BRITISH COLUMBIA
BC Public Service

**Where ideas work**

**TITLE:** DATABASE ADMINISTRATOR

**CLASSIFICATION:** INFORMATION SYSTEMS 27

**MINISTRY:** LAND, WATER & RESOURCE STEWARDSHIP

**WORK UNIT:** NATURAL RESOURCE INFORMATION & DIGITAL SERVICES

**SUPERVISOR TITLE:** TEAM LEAD, DATABASE ADMINISTRATION   **SUPERVISOR POSITION #:** 00005945

## CONTEXT

British Columbia's Natural Resource Ministries (NRM) are the stewards of the Province's Crown land and natural resources which reflect the diverse values and interests of all British Columbians. In order to support the growth of the economy while providing effective environmental stewardship, the province's NRM must transform in order to advance the shared management of British Columbia's natural resources.

Natural Resource Information & Digital Services (NRIDS) is leading the modernization and transformation of business practices for the NRM through continuous improvement projects, new technology options and operational information management/information technology (IM/IT). NRIDS is providing leadership for IM/IT planning, policy and business process solutions and is also the single authority for all information and technology across the NRM.

## JOB OVERVIEW

*To lead the design, development and implementation of Ministry database systems.*

## ACCOUNTABILITIES

Required:

- Provides expert advice to Ministry staff and application development project teams on database application design, packaging, delivery, and migration.

- Provides expert consultation on the design/enhancement and support of Ministry databases.

- Develops standards for database application administration and deployment services and for delivery and migration of database applications.

- Leads the consultative process for review and acceptance of technical standards by all affected groups, ensuring the standards are complete and understandable.

- Manages and administers the database design and deployment tool sets and consults with the software vendors on problems and deficiencies.

- Researches capabilities and impact of supporting new infrastructure software products and new features or versions of existing products and performs risk and cost/benefit analysis.

- Ensures Ministry's data assets are protected from loss or unauthorized change.

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- Reviews database object design and implementation to ensure compliance with standards.

- Implements plans and technical approaches necessary to accommodate database technology enhancements.

- Develops documentation and standards to facilitate database implementation and operation.

- Monitors database performance, usage and throughput statistics and tests upgrades, patches and fixes provided by software vendors.

- Plans, configures and tests new versions of database software and assists with the migration of operational applications to the new environments.

- Prepares and/or negotiates contracts, monitors performance and authorizes payment.

- Represents the branch on ministry committees and work groups to ensure technology solutions are identified, developed and achieved.

- Represents the ministry on committees, work groups and task forces to develop (corporate) public sector policies, standards and initiatives.

- Researches and stays current with recent developments in database application technologies.

**EDUCATION AND EXPERIENCE:**

- Degree, diploma, certification or equivalent in the computer science field or an equivalent combination of education, training and experience may be considered.

- A minimum of two years of experience with PostgreSQL and/or Oracle Enterprise Database Administration.

- A minimum of two years of experience performing database backup and recovery procedures.

- A minimum of two years of experience working with Structured Query Language.

- A minimum of two years of experience working on implementing and/or supporting complex infrastructure projects.

**Preference may be given to applicants with one or more of the following:**

- Experience with administering databases in public and private cloud

- Experience in engineering solutions to migrate databases from BareMetal/VM to Openshift/Docker platform.

- Experience in container orchestrator (Openshift), docker platform, configuration management platform(Ansible), CIT tools(Jenkins),CI/CD pipeline

- Experience with release management, supporting the implementation of projects using the AGILE/DevOps frameworks; using Confluence and JIRA.

- Experience with administration of high availability solutions with PostgreSQL and/or ORACLE database.

- Experience with Spatial DBMS, such as ESRI SDE, Oracle Locator, Oracle Spatial or PostGIS.

**KNOWLEDGE, SKILLS AND ABILITIES:**

- Knowledge of developing policy and standards documents.

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- Knowledge on database hardening, data security and privacy standards

- Knowledge on database and SQL performance tuning

- Knowledge on database backup and recovery techniques

- Knowledge on data modelling, data analytics, ETL, data warehousing and reporting

**WILLINGESS STATEMENT:**

- Willingness to provide on call 24-hour support during peak periods.

**SECURITY SCREENING:**

- Successful completion of security screening requirements of the BC Public Service, which may include a criminal records check, and/or Criminal Records Review Act (CRRA) check, and/or enhanced security screening checks as required by the ministry

**BEHAVIOURAL COMPETENCIES**

- **Commitment to Continuous Learning** involves a commitment to think about the ongoing and evolving needs of the organization and to learn how new and different solutions can be utilized to ensure success and move the organization forward.

- **Service Orientation** implies a desire to identify and serve customers/clients, who may include the public, co-workers, other branches/divisions, other ministries/agencies, other government organizations, and non-government organizations. It means focusing one's efforts on discovering and meeting the needs of the customer/client.

- **Planning, Organizing and Coordinating** involves proactively planning, establishing priorities and allocating resources. It is expressed by developing and implementing increasingly complex plans. It also involves monitoring and adjusting work to accomplish goals and deliver to the organization's mandate.

- **Teamwork and Cooperation** is the ability to work co-operatively within diverse teams, work groups and across the organization to achieve group and organizational goals. It includes the desire and ability to understand and respond effectively to other people from diverse backgrounds with diverse views.

- **Problem Solving / Judgement** is the ability to analyze problems systematically, organize information, identify key factors, identify underlying causes and generate solutions.