

Golden, CO USA  
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# JOELLE TORI MASLAK

## Technical Leader · Network Engineer

GitHub: jmaslak  
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Network engineering and cloud computing professional with leadership and people-management experience. Experienced with designing, developing, and managing complex systems in the cloud-scale, enterprise, telecommunications, and government sectors. Technical background includes network protocol development, database management, network engineering, information security, devops, network operations and software engineering. Management background includes customer-focused management of Network Operations Center (NOC), network engineers, and IT support staff. Leadership experience includes leading teams consisting of operations personnel, IT support staff, network engineers, and tradespeople. Strong believer in the power of diverse teams.

### Skills

<b>Soft Skills</b>	Technical Writing, Public Speaking, People-Management, Global Teams, Diversity & Inclusion
<b>Technical Domains</b>	Network Engineering/Architecture, Information Security, Devops, Software Engineering, IT and Network Operations, Embedded Software
<b>Tools and Languages</b>	Python, Git, SQL, C, Raku, Perl, MS .NET, Puppet, LaTeX
<b>Networking</b>	BGP, IS-IS, OSPF, IPv4/IPv6, DNS, VoIP, Routing Switching, Firewalls, DNS, DHCP, LDAP
<b>Vendors and OSeS</b>	Arista, Cisco, Juniper, Linux, Microsoft Windows, Apple OS X

### Technical Experience

#### Senior Network Engineer

Feb. 2019 — Present

*Netflix*

*Remote*

- Automate router and switch configuration using Python and internal management framework tools
- Manage day-to-day operations of Netflix backbone, peering connectivity, and internal corporate hand-offs
- Optimize network monitoring system to provide visibility into network reliability, incidents, and performance
- Implement router and switch configurations for Arista and Juniper devices
- Respond to streaming incidents and perform deep-dive analysis of quality of experience impacts
- Actively support diversity and inclusion initiatives, through cross-functional work with executive management, human resources, and content/creative teams

#### Lead Network Engineer (Previously Senior Network Engineer)

July 2011 — Feb. 2019

*CenturyLink / Former Level 3 Communications*

*Broomfield, CO*

- Collaborated with operations, development, sales, customer support, and other teams to transfer knowledge and support content distribution network (CDN)
- Improved efficiency throughout 150+ site, 15,000+ server, world-wide, top-tier CDN
- Provided expert advice to other business units about internet structure and interconnection, with focus on optimization of content delivery across multiple peer, customer, and transit networks
- Develop custom custom BGP route collector (including implementation of BGP protocol at the byte level) and processing infrastructure to allow third party ISPs to signal content delivery preferences
- Lead system engineer for CDN DNS global load balancing and rendezvous system

#### Consultant (Part-Time)

Apr. 2012 — Feb. 2013

#### Director of Information Technology

Oct. 2009 — June 2011

#### Senior System Administrator

Dec. 2008 — Oct. 2009

*Local Matters, Inc.*

*Denver, CO*

- Promoted from Senior System Administrator to director of information technology team
- Managed Information Technology department, including oversight of IT staff, planning, and direction
- Mentored team members in technical skills, such as Unix/Linux, Apache, Perl, and networking
- Managed vendor relationships for IT equipment and services, optimizing for cost-savings
- Extended configuration management environment to create full audit capability for system administration work, utilizing Puppet
- Developed custom on-demand portal to allow development and QA organizations to start and stop new AWS instances as necessary
- Installed and configured multi-site storage area network based on NetApp appliances

#### Network Engineering and Operations Supervisor

May 2008 — Dec. 2008

#### Database Administrator

May 2004 — May 2008

#### Information Security Engineer (PKI)

Oct. 2001 — Apr. 2004

*State of Wyoming Dept. of Administration & Information*

*Cheyenne, WY*

- Promoted to network management from senior technologist position based on technical skill
- Managed staff responsible for architecture, engineering, and operations of the State of Wyoming executive branch network, including network engineers, low voltage electricians, and network operators
- Oversaw 24x7 support of State network functions

- Responsible for annual budget including salary, hardware, support, and circuit expenses
- Participated in state-wide technology leadership committees
- Partnered with judicial, legislative, and educational counterparts, to provide cost-savings to the State's four independent government branches
- Wrote policies and procedures for Public Key Infrastructure (PKI), including initial development of Certificate Policy, practices documentation, and technical documentation with goal of Federal PKI (FPKI) integration
- Created State of Wyoming border security architecture, utilizing Checkpoint firewalls and VPN edge devices
- Implemented distributed intrusion detection system (IDS)
- Developed initial architecture for Wyoming E-Government initiative's single sign-on (SSO) system for citizens and employees
- Participated in budget and rate-setting processes
- Managed and optimized Microsoft SQL (MSSQL) system
- Developed custom SQL queries, reports, and Transact-SQL (T/SQL) packages to support internal systems and developers
- Provided internal support as subject matter expert in network design, security, Windows/Microsoft application architecture, database management, intrusion detection/prevention, forensic analysis, data center operations, and internet protocols

### Senior Software Engineer

Sep. 2000 — Oct. 2001

*MotionGrid*

*Laramie, WY*

- Mentored junior development staff
- Developed J2EE compliant web applications, utilizing WebLogic, Enterprise Java Beans (EJB), and Java Servlet Pages (JSP)
- Administered Unix and Windows systems to support development staff
- Engineered Microsoft Internet Information Services (IIS) web applications using ASP with COM components
- Initiated sound software engineering practices throughout organization, such as version control of code and database objects, separate build and production environments, and defect tracking

### Fraud Detection and Billing Engineer

Oct. 1999 — Sep. 2000

*Affinia, Inc.*

*Denver, CO*

- Designed and developed e-commerce advertising fraud detection system
- Implemented custom billing and payment system, integrating with Solomon accounting system
- Developed Perl-based statistical anomaly detection software
- Performed data warehousing tasks using Oracle RDBMS, through PL/SQL procedure and report creation
- Served as peer lead for cross-functional teams during fraud detection, billing, and payment processes

### Technical Lead

May 1998 — Oct. 1999

*UPDATE Systems, Inc.*

*Boulder, CO*

- Hired as the first employee by company president
- Established network and communication systems in initial business location
- Oversaw development and functional requirement gathering during first two versions of flagship software product
- Implemented web software and Unix daemons in Perl on Linux, FreeBSD, and BSDi
- Managed day-to-day IT needs, including email, corporate web presence, security, and Windows client functionality

### Software Engineer and Network Administrator

Jan. 1996 — May 1998

*Wind River Visual Communication*

*Laramie, WY*

- Created and managed web hosting environment, including management of web servers, routers, switches, and firewalls
- Managed Mac, Windows, Linux, and FreeBSD servers and workstations
- Wrote web-based software in Visual Basic using Application Server Pages (ASP)

## Education

Majoring in Gender, Women, and Sexuality Studies, *Metropolitan State University of Denver*

Summer 2021 — Present

Bachelor of Arts in Computer Science, *Thomas Edison State College*

Sept. 2011

## Service

Netflix Trans\* Employee Resource Group: *Global Lead*

2021 — Present

Netflix Accessibility/Mental Health Employee Resource Group Neurodiversity Pod: *Founder/Lead*

2021 — Present

Academic Autism Spectrum Research Partnership in Research and Education: *Community Council Member*

2016 — Present

*Autism in Adulthood (Journal)*: *Peer Reviewer*

2019 — Present

Denver Area Trans Autistic Support Group: *Co-founder and Facilitator*

2020 — Present

University of Colorado School of Medicine: *Transgender Standardized Patient*

2019 — Present

Netflix Trans\* Employee Resource Group: *Global Vice-President*

2020 — 2021

Transgender Center of the Rockies: *Support Group Facilitator*

2019 — 2021

## U.S. Patents

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- Maslak, J. T. (2021, August 3). *System and method for correlating routing protocol information* (U.S. pat. 11,082,394 B2).
- Maslak, J. T. (2021, March 16). *Systems and methods for adjusting a congestion window value of a content delivery network* (U.S. pat. 10,951,530 B2).
- Maslak, J. T. (2021, April 13). *Systems and methods for utilization of anycast techniques in a DNS architecture* (U.S. pat. 10,979,387 B2).
- Maslak, J. T., Williamson, T. J., & Brady, K. (2021, May 18). *System and method for scrubbing DNS in a telecommunications network to mitigate attacks* (U.S. pat. 11,012,467 B2).
- Hopkins, W., & Maslak, J. T. (2020, December 1). *DNS rendezvous localization* (U.S. pat. 10,855,646 B2).
- Maslak, J. T. (2020, September 8). *Anycast routing techniques in a network* (U.S. pat. 10,771,540 B2).
- Maslak, J. T. (2020, March 24). *System and method for correlating routing protocol information* (U.S. pat. 10,601,770 B2).
- Maslak, J. T. (2020, December 1). *System and method for determining capacity of a telecommunications network* (U.S. pat. 10,855,591 B2).
- Maslak, J. T. (2020, October 27). *Systems and methods for content server rendezvous in a dual stack protocol network* (U.S. pat. 10,819,673 B2).
- Maslak, J. T., & Johns, K. C. (2020, February 25). *Anycast manifest retrieval, unicast content retrieval* (U.S. pat. 10,575,167 B2).
- Maslak, J. T., & Johns, K. C. (2020, July 7). *Anycast manifest retrieval, unicast content retrieval* (U.S. pat. 10,708,767 B2).
- Hopkins, W., & Maslak, J. T. (2019, August 27). *DNS rendezvous localization* (U.S. pat. 10,397,180 B2).
- Johns, K. C., Lawrence, J. C., & Maslak, J. T. (2019, February 19). *Selecting a content providing server in a content delivery network* (U.S. pat. 10,212,238 B2).
- Maslak, J. T. (2019, October 1). *Anycast routing techniques in a network* (U.S. pat. 10,432,710 B2).
- Maslak, J. T. (2019, March 12). *System and method for correlating routing protocol information* (U.S. pat. 10,230,686 B2).
- Maslak, J. T. (2019, December 17). *Systems and methods for adjusting a congestion window value of a content delivery network* (U.S. pat. 10,511,533 B2).
- Maslak, J. T., & Johns, K. C. (2019, July 2). *Anycast manifest retrieval, unicast content retrieval* (U.S. pat. 10,341,849 B2).
- Maslak, J. T., & Lawrence, J. C. (2019, October 22). *Content delivery system and method using anycast or unicast address* (U.S. pat. 10,455,030 B2).
- Hopkins, W., & Maslak, J. T. (2018, October 16). *DNS rendezvous localization* (U.S. pat. 10,104,036 B2).
- Maslak, J. T. (2018, September 4). *Geolocation via internet protocol* (U.S. pat. 10,069,792 B2).
- Maslak, J. C. (2017, August 22). *Geolocation via internet protocol* (U.S. pat. 9,742,731 B2).
- Maslak, J. C. (2017, May 30). *Multi-peer routing in a network* (U.S. pat. 9,667,535 B2).

Note: Joelle Maslak changed her name in 2018.

## Peer-Reviewed Publications

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- Nicolaidis, C., Raymaker, D. M., McDonald, K. E., Lund, E. M., Leotti, S., Kapp, S. K., Katz, M., Beers, L. M., Kripke, C., Maslak, J., Hunter, M., & Zhen, K. Y. (2020). Creating accessible survey instruments for use with autistic adults and people with intellectual disability: Lessons learned and recommendations. *Autism in Adulthood*, 2(1), 61–76. <https://doi.org/10.1089/aut.2019.0074>
- Nicolaidis, C., Schnider, G., Lee, J., Raymaker, D. M., Kapp, S. K., Croen, L. A., Urbanowicz, A., & Maslak, J. (2020). Development and psychometric testing of the AASPIRE adult autism healthcare provider self-efficacy scale. *Autism : the international journal of research and practice*, 25(3), 767–773. <https://doi.org/10.1177/1362361320949734>
- Nicolaidis, C., Zhen, K. Y., Lee, J., Raymaker, D. M., Kapp, S. K., Croen, L. A., Urbanowicz, A., Maslak, J., & Scharer, M. (2020). Psychometric testing of a set of patient-reported instruments to assess healthcare interventions for autistic adults. *Autism : the international journal of research and practice*, 25(3), 786–799. <https://doi.org/10.1177/1362361320967178>
- Nicolaidis, C., Raymaker, D., Kapp, S. K., Baggs, A., Ashkenazy, E., McDonald, K., Weiner, M., Maslak, J., Hunter, M., & Joyce, A. (2019). The AASPIRE practice-based guidelines for the inclusion of autistic adults in research as co-researchers and study participants. *Autism : the international journal of research and practice*, 23(8), 2007–2019. <https://doi.org/10.1177/1362361319830523>

## Conference Presentations

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- Maslak, J. T. (2021, June). *Designing an 'In-Meeting' indicator with Raku* [Conference presentation]. esLibre, Spain via Zoom.
- Maslak, J. T. (2021, June). *Making life better with software* [Conference session]. Perl and Raku Conference in the Cloud, Virtual.
- Maslak, J. T. (2019, March). *Overlapping identities: Gender diversity among autistic adults* [Conference session]. Transforming Gender Conference, Boulder, CO, USA.
- Maslak, J. T. (2018, June). *Open up your open source modules* [Lightning talk]. The Perl Conference, Salt Lake City, UT, USA.
- Maslak, J. T. (2018, June). *You're not wanted here!* [Conference session]. The Perl Conference, Salt Lake City, UT, USA.
- Maslak, J. T. (2018, August). *You're not wanted here!* [Conference session]. YAPC EU, Glasgow, UK.