

# Jonathan Senecal

Talented technological solution architect and project manager located in Montreal

My personal mission is to make things, fix stuff and help others... I just happened to love working with high tech stuff so it became my area of expertise.

I am a detail oriented and challenge driven person with over 10 years of experience in **telecommunications, server infrastructures and carrier-grade network design & build** so let's talk about how I could help you achieve what you dream of.

## Personal Info

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## Expertise



### Infrastructure Design

Telecommunications, server infrastructures and carrier-grade network design & build have no secrets for me.



### Software Development

Bleeding edge software technologies have also become parts of my toolset to create powerful and unique infrastructures.



### Modern Cloud & AI Technologies

Experienced with Kubernetes orchestration, GitOps with FluxCD, and Large Language Model integration for automation and intelligent systems.

## My Resume

### Experience



#### Manager, NOC Architecture and Operations - Metro Optic

April 2022 – Now

Going back to my roots, I manage and scale the network environment at Metro Optic, leveraging Juniper MX, ACX and QFX platforms with mixed MPLS and EVPN architectures for continued growth and performance.

Initiated and now lead efforts to automate infrastructure and network processes, enhancing turnaround speed and optimizing topology efficiency.

#### Manager, Network Infrastructure and Infrastructure automation - 9219-1568 Quebec Inc.

April 2020 – April 2022

Working with a team of network gurus, I managed and scaled the network footprint using Juniper MX/QFX platforms with advanced EVPN-VXLAN and MPLS Transport configurations.

I was responsible for building and maintaining carrier-grade networks with dual-stack IPv4/IPv6, VPLS services, and L2Circuits across multiple autonomous systems (multi-AS BGP).

I also initiated and managed the automation of everything networking to enable faster turnarounds and more efficient topologies, particularly for complex MPLS service provisioning.

#### Key achievements:

- Maintaining and administering networks and related environments including automation software, hardware, and configurations.
- Troubleshooting, diagnosing and resolving hardware, software, and other network related problems.

### Technical Skills



#### Multi-AS BGP & Advanced Routing (IPv4/IPv6)

#### Juniper EVPN-MPLS/VXLAN & MPLS Services

#### Kubernetes & Container Orchestration

#### Optical Networking (CWDM/DWDM)

#### Server Infrastructures and virtualization

#### LLMs & AI Integration

#### DevOps & Infrastructure as Code

#### Analytical thinking & Research

#### Project Management

## ● Head of Research and Developpement – Connect it Networks

February 2018 – April 2020

Connect it Networks had an opportunity to expand their portfolio into Cloud and Connectivity services which I designed.

Doing so, I drove new business growth and customer success by providing business expertise.

I worked at improving business critical processes and related infrastructure to enable the company to withstand future growth and to solve complex problems; taking technology, people, process, culture and desired results into account.

I also automated various business processes that enabled a leaner and more efficient approach to provisioning and support.

### Key achievements:

- Ensured that applications met business requirements and systems goals and that they fulfilled business and customer requirements
- Reviewed and analyzed existing applications effectiveness and efficiency, and then developed strategies for improving or leveraging these systems
- Researched and made recommendations on both hardware and software products and services in support of procurement and development efforts
- Provided technical direction and best practices to be followed by the team

## ● Director of technology – ZAP Cooperative de solidarité

August 2017 – September 2018

Responsible for complete restructuring and scalability of all technology infrastructure to enable ZAP's next growth phase.

Designed new software platform to reduce operational costs while improving user experience.

### Key achievements:

- Managed and improved a business critical infrastructure providing services to 100k+ end users
- Restructured the business processes to enable ZAP to be more agile in its deliveries
- Performed a migration to the cloud for some business critical systems

## ● Director, Networking, Systems and Infrastructure – EBOX inc.

December 2016 – May 2017

Responsible for restructuring and scaling all IT infrastructure during EBOX's tremendous growth phase, ensuring systems and networks could handle the increased demand.

Led the team responsible for new datacenter construction, working with vendors and contractors to ensure it would withstand future growth for years to come.

Managed the development team and designed a Python-based authentication and access control system for client-facing services, with subscription-based content restrictions and device limiting capabilities designed for extreme scalability.

Upgraded infrastructure for value-added services using Juniper platforms with EVPN-MPLS, VPLS, and L2/L3 VPN technologies.

### Key achievements:

- Managed and improved business critical infrastructure providing services to 100k+ clients
- Designed and managed the construction of a datacenter using state-of-the-art equipment and technologies
- Initiated software development projects that enabled new service delivery and business growth
- Introduced DevOps toolchain concepts to the development team for more reliable application development

## Professional Skills



### Interpersonal Skills

### Leadership & Teamwork

### Adaptability

### Ability to Work Under Pressure

## Skill set



Responsible    Diligent    Loyal

Efficient    Team player    Flexible  
Quick Learner

Data analysis    Conflict resolution

Planning    Creativity    Adaptability  
Leadership    Team work

CAD    Electronics    SolidWorks  
OnShape    3D printing

Python    Shell scripting    Git  
Machine learning    Graph Databases  
PostgreSQL    GIS    Linux    VMware  
Virtualization    Docker    Ansible  
Infrastructure as Code

Distributed computing    Kubernetes  
FluxCD    LLMs    AI Integration

Juniper MX/QFX/ACX/SRX

EVPN-MPLS    EVPN-VXLAN

MPLS Transport    VPLS    L2Circuits  
BGP    IPv4/IPv6    OSPF

Traffic Engineering

Network Automation    QoS

Optical networking    VPN    Security

## ● Director, Research and Developpement – Pre2Post Inc. / ZEROFAIL

March 2015 – December 2016

{"Primary achievement" => "Designed and built a complex Network Operations and Business Support System (OSS/BSS) that transformed operations."}

Developed a scalable, asynchronous RPC system using ZeroMQ messaging library allowing dynamic worker scaling without client reconfiguration. Implementation leveraged Python's async/await syntax and asynchronous iterator protocol.

Integrated DataStax Enterprise Graph database system for powerful operational queries, with team contributing to the open-source Goblin project for DSE interface.

These R&D projects enabled ZEROFAIL to reach new efficiency levels and unlock revenue sources.

### Key achievements:

- Initiated and managed Research and development projects that provided new methods, solutions and improvement on existing services
- Designed and led the development of a complex Network Operations and Business Support System

## ● Director, Network Management Group – Pre2Post Inc. / ZEROFAIL

July 2010 – March 2015

During Montreal's telecom market boom, built an extensive MPLS network across Canada and northern USA using cutting-edge Cisco and Juniper routers, establishing ZEROFAIL as a trusted connectivity provider.

Designed the network with comprehensive contingency planning and redundancy to ensure zero failures - living up to the company name.

With the CTO, designed and built Montreal's most extensive private wireless network for highly available connectivity services.

Later expanded the portfolio with fiber connectivity services leveraging the network architecture I had established.

### Key achievements:

- Initiated and managed Research and development projects that provided new services and technologies that helped grow the business
- Did the management and planning of a very complex MPLS network
- Implemented and managed business processes to allow for greater efficiency
- Lead teams consisting of many ad-hoc technicians working in many departments

## ● Network and systems administrator / Tech. Support – Pre2Post Inc. / ZEROFAIL

May 2008 – July 2010

Started in technical support where I quickly became the go-to person for complex problem resolution.

Progressed to infrastructure management after demonstrating extensive knowledge of company systems.

### Key achievements:

- Operated multisite networks and managed infrastructure for multiple client companies under SLAs
- Configured servers and network devices to support infrastructure growth
- Provided outstanding technical support to customers

## Languages



English

French

## Education



### ● Electrical engineering degree (incomplete) – École de technologie supérieure

Due to increasing responsibilities at ZEROFAIL, it became impossible to attend courses and achieve results meeting my personal standards. May resume the program in the future.

### ● Computer Science Degree - Networking specialization – Collège Montmorency

2003 – 2008

Successfully completed program. Achieved top grades in networking specialization - ranked first in cohort.