

<b>Job title:</b>	RF Engineer
<b>Department:</b>	Networks
<b>Location:</b>	Worldwide, works out of the Calgary office
<b>Supervisor:</b>	VP Network Planning & Engineering

## JOB DESCRIPTION

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### Job purpose:

The RF Engineer is responsible for the design, implementation and operation of all VSAT, RF equipment and antennas at NI teleports, and is responsible for managing the teleport operations as well as liaising with satellite operators.

### Duties and responsibilities:

- Design/Build
  - Responsible for expansion planning (site, hub or spectrum expansion) including evaluation of options for expansion as required.
  - Collaborate with other members of the Networks team to design and build test beds for validating functionality, performance, interoperability, and scale of customer network designs.
  - Responsible for liaising with sales & product management teams on client opportunities, and delivery of end-to-end network solutions.
  - Act as lead engineer on assigned customer projects that have a heavier RF component.
  - Ability to be a versatile communicator, with the capability of communicating equally as well in front of technical staff, as well as executive leadership.
  - Responsible for VSAT hub design and administration.
  - Responsible for link budgets, capacity planning and system reporting.
  - Assist with complex VSAT installations.
  - Development of operational and installation processes.
  - Identifies standards for RF infrastructure configuration and change management.
- Maintenance
  - Maintenance of teleport infrastructure.
  - Implements proper methods of testing equipment and RF/IF systems by working closely with NOC staff in supporting the interpretation of results to verify normal/abnormal conditions of equipment.
  - Maintain and upgrade VSAT hubs and associated equipment.
  - Provide cross-pol isolation tests for new links.
- Monitoring
  - Work with the NOC to set up appropriate monitors of teleport equipment and RF chain for our customer networks and directs actions to be taken when incidents occur.
  - Creating customer pools, VNO and customer access to monitoring.
- Problem identification and remediation
  - Plays a lead role in directing and overseeing 24x7 critical recovery and service restoral of all RF & teleport infrastructure.

- Fault finding and analysis of any incidents or anomalies relating to the hub infrastructure.
- Serve as tier 3 support and after-hours escalation point for 24x7 NOC and management.
- Liase with teleport, satellite operators and vendors when required.
- Documentation
  - Initiate and update trouble tickets for all full-time managed services and circuit events to ensure that an accurate journal of events is maintained and follow up actions and repair efforts are completed.
  - Create, update and provide documentation on correct activation procedures.
  - Verify any newly created links in all hubs and cross check information is correctly inputted into required documentation.
  - Provide design documentation for sites.
- Training
  - Possesses the necessary job knowledge to train other technicians on operational and maintenance procedures, as well as technical training of either specific ground station equipment or NI product and services.
  - Provide training to technical support teams on Dataminer, and other tools necessary to perform Tier 1 & 2 roles.
  - Provide guidance and training on all platforms (Newtec, iDirect, Comtech) as required.
- Reporting
  - Provide report/details on spectrum use and availability.
  - Provide report/details on satnet use and demod availability for HRC Mx-DMA.
  - Provide other reports as required.

### **Qualifications:**

- At least 5 years of working knowledge of Satellite Earth Station technologies
- Experience in multi-national operations
- Personal Characteristics: problem solving, ability to work under pressure, confidential and ethical, results driven, customer focus, a team player
- A relevant technical degree; any incumbent must be committed to self-development including lifelong learning, regardless of their formal education
- Hands on operational knowledge of iDirect, Comtech and Newtec VSAT technologies
- Experience in design and operation of satellite communication networks and network management systems, including TDMA, SCPC & MxDMA.
- Possesses a good understanding of Baseband (modems, multiplexers, Broadband and IP technologies) and Video technologies/systems. Capable of providing limited technical guidance and support of various ground station communications systems.
- Demonstrates good working knowledge of the use of standard test equipment such as spectrum analyzers, frequency counters, power meters, synthesized generators, oscilloscopes, digital volt multi-meters, bit error rate test sets.
- Experience with proper methods of testing equipment and RF/IF systems chains and has the proven ability to interpret results to prove normal/abnormal conditions of equipment. Trains others in their use.
- Good written and verbal communication
- A willingness to embrace and live the core values of Network Innovations

### **Working conditions:**

This position will normally have office hours of 8am to 5pm local time, 5 days a week. However, the incumbent must be available 24/7 x 365, within reason, to address issues in the RF

environment. The position operates in a professional office environment, however, there may be occasions to be 'in the field' which may include harsh or dangerous physical conditions. This role routinely uses standard office equipment and software.

**Physical requirements:**

An ability to travel and on a global basis. A valid passport without restrictions. Sitting and using a computer for extended periods of time.

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**Disclaimer Statement:** This job description lists the essential functions of the position and is not intended to include every job duty and responsibility specific to a position. An employee may be required to perform other related duties not listed above provided that such duties are characteristic of that classification.