

SHAWN M KLEINART

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SKILLS & QUALIFICATIONS

Network Design, Planning & Maintenance	High-availability networks, 4-5 9's (99.999%)
Network Operations Center (NOC) Experience	Leadership Experience (Mentor & "Senior" roles)
Interconnection, Peering and BGP Policy	Detail-Oriented & Strong Communication Skills
Network Security, Abuse Desk Experience	Professional Experience with Law Enforcement
Cisco IOS, IOS-XR, JunOS, UNIX / BASH Shell	Cisco and Juniper skills/experience in large ISP

IP Network Engineer, ISP, Cisco IOS, IOS-XR, JunOS, BGP, Internet Peering, OSPF, ISIS, QoS, VLAN, STP, VoIP, DNS, DHCP, Multicast, RIP, ACL, VPN, IPSec, GRE, IPv6, HSRP/VRRP, SNMP, Radius, TACACS, Wireshark, TCPdump & more. Limited MPLS. Good Shell and Expect scripting. Strong traffic engineering skills.

PROFESSIONAL EXPERIENCE

Google, Inc. (Google Fiber) Mountain View, CA (01/2012 – Present)

Network Engineer, Operations

First operations hire & Engineer for Google Fiber project. Helped build, deploy and manage backbone (AS16591). Lab testing of services, helping develop product prior to launch. Played large role in building NOC from ground up, including technical lead role, testing systems and tools, developing standards and processes. Interviewed nearly all team hires. Working with all types and 'layers' of devices, backbone, access and edge, firewalls. Alcatel-Lucent 7360, SR-7750, Juniper MX and T series, custom CPE platforms. Supporting Google Fiber FTTH, Google Fiber TV, IPTV and backbone. Protocols directly involved in supporting: IPv4, IPv6, BGP, MPLS/LSP/RSVP, ISIS, IGMP, SSM/Multicast, DHCP, DNS, GPON, SNMP, Syslog and more. Senior level role and position. On-call.

IntelPeer Denver, CO (06/2010 – 01/2012)

IP Network Engineer

Administrate and architect for private VoIP national backbone (AS32385). Engineer and maintain BGP policies with > 25 networks. Maintain global and local IP routing policies on a national Cisco network. Facilitate installation of VoIP servers, managing and assigning logical (IP) and physical (network ports) resources. Documenting network topology in various tools (eg Visio). ARIN IP & BGP ASN POC. Engineer and manage office networks, and VPN solutions. Create technical processes for NOC, provide training and mentoring. Travel to colocation POP's/IXP's for installation and maintenance work. 24/7 on-call for escalation issues. Engineer, administrate and support all layers of the IP network: high-availability data center access layer, backbone design, routing, security, etc. Ensure greater than 99.999 network availability, and a high-level of QoS.

Comcast Greenwood Village, CO (02/2009 – 06/2010)

Senior Network Engineer (Backbone Operations)

The Comcast backbone organized into a dedicated group, from a generalized NOC group. I became a Senior Operations Engineer on the backbone team. The Comcast backbone (CBONE) was a private QoS based network, running Cisco 7600 and multicast for video. The IBONE (Internet Backbone, AS7922) was primarily a Cisco CRS platform, exceeding 2.5Tbps of transit bandwidth (at the time). As I started with AS7922, it had about 5 e BGP peers, and grew to maintaining BGP peering with > 100 ASN's when I left. BGP peering lead for SIP (VoIP) and BGP customer networks, and other high-profile peering. Review, approve, coordinate and implement major scheduled maintenance projects. Troubleshoot and repair all router & routing events, including high-profile, advanced and escalated issues. Lead various projects from configuration audit and standardization, national hardware upgrades / replacements ,and deploying new technologies / policies. Work closely with architect engineers. Author and review operational processes, technical documentation. Author and present technical training. On call duty, and ability to work all hours and travel. Coordinate with peers, customers and vendors to complete projects or troubleshoot network events. Work closely with vendors on complex issues and maintenance. Ability to resolve network faults under stressful conditions and within SLA period. Maintain network to ensure a greater than 99.999 operational uptime.

Comcast **Greenwood Village, CO** **(06/2006 – 01/2009)**

Network Engineer II – RAN and Backbone

Responsible for the operational administration, and the review, approval, creation and implementation of configuration changes (maintenance) within the Comcast CRAN's (Converged Regional Area Networks) – about 25 nationally. Each converged (IP video, voice and data) RAN has 30-150 router nodes, and connections to the **Comcast backbone**. >1000 nodes nationally. Two backbones - CBONE (AS23253) and IBONE (AS7922). Each CRAN had two connections to each. Prior to the Comcast backbone, CRAN's would have direct connections to a Tier-1 ISP. I administrated BGP policy on all Comcast environments. Created and maintained processes, worked closely with other engineering teams to maintain a national configuration template and standards. Advanced troubleshooting skills and knowledge of all network layers. Advanced BGP & OSPF understanding and knowledge of the Comcast design and topologies. On-call responsibilities.

Comcast **Greenwood Village, CO** **(04/2004 – 05/2006)**

Senior Network Analyst (started as Analyst I)

IP network administration and monitoring. Responsible for the availability of the Comcast IP network - including Internet, voice/VoIP and video. Perform advanced troubleshooting on network faults. Coordinate with on-site technicians to resolve physical faults. Communicate with local markets, upstream provider or vendors as applicable. Familiar with network equipment from many vendors, including Cisco, Arris, Motorola, ADC, Foundry, F5 and others. Complete scheduled maintenance activities. Point of contact for technical implementation of legal compliance cases. Escalation lead.

Comcast / AT&T Broadband **St. Paul, MN & Englewood, CO** **(07/2000 – 03/2004)**

Internet Security Coordinator / Specialist

Responsible for the integrity/security of the cable modem network and policy enforcement. Monitor network abuse trends, security vulnerabilities and analyze the associated risks. Investigate network abuse/security incidents, documenting investigation. Ensure incident resolution via use of customer service and organization skills. Coordinate incident response with multiple parties, such as engineering, legal, customer support and others. Respond to and process legal requests, such as subpoenas and court orders. Perform basic data forensics analysis (using EnCase). *Projects & Accomplishments:* Internet abuse/security website content lead (security awareness project). Contributed to the initial draft and subsequent revisions of the Acceptable Use Policy (AUP). Drafted many abuse department processes. Served on an employee recognition committee and disaster recovery teams.

AT&T Broadband (Comcast) **Roseville, MN** **(09/1999 – 07/2000)**

Network Operations Center (NOC) Analyst

Monitored the Minnesota cable network for performance and service integrity - Internet data via DOCSIS, analog and digital TV services and digital telephone service (pre VoIP).

MediaOne (Comcast) **St. Paul, MN** **(11/1998 – 09/1999)**

Customer Care Professional

EDUCATION and CERTIFICATIONS

Cisco CCNA (640-802) [expired 06/2011] verification: 396284285672ISBJ

Cisco BGP (642-661) (passed 10/20/2008, now expired) Cisco ID: CSC11095402

CISSP # 68470 EXPIRED JUNE 2010

Experience with Cisco Series: 800, 1700, 2500, 2600, 2800, 2900, 3500, 3550, 3600, 3700, 3750, 3800, 4000, 5500, 6000/6500, 7600, 7200, 7500, 10k, 12000 (GSR) and CRS-1 (including multi-chassis).

Juniper MX series (mx240, mx480, mx960) and T1600 series. SRX3600

Training Courses Attended:

- CACCI [Colorado Association of Computer Crime Investigators]	Jan 2002	40 hours
- CFCA Annual Meeting [Communications Fraud Control Association]	Jun 2002	24 hours
- Learning Tree: Implementing Cisco Multilayer Switched Networks	Dec 2003	45 hours
- Intense School course: CISSP Boot Camp	Nov 2004	40 hours
- Cisco CRS-1 (Carrier Routing System) Essentials / IOS-XR	April 2006	40 hours
- NANOG43 (North American Network Operators Group)	June 2008	24 hours
- Configuring BGP on Cisco Routers v3.2	July 2008	40 hours
- Implementing Cisco Quality of Service (QoS) 2.2	Sept 2008	40 hours
- NANOG46	June 2009	24 hours