



PAPUA NEW GUINEA PUBLIC SERVICE

JOB DESCRIPTION



1. IDENTIFICATION

<b>AGENCY:</b> DEPARTMENT OF FINANCE	<b>SYS. POSN. NO:</b>	<b>REF. NO:</b> DFICT. 035
<b>OFFICE:</b> LEVEL 3, TWIN TOWER 1	<b>DESIGNATION/CLASSIFICATION:</b> DATA ARCHITECT, GRADE 15	
<b>DIVISION:</b> ICTD	<b>LOCAL DESIGNATION:</b> DATA ARCHITECT	
<b>BRANCH:</b> DIGITAL SERVICES	<b>REPORTING TO:</b> TEAM LAEDER – DATA ANALYTICS <b>SYS. POS. NO:</b> <b>REF. NO:</b> DFICT.034	
<b>SECTION:</b> DATA ANALYTICS	<b>LOCATION:</b> TWIN TOWER 1, WAIGANI	

HISTORY OF POSITION

FILE REF.	DATE OF VARIATION	DETAILS
	24.03.2025	Re-designate, existing

2. PURPOSE

Responsible for building and maintaining robust data warehouse which is used to transforming complex datasets into actionable insights that support evidence-based decision making across the department in relation of government expenditure. The Data Architect will work with diverse information sources to help data analysts to identify patterns, trends, and opportunities to improve operations, service delivery, and policy effectiveness to achieve the goals of the department and the whole of government.

3. DIMENSIONS

The Data Architect reports to the Team Leader – Data Analytics and work closely with other team members of the Data Analytics Team and Digital Services Branch within the Information and Communications Technology Division (ICTD).

4. PRINCIPAL ACCOUNTABILITIES

- I. Build and maintain the Government of Papua New Guinea expenditure data warehouse and work will Data Analysts to ensure it is formidable and fit for purpose.
- II. Do data analytics on Personnel Emoluments expenditures as captured by the Alesco Payroll System and Integrated Financial Management System (IFMS) and ultimately produce comprehensive reports for management.

5. MAJOR DUTIES

- design and implement data solutions for specific business needs, including data warehouses, data marts, and data lakes for analytics purposes.
- design and implement data solutions and architecture that supports advanced analytics and data science applications, including ML and AI.
- design and implement data solutions and architecture for cloud-based platforms
- Design and execute data analysis using Alesco, IFMS and various data formats.
- Act as a data liaison between technical teams and Department of Finance leadership by translating complex analysis into actionable insights
- Prepare and present data reports, visualizations, and dashboards for the Department of Finance as well as diverse government stakeholders where necessary

- Manage end-to-end analytics projects from requirements gathering through implementation, including data collection, cleaning, and presentation
- Monitor and evaluate key performance indicators across government programs and recommend evidence-based improvements.
- Develop automated reporting solutions to increase efficiency and reduce manual data processing.
- Assist in the development of data governance policies and data quality standards.
- Collaborate with IT personnel to improve data collection methods and storage systems.
- Identify data gaps and propose solutions for more comprehensive data capture.
- Provide technical support and training to staff on data analysis tools and interpretation.
- Stay current with emerging data analysis methods and technologies relevant to public sector applications.
- Other duties as assigned by management.

## **6. NATURE AND SCOPE**

### **6.1 WORKING RELATIONSHIP**

#### **(a) Internal**

- Liaise closely with the Manager – Data Analytics and other team members in the Data Analytics Section;
- Liaise with the Digital Services Branch on matters related to Analytics and Digital Transformation.
- Liaise with other ICTD branches and other divisions on IFMS data-related issues.

#### **(b) External**

- Liaise with all government departments/agencies.

## **7. CONSTRAINTS FRAMEWORK AND BOUNDARIES**

### **7.1 Rules & Procedures:**

- Public Finance (Management) Act and related instructions
- Public Service (Management) Act and General Orders
- Development Strategic Plan (2010 – 2030)
- Internal Department of Finance Policies and Procedures
- Gender Equity & Social Inclusion Policy
- Ethics and Value-based Executive Leadership & Management Capability Framework
- Current Corporate Plan and Annual Operational Plan.

### **7.2 Recommendations:**

- Recommend to Manager- Data Analytics on all work-related matters including possible resolutions and identify ways to improve issues, systems and process within the Data Analytics section and Digital Services Branch.

### **7.3 Decisions:**

- Provide insights and make decisions on delegation/allocation of tasks to support staff;
- Decide on relevant recommendation to be brought to the attention of the Manager- Data Analytics on all work-related matters.

## **8. CHALLENGES**

- Assisting Manager- Data Analytics in planning and development of section work plan and section Budget;
- Keeping update and aware the with changes in legislations, Acts, and internal policies;
- Performing higher role of duty in the absence of the incumbent;
- Contribute to the alignment of personal goals with branch goals in open communication and cooperation with team members, and contribute to a work environment appropriate for the work and conducive to shared employee well-being.

- Limited resources may constrain resourcing and development capacity. In addition, gaps created as result of staff turnover or staff undertaking long term study can influence priorities and resource allocation. It is important that people are aware of the potential impact of a broad array of resource limitations.
- Contribute to identifying and acquiring the skills and knowledge to perform tasks to produce the desired output. Ensure that all supervised staff are trained on the operation of all specific IT or other tools relevant to efficiently undertaking their roles and responsibilities.

## 9. SKILLS AND EXPERIENCE

### Qualifications and Work Experience:

- Bachelor's degree in computer science, statistics, mathematics, economics, accounting, or related field,
- Minimum of 5 years' experience in data analysis,
- Demonstrated experience with managing data solutions like data warehouse, statistical analysis and data management.
- Proven ability to present insights effectively to stakeholders.
- Innovative approach to solving complex problems through data analysis.
- Certifications in data analysis, business intelligence tools, or relevant technical skills considered

### Knowledge:

- Knowledge of PNG government financial systems and processes.
- In-depth knowledge of the Public Service Management Act and the General Orders.

### Skills and Abilities:

- Technical proficiency in data systems, including database design principles, data modelling, and data warehousing.
- Strong Data governance standards
- Strong analytical capabilities with experience handling and interpreting diverse government datasets
- Proficiency with data tools including SQL, Oracle databases, Python, and Excel VBA
- Experience with business intelligence and reporting tools to create effective data visualizations
- Understanding of government IT systems, data modelling techniques, and data segmentation approaches
- Experience applying analytical methods to extract meaningful insights from complex datasets
- Problem-solving skills with application to public sector challenges
- High attention to detail and commitment to data accuracy
- Statistical knowledge and experience with quantitative analysis methods
- Ability to create clear, compelling reports and presentations for diverse audiences
- Excellent communication skills for explaining technical concepts to non-technical government officials
- Project management skills to handle multiple analytical projects simultaneously
- Effective planning, organization and implementation skills;
- Good time management abilities to manage multiple tasks, priorities, meet deadlines and work under pressure



**NOTE:** This job description is not designed to be all-inclusive. Employee may perform other related duties required to meet the ongoing needs of the Department.