James Conner

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Experienced network engineer and Python developer focused on simple, stable, scalable networks and code.

AutoZone, Inc.

Auto parts retailer with over 6,000 locations in the US, Mexico, Puerto Rico, and Brazil also having a self-supported hardware and software stack.

Network Data Aggregation and Workflow Automation

Role: Systems Specialist/Developer   11/2018 - In Progress

Objective

Aggregate site data into single source-of-truth to enable faster disaster recovery for remote sites, facilitate consistent deployment of new and replacement network devices, and also act as the back-end data layer to automate troubleshooting workflows. This project will also enable migrating existing configuration template system to inherited templates based on site type and reduce toil on maintenance of templates and data collection for template variables.

Achievements

Designed, built, and deployed consumer code to pull data from multiple sources including HTML, CSV, and T-SQL databases and correlate to correct sites. Designed, built and deployed additional service utilizing Netmiko and subprocesses in a multi-stage pipeline to concurrently pull live network data to combine with NMS historical data based on traditional SNMP polling and trap collection.

Technologies

Python   Jinja2   Flask   Netmiko   MongoDB   Docker   Ansible   Linux

Next-Day Delivery

Role: Systems Specialist   05/2018 - 06/2018

Objective

Expand physical and logical site networks at select sites to support business objectives for next-day delivery services.

Achievements

Acted as lead to create configuration template for additional network devices being deployed to select sites which enabled immediate turn-around time for changes to requirements as devices were being deployed. Worked with systems team to allow additional systems to be incorporated into existing site networks. Based on requirements as they were available, built and deployed configuration that enabled integration of new network systems into the existing site network.

Technologies

Cisco IOS   Cisco Catalyst switches   802.1q   Python   Jinja2

Regional Office Network Conversion

Role: Systems Specialist   05/2018 - 06/2018

Objective

Upgrade network and phone systems at regional offices to interface with newer core infrastructure including: transitioning routing protocols, migrating digital phone systems to VoIP, and upgrading routing and switching hardware and configurations.

Achievements

Acted as lead to create configurations for network devices being deployed to offices. Acted as primary point of contact for network deployment from VoIP team, on-site technicians, project management, and network infrastructure teams.

Technologies

Cisco IOS   Cisco IOS-XE   BGP   LTE   VoIP   EIGRP   Cisco EEM   802.3   802.1q

Commercial Acceleration

Role: Systems Specialist   12/2017 - 04/2018

Objective

Provide fault-tolerant network design for testing sites supporting new commercial sales initiatives.

Achievements

Based on business requirements, acted as lead to design and deploy high-availability routing and switching topology to two sites for alpha testing. Tested and verified that topology could withstand multiple physical and logical failures while maintaining uptime.

Technologies

Cisco IOS-XE   HSRP   TCP/IP   EIGRP   BGP   BFD   MPLS   VoIP

Store Network Upgrade

Role: Network Support Specialist   05/2016 - 05/2018

Objective

Upgrade network and systems hardware, cabling, software, LAN, and WAN for 6,000+ remote sites from DMVPN, modem backup, digital on-premise phones, to provider MPLS backbone, managed switches, hosted VoIP, and LTE backup. Provide support to on-site technicians upgrading sites during non-business hours.

Achievements

As part of a team, provided remote support including hardware and software troubleshooting for on-site technicians upgrading sites. Collaborated to develop scripts to provide repeatable, templated verification of sites post-upgrade.

Technologies

Cisco IOS   Cisco IOS-XE   Linux   TCP/IP   EIGRP   DMVPN   BGP   MPLS   802.1q   802.3   T1   QoS   Cisco Catalyst switches   VoIP   Cisco CME   VBscript   PowerShell   Cisco EEM   Shell scripting

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Computers & Networks, Inc.

Systems integrator providing hardware and software installation, maintenance, and support as well as systems and network design and implementation for businesses in Memphis and the surrounding areas as well as remote locations nationwide.

On-Site Systems Administration

Role: Systems Administrator   11/2015 - 05/2016

Objective

On-site design, administration, and support of network hardware and software, server systems, virtualization environment, network services, end-user systems, and data backups.

Achievements

Successfully relocated customer systems on office move; monitored and verified tape backups; monitored and verified network services to maintain uptime; consistently provisioned and deployed desktop and laptop systems for new users within SLAs

Technologies

Windows 7   Windows 10   Windows Server 2003   Windows Server 2008   Windows Server 2012   Microsoft Exchange   Microsoft Active Directory   Microsoft Hyper-V   Microsoft IIS   Microsoft Office Suite   PowerShell   Cisco routers   Cisco switches   HP Switches   HP ProLiant servers   802.3   802.1q   802.11   TCP/IP   tape backups   VoIP

Hardware Support

Role: Systems Support   11/2015 - 05/2016

Objective

Procure, configure, deploy, and troubleshoot hardware, networks, operating systems, user applications, and printers for multiple business customers.

Achievements

Maintained response to customer support requests.

Technologies

Windows 7   Windows 10   Windows Server 2003   Windows Server 2008   Windows Server 2012   Microsoft Exchange   Microsoft Active Directory   Microsoft Hyper-V   Microsoft IIS   Microsoft Office Suite   PowerShell   Cisco routers   Cisco switches   HP Switches   HP ProLiant servers   802.3   802.1q   802.11   TCP/IP   tape backups   VoIP

Premier Satellite & Internet

ISP and TV provider operating in Memphis and the surrounding areas specializing in deploying and providing services to apartment communities and businesses.

Network Multitenancy

Role: Network Engineer   08/2015 - 10/2015

Objective

Add support for commercial business customers into physical infrastructure that supported residential customers, including both general data and VoIP traffic.

Achievements

Mapped commercial requirements into existing network design that provided specific customer needs without the need to modify physical network layout. Improved overall traffic requirements for both commercial and residential customers by moving layer-3 routed endpoints to single on-site edge endpoint and trunking 802.1q within the site. This also provided the ability to easily modify a single VLAN at the edge and provide aggregation before announcement into the network core without having to modify multiple devices. Developed configuration that could be deployed into future sites for day-one support of multiple customer types.

Technologies

802.1q   802.11   OSPF   RouterOS   802.3   TCP/IP   VoIP   VRRP

BGP Multihoming

Role: Network Engineer   07/2014 - 02/2015

Objective

Add additional BGP peerings to increase fault tolerance and network throughput.

Achievements

Upgraded edge router hardware and software to enable larger routing tables and routing updates from multiple peers while maintaining throughput for user traffic. Incrementally enabled BGP peerings and validated routing policies throughout the network. Provided fault-tolerance through dynamic routing around failures at the network edge.

Technologies

TCP/IP   BGP   OSPF   RouterOS

Network Core Protocol Conversion

Role: Network Engineer   05/2014 - 07/2014

Objective

Convert network core from layer-2 switched network utilizing static routes to dynamically-routed core using OSPF enabling future expansion to add BGP peerings, increase network scalability, and simplify configuration.

Achievements

Successfully migrated production network core serving 24/7 user traffic. Edge router configuration simplified upon addition of new sites by dynamically adding OSPF adjacencies which also aided in faster scalability without the need for additional manual updates within the network core and edge.

Technologies

TCP/IP   OSPF   BGP   RouterOS

Site Addition and Integration

Role: Network Engineer   05/2014 - 10/2015

Objective

Join new customer sites into the network. Evaluate requirements, implement configuration to integrate into existing network design, deploy necessary hardware and integrate into monitoring platform, and validate that deployment meets requirements.

Achievements

Deployed IPAM service for network operations to more effeciently maintain and view IP space on deployment. Deployed DNS for internal network operations to enable consistent scale and predictable access with existing network infrastructure and as new infrastructure was added. Built and deployed physical and logical network configurations for new network sites. Used VMWare ESXi to create hypervisor platform for network services and moved NMS, DNS, and IPAM into virtual infrastructure to consolidate footprint as well as ease backup and redeployment in outages and disaster recovery.

Technologies

IPAM   DNS   NMS   SNMP   TCP/IP   OSPF   BGP   VRRP   802.11   802.1q   PTP wireless backhaul   PTMP wireless   DOCSIS   RouterOS   Ubiquiti Unifi   Mimosa Wireless   VoIP   SIP   Linux   Asterisk PBX   VMWare ESXi   Dell Poweredge Servers

Education

- Graduated from Collierville High School.
- Attended Mississippi State University for double major in Aerospace Engineering and Physics.

References available on request.

Additional work history is available on linkedin.com/in/james-a-conner/