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### **SUMMARY**

- Seasoned technical and operations technologist who has successfully worked with high-growth, high-scale, high-performance and highly reliable systems, networks, network operations and teams while leading design, implementation and delivery of cutting edge technology safely
- Crisp and effective communicator, effective public speaker with strong interpersonal skills and work ethic

### **TECHNICAL**

- High Bandwidth Systems
- Virtualization AWS, KVM, OpenStack, VMware
- Multi-layer Software Development
- Dell, Supermicro, HP, IBM
- Linux, Ubuntu, FreeBSD, Windows
- BGP, IS-IS, OSPF
- SNMP, MySQL, Oracle, other DBs
- Reliability and Performance
- High BW Networking Engineering
- Systems and CDN Operations
- ISP and Network Engineering
- Massive Scalability
- Chef, CFEngine
- Cisco, Juniper, Foundry
- Brocade, EMC, Hitachi (HDS)
- Storage, SAN, NAS, iSCSI
- Chef, Redis, Postgres
- Logstash, Graphite, Statsd
- AWS, Rackspace, Softlayer
- Python, Perl, Bash, Python

### **EXPERIENCE**

#### **2012-2013 Aruba Networks**

##### **Sr. Manager, DevOps**

One of three senior leaders in a startup within Aruba to launch a SaaS Cloud offering. We are using Ubuntu, AWS, Rackspace, Softlayer, Graphite, Logstash, Chef, Postgres, Python, Redis, and Nagios to deploy a resilient automated system.

#### **2012 3Crowd Technologies/XDN, Inc.**

##### **Technology Operations**

One of three operations engineers in a 20 person company managing 200 servers and various systems and applications in a CDN and DNS/HTTP redirector highly available service. We used open source software on Ubuntu managed with Chef. 3Crowd's CrowdCache and CrowdDirector software is proprietary and the core of the business. Company closed after I left.

#### **2011-2012 FastDataDelivery**

##### **Founder**

Self-funded startup to move data from datacenter to datacenter using hardened RAID servers on wheels. Worked with Sungard, Limelight, and Akamai.

**2010 - 2011                      Alcatel-Lucent**  
**CTO Reliance Industries Limited (2011)**

Deputed to Reliance Industries Limited, India's largest private company by Alcatel-Lucent to guide planning and implementation of a broad network services company with working name "Infotel". This position is vendor-neutral and guiding Reliance on building a Tier-1 network including IP, LTE, Optical, WDM, Datacenters, Clouds, etc.

**Vice President, Enterprise Solutions (2010)**

Recruited to Alcatel-Lucent to help former boss build an Application Enablement Solution Practice. Managing a team of 20 developers, business strategists, and product managers for DataCenter Connect ("DCC"), Networking Partners and Enterprise Solutions.

**2004- 2009                      Internap Network Services (NASDAQ: INAP)**

**VP/GM, IP & CDN Business (2008-2009), VP Engineering & Products (2008), VP CDN Operations (2007), VP Engineering (2005-2007), Director Engineering (2004)**

CEO "right hand man" and fast riser responsible for all aspects of engineering, including network design, server design and engineering operations, software, network, product development. Initial focus on the FCP network appliance product development, manufacturing, fulfillment, and support. Designed and outsourced manufacturing for carrier-class CompactPCI Blade based network appliance. Developed 10Gbps packet sniffer extensible to 160gbps total traffic.

- Integrated acquisition of Vitalstream into Internap, running Technical Operations for Vitalstream CDN. Managed CDN NOC, CDN Engineering/Operations and CDN Development
- Introduced Peering into Internap's network strategy, reducing costs and increasing quality
- Grew company revenue with management team by over 75% in 5 years. Celebrated Internap's first profitable year on 10th anniversary.
- Grew managed server business from \$1.2M to \$5M annualized revenue
- Maintained CDN revenue despite cutthroat competition
- Optimized and scaled infrastructure technology, led team to develop innovative backbone integration network, network quality and performance assessment, metro ring networks, alternative last mile technologies, and other innovations to company technology
- Specific title changed over time:

**2002- 2004                      Rainier Global Communications, Inc.**

**Vice President Engineering**

Closely held profitable advertising funded hosting company where managed team of software, network and server engineers

- Built proprietary ad management system with automated purchase and provisioning
- Managed growth from 30mbps to 300mbps and 10k to 1.3M uniques/day in 18 months

**2001-2002                      Routing Loop Technology**

**Principal**

- Personal consulting company
- Clients included venture backed startups in San Francisco bay area, Boston, and Midwest

**2000 iVMG, netVMG**

**Principal**

- Founded startup in route optimization, raised \$10M from Accel partners, company sold to Internap

**1998-2000 Global Crossing, Frontier, GlobalCenter**

**Vice-President, IP Network Architecture and Engineering**

- Led first commercial deployment of IP/MPLS, IP/WDM, IP/OC-48c and IP/OC-192c
- Consolidated 3 acquired company networks and teams into single cost-efficient entity and grew team from 5 to 60 engineers
- Budget responsibility for network capital and OpEx/COGS at ~\$40MM
- Designed, planned, and deployed national and international green field networks

**1996-1998 UUNET Technologies**

**Network Engineer**

- Broad responsibilities in fast-growth technologically challenging company
- Backbone architecture, change Management for over 400 Routers, Peering Manager
- Pivotal to overcoming European Commission's objections to WorldCom's acquisition of MCI

**1994-1996 MIDNet, Global Internet**

**Technology Director, Network Engineer**

- Responsible for transition from NSFNet funded research network to commercial network
- Managed 100 routers and 50 Unix systems

## **EDUCATION**

**1991-1995**      **University of Nebraska, Lincoln**  
Computer Science and Chemical Engineering

## **PUBLISHED**

**NANOG 16**, May 1999: "Deploying a Greenfield Network using POS and MPLS"

**NANOG 17**, October, 1999: "MPLS BOF - Vendors, Deployment, and Practice"

**NANOG 17**, October, 1999: "Traffic Engineering Panel: Perspectives From Network Operators"

**OIF OIF-99.120**, October 1999: "Proposal for a Very Short Reach (VSR) OC-

**NANOG 18**, February 2000: "Evolution and Direction of IP Transport Systems"

192/STM-64 Interface based on Parallel Optics"

**IEEE Communications Magazine**, March/April 2000: "Traffic Engineering with MPLS in the Internet"

**IETF RFC 2873**, June, 2000: "TCP Processing of the IPv4 Precedence Field"

**IETF RFC 3210**, December, 2001: "Applicability Statement for Extensions to RSVP for LSP-Tunnels"