Government of
Northwest Territories

IDENTIFICATION

Department	Position Title	
Infrastructure	Senior Systems Analyst	
Position Number	**Community**	**Division/Region**
33-3986	Yellowknife	Corporate Services/HQ

PURPOSE OF THE POSITION

The Senior Systems Analyst performs systems analysis, design, development, maintenance, administration, integration and implementation tasks for information systems required by the Department, and by other Departments in a partner relationship. Additionally, the Senior Systems Analyst researches new information technologies that may be beneficial for the Department.

SCOPE

Located in Yellowknife, the Senior Systems Analyst reports to the Manager, Information Systems, and provides application development and support services to a variety of clients from diverse program areas within the Department and interdepartmentally. These clients depend on the availability of the information systems, the business functionality provided by the applications, and the integrity of the data collected and maintained.

The Department of Infrastructure is highly decentralized in the delivery of its programs and services and is responsible for territory-wide government programs such as the operation and maintenance of public buildings and transportation infrastructure and systems, project management, facilities planning, design and technical support services, environmental assessment and remediation, property management, procurement shared services, information technology, information management, disposal of surplus property and goods motor vehicle and mechanical/electrical regulatory services and fleet management.

The Department is also responsible for programming aimed at increasing the use of domestic energy resources and reducing energy costs in the NWT (Northwest Territories), delivering renewable energy solutions, providing energy supply services to non-market communities, and leading efforts in energy conservation and efficiency.

On behalf of the GNWT, the Department of Infrastructure also carries the responsibility for strategic planning for the GNWT's (Government of the Northwest Territories) long term investment in the development of public transportation and energy production and distribution systems for the Northwest Territories, as well as the continuity of marine transportation services for the provision of fuel and dry goods to northern destinations.

The Department has several multi-departmental and multi-governmental information management systems that enable the delivery of services related to public safety, monitor environmental conditions and ensure the maintenance and secured distribution of essential data and information. Information systems services includes the following functions: strategic and tactical planning, system-wide integration, standardization, business analysis, change management, business process re-engineering, project management, system design and development, implementation and support, infrastructure coordination, and data integrity through proper design principles, data integration and standardization.

The Analyst works as part of a collaborative team in the Corporate Services Division and independently provides advanced application and database support to ensure appropriate information systems are available for the delivery and support of programs. The incumbent will work with and assist clients in the early stages of project initiation and requirements definition, and will be required to take a lead role in the various phases of the system development life cycle including analysis, design, construction, testing, implementation and maintenance phases. In addition to clients, the incumbent liaises with other informatics professionals within the Department, and externally with other GNWT departments and contractors. As well, the incumbent liaises with members of the GNWT Technology Service Centre (TSC) for identified infrastructure services, with assigned business managers on their applications and support issues, and with vendors on support issues identified with licensed applications.

The position has an indirect impact on the residents of the Northwest Territories (NWT), as the information systems are used to support the delivery of programs and services to the public. The systems supported by this position's section affect other departments, agencies, the general public and outside agencies and are used by the department as well as other departments. Decisions made by senior management are based on data gathered and maintained using the applications systems provided. The availability, accuracy of functionality and business rules, and credibility are related to effective maintenance and support by the incumbent.

RESPONSIBILITIES

1. **Conducts advanced business and systems analysis to determine if, and how, informatics could be used to provide solutions to advanced business requirements. In the design phase, prepares and ensures that specifications for all information system components are valid and meet a defined set of requirements, including quality assurance and application integrity, as set out in the client request, supplemented by policies, procedures, standards, theories and practical application.**

- Plan and lead multiple projects.
- Lead systems implementation throughout the system development life cycle.
- Lead and maintain operations of mission critical systems.
- Identify business improvements and information systems solutions.
- Review impact of information systems change on business.
- Review contractor/vendor deliverables.
- Guide management toward change and to balanced system solutions.
- Define and implement incorporated data standards.
- Direct the assessment and evaluation of specialized administration tools, etc.
- Determine interrelationships between solutions and requirements.
- Formulate and recommend to management new and/or modified data policies, procedures and guidelines.
- Participate in the selection of contractors.
- Maintain client contact and work with client staff.
- Plan and conduct research and evaluation.

2. **For projects requiring an in-house solution, constructs properly engineered databases, application system software, and reports. This includes verifying that the resulting components or systems are correctly tested to meet identified specifications. Maintains the integrity of functionality and data by documenting the system, determining viability and repairing deficiencies reported by clients.**
   - Supervise or write program enhancements.
   - Coordinate and/or tune and reprogram portions of applications.
   - Oversee production of satisfactory specifications.
   - Select and apply standards, methods and program developments.
   - Coordinate and participate in integration testing.
   - Research and evaluate new/upgrade software products.
   - Consolidate workplan reporting to project management.
   - Present technical problems, processes and solutions.
   - Plan and schedule work within set targets and plan projects.
   - Use and construct independent software libraries.

3. **Provides business analysis support for IS projects.**
   - Investigate and understand implications of new hardware/software.
   - Manage information systems sizing for a major project.
   - Ensure due attention to quality, privacy, integrity, etc.
   - Assess possible designs and implementations to ensure reasonable solution.

4. **Researches, defines and implements new technologies.**
   - Implement strategic business/information systems plans with users/staff.
   - Plan, support and manage group work in area of specialization.
   - Ensure information service standards are met in business solutions.
   - Investigate means to improve software levels given technology trends.
   - Plan and perform audits and ensure formal quality assurance role is established.

5. Coordinates activities with internal and external service providers as required.
- Coordinate activities with the TSC involving the resolution of hardware and/or network problems, and the installation and/or upgrade of infrastructure.
- Coordinate activities with assigned application managers relating to system design testing, implementation, upgrades and identified system errors and/or fixes.
- Coordinate activities with licensed application vendors relating system support, upgrade and new release activities

WORKING CONDITIONS

Physical Demands

No unusual demands

Environmental Conditions

No unusual demands.

Sensory Demands

No unusual demands.

Mental Demands

Occasional travel to remote sites may be required.

KNOWLEDGE, SKILLS AND ABILITIES

- Knowledge of systems analysis and design, including broad knowledge of all phases of the project methodologies, theories and practical applications;
- Broad knowledge of system development tools and case tools;
- Understanding of access and security management;
- Knowledge of testing procedures associated with information systems;
- Broad knowledge of software packages, database systems, software development tools, prototyping and modeling tools, multitier computing environments, hardware environments, operating systems, and communication environments;
- Ability to define requirements for new and existing software and database development and gather information through environmental scans and consolidating data into relevant information;
- Ability to support clients in the daily use of information systems and databases, troubleshooting/resolving problems;
- Ability to guide the repair of application software or the upgrade of application software;
- Ability to write systems documentation and to guide the development of or write user documentation;
- Strong problem-solving skills;

- Ability to research, analyse and use conceptual thinking to solve problems;
- Strong human relations skills, including facilitation and conflict resolution when differences of opinion arise;
- Strong communications skills – both orally and in writing; able to give technical information clearly to a non-technical audience;
- Strong client service orientation;
- Ability to work in a team environment; strong collaboration skills;
- Strong project management skills: estimate, plan and report project timelines, milestones and progress and guide multiple tasks, schedules and projects in a coordinated manner;
- Ability to provide guidance for change control mechanisms;
- Ability to assist in the development of policies and communicate and promote informatics business plans;
- Ability to evaluate proposals and assist in the selection of contractors.

Typically, the above qualifications would be attained by:

- Completion of a relevant postsecondary degree and 3 years of progressively more responsible work experience, OR,

- Relevant College diploma with 5 years of progressively more responsible related experience in information management/information systems.

ADDITIONAL REQUIREMENTS

Position Security
- ☐ No criminal records check required
- ☑ Position of Trust – criminal records check required
- ☐ Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applicable)
- ☐ French required (must identify required level below)
  Level required for this Designated Position is:
    ORAL EXPRESSION AND COMPREHENSION
      Basic (B) ☐   Intermediate (I) ☐   Advanced (A) ☐
    READING COMPREHENSION:
      Basic (B) ☐   Intermediate (I) ☐   Advanced (A) ☐
    WRITING SKILLS:
      Basic (B) ☐   Intermediate (I) ☐   Advanced (A) ☐
- ☐ French preferred

Aboriginal language: Choose a language
- ☐ Required
- ☐ Preferred