.  Creating a balance between the economic view of Business and IT into a cloud computing platform to wield a strategic innovative competitive advantage.

**Experience**

**Neustar Inc. – Reston, VA August 2020-Present**

**Infrastructure Architect/Engineer**

• Part of the Infrastructure Architecture/Engineering Team made up of eight individuals
• InfraEng Team is currently building out the VMware SDDC product, VCF, across greenfield COLO's to provide the company with a true hybrid cloud
• My main responsibilities are building out vRealize Automation(vRA) blueprints to assist with onboarding of teams utilizing Powershell, ABX, Ansible, vRO, and utilizing Active Directory and Infoblox integration, via Gitlab for versioning
• Currently incorporating Terraform with vRA to create code repository in a hybrid cloud environment
• Other functions I have completed that pertains to this is: implementation of Infoblox appliances in Grid configuration, configuring of Sonoma Endrun GPS NTP servers, Sunbird DCIM, and PURE storage
• Currently working on automation of Day 2 tasks into SDDC platform via vRA, VROPS, and NSX-T API's using Postman, powershell, and python
• Evaluated and implemented Docker Datacenter UCP/DTR, now MKE/MSR, behind Citrix LB. Migrated users from old version to newest version and created DR site. Sole support for application for over two years
• Worked with VMware to create Tanzu LAB for company using NSX-T and Tanzu Mission Control on vSphere 7 in endeavor of container platform for future projects

**Neustar Inc. – Sterling, VA June 2013-Present**

**Senior Systems Administrator Manager**

* Member of Architecture Team tasked with standardizing Edge, Colo, and Datacenter design.
* Responsible for building out VMware VSphere 5.1/5.5/6.0 infrastructure for Core Services that encompasses Dev/Test/Preprod/Production stages using stateless Auto Deploy, HA PSC behind Citrix LB, and implemented Enhanced Link Mode (ELM) for all VCenters for Cross VCenter VMotion.
* Currently implementing VMware NSX with Security Team's solution to consume Security Tags.
* Benchmark/validate EMC ScaleIO using HCIBench(vdbench) against PURE Storage m70 array.
* Implement EMC ScaleIO across two (2) Datacenters utilizing over 300 TB raw NVME SSD storage.
* Implement VMware vSAN across all Edge/Management Clusters and ROBO facilities via PowerCLI script.
* Evaluate and implement Docker Datacenter UCP/DTR behind Citrix LB. Sole support for application.
* Using VMware Orchestrator to automate all workflows with Pure Storage Array and VMware. All workflows are in Orchestrator and bugs worked out with help from Cody Hosterman(PURE).
* M&A Projects - Migration of workloads into Neustar PoP.
* Evaluating OpenStack for hybrid cloud solution and Docker/Harbor/Quay for application deployment.
* Responsible for writing, maintaining, updating Chef related cookbooks.
* Most tasks require me to work closely with Storage/Networking/Tools team to integrate our resources with an API interface to programmatically automate provisioning processes via CloudBolt.
* Responsible for the hiring of contractors to help assist the team.

Tools used most frequently: Python/fabric, Bash, GIT, Cobbler, VSphere Enterprise Plus, VMware Orchestrator, VSphere Replication for Colo's, Chef Enterprise, VDP/Symantec Netbackup, NSX, LogInsight, CloudBolt, TextMate/Sublime, Jenkins/CloudBees, JIRA, Confluence, Service Now, Infoblox, Vagrant, and Powershell/PowerCLI.

Hardware: HP C7000 chassis, BL460c G8/G9 blades, Dell FX2/FC430/FC630/M1000e/R630/R730xd, VCEM, HP OneView, and Dell OME.

**Geoeye/DigitalGlobe - Herndon, VA** **October 2012-June 2013**

**Senior Systems Integration Engineer**

* Oversee four contractors to help manage two environments: DEV and PROD which consisted of RHEL 6.2 VMware virtual machines with Apache/Tomcat applications deployed via war files utilizing Postgres database, custom, and commercial products to deliver geospatial imagery to customers via web interface.
* Responsible for implementing code to both environments once completed by developers and approved by Configuration Management.
* Responsible for integrity and manageability of both environments utilizing bash scripts, Centrify to integrate authentication with AD servers and working with Configuration Management to mature install scripts.
* Responsible for making recommendations on standard build sheets for the virtual machines, helping implement an appliance product, VMware best practices, documentation updates, workflow best practices, and automating as much as possible.
* In addition to above information, we use Red Hat Satellite Server, VSphere 5/View, Hitachi NAS, and MS SQL Server.
* **Provider to Google of satellite imagery for Google Maps.**

**Blackboard Inc. - Washington, DC/Reston, VA 20190 July 2010 - September 2012**

**Senior Systems Engineer (Managed Hosting Division - Systems Team) June 2011 - September 2012**

* Build out Advanced Platform Environments utilizing NetApp, Advanced Infrastructure Manager (AIM) from Dell, Dell hardware, Xen hypervisor, Red Hat Enterprise Linux, and custom scripts.
* Perform RFOs for downed clients in a Managed Hosting environment.
* Troubleshoot problems that consist of thousands of Dell blade servers, NetApp storage, hundreds of clients all over the world, and SLA on performance and uptime that must be met via EM7 and BMC Coradiant tools.
* Design Environment as a scalable architecture built via NFS(NetApp) to PXE boot virtual machines and physical blades on RHEL operating systems via AIM controller combined with AIM agents, and serviced through VLANs.  This creates a tiled environment that is scalable and increases efficiency with deduplication on NetApp, cost of building since everything is ethernet based, and all hardware is commoditized via Dell.
* Manage Hosting has hundreds of clients that consist of colleges, public schools, online learning companies, the military, countries doing public education, and private outfits.  Last year we never had a Sev0, client is completely down, during Back to School season, July-September.  This is typically our busiest time of the year and most important to keep all clients online.
* Responsible for troubleshooting authentication, FTP, partial application, LDAP, partial database, accessing internal and external IPs, accessing VIPs, performing maintenance on vSwitches, VMRacks, Virtual Machines, changing kernel versions, DNS, environment build out, hardware appliance uptime, partial NetApp Qtree accessibility, troubleshooting scripting, and migration of clients to other environments or datacenters.
* Implement architecture to utilize VMware VSphere 5, VCenter, Auto Deploy, Host Profiles, and meshed together with the current setup.
* Use LoadGen against Exchange 2007 on Xeon 2690 chips using Dell M620 Blades to see how many users Exchange on VMware can handle.

**Principal System Administrator (Product Development Division) July 2010-June 2011**

* Oversee and help architect the virtual infrastructure and hardware build out to become more automated and efficient.
* Utilizing stateless ESXi 4.1(free version), no VCenter, NetApp 3170 with (2) 512gb SLC Flash Cache PCI cards, and 10G backbone, approximately 1200 virtual machines and 700 machines utilizing no local disk to boot up, perform automated testing, and restarting every day.
* Domain of responsibility encompasses all layers of the OSI model since we own the network, the infrastructure, the equipment, and the monitoring tools.
* Perform tasks on all flavors of RHEL, OSX, Solaris, and Microsoft operating systems.  The databases are Oracle and MS SQL products, and various tools to assist developers.
* Responsible for monitoring via Nagios, Asset Tracking utilizing custom PostgreSQL website tool, DNS requests using Windows Domain Controller, and heavily dependent on iSCSI and NFS via NetApp Filers in Cluster formation.
* Fulfill the daily needs of Dev and QA to support product builds, bug tracking, and automated testing.

**Alteritech -McLean, VA May 2010-July 2010**

**Virtualization Stack Leader**

* Responsible for entire company infrastructure that is 100% virtualized using VI3.
* Co-responsible for Network infrastructure and SAN infrastructure.
* One of three people helping to redesign the virtual infrastructure using vSphere 4 in colocation.
* Utilize esXpress for backups, Zenoss and Kaseya for monitoring, SolarWinds for network monitoring, and ConnectWise for ticketing, I am responsible or one of three people responsible for any break/fix issues that arise.
* Alteritech utilizes VI3 to host Microsoft Exchange, Active Directory, Blackberry, IIS, and SQL Server in a COLO for client sites while incorporating SSL tunnel to connect to each remote site for security reasons across a WAN.
* The SAN infrastructure incorporates Dell Equallogic along with HP ProCurve switches and iSCSI protocol to the ESX Servers.
* Networking is routed through Cisco routers and firewalls are provisioned using ASA 5505 context switches.
* Noted accomplishment: Over Memorial Day holiday, I built an Active Directory domain, DNS server, and DCHP server along with Virtual Center Server and Connection Broker serving up a virtual desktop, Windows 7, playing high definition YouTube video for demo purposes; this entire demo fit on one Dell PowerEdge 2950.

**SAIC - Strategic Enterprise Solutions Division** *-* **McLean, VA 22102 January 2010-May 2010**

**Senior System Administrator - CWDA/TFDW Project**

* Responsible for two projects supporting Marines that consist of approximately 60 servers for DEV, TEST, and PROD combined total.
* Order, deploy, and categorize new infrastructure under standardization protocols.
* Provision and architect virtual and physical assets in DEV, TEST, and PROD environment.
* Supply documentation of activities via Wiki.
* Attend meetings and report on IA Compliance, implementation of backup solution (Legato) and virtualizing assets
* Perform patches on IAVA scanned vulnerabilities to all environments for Linux and Windows servers.
* Remediate Gold Disk and SRR scan results.
* Moved entire IT infrastructure with my team from server room to official data center (10 racks ~ 90 servers) in one weekend.
* Secret Clearance (Inactive)

**AOL, LLC - Test Operations- Infrastructure Division - Dulles, VA January 2003-January 2010**

**System Administrator**

* Responsible for all Infrastructure of DEV, QA, and pre-PROD, including physical and virtual architecture.
* Responsible for troubleshooting problems in VMware VI3 Infrastructure, VMLogix, VMware Consolidated Backup (VCB), Symantec Netbackup integration with VCB, and VDI Infrastructure.  This consists of approximately 1000 virtual servers for Dev/QA/Prod, 600-700 desktops utilizing 8 brokers over two datacenters, and using VMLogix to provision and manage desktops while implementing linked clones and testing Vsphere4.
* Responsible for approximately 2000+ Linux/HP/Solaris/Windows hosts on physical and virtual platforms.
* Leverage Nagios for monitoring and integrated into Netcool for the AOL corporate NOC.
* Maintain integrity, availability, and reliability for all systems under the Test Operations umbrella.
* Order, deploy, and categorize new infrastructure under standardization protocols.
* Supply documentation of activities via Wiki intranet to Test Operations team.
* Attend meetings on standardization protocols, lease returns, storage returns, decommission of assets, and team meetings.
* Facilitate the adoption of virtualization into all facets of AOL to ensure improved management and 100% uptime.

**Inotech, Inc. - Silver Spring, MD June 2002-January 2003**

**Client: Perdue Farms**

**Network Engineer**

* Responsible for providing first line of defense for corporate network of Perdue Farms, Inc utilizing proactive procedures to prevent outages.
* Perform duties using NNM software to coordinate data from Paradyne OpenLane, CiscoWorks2000, and HP OpenView/Insight and NerveCenter.  Lucent Cajun Layer 3 switches (550R and 120R) will use default web-based interface.
* Utilizes Novell/CDP/STP to provide authentication and data transfers from SAP mainframes across fractional T1s to remote sites along East Coast to process shipment orders.  Hardware skeleton is Cisco, Lucent Cajun Switches, and BayNetwork Switches to provide fluid data movement across Sprint Fractional T1s.
* 24x7 Monitoring to provide 100% uptime.
* Monitor and support scheduled maintenance and outages.
* Confer with Tier 3 engineers to resolve hardware network issues.
* Troubleshoot and repair network, application, and physical layer issues.
* First level support and troubleshooting in 24x7x365 NOC across Application, Network, and Physical layers of the OSI model.

**Other Positions**

**MillenniuM Information Systems, LLC - Arlington, VA   June 2001-January 2002**

**Client: Federal Aviation Administration: atos.faa.gov**

**System Administrator:**

**marchFIRST - McLean, VA) October 2000- June 2001**

**Clients: American Airlines, Ocean Spray, Mazda, Saks Fifth Avenue, Thomasville Furniture, and 100+ other fortune 100 clients.**

**Operations Engineer:**

**Certifications**

* RHCE(Red Hat Certified Engineer 2010)- RHEL5
* RHCT (RHEL4/RHEL5 2009)
* VCP 3 (VMware Certified Professional 2009)
* VCP 4 (VMware Vsphere 2010)
* VCP6-DCV (Vsphere 6 December 2015 License VMW-01456224J-00475053)
* VCP NSX (VCPN610 January 2015 License VMW-01456224J-00475053)
* CCNA (2001)
* SCSA (Solaris 2001)

**Education**

**George Mason University Fairfax Campus
4400 University Drive, Fairfax, Virginia 22030**

* Associates in Mathematics (84 credits to date)
* CS 112 / 211- C++ Programming courses
* CS 265- Assembly Language RISC Processor
* ECE (Electrical and Computer Engineering courses) 108 / 220
* Math 214- Differential Calculus