

GPL-HRD-001/19 (M)	Output-Focused Job Description		Information Technology (IT) Division
Position: Manager, Infrastructure Department	Grade: SM	Incumbent: Leon Duncan	Reports To: Divisional Director - Information Technology
Manages: Network Administrator, System Administrator, Database Administrator, Cybersecurity Compliance Officer			

BACKGROUND

The Guyana Power & Light Inc. (GPL) corporate WAN and an isolated SCADA network serve 27+ locations spread across 250km of the coast of Guyana in Regions 2-6. The WAN provides essential IP communications and computing infrastructure to 400+ staff for data and documents, access to local and cloud services, VOIP, VPN/ remote work, WiFi, Internet access, online meetings, collaboration and 3-2-1 backup, etc.. Work in the Infrastructure Department includes planning, implementing, securing, monitoring, optimising and documenting WAN connectivity (including multiple or redundant network and Internet connections from ISP's, wireless PTP and own fibre optic network), servers, databases and applications, to allow office and field work by engineering, customer services and other parts of the Company. Systems accessed by users via the WAN include ones for email and collaboration (MS365), Customer Information (CIS), Financial information (EBS), Pre-Paid billing (JUICE), field data (FDCI), geospatial information (GIS) and Business Intelligence (BIS). The IT Division greatly values innovation and communication. Collaboration tools include Teams, Slack and Trello, and thoughtful improvement in company operations using proprietary as well as open-source solutions is encouraged. The Division pursues ITIL best practices for IT Service Management, and efficient and financially responsible use of IT resources, and CIS Controls for cybersecurity.

JOB PURPOSE

The Manager, Infrastructure Department will plan, manage and improve computing infrastructure – including networks, servers and database systems - to deliver swift, secure, reliable and resilient business communications and services to IT Division customers, i.e. GPL staff and other defined users.

KEY OUTPUTS

1. Management of documentation pertinent to GPL WAN Infrastructure, including details of firewalls, switches, routers, wireless PTP, WiFi APs, servers, SAN/NAS, power protection and other equipment that provide the WAN, sufficient for asset management, configuration, licence management and renewal, budgeting and lifecycle planning.
2. Proactive/ prompt communications with IT Division customers, payment agents, ISP's, OEM system manufacturers, suppliers of goods or services, etc., such as prior warnings, current advisories and situation updates sent to the user base when warranted by changes in the status or performance of computing infrastructure.
3. Prompt advice to the Executive and other colleagues regarding prior warnings, current advisories, and situation updates to be sent to the user base when warranted by changes in the status or performance of computing infrastructure.
4. Proactive reports compiled on metrics including infrastructure uptime and performance, server patching, endpoint security updates, asset-management completeness, 3-2-1 backup completeness, and adoption of ITIL ITSM and CIS Controls, based on statistics from routine monitoring and maintenance, along with actions taken, that indicate management/ improvement of the computing infrastructure.
5. Root-cause reports regarding performance issues, user-faults, malware, etc.
6. Monthly workplans
7. Weekly or daily standups with staff
8. Data-driven inputs/ draft proposals for Divisional budgets and plans

KEY RESPONSIBILITIES

1. Data-driven planning, and the communication of plans, regarding the company's computing infrastructure – networks, servers and database systems – and external

services including Internet/ Private Line Circuit, cloud computing/ storage, and APIs, to achieve outcomes identified in Divisional and Company Strategic Plans.

2. Budget proposals for implementation of plans and maintenance of computing infrastructure and external services
3. Supply-chain management to maintain the availability of the computing infrastructure, with spares kept for equipment e.g. switches; components e.g. server hard drives; and accessories e.g. CAT cable.
4. Supervise budgeted expenditures/ subscriptions and review value obtained.
5. Review of outcomes of planned actions for WAN development or maintenance.
6. Ensure that documentation pertinent to the company's computing infrastructure and external services is prepared and kept up-to-date, and related timely working guidance is routinely provided to appropriate Divisional staff.
7. Implement, manage and use an asset management-based approach for managing WAN assets, e.g. for service desk operation, lifecycle and development planning, supply chain management, IT outage management, scheduled maintenance, disaster response, etc..
8. Ensure that systems of securing the WAN, servers, databases and apps, are implemented, maintained and used.
9. Ensure protection and resilience of existing systems and data with 3-2-1 backup, response preparation and recovery-testing.
10. Ensure continuous monitoring of the status of computing infrastructure, with rapid alerting of relevant IT staff when necessary.
11. Ensure that collection, combination and analysis (real time and historical) of audit logs, monitoring data, security events, etc. is done automatically, with rapid alerting of relevant IT staff when necessary.
12. Ensure systems that provide data security and data integrity are maintained.
13. Implement and manage a verifiable system of least-privilege infrastructure access management for staff and contractors, with prompt access-removal and reporting following movement of staff, resignation of staff, conclusion of contract, etc.

14. Implement a system of holding credentials for important computing infrastructure and external services in escrow
15. Implement a system to monitor/ quantify quality of service experienced at GPL locations
16. Implement a high level of customer service to GPL and other defined users, aided by thorough asset management.
17. Implement and use a system of promptly communicating with customers, via fall-back/ redundant channels, to provide prior warnings, current advisories and situation updates when warranted by changes in the status or performance of the computing infrastructure.
18. Plan and monitor the Implementation of ITIL Service Management
19. Plan and monitor the implementation of CIS Controls for cybersecurity
20. Research and recommend innovative, cost-effective, and where possible automated approaches for managing GPL's computing infrastructure.
21. Change management – implement a view of other departments/ personnel as customers, with work viewed as customer service.
22. Perform any other related duties that may be assigned by the divisional executive.

Required Competencies

Core/ Leadership	Skill Level & Importance		Description/Behaviors
Adaptability & Ability to Manage Change	2	M	<ul style="list-style-type: none"> Takes personal responsibility for putting new knowledge or skill to practical and/or innovative use on the job Takes steps to learn about the change Works well with new and diverse individuals or groups Takes pride in achieving a smooth implementation of change by looking for solutions and making decisions with the change initiative in mind. Regularly attempts to add value during change implementation.
Ability to Acquire & Apply	2	H	<p>Applies acquired knowledge quickly and appropriately on the job.</p> <p>Improves skill through practice and application.</p> <p>Creates opportunities to share new knowledge with others.</p>

Knowledge			<ul style="list-style-type: none"> • Puts new knowledge, understanding or skill to practical and /or innovative use on the job.
Communication	2	H	<ul style="list-style-type: none"> • Elicits ideas, comments or feedback on what has been said. • Asks questions to clarify and confirm information to ensure common understanding. • Recognizes others immediate feelings and emotions and responds in ways that communicates clear understanding. • Listens responsively and takes actions to persuade.
Safety Focus	2	M	<ul style="list-style-type: none"> • Proactively thinks about his/her safety and the safety of others. • Keeps personal and group safety on employees' minds at all times. • Adheres to high personal standards of safety. • Reports and / or corrects unsafe work conditions. • Acts to correct unsafe work habits. • Documents and monitors occupational safety and health violations.
Teamwork	2	M	<ul style="list-style-type: none"> • Actively includes individuals from diverse backgrounds in team activities. • Capitalizes on diverse skills and ideas. • Spends time helping others think through issues. • Expresses positive attitudes and expectations of others abilities and contributions. • Takes time to learn about and understand differences.
Customer Focus	2	H	<ul style="list-style-type: none"> • Takes personal responsibility for addressing customer service issues. • Makes decisions with the customer in mind. • Takes pride in delivering a high quality product or service. • Investigates service delivery and provides solutions to problems. • Regularly attempts to add value to customer expectations.
Results Oriented	2	M	<ul style="list-style-type: none"> • Is persistent in achieving improved results. • Measures progress against targets. • Seeks to understand reasons for obstacles and to find innovative ways to overcome. • Acknowledges the work and contribution of others. • Modifies behaviour to fit the situation.

Technical/ Functional Competencies

Technical/Functional	Skill Level B, W, A, E	1,2,3,4
Knowledge of computer network/ server/ database administration, configuration, troubleshooting and problem analysis and resolution	A	4

Knowledge of DHCP, DNS and other protocol and standards	A	4
Understanding of IT Security	W	2
Familiarity with LAN/ WAN hardware and software	A	2
Written and Verbal Communication	A	4

MINIMUM REQUIRED EDUCATION AND EXPERIENCE

1. University BSc Degree in Computer Science, Computer Engineering, or a related discipline; with professional qualifications or additional examined courses in network, server or database administration; and with a minimum of five years demonstrable experience including two years in a supervisory role.

LEGEND:

H	High Requirement. Required performance could not be achieved without demonstration of this competency.
M	Medium Requirement. Required performance would be difficult to attain without demonstration of this competency.
L	Low Requirement. Required performance is not dependent on demonstration of this competency.
1,2,3,4	The skill level required for effective performance. Skill levels are defined in the Competency Model
*	If a formal leader, all leadership competencies will apply. A formal leader is primarily responsible for the leadership and/or supervision of others. Duties are generally different than the duties of the others in the group.
B:1	Basic – Brief, general familiarity. Understanding of where knowledge can be applied, but limited on-the-job application.
W:2	Working – Detailed familiarity and understanding. Proficient in applying the knowledge and skills for regular job requirements
A:3	Advanced – Comprehensive understanding (in-depth familiarity with fine points). Able to handle complex or non-routine applications
E:4	Expert – Comprehensive and conceptual understanding. Expert, “go to” resource, can handle highly complex problems or situations.

This document is validated as an accurate and true description of the job as signified above.

Employee Sign Date

Supervisor Sign Date

Head of Department/Division Sign Date

Date received in Human Resource Division

Date Created/revised