



IDENTIFICATION

Department		Position Title	
Finance		Senior Database Administrator	
Position Number		Community	Division/Region
15-14196		Yellowknife	Application Services/HQ

PURPOSE OF THE POSITION

The Senior Database Administrator is responsible for the design and management of the Information Systems Shared Service's data and database management services, including: core database and data warehouse architectures; database implementation, management and operations, and business intelligence, visualization and analytics platform services to support GNWT department's operational and strategic planning and decision making.

SCOPE

Located in Yellowknife and reporting to the Manager, Data and Analytics, within the IS Shared Service, the Senior Database Administrator undertakes the specification, design and maintenance of mechanisms for storage of and access to data in support of government-wide program information needs. Design of the physical data layer, addressing enterprise data resource needs and local stored data structures. Leads the planning and design of GNWT's data architecture, including physical and virtual database platforms and data warehouse structures required to support business intelligence, data analytics, and reporting services.

The work involved includes designing, configuring, and managing databases and database platforms. The incumbent collaborates leads the definition of data architectures, collaborates data and analytics team members and representatives from program areas, to ensure data is protected at the right level and the appropriate mechanisms are in place to ensure the integrity, security and accessibility/availability of the organization's key data assets.

The incumbent maintains, and supports operational databases in production, development and testing environments. Improving the performance of databases and contributes to the

design or selection of the tools and processes for database administration (including automation).

Services are delivered to GNWT departments and the NWT Housing Corporation.

The incumbent works under general direction. Uses discretion in identifying and responding to complex issues and assignments. Receives specific direction, accepts guidance and has work reviewed at agreed milestones. Determines when issues should be escalated to a higher level.

The incumbent interacts with and influences colleagues. Has working level contact with clients, suppliers and partners. May make decisions which impact the work assigned to individuals or phases of projects including the work of staff in other departments. Understands and collaborates on the analysis of user/client needs and represents this in their work.

The incumbent performs a range of work, often complex and non-routine, in a variety of environments and applies methodical approach to issue definition and resolution.

Has a sound generic, domain and specialist knowledge necessary to perform effectively in the organization typically gained from recognized bodies of knowledge and organizational information. Demonstrates effective application of knowledge. Has an appreciation of the wider business context. Takes action to develop own knowledge.

RESPONSIBILITIES

1. Develops and maintains specialist knowledge of database and data warehouse concepts, design principles, architectures, software and facilities.

- Assesses proposed changes to object/data structures, in order to evaluate alternative options.
- Implements physical database designs to support transactional data requirements for performance and availability.
- Implements data warehouse designs that support demands for business intelligence and data analytics.
- Provides specialist expertise in the design characteristics of database management systems (DBMS) or data warehouse products/services.

2. Executes procedures and maintains documentation for databases and data platforms.

- Uses database management system software and tools, and knowledge of logical database schemata, to investigate problems and collect performance statistics and create reports.
- Carries out routine and non-routine configuration, installation, and reconfiguration of database and related products.
- Develops and configures tools to enable automation of database administration tasks.
- Identify problems and issues and recommend corrective actions.

- Identifies, evaluates and manages the adoption of appropriate database administration tools and processes, including automation.
- Designs and implements approaches to improve database performance, capacity, recovery, and scalability.

3. Applies a of variety visualization techniques and designs the content and appearance of data visuals.

- Operationalizes and automates activities for efficient and timely production of data visuals.
- Identifies and selects appropriate visualization approach from a range of applicable options.
- Contributes to exploration and experimentation in data visualization.
- Provides overall control, to ensure appropriate use of data visualization tools and techniques.

4. Applies and ensures compliance of security administration procedures.

- Defines standards for physical data storage, maintenance, access and security administration.
- Investigates security breaches in accordance with established procedures.
- Performs standard and non-standard security administration tasks and resolves security administration issues.

5. Performs release management activities associated with complex system or solution implementations, upgrades and enhancements

- Assesses and analyses release components relate to data and database components.
- Carries out the builds and tests in coordination with testers, business analysts, and project managers.
- Ensures appropriate documentation and configuration records are developed and maintained.
- Ensures release processes and procedures are applied.
- Carries out early life support activities such as providing support advice to initial users.

WORKING CONDITIONS

Physical Demands

No unusual demands

Environmental Conditions

No unusual conditions

Sensory Demands

No unusual demands

Mental Demands

This position undertakes work on which there client expectations for quality and timely completion of activities with a particular emphasis on responsiveness in addressing service management issues. The Senior Database Administrator will be under pressure to deliver operational services that contribute to meeting client expectations and business requirements while also meeting demands for new services and to participate in projects. Overtime will be required occasionally to provide operational services, implement changes and respond to urgent incidents and service requests.

KNOWLEDGE, SKILLS AND ABILITIES

- Expert knowledge of database design principles and practices.
- Expert knowledge of database software platforms including relational database management platforms, business intelligence and analytics.
- Expert knowledge of database performance, tuning and optimization methods.
- Expert knowledge of database backup, and recovery methods.
- Experience with database administration systems and tools including performance tuning, data backup and recovery.
- Seasoned knowledge of system analysis and design processes and practices.
- Working knowledge of IT service management concepts such as those described in the IT Infrastructure Library (ITIL) Control Objects for IT (CoBIT), Dev/Ops and lean IT, particularly related to Incident Management and demand management.
- Awareness of Project Management practices such as those described in the Project Management Body of Knowledge (PMBOK);
- Awareness of Business Analysis practices such as those defined by the International Institute of Business Analysis (IIBM) Business Analysis Body of Knowledge (BABOK Guide);
- Knowledge of the software development lifecycle, as well as the various methodologies including predictive (plan-driven) approaches or adaptive (iterative/agile).
- Experience with ITSM tools including incident management, problem management, and configuration management tools.
- Maintains an awareness of developments in the industry.
- Ability to assess and evaluate risk and impact to effectively prioritize.
- Good verbal and written skills, able to convey complex technical issues to a non-technical audience.
- Proven ability to help develop individual staff including coaching.
- Works independently with general supervision.
- Problems faced are difficult but typically not complex.
- May influence others within the job area through explanation of facts, policies and practices.
- Plans, schedules and monitors own work competently within limited deadlines and according to relevant legislation, standards and procedures.
- The incumbent understands how own role impacts security and demonstrates routine security practice and knowledge required for own work.

Typically, the above qualifications would be attained by:

Completion of an undergraduate degree in computer science, management information systems or business with 4 or more years of directly relevant and progressive experience in database design, implementation and administration.

ADDITIONAL REQUIREMENTS

Position Security (check one)

- ☐ 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

Indigenous Language:

- ☐ Required
- ☐ Preferred