



Ontario Research and  
Innovation Optical Network

Réseau optique de recherche  
et d'innovation de l'Ontario

## IP/MPLS Network Specialist

**Reports to:** Director – Engineering and Network Ops

### Position Summary

As Ontario's backbone of innovation ORION has a unique mandate that bridges public and private sector interests through its operation of Ontario's advanced research, education and innovation network. ORION is dedicated exclusively to supporting and enhancing the collaboration and innovation capabilities of Ontario's researchers, educators, scientists, innovators and learners. This means working with a broad range of people and groups in universities, colleges, research labs and institutes, hospitals and health research facilities, innovation support organizations, school boards, government, and private companies and having to understand and manage a diversity of viewpoints, positions and interests.

The successful incumbent will be responsible for the effective operation of the IP and Transport layer, technical user interface, handling service requests, and assisting in the design, management, and operations of the ORION IP and optical network as a whole.

This position will provide the right individual with an opportunity to work with a dynamic team of professionals in the heart of downtown Toronto, and to interact with leaders from Ontario's institutions and education sectors.

Reporting to the Director – Engineering and Network Ops, this individual will help ORION grow its business and add value for its customers and key stakeholders.

### Key Responsibilities

- Assess new emerging technologies for technical merit for ORION's business need.
- Lead the design, configuration and deployment and documentation of new members provisioning.
- Discuss and analyze members' network topology, and provide customized solutions to utilize ORION's network at full capacity.
- Coordinate with members for network upgrades, changes & troubleshooting.
- Perform network-wide MPLS deployment and service cut-over.
- Configure and implement all the MoPS for the deployment of the VPLS solution for members Internet traffic
- Monitor the IP and Transport network to ensure that it is functioning according to design, and to ensure the availability of the network with minimal downtime
- Install optical, routing and switching equipment and associated cabling at POP sites.

Ontario Research and Innovation Optical Network

Suite 700, 7th Floor, 360 Bay Street  
Toronto, Ontario M5H 2V6

T. 416.507-9860 F. 416.507-9862 W. [orion.on.ca](http://orion.on.ca)

- Liaise with members, vendors, local utilities, contractors, and other engineering staff on planned and emergency outages, and to resolve resulting problems.
- Manage the online records of equipment/contracts to ensure that they are up to date.
- Capacity and inventory management.
- Provide on-call pager support

## **QUALIFICATIONS**

- Degree in Electrical Engineering, Network Engineering or related field
- Minimum 4 years in Service Provider environment
- Knowledge of Switching and Routing: VLAN, STP, IS-IS, BGP, MPLS, QoS and MPLS-TE is a must
- Knowledge of DWDM optical technologies and data transport systems
- Knowledge of Fibre Optic technologies is a bonus
- Network Management: SNMP and Network Planning Tools
- Knowledge of Operating Systems: Cisco IOS and IOS-XR
- Knowledge of Hardware Platform: Cisco ASR9K, 7600, 3650 and Alcatel PSS-32
- Certifications: Cisco Certified Network Professional (CCNP), Cisco Certified Internetwork Expert (CCIE) designation an asset

## **SKILLS**

### **IP-Related**

- Working knowledge of TCP/IP WAN technologies and protocol suites
- Hands-on working experience with provisioning and troubleshooting Cisco routers, UNIX and Windows systems
- Hands-on working experience with dynamic routing protocols : IS-IS and BGP
- Hands-on working experience with IOS and IOS-XR.
- Experience in applications such as, Cacti, DNS, TACACS, and other common applications and network troubleshooting utilities
- Excellent understanding of the operation of data routing and switching equipment from multiple vendors (e.g. Cisco, Juniper, Foundry.)
- Experienced with MPLS (Multi-Protocol Label Switching) MPLS-TE, VPLS (Virtual Private LAN Services) and QoS (Quality of Service)
- Design and build experience with Firewalls, Routers and Switches
- Knowledge of VoIP systems

### **Transport-Related**

- Hands-on working experience with troubleshooting ROADM-based Long-Haul optical transport systems and provisioning new DWDM services;
- Hands-on working knowledge of Network Management Systems (NMS);
- Familiarity with Alcatel-Lucent 1830PSS and Nortel OPTera LH 1600 transport equipment;

- Good understanding of fibre optic technology, outside fibre plant, fibre testing technology and OTDR test results interpretations;
- Good knowledge of SONET, OTN transport protocols, 10GE and 100G Ethernet and WAN Technologies;
- Comfortable working with third-party fibre providers, field engineers, NOC engineers, OSP specialists to resolve fibre-related issues.

### **Generic**

- Knowledge of common network practices such as preventative service provisioning, maintenance, upgrades, notification, escalation, and troubleshooting
- Experienced working on projects and test plans and other network related project deliverables.
- Good interpersonal and communication (verbal and written) skills to foster an atmosphere of teamwork, professionalism, and dedication
- Strong Project Management skills
- Strong customer service orientation
- Attention to detail with the ability to multi-task
- Ability to operate under minimum supervision in a growth company
- Self-motivated and innovative

All interested applications are requested to apply to [jobs@orion.on.ca](mailto:jobs@orion.on.ca).