Classification: Information Technology Specialist II

Working Title: Senior Network Engineer

Position Number: 539-1414-002

Division/Unit: Information Technology Services Division / Network Services

Assigned Headquarters: Sacramento Headquarters

Position Eligible for Telework (Yes/No)**: Yes**

Job Description Summary

Under general direction of the Information Technology Services Division (ITSD), Network Services Manager (IT Manager I), the Senior Network Engineer is responsible for the implementation, administration, and analysis of the most complex network and cloud infrastructure and security systems within the Lottery. This role serves as the department's highest-level technical expert for enterprise-wide network systems, including on-premises, cloud-based, and hybrid infrastructure components. Utilizing IT best practices, the Senior Network Engineer leads enterprise-wide network and cloud system implementation projects and is responsible for the maintenance, operations, and configuration of both physical and virtual network environments. This includes ensuring the availability, performance, and security of enterprise network systems in accordance with government regulations, industry standards, and service management frameworks. Additional responsibilities include: designing and reviewing network and cloud architectures; researching emerging technologies and trends in network and cloud infrastructure; performing advanced analysis, remediation, and reporting of network and security events; and, managing change and incident tickets, including coordination with vendors and cloud service providers. The duties for this position are primarily focused in the Systems Engineering, Information Security Engineering, and IT Project Management domains; however, work may be assigned in other domains as needed.

Job Description

40% (Essential) Serves as a high-level technical specialist in the implementation and administration of the most complex and technical network infrastructure devices and systems comprised of switches (including core and data center), cloud networking, firewalls, routers, client VPN terminators, network access control systems, wireless controllers and access points, DNS, authentication and authorization servers, network monitoring and management systems, and IDS/IPS systems. The incumbent is also responsible for designing, building, and maintaining network connectivity to various cloud service providers. Analyzes, troubleshoots, and resolves the most complex network infrastructure and security issues. Trains and mentors staff to troubleshoot complex network and security issues.

25% (Essential) Responsible for providing network security, availability, and performance monitoring, analysis, response, and reporting for highly complex network connectivity and security configurations that provide network and VoIP services. This includes Local Area Network, Wide-Area Network, Cloud, and Internet connectivity for Headquarters (HQ) and remote Lottery sites. Serves as the highest-level subject matter expert (e.g. representing the Network team in meetings with other Lottery departments to support business initiatives). Provides network core, data center, edge, cloud and network security documentation and enterprise-wide network documentation review.

20% (Essential) Works independently and as a work-group leader to oversee network and network security design and review for new technology and/or service implementations and changes to existing infrastructure ensuring that all designs and implementations are done in accordance with industry and vendor best practices and in compliance with Lottery and State security policies. Researches network infrastructure and security technologies and trends. Prepares presentations and recommendations for continual improvement of network security, connectivity, and management processes and procedures. Provides leadership of the most complex and technical enterprise-wide network implementation projects. Responsible for the most complex tasks related to network connectivity and security design and configurations. This includes leading and mentoring staff and reporting status to management.

10% (Essential) Responsible for the initiation and management of trouble and/or change tickets to service or hardware/software vendors (including data circuits and fully hosted and co-located data center environments) for resolution of issues and changes to existing services. Responsible for continual monitoring of open tickets to ensure all tasks are completed timely to meet business needs and security requirements and policies.

5% (Marginal) Performs other job-related duties as assigned such as but not limited to: developing/maintaining various documentation, acting as a project lead, and performing analysis and consulting services, and assisting with the training of any new personnel in the unit.

Scope and Impact

a. **Consequence of Error:** ITSD is responsible for delivering high-quality technology services and solutions that enable the business to achieve its goals and objectives. With over 1,000 staff located in offices throughout the state, the Lottery's sole mission is to provide supplemental funding for California's public schools and colleges. While the Lottery is a public agency, it receives no public funding. Instead, all operating and administrative expenses are raised through the responsible sales of our games. Disruptions that impact revenue generation would significantly affect the Lottery's ability to achieve its mission. In addition, incorrect data supplied to executives, upon which members rely for decision-making criteria, and/or unsupported recommended approaches or solutions could result in wasted resources and inefficient use of Lottery resources. Negative decisions on mission critical Lottery systems could result in outages where such failures would be a significant embarrassment to the Lottery, the Governor, and the state.

   Errors, incomplete staff work, poor recommendations, and/ or poor decisions may result in the loss of or disruption of major service to customers and/or the inability of ITSD to meet business needs. As appropriate, staff must be available to respond to service outages that affect daily operations to ensure business continuity.

   The Senior Network Engineer position supports ITSD's network infrastructure. The consequence of error includes adverse impact to critical services and operations, reduced resiliency of network components, and the potential of reduced revenues should services be disrupted. As appropriate, staff must be available to respond to service outages that affect daily operations to ensure business continuity.

b. **Administrative Responsibility:** None.

c. **Supervision Exercised and Received:** The Senior Network Engineer is under general direction of and receives most assignments from the Network Services Manager I; however, direction and assignments may also come from the extended ITSD management team. This position does not supervise others.

d. **Personal Contacts:** The Senior Network Engineer interacts with various levels of Lottery executives, managers, stakeholders, business areas, staff, vendors and consultants, and other state agencies.

Physical and Environmental Demands

The Senior Network Engineer is required to lift and move PC, networking, and related equipment (which can weigh 30 pounds or more) using a wheeled cart.

Working Conditions and Requirements

The Senior Network Engineer will work in a fast-paced environment, with competing priorities, and critical deliverables.

a. **Schedule**: This position supports the Lottery during normal business hours from 8:00 a.m. to 5:00 p.m. unless otherwise approved by the unit manager. Weekends, long and/or irregular hours, after-hours work, and holiday work may be required.
b. **Travel: Statewide,** overnight travel may be required.
c. **Other**: This position may be required to carry a Lottery-issued mobile phone. This position may be required to be reachable outside of normal business hours.

Effective Date: TBD

NOTE: The statements contained in this job description reflect general details as necessary to describe the principal functions of this job. It should not be considered an all-inclusive listing of work requirements. The incumbent of this position may perform other duties (commensurate with this classification) as assigned, including work in other functional areas to cover during absences, to equalize peak work periods or otherwise balance the workload.

SUPERVISOR'S STATEMENT:

- I have discussed the duties and responsibilities of the position with the employee.
- I have retained a copy of the signed duty statement.

Supervisor Signature	Printed Name	Date

EMPLOYEE'S STATEMENT:

- I have discussed the duties and responsibilities of the position with my supervisor.
- I have signed and received a copy of the duty statement.
- I am able to perform the essential functions listed with or without Reasonable Accommodation.
- I understand that I may be asked to perform other duties as assigned within my current classification, including work in other functional areas as business needs require.

Employee Signature	Printed Name	Date