
Non Union

Job Title: Senior Network and Infrastructure Architect

Job Opening Id: 43445

Required: 1

Business Unit: Corporate Services

Division: IT Solutions - Facilities

Location: Regional Headquarters

Standard Hours: 35.00 / week

Full/Part Time: Full-Time

Regular/Temporary: Regular

Salary Grade: 7

Salary Range: \$115,940.00 - \$136,400.00

Post Date: 2025-09-19

Close Date: 2025-10-02

This position currently falls within our hybrid model, allowing the employee to typically work a minimum of 50% of your time at your regular work location and the other 50% of time at home.

As an employer of choice, Niagara Region offers competitive salaries and benefits, a defined benefit pension plan, a corporate wellness centre, access to the Employee and Family Assistance Program (EFAP), mentorship and training programs, employee recognition programs, and more. In addition, the Region recognizes the value of having flexible work arrangements to support better work-life balance for our employees. Hybrid work arrangements may vary from one employee to another and may also differ in the number of remote workdays. These opportunities remain subject to the alignment of operational needs, business requirements, and customer service expectations.

ABOUT US

Serving a diverse urban and rural population of more than 475,000, Niagara Region is focused on building a strong and prosperous Niagara. Working collaboratively with 12 local area municipalities and numerous community partners, the Region delivers a range of high-quality programs and services to support and advance the well-being of individuals, families and communities within its boundaries. Nestled between the great lakes of Erie and Ontario, the Niagara peninsula features some of Canada's most fertile agricultural land, the majesty of Niagara Falls and communities that are rich in both history and recreational and cultural opportunities. Niagara boasts dynamic modern cities, Canada's most developed wine industry, a temperate climate, extraordinary theatre, and some of Ontario's most breathtaking countryside. An international destination with easy access to its binational U.S. neighbour New York State, Niagara attracts over 14 million visitors annually, as well as a steady stream of new residents and businesses.

At Niagara Region, we value diversity - in background and experience. We are proud to be an equal opportunity employer. We aspire to hire and grow a workforce reflective of the diverse community we serve. By doing so, we can deliver better programs and services across Niagara.

We welcome all applicants! For more information about diversity, equity, and inclusion at Niagara Region, email related questions to diversity@niagararegion.ca. To send input on reducing barriers in the current hiring process, please email myhr@niagararegion.ca

Don't have every qualification?

You may be hesitant to apply if you do not have every qualification listed in the posting. While specific qualifications are important for certain roles, we invite individuals from diverse backgrounds and varying levels of experience and education to apply. Our recruiters will evaluate your suitability for the role.

Please note that for unionized roles, we must follow collective agreement requirements. However, we encourage all interested candidates to submit their applications. We believe success in a role can extend beyond meeting every single requirement.

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Job Summary

Salary Pending Review

Reporting to the Manager of Infrastructure and Telecommunications, the Senior Enterprise Network & IT Infrastructure Architect is responsible for the design, implementation, maintenance, and support of the organization's enterprise network and infrastructure systems. This role ensures the stability, integrity, security, and efficient operation of mission-critical IT systems that support core organizational functions across all Regional Departments, Agencies, Boards and Commissions (ABCs), and other shared service partners.

This position combines deep technical expertise in network engineering and IT Infrastructure Architecture. It requires strategic leadership related to data centers, cloud platforms, virtualization, storage, and enterprise systems.

The Senior Enterprise Network & IT Infrastructure Architect plays a key role in shaping the long-term technology roadmap, ensuring alignment with business goals, and driving innovation in infrastructure services. This includes leading cloud adoption strategies, managing hybrid and multi-cloud environments, and ensuring secure, scalable cloud infrastructure aligned with organizational goals.

Education

- Bachelor's degree in information technology, Computer Science, related discipline and/or equivalent combination of education and experience.

Knowledge

- Minimum 8 -10 years' experience in a medium-to-large-sized IT infrastructure enterprise network environment.
- In-depth knowledge of data centers coupled with business continuity and disaster recovery planning.
- Advanced knowledge of Enterprise LAN/WAN/Wireless/SD-WAN/ Vlan and VXLAN technologies and methodologies, networking products such as Avaya and Aruba, LSVPN, Routers & switches, firewalls, and familiar with business continuity/disaster recovery strategies.
- In-depth understanding of network protocols such as TCP/IP, BGP, OSPF, EIGRP, MPLS, STP, QoS.
- Experience working with network monitoring & management tools.
- Other Certifications, Cisco CCNP, Aruba ACMP, ACSP, CWNE, VMware VCP-DCV, Microsoft Certified: Azure Solutions Architect Expert, PMP or others are preferred.

Responsibilities

Network Architecture and Engineering (35% of time)

- Oversee daily operations of the region's data centers and network infrastructure, ensuring all components like routers, switches, firewalls, and data center systems function optimally for service continuity and performance. Manage system reviews, routine maintenance, updates, high availability, failover capabilities, and disaster recovery protocols to support business continuity.
- Monitor LAN/WAN, VPN, and wireless network health using monitoring tools to ensure proactive issue detection and resolution. This involves configuring monitoring platforms, setting alerts for key performance indicators such as CPU/memory usage and link status, and analyzing real-time and historical data to anticipate problems. Additionally, wireless access points are monitored for performance, signal coverage, and interference to maintain reliable connectivity.
- Track and optimize bandwidth usage, latency, and up time by regularly analyzing performance metrics and proactively addressing anomalies. This includes assessing application latency, ensuring SLAs for uptime are met, and swiftly correcting issues like packet drops or routing loops. Additionally, generate performance reports and recommend infrastructure upgrades or reconfigurations as needed to maintain optimal network performance.
- Coordinate with ISPs and vendors to resolve hardware and service-related issues by logging incidents, escalating problems, and tracking resolution progress. Verify contractual service metrics like throughput and latency while managing hardware lifecycle through RMAs, firmware updates, and replacements. Additionally,

participate in vendor meetings to review support trends, conduct root cause analyses, and plan service improvements.

- Optimize network throughput and QoS configurations by analyzing traffic patterns to identify bottlenecks and fine-tuning policies to prioritize critical applications like VoIP and video conferencing. Collaborate with architecture teams to design scalable network solutions that support evolving business needs and address congestion or routing inefficiencies.

Infrastructure Architecture & Strategy (35% of time)

- Provide advanced technical support, mentorship and guidance to the IT Infrastructure team, acting as the escalation point for complex issues involving the IT networks and back-end, IT Infrastructure, Server-class operating systems, and Enterprise software applications.
- Design hybrid and multi-cloud Infrastructure architectures using platforms like Microsoft Azure
- Lead Cloud Migration initiatives for legacy systems and manage cloud cost optimization and resource scaling strategies.
- Troubleshoot and resolve complex issues and problems related to the organization's IT Infrastructure and its integration with the LAN/WAN. Offering expert guidance on configurations, interoperability, and best practices.
- Install, configure, and maintain routers, switches, and network monitoring tools.
- Respond to and resolve support tickets related to network outages, connectivity, and performance issues by prioritizing incidents and managing problem resolution.
- Conduct in-depth root cause analysis to identify underlying causes such as hardware faults or misconfigurations and document findings with recommendations to prevent recurrence. Maintain clear communication with stakeholders and users by providing timely status updates and resolution details.
- Maintain accurate documentation of network topologies, asset inventories, and configuration changes.
- Communicate technical strategies effectively to technical and non-technical audiences.

Security, Compliance & Disaster Recovery (10% of time)

- Collaborate with the IT Security team to implement and maintain security controls and monitoring of the network and associated IT Infrastructure.
- Ensure infrastructure and network designs adhere to security best practices and compliance requirement. Ensuring cloud environments meet compliance standards (e.g., ISO 27001, SOC 2, NIST).Design cloud-based disaster recovery and backup solutions
- Maintain a secure and stable network environment by regularly applying firmware upgrades, security patches, and system updates to address vulnerabilities and improve functionality. Coordinate and schedule maintenance windows to minimize operational impact. Stay informed about emerging threats to ensure timely patching of critical issues across network hardware and software. Monitor and analyze both real-time and historical network

traffic using tools to identify anomalies or unauthorized access attempts. Collaborate with cybersecurity teams to investigate flagged incidents and implement swift responses.

- Support the development and testing of disaster recovery plans, ensuring critical systems meet RTO/RPO targets.
- Regularly perform restore drills to verify the integrity of backups and confirm that recovery procedures function as intended. Audit and test redundancy and failover mechanisms—such as BGP route failover and VRRP/HSRP setups—to ensure continuous network availability during outages.

Project & Vendor Management (10% of time)

- Collaborate with vendors to coordinate hardware replacements, firmware updates, and support escalations. Oversee update deployments and manage escalations by sharing detailed diagnostics and configurations to ensure minimal downtime and prompt issue resolution.
- Collaborate with interested parties to align infrastructure decisions with business priorities.
- Manage the full lifecycle of network equipment by tracking asset inventory, performance metrics, and support status to ensure timely upgrades and replacements. Plan and execute hardware refreshes.
- Support IT Infrastructure projects by assisting in the design, scoping, and scheduling of initiatives, while coordinating with cross-functional teams to align on requirements and timelines. Provide technical oversight during implementation to ensure compliance with architectural standards, proper documentation, and timely risk mitigation.
- Assist in evaluating and selecting networking tools and services by conducting cost-benefit analyses that align with strategic IT objectives. Contribute to budgeting and forecasting efforts by estimating expenditures for hardware, support contracts, and software licensing renewals.

Strategic Planning & Collaboration (10% of time)

- Work with cross-functional teams to translate business needs into scalable, efficient network solutions.
- Provide mentorship and guidance to IT Infrastructure Specialists and IT System Administrators
- Oversee the design and implementation of network and back-end Infrastructure architecture supporting cloud integration, office expansion, and infrastructure modernization.
- Propose and research technologies related to Infrastructure, Local and Wide Area networks, wireless architecture, cloud infrastructure, datacenter and security.
- Develop cloud adoption roadmaps aligned with the enterprise architecture and lead innovation initiatives using cloud-native architectures and container orchestration (Kubernetes).

- Engage in IT strategic planning to align network investments with broader organizational goals like digital transformation and enhanced security. Develop and communicate network roadmaps in collaboration with enterprise architecture and cybersecurity teams to support IT resilience and operational efficiency.

Special Requirements

- In accordance with the Corporate Criminal Record Check Policy, the position requires the incumbent to undergo a Criminal Records Check and submit a Canadian Police Clearance Certificate.
- Must maintain the ability to travel in a timely manner to other offices, work locations or sites as authorized by the Corporation for business reasons.

How to Apply

Regional staff strive to enable the strategic priorities of council and the organization through the completion of their work. Staff carry out their work by demonstrating the corporate values. To view the full job description, requirements and apply on our Careers Site, visit our Careers page - Job Opening **#43445** (<https://www.niagararegion.ca/government/hr/careers/>)

Uncover the wonder of the Niagara Region and join a team dedicated to meeting tomorrow's challenges, today!

Let us know why you would be an excellent team member by submitting your online application no later than **October 2, 2025**, before midnight by visiting our 'Careers' page at www.niagararegion.ca. We thank all candidates for their interest however, only those candidates selected for an interview will be contacted.