

David Michael Pennington

- **Location:** Austin, TX | **Phone:** 512-677-4911 | **Email:** penningtonthing@gmail.com
- **Objective:** Seeking a challenging role which leverages my extensive experience, and strategic problem-solving abilities. I will enhance network services delivery, and further build the success of a forward-thinking organization.
- **Education:** Bachelor of Science, Electrical Engineering
- **Github:** <https://github.com/mpenning/ciscoconfparse>
- **StackOverflow:** <https://stackoverflow.com/users/667301/mike-pennington?tab=summary>
- **Stack Exchange:** <https://networkengineering.stackexchange.com/users/775/mike-pennington?tab=summary>
- **Citizenship:** United States

Summary of Qualifications

- Skills Summary:
 - Network Products: Cisco Systems / Meraki, Juniper Networks, Palo Alto Networks, F5 Networks, Infoblox, Splunk, ThousandEyes
 - Protocols: LDP, BGP, OSPFv2, OSPFv3, EIGRP, RIP, IPv4, IPv6, Wi-Fi, DMVPN, IPsec VPN, SSL, 802.1x / dot1x
 - WAN Engineering: MPLS, SONET, ATM, legacy T1 / T3, ADSL, Ethernet, and WAN-PHY Ethernet
 - Cloud Experience: AWS, Google Cloud
 - Languages: Python, Go, Bash, GNU Make, Terraform
 - See last page for more detail
- Career Summary:
 - Network engineer with 25+ years of experience
 - Decades of full-SDLC network support
 - Cisco Certified Internetwork Expert (CCIE Routing and Switching) #4483 - Lifetime Emeritus
 - Top 1% contributor to StackOverflow with millions of users. See StackOverflow, above
 - Top 1% contributor to Network Engineering (Stack Exchange). See Stack Exchange, above
 - Invented python network-engineering tool with 700+ GitHub stars and over 3.5 Million downloads
 - Experienced with retail, hardware, software, medical, clean room, and manufacturing
 - Wire line and Wi-Fi: design / implementation / troubleshooting / best-practices
- Personal Attributes:
 - Articulate written and verbal communication skills
 - Customer focused: devoted to resolving end-customer concerns
 - Organized: manages multiple projects
 - Adaptable: improvises to overcome challenges
 - Collaborative: team player who appreciates the strength others bring to the table

Employment

- **Company:** Starbucks Coffee Company
 - **Title:** Network Engineer - Contract Worker
 - **Dates:** Feb 2023 - Sep 2023
 - Built Python scripting to report which of Starbucks' US / Canada Retail locations were down based on Splunk SignalFx data.
 - Developed other Python automation as requested by Starbucks
 - Self-directed Python automation development such as scripting to process data from Starbucks' internal *starshipctl* tooling
 - Contributed to in-Store DNS project to remove WAN DNS dependencies in Retail Stores
 - Reviewed other team python repo git-commits and requested modifications as required
-

- **Company:** WellSky
 - **Title:** Staff Network Engineer
 - **Dates:** Jun 2022 - Oct 2022
 - Developed firewall policies to conform to application connectivity requirements
 - Palo Alto firewall rules: Built and modified
 - Monitored Palo Alto firewall behavior with Panorama
 - Managed Palo Alto Firewall crash events and RMA'd components as-required
 - Troubleshoot Windows server connectivity problems between firewall zones
 - Maintained AWS / Google Cloud environments
 - Deployed and maintained customer-facing services on F5 LTMs
 - Analyzed logs for clues relevant to service outage Root-Cause-Analysis (RCA)
 - Edited / maintained network services run-books
-

- **Company:** NetActuate
- **Title:** Senior Network Engineer
- **Dates:** Nov 2021 - Apr 2022
 - Built tools to translate YAML documents to Ansible runs on Jinga2 configuration templates
 - Built automation to create and deploy routed site-to-site VPNs on Juniper routers
 - Analyzed BGP Anycast policies and recommended changes to optimize customer experience in local markets

- **Company:** ThousandEyes (acquired by Cisco Systems in CY2020)
 - **Title:** Senior Network Engineer
 - **Dates:** Dec 2019 - Nov 2021
 - Built and troubleshot ThousandEyes' public / private network infrastructure
 - Migrated services and networks from the ThousandEyes' Digital Realty Colo (San Francisco) to AWS Infrastructure
 - Built / supported IPSec services between Digital Realty, AWS, Google Cloud, and Cisco Systems
 - Point-of-contact for ThousandEyes' public customer BGP request python automation
 - Built / reviewed AWS EC2 Terraform Github Pull Requests with Atlantis
 - Built and modified Makefiles / Python scripts in support of production services
 - Implemented changes to Palo Alto firewall rules
 - Implemented changes to ThousandEyes' bind resolvers
 - Built and deployed services in self-implemented and self-hosted Ubuntu packages
 - Built Ansible configurations
-

- **Company:** Samsung Data Services
- **Title:** Senior Staff Network Engineer
- **Dates:** Aug 2012 - Oct 2019
 - Rapidly relocated 400-seat office network, WAN edge, internet circuits, self-hosted Data Center, VoIP PBX / SBC infrastructure, and DR-site in support of Samsung's office move
 - Surveyed for and deployed over 350 WiFi access-points around Samsung's Fab campus (involving over a dozen buildings, totaling over two million sq ft ~ including multiple hostile-RF / space-constrained / chemical environments)
 - Redesigned F5 load-balancer configuration and topology to eliminate outages during F5 active-standby fail overs
 - Implemented IT Security policies in Palo Alto firewalls and Bluecoat web proxies
 - Managed DHCP and DNS objects in Infoblox; migrated Windows DNS zones to Infoblox
 - Deployed and maintained IPSec site-to-site tunnels between office / data centers
 - Deployed QoS services on routers to prioritize VoIP and interactive VNC / RDP sessions to mitigate SIP circuit congestion
 - Tuned OSPF configurations to converge rapidly in the face of network topology changes
 - Worked with Windows system administrators to deploy wireless and wired EAP-TLS dot1x authentication (authenticating through Aruba Clearpass RADIUS NAC)
 - Deployed Samsung PBX / VoIP solutions; deployed active / standby VoIP Session Border Controllers in front of Samsung's external SIP circuits
 - Deployed MPLS VPN BGP VRFs to isolate and customize routing for special VLANs
 - Troubleshot and resolved issues with Samsung's 100,000 CPU core PAAS cloud running on Nexus 9000-series switches
 - Managed network access policies in Aruba Clearpass and Cisco ISE NAC servers
 - Developed many Python and Ansible automation scripts for enforcing configuration standards, and implementing repetitive / complex network changes

- **Company:** Dell Computer Corporation
 - **Title:** Senior Network Engineer
 - **Dates:** Feb 2011 - Aug 2012
-

- **Company:** Elm River Services (contract position)
 - **Title:** Senior Network Engineer
 - **Dates:** Sep 2009 - Feb 2011
-

- **Company:** Modis IT (contract position)
 - **Title:** Network Architect
 - **Dates:** Mar 2009 - Aug 2009
-

- **Company:** Bresnan Communications
 - **Title:** Senior Network Engineer
 - **Dates:** Apr 2008 - Jan 2009
-

- **Company:** CDI Business Solutions (contract position)
 - **Title:** Senior Network Engineer
 - **Dates:** July 2006 - January 2008
-

- **Company:** Cisco Systems
 - **Title:** Network Consulting Engineer & Technical Marketing Engineer
 - **Dates:** August 1999 - May 2006
-

- **Company:** International Network Services (acquired in 1999 by Lucent)
 - **Title:** Senior Network Consultant
 - **Dates:** August 1998 - August 1999
-

- **Company:** United States Air Force
- **Title:** Flight Test Engineer & Network Engineer
- **Dates:** Feb 1993 - July 1998

Education, Certifications, and Awards

- Cisco Certified Internetworking Expert - Routing and Switching (CCIE #4483 Lifetime Emeritus)
- BSEE, Christian Brothers University - Memphis TN, 1992
- USAF ROTC Distinguished Graduate
- Brother Phillip Morgan Engineering Design Excellence Award
- 2nd Place IEEE Regional Design Competition; IEEE Region 3, Williamsburg, VA, 1991

Skills Detail

- **Category: Networking Products**
 - Proficient: Cisco IOS, Cisco ASA, Cisco NXOS, Cisco AireOS, F5 BigIP LTM, Palo Alto PANOS, Infoblox,
 - Familiar: Bluecoat SGOS, Cisco Meraki, Arista EOS, Juniper JunOS, Force10 Networks, ExtremeOS, Adtran NetVanta, Force10 FTOS
- **Category: Network Protocols**
 - Proficient: DNS, DHCP, HSRP, OSPFv2, BGPv4, EIGRP, Rapid PVST, STP, BFD, MPLS, LDP, MPLS VPN, EoMPLS, 802.11 Wi-Fi, CAPWAP, Remote VPN
 - Familiar: MSDP, PIMv2, MPLS TE, VPLS, IPv6, OSPFv3, ISIS, DMVPN
- **Category: Network Policy & Management Tools**
 - Proficient: Aruba Clearpass, Splunk, Wireshark, Zenoss
 - Familiar: Cisco ISE, Cisco NCS Prime, SNMPv3, Oxidized, Nagios, Cacti, Rancid, Graphite, LogicMonitor NMS
- **Category: Transport Protocols / Equipment**
 - Proficient: Gigabit, Ten Gig, and 100 Gig Ethernet
 - Familiar: OC3 to OC192 SONET, T1/T3, ATM PVCs, ADSL, DOCSIS
- **Category: Operating Systems & Virtualization**
 - Proficient: RHEL, Ubuntu Linux, MS Windows
 - Familiar: VMWare ESXi, vCenter, Solaris, HPUX
- **Category: Scripting / SW Development**
 - Proficient: Python, Go, Ansible, GNU Make, Bash, Terraform
 - Familiar: TCL/Expect, Perl, JavaScript