DevOps Integration Engineer

The DevOps Integration Engineer is responsible for implementing and supporting key aspects of DevOps to automate code management, release and monitor aspects of software development. The DevOps Integration Engineer is also responsible for providing operational support for software packages, security management and system architecture for GNS Science’s Oracle and PostgreSQL databases.

Reports to: Applications Manager
Department: Information Services and Technology
Group: Business Services
Tenure: Permanent
Location: Avalon
Direct reports: Nil
Budget: Nil
Date: March 2020

Position Priorities and Responsibilities

Applications Development

- Actively monitor and maintain the health of the “development” infrastructure, including implementing upgrades and new installations
- Day-to-day management of environments, both production and non-production. Manage the development process to ensure automation and efficiencies
- Define and implement automation and processes to enable teams to deploy, manage, configure, scale and monitor their applications in data centres and in cloud
- Process controls, improvements and documentation for: source code, code review, automated testing, change management, configuration and release management, continuous integration, and deployment
- Identify processes, regular tasks and procedures that can be automated and implement that automation in a robust, repeatable and highly controlled manner
- Verify stability, interoperability, and security of system architecture
- Identify and resolve issues that may affect the successful delivery of applications and service
- Contribute to making GNS Science’s software, hardware and data secure by:
  - ensuring the team has sufficient InfoSec competence and training to meet GNS Science’s InfoSec policies and procedures;
  - identifying, reporting and assisting to eliminate InfoSec risks;
  - immediately reporting all InfoSec incidents and near misses to the Senior Manager Information Services & Technology, and
  - promoting a culture where InfoSec is given priority.
Database administration

- Manage the deployment of changes to the Oracle/PostgreSQL server production environment
- Maintain standards for database structural design
- Tune databases for optimal performance
- Hands on responsibility for the database design, development, and design standards
- Action the addition of space to table-spaces when thresholds are reached
- Review database changes to ensure optimal performance and security
- Perform database problem detection, tracking, diagnosis, recovery and resolution
- Administer user privileges

Support and Maintenance

- Maintain backup and recovery procedures to ensure maximum integrity, design and setup replication across multiple data centres, using tools such as Oracle Dataguard
- Manage and resolve Applications support faults, problems and queries relating to the development environment and third-party products, ensuring they are prioritised and dealt with in a timely manner

Architecture

- Provide input into the design of server architecture
- Provide advice and architectural direction to members of the Applications Team
- Provide technical leadership on the design and implementation of automation tools and processes

Team Work

- Work effectively as a member of the Applications team to support other team members and provide coverage of functions
- Be an active participant in the agile software development lifecycle, working across the team to ensure features and improvements are implemented in a manner suitable for intended use cases
- Keep abreast of developments by scanning the external trends, best practice and opportunities and share insights with the team and wider organisation
- Work with other team members on projects; this may include taking the lead
- Coach and mentor other team members
- Support a positive culture and morale

Responsibilities of all staff

- Comply with all GNS Science policies and procedures
- Contribute to making GNS Science a healthy and safe place to work by complying with the responsibilities and accountabilities outlined in the Health and Safety Management System Framework

The responsibilities of this position will change over time to respond to changing needs. The incumbent will need the flexibility to adapt and develop as the company and its environment evolves.
Key Working Relationships

Internal:
- Applications Team, Information Services Department, GNS Science staff

External:
- Software vendors

Person Specification

Skills, knowledge and attributes
- Deep knowledge of web-based applications, standards and best practices
- Good working knowledge of relational database system architecture and database structures
- Good working knowledge of Tomcat, Linux
- Understanding Geodatabase would be an advantage
- Strong systems and network security awareness
- Clear communication skills
- Strong problem-solving skills
- Ability to problem solve and prioritise
- Develops builds and maintain effective relationships with Māori, respecting obligations under Te Tiriti o Waitangi and interacting appropriately with Māori taking into consideration tikanga (customs) and kawa (protocol)

Experience

Essential:
- At least 6 years’ experience as a software engineer or systems engineer working with online systems and services
- At least 3 years’ experience providing Oracle database administration, support and maintenance within an enterprise environment
- Experience with Oracle Data Guard and standby database implementations
- Experience with PostgreSQL database administration
- Experience using a continuous software development approach and tools i.e. continuous integration, continuous delivery, continuous testing and continuous deployment
- Experience in Linux administration
- Worked within an Agile methodology environment

Desirable:
- GIS and Spatial database experience including Geoserver and the ESRI product suite

Qualifications

Essential:
- IT qualification or equivalent industry experience
Competencies

The following competencies are expected of all staff:

► **Results Orientation**: The ability and commitment to achieve effective results, and work towards or exceed agreed goals.

► **Business Focus**: The ability and desire to apply appropriate principles and practices to maximise revenue, minimise cost, while meeting our obligations.

► **Relationship Management**: The ability and commitment to develop and maintain effective relationships with groups and individuals.

► **Communication**: The ability to express thoughts and ideas clearly and consistently (orally and in writing).

► **Innovation and Initiative**: The ability and commitment to seek and use better ways of doing things (to improve personal and GNS Science performance).

► **Teamwork**: The ability to establish and maintain effective and cooperative relationships.

► **Professional Integrity**: Act in a manner that conveys high personal and professional standards.

► **Technical Expertise**: The ability to maintain and develop technical expertise.

► **Leadership and Management Skills**: The ability to inspire others to achieve desired results and to develop and enable others to realise their full potential.