JOB DESCRIPTION

Title: **Application Engineer**

Reports to: **Technology Engineering Manager**

Main Purpose of the Job

Working effectively as part of the Technology Applications team, you will report to the Technology Engineering Manager. You will be responsible for the development and delivery of applications, and their associated infrastructure, ensuring high availability, sustainability, and efficiency of our organisation.

You will design, build, maintain and monitor both the operation and data of enterprise applications across the organisation working in the cloud as part of a wider development operations function.

Key Responsibilities

- Develop, implement, and maintain the operation of application software, including producing technical requirements, and developing code and documentation.
- Manage data across all enterprise applications both locally hosted and cloud services – this will include both integrations and reporting.
- Ensure data security policies and best practices are implemented and maintained on all applications.
- Mentor, coach and support where appropriate Junior Application Engineers and provide insight and guidance to new ways of working and act as an escalation point for knowledge.
- Aid the Senior Application Engineers and Technology Engineering Manager in continuously developing our applications portfolio, ensuring that the Royal Ballet and Opera is kept in line with industry standards and best practices.
- Implement data flows to connect operational systems, data for analytics and business intelligence (BI) systems.
- Document source-to-target mappings.

- Re-engineer manual data flows to enable scaling and repeatable use via automation
- Write ETL (extract, transform, load) scripts and code to ensure the ETL process performs optimally.
- Build our Cloud Application Infrastructure on RBO Cloud platforms writing Configuration as Code where required.
- Support the RBO business operations where required outside of core hours.

Job Requirements (Detailed)

The role demands proficiency in several skills, each categorised into four ascending levels: Awareness, Working, Practitioner, and Expert. Here are the primary skills and their corresponding levels for this role:

Skills needed for this role level:

- **Strategic Roadmap Planning: (Level: Practitioner):** Develop and execute comprehensive strategic roadmaps for cloud infrastructure, ensuring alignment with organisational goals and future scalability to critical business needs
- **Asset and Configuration Management (Level: Working):** Maintaining secure, accurate configurations and controlling IT assets; verifying asset locations and conditions.
- **Availability and Capacity Management (Level: Working):** Managing service components to meet business needs and performance targets.
- **Change Management (Level: Awareness**): Implementing changes based on requests and applying change control procedures.
- **Continual Service Improvement (Level: Awareness):** Demonstrating process efficiency awareness, supporting development process improvements, and identifying deficiencies.
- **Incident Management (Level: Awareness):** Identifying, registering, and directing incidents to appropriate channels.
- **Ownership and Initiative (Level: Working):** Taking responsibility for issues until resolved or reassigned.
- **Problem Management (Level: Awareness):** Investigating system, process, or service problems, and contributing to solutions and preventative measures.
- **Service Focus (Level: Working):** Developing coherent frameworks based on inputs to meet service goals.
- **Service Management Framework Knowledge (Level: Awareness):** Possessing a Level 3 qualification in service management frameworks.
- **Technical Specialism (Level: Awareness):** Assisting in technical support activities and performing routine maintenance/administration tasks.
- **Technical Understanding (Level: Awareness):** Demonstrating a high-level understanding of relevant subject matter.
- **Testing (Level: Awareness):** Executing test scripts under supervision and understanding the role and methodology of testing.
- **User Focus (Level: Working):** Identifying and engaging with users to gather needs, using data to inform user-focused outcomes.

- **Communicating Between the Technical and Non-Technical (Level: Working):** Capable of effectively interacting with both technical and non-technical stakeholders, managing multidisciplinary team discussions, and advocating for the team externally.
- **Data Analysis and Synthesis (Level: Working):** Competent in data profiling, source system analysis, and presenting clear insights to colleagues.
- **Data Development Process (Level: Practitioner):** Skilled in designing, building, and testing complex or large-scale data products, and leading teams for data integration services.
- **Data Innovation (Level: Working):** Understanding the impact of emerging data tools, analysis techniques, and data usage on the organisation.
- **Data Integration Design (Level: Practitioner):** Able to select and implement appropriate technologies for resilient, scalable, and future-proofed data solutions.
- **Data Modelling (Level: Practitioner):** Proficient in producing data models across multiple subject areas, understanding, and applying industry-recognised data modelling patterns and standards.
- **Metadata Management (Level: Practitioner):** Capable of designing metadata repositories, understanding various tools for metadata management, and providing guidance to less experienced team members.
- **Problem Resolution (Data) (Level: Working):** Able to respond to problems in databases, data processes, products, and services, and implement appropriate remedies and preventative measures.
- **Programming and Build (Data Engineering) (Level: Practitioner):** Skilled in designing, coding, testing, and documenting programs, and scripts, and collaborating on specification reviews.
- **Technical Understanding (Level: Working):** Understanding core technical concepts related to the role and applying them with guidance.
- **Testing (Level: Working):** Capable of reviewing requirements and specifications, defining test conditions, identifying issues and risks, and analysing and reporting test activities and results.

Desirable Skills

- Degree educated in computer science, engineering, or related field **OR** demonstrable equivalent experience
- Experience in cloud computing environments, particularly AWS
- Experience in managing technology and engineering teams
- Any experience related to hyper-converged solutions such as Nutanix
- Familiarity with tools such as Rubrik (Backup) and Snap logic (iPaas)
- Strong hands-on experience with AWS services, especially EC2, Route 53, S3, and IAM
- Proficient in infrastructure as code (IaC) tools, particularly Terraform and Ansible
- Solid understanding of networking, DNS, and IP routing protocols
- Experience with containerisation and orchestration technologies desired (e.g., Docker, Kubernetes)
- Familiarity with CI/CD pipelines and ITSM tools (e.g., Bitbucket Pipelines, Jira)
- Excellent communication and collaboration abilities

- Relevant AWS certifications (e.g., AWS Certified Solutions Architect – Professional, AWS Certified DevOps Engineer – Professional) are highly desirable

Note: This Job Description reflects the current situation. It does not preclude change or development that might be required in the future.