

# Siggi Bjarnason

[siggi@bjarnason.us](mailto:siggi@bjarnason.us) <http://www.supergeek.us>, Bellevue WA

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## **OBJECTIVE**

Leverage over 25 years of IT experience to help organizations keep their IT infrastructure and systems at maximum security, efficiency and effectiveness. My core values are accountability, integrity, reliability, drive and productivity. Expertise in secure design, routing, switching (Cisco, Juniper, etc.) and Network Management/Tooling as well as scripting and automation. Very comfortable with working on very high level and highly visible projects. Preference for fast paced challenging environments.

## **SUMMARY**

- Senior Network Engineer with BS in Computer Engineering and over 25 years in the IT industry, around 20 of them in networking
- Working towards Master of Science Cybersecurity and Information Assurance, expect to graduate in 2019.
- Proven ability to maintain large global networks including, MSNBC.com, Windows Live HotMail, Windows Live Search, Windows Live Messenger, Windows Live Identity (aka Passport), msn.com, live.com, microsoft.com, Clearwire and T-Mobile
- Expertise mostly in: Service Provider/Datacenter networks, with limited Corporate experience
- Expertise in all areas of onsite/remote networking and troubleshooting
- Trained in Kepner-Tregoe troubleshooting methodology
- ITIL Foundation certified
- Certified IT Architect
- Working towards Offensive Security Certified professional, penetration testing with Kali Linux, expect to be certified by end of 2017
- Very Security and Compliance minded, with focus on availability, redundancy, reliability, disaster preparedness and disaster recovery.
- Very passionate about technology and its proper use as well as learning new technologies
- Love to solve problems and find solutions to unique and challenging problem
- Based on experience already have a solution to many of the not so unique problems
- Strong experience with architecting, designing and implementing highly available networks with strictly enforced SLA's
- Love to automate as much feasible/practical, ideally everything
- Very comfortable scripting custom solution in PHP, Python, Perl and VBScript and using MySQL database for data analysis where appropriate.
- Experience with running Vendor and product selection.
- Big on automating repeatable tasks either using off the shelf products or custom scripts
- Constantly looking for opportunities to improve both myself and customers network
- Past server management experience, plus side projects, supplements network expertise to allow for a complete end to end understanding of internet service (entire OSI stack)
- Solid understanding of datacenter operations
- Solid experience with Network Management and tooling
- Passionate about disaster preparedness, disaster recovery, etc.

## EXPERIENCE

### **T-MOBILE US INC., BELLEVUE WA**

10/11 - Present (FTE)

#### **Senior Network Engineer Core IP Service Delivery Engineering (2/16- present)**

- After completing my rotational assignment I'm back in the service delivery group managing deployment projects for various business units.
- Helping Service Delivery Engineer become more comfortable with automation, by training fellow team member as well as members of other teams in how to use HPNA to make bulk changes.
- Working on a project to standardize, document and automate 400+ line ACL across 120 routers. Currently ACL is wildly inconsistent and no one understands it. Changes to it are currently totally manual taking over 200-man hours to complete over a period of 4 weeks. Working to bring that down to around 5-man hours over a period of 5 days.
- T-Mobile ERT Building/floor co-captain as well as the chair of the T-Mobile Safety committee.

#### **Senior Network Engineer Signaling System Engineering (8/15 – 1/16)**

- Was selected for a rotational development program where you get assigned to a team you have little to no experience with and get six months to get up to speed on whatever that team is responsible for.
- Assigned to team that handles all the SS7, Sigtran, SIP peering, ENUM, LNP and SRF/SRP.
- Wrote a comprehensive engineering document packet for their ENUM system, including documenting all connectivity, Reference Design and training deck.
- ENUM is also known as ITU E.164. Their ENUM system handles Local Number Portability (LNP), SIP Routing Function (SRF) and SIP Routing Proxy (SRP).

#### **Senior Network Engineer Core IP Service Delivery Engineering (10/11 – 7/15)**

- Responsible for design and implementation of the core routing between all the mobility platforms (Packet core) enabling cellphones to get to the internet. This includes routing for devices such as SGSN, GGSN, MME and S/P Gateway. This involves a lot of work configuring eBGP internally on Cisco ASR9K running IOS-XR
- Integral member of the team that rolled out the initial LTE network at T-Mobile, hailed by many as fastest nationwide rollout of LTE by any US carrier. Project came in under budget and ahead of schedule.
- Subject matter expert for routing aspects of SGSN's, MME's and Private APN partner connections.
- Deployed 28 Nokia ATCA MME's to 20+ locations in just over 2 months. Was able to meet super aggressive timelines through the use of automation scripting which cut the timeline to deploy in third.
- Designed and lab tested new network design for connecting Private APN partners, in partnership with partners. This new design provided them with much needed flexibility and resiliency
- Designed, lab tested and managed a FOA implementation for a brand-new Cisco ASR 5500 GGSN/S&P Gateway. Received an award for how fast and smoothly it went.
- Promoted to Lead Engineer in August 2014, leading two other full time engineers involved with Packet Core, in addition to various borrowed regional resources and temporary contactors.
- Member of T-Mobile Emergency Response team (ERT). Working with ERT leadership to setup an Amateur Radio support group for emergency communications, registering with FCC and establishing partnership with City of Bellevue Office of Emergency Management as well as the American Red Cross.

### **DENALI ADVANCED INTEGRATION, REDMOND WA**

4/11 – 10/11 (FTE)

#### **Senior Network Engineer**

- Member of their professional services team going to customer's sites and solving their issues.
- Was requested by Microsoft to be placed on their account to help them build out their online services using Cisco Catalyst 6500, Catalyst 4848, Cisco Nexus 7K and Juniper MX960.

**Network Engineer**

- As a member of the Core Network Design Engineering worked on design and architecture projects to upgrade existing core network. Also worked with commissioning engineering to build out new sites.
- Worked as a SME representing the Core networking in selection of new tooling.
- SME for one-off legacy networks. Redesigned them to bring more redundancy and manageability to these networks.
- Proposed an alternative to the new high capacity core design that would save the company \$130K per new site without compromise in performance, availability or redundancy.
- Recruited to work as full-time employee after excellent performance reviews as a contractor.
- Developed a device inventory system with Perl, PHP and MySQL to respond to inventory audit requirement that scanned specified network ranges for active devices then used SNMP to gather detailed inventory information on that device.
- Used Cisco 7600, Juniper MX960, Juniper EX series, Ciena 5305

**ALASKA AIR GROUP, SEATAC WA**

2/09 – 10/09 (Volt Contractor via Qwest)

**Senior Network Engineer**

- Maintained and operate their corporate wide network including datacenters, terminals and corporate offices. Network consisted of Cisco catalyst 2960 and 3750 switches as well as Cisco 2800 and 3800 routers with Cisco Catalyst 6509 at their core.
- Member of a team that redesigned/re-architecture and upgraded their network using Cisco products including building out a new core with Cisco Catalyst 6509, aggregation layer with 3750 and 2960 at the access layer.
- Redid an upgrade design for their flight operation building that saved the company over 60% over the previous design without compromising features, performance or reliability requirements. Project on hold due budget issues.
- Evaluated new tooling. Installed and configured the selected tools
- Documented their network using Microsoft Visio, including datacenter, operations, corporate network and airport network.
- Participated in the 24x7 on call rotation
- Managed IP addressing via Diamond IP's IPControl as well as DNS entries via Microsoft DNS services and F5 GTM.

**CRANE CO, AEROSPACE GROUP, LYNNWOOD, WA**

9/08 - 2/09 (Contractor through CDI Corp)

**Senior Network Engineer**

- Documented and inventoried existing network where none existed using Microsoft Visio
- Implemented Cisco ASA 5520 as Site to Site VPN and migrated corpnet traffic onto it.
- Evaluated devices for new network architecture standard
- Redesigned existing network for improved reliability and stability
- Maintained and operated their entire corporate network as their only network engineer. Network consisted of Cisco 3550 as the core routers and Dell Power Connect Switches at the access layer.

**MICROSOFT CORPORATION, Redmond, WA**

3/95 - 9/08 (FTE &amp; Contractor)

**Network Engineer (02/06 – 09/08) [FTE]**

- Performed proactive problem analysis for the network that supports most of Microsoft's internet presence, including Hotmail. Messenger and Windows Update. Analysis used mixture of home grown tools, Network General Sniffers and Wireshark. Responsible for providing root cause analysis for any outage that occurred.
- Served as escalation point for the network incident management team
- Served as Capacity Management and switching subject matter expert
- Participated in virtual teams responsible for on-boarding new device and technology including Juniper T-640 and Foundry Switches.

- Participated in security and compliance virtual teams
- Supported one of the largest datacenter networks in the world, with one of top internet egress volumes running on Juniper T-640 at the core and variety of Cisco switches and routers in the none-core parts. Predominately Cisco Catalyst 6509, Cisco Catalyst 4948, Cisco 3800, Cisco 7200, Cisco 7600, Cisco 12000, and Cisco 7500.
- Participated in 24x7 on call rotation

#### **Network Engineer (7/04 – 02/06) [Contractor & FTE]**

- As a member of the network incident management team, ensured health and continuity of networks for services that serve hundreds of millions of people around the world, including Hotmail, MSN Instant Messenger, and MSN Search. This network runs on Juniper T-640 at the core and variety of Cisco switches and routers in the none-core parts. Predominately Cisco Catalyst 6509, Cisco Catalyst 4948, Cisco 3800, Cisco 7200, Cisco 7600 and Cisco 12000. Participated in the on-boarding of F5 BigIP 6800 LTM, received 80 hours' worth of training and operationally supported them.
- Respond to network alarms across the world and provide remote resolutions to MSN Networking communities in 5 countries on 3 continents.
- Recruited to work as full-time employee after excellent performance reviews as a contractor.
- Team was staffed 24x7 and did not have on call rotation. Worked both 2<sup>nd</sup> and third shift.

### **EDUCATION**

**PACIFIC LUTHERAN UNIVERSITY**, Tacoma, WA: *BS in Computer Engineering*, 1994

#### **OTHER:**

- Trained in Kepner-Tregoe troubleshooting methodology
- ITIL Foundation certified
- Certified IT Architect
- CPR, AED and First Aid certified
- Amateur Radio Operator, General Class. Call sign W7RTF
- FEMA Certifications: CERT, ICS100, ICS 200, ICS 300, ICS 300, NIMS 700, NIMS 800, COML, + more

### **MISCELLANEOUS**

#### **HOBBIES AND INTERESTS:**

- Web development using PHP and MySQL
- Scripting in Python, VBScript and Perl. Library available at <https://bitbucket.org/siggib007/>
- Learning Linux, Development methodologies and other IT topics
- Ballroom, Latin and Country Western style dancing
- Live Theater and music performances
- Staying up on the latest trends in Cyber security
- Electronics designs using Arduino and Raspberry Pi.
- Learning about AWS, Serverless Design and Digital Architecture.

#### **VOLUNTEER ACTIVITIES:**

- Bellevue Communication Support Group (BCS) part of City of Bellevue Emergency management
- American Red Cross, Mass Care and Disaster Services Technology Volunteer
- King County Emergency Coordination Center Support Team volunteer
- King County Public Health Reserve Core, Medical Support Team volunteer

#### **OTHER:**

- Author of Subnet calculator and other tools on <http://www.icecomputing.com>