Job Description Print Report

Position Review

Position Number		Position Type		Subject to Radiation		Subject to GD	
Hyperion Position Number		Fund Type	EBR	Parent Position = SUPERVISOR	127688|Team Leader (SGIS-CIT)|4		
Organization	SGIS-Core Infrastructure Team	FTE	1	CCOG 1			
Grade	P4	Duty Station	Vienna, Austria	CCOG 2			
Classified Grade	P4	Position Title	Linux Systems Engineer	Proposed New Title			
Master Version		Master Status		Approval Date			
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Job Description Review

Organization Settings

The Department of Safeguards (SG) is the organizational hub for the implementation of IAEA safeguards. The IAEA implements nuclear verification activities for over 180 States in accordance with their safeguards agreements. The main objective of the Department is to maintain and further develop an effective and efficient verification system in order to draw independent, impartial and timely safeguards conclusions, thus providing credible assurances to the international community that States are in compliance with their safeguards obligations. Safeguards activities are undertaken within a dynamic and technically complex environment including advanced nuclear fuel cycle facilities and complemented by the political and cultural diversity of the countries.

The Department of Safeguards consists of six Divisions: three Operations Divisions for the implementation of verification activities around the world; three Technical Divisions (Division of Concepts and Planning, Division of Information Management, and Division of Technical and Scientific Services); and three Offices (the Office for Verification in Iran, the Office of Safeguards Analytical Services and the Office of Information and Communication Services).

Within the Department of Safeguards, the Office of Information and Communication Systems (SGIS) is the centre of competence for the specification, development and maintenance of Information and Communication Technology (ICT) systems and for the management of all ICT infrastructure and services to support safeguards. In partnership with other organizational entities, SGIS is responsible for planning and implementing an ICT strategy as well as enforcing ICT standards.

The Infrastructure Section (IS) is responsible for providing secure, reliable, and dependable computing, collaboration, database and communications services to the Department of Safeguards. The Infrastructure Section cooperates with other Sections and Divisions in the Department of Safeguards to deliver IT services at a very high standard. Reporting to the Infrastructure Section, the Core Infrastructure Team (CIT) is responsible for the planning, management, operation, design, and monitoring of the core IT infrastructure that provides the Department with highly available and secured information. The core ICT infrastructure includes all Safeguards networks and systems in Vienna, Tokyo, Toronto, Rokkasho and Seibersdorf, remote access, IT security infrastructure, digital storage, server, hypervisor, hyper-converged infrastructure, local area networks, wide area networks, operating systems, and data centre operations. Additionally, CIT is responsible for ensuring that ICT infrastructure services are efficiently delivered to the

Department of Safeguards and that delivery processes and tools are automated, secure, reliable and documented.

Main Purpose

As a team member reporting to the Core Infrastructure Team Leader, the Linux Systems Engineer applies technical knowledge in the establishment, design, development, implementation and operations of Department of Safeguards Linux based servers and applications. This is achieved by acting as a technical lead for projects and providing technically-sound support to enhance and maintain Safeguards Linux based systems, with the objective of achieving highly reliable, well performing, and secure systems. He/she uses automation and development skills to create and automate processes to consistently deliver and support Linux based IT services in accordance with the Department's agile-based solution development methodology. He/she plays a significant technical role in supporting and developing and providing platforms for Artificial Intelligence, Machine Learning and Integration oriented projects within the Department of Safeguards. Furthermore, the Linux System Engineer helps data scientists in provisioning of connected data sources ensuring compliance to data governance and security standards.

Role

The Linux Systems Engineer is: a technical specialist, designing, implementing, establishing processes and supporting in-house developed information systems and standard server-based services; a Linux based systems expert, providing advice to management on establishing secure Linux based systems and best practices; an implementer, establishing, defining, and executing infrastructure projects and security solutions; and functioning as an expert in troubleshooting systems issues and ensuring excellence in IT service delivery.

Partnership

The Linux Systems Engineer collaborates extensively with SGIS staff and other IT and technical professionals to provide technical expertise and solutions pertaining to the Department's server, network and information systems infrastructure, works with teams across the Department and the Agency to facilitate Linux based needs in support of the Department of Safeguards activities. The Linux Systems Engineer collaborates with external vendors and product suppliers on new information and technical specifications to evaluate and assess suitability of the products as well as on the project implementation and operation. The Linux System Engineer also collaborates with data scientists from other departments and helps them in integrating their machine learning models with existing data sources.

Functions / Key results Expected

Provide expert planning, architecture, design, implementation and operations of Linux based systems in a Hyperconverged, virtualized multi-site environment with emphasis on supporting Artificial Intelligence and Machine Learning oriented, and GPU intensive applications.

Proactively assess, propose, design, conduct proof of concepts and pilot projects for highly available solutions and optimizations that can bring benefit to the operations and security of the Department's Linux systems with emphasis on high-availability, business continuity and disaster recovery.

Guide, support and coordinate contractors and other engineering professionals in system architecture design, change implementation, daily operations and troubleshooting.

Proactively implement and operate all existing and new Linux systems and related components to ensure software, hardware and architectural compatibility with respect to the Department's security, operational, availability and life cycle requirements and policies.

Ensure the confidentiality, integrity and availability in both Linux system design and operations in collaboration with the Department's IT security team and provide expert insight to support security and operations specialists as part of an incident response team.

Create and maintain architectural, operational and inventory documentation and coordinate procurement activities related to the Department's Linux system infrastructure, including maintenance, support and warranty.

Generic JD Remarks

Competencies

Core Competencies

Competency	Occupational Role	Definition
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen to and understand the perspectives of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Division's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section's priorities. Takes into account potential changes and proposes contingency plans.

Functional Competencies

Competency	Occupational Role	Definition
Client orientation	Associate	Establishes effective relationships with clients to understand and meet or exceed their needs. Finds ways to ensure client satisfaction.
Commitment to continuous process improvement	Associate	Identifies opportunities for process, system and structural improvement as well as improving current practices, increasing effectiveness and achieving efficiency gains. Actively supports the application of sound quality management standards and process improvement.
Judgement/decision making	Associate	Consults with supervisor/manager and makes decisions in full compliance with the Agency's regulations and rules.

Expertise

Expertise (drop down list)	Description (free text field)	Asset
Information Technology | Systems Engineering	Expert knowledge of Linux systems and associated technologies and concepts including hypervisor architecture and operations, AI and ML application support and GPU management.	N
Information Technology | Systems Engineering	Expert knowledge of database technology and data integration	N

Position Specific FC	Occupational Role	Definition
Commitment to continuous process improvement	Specialist	Plans and executes activities in the context of quality and risk management and identifies opportunities for process, system and structural improvement, as well as improving current practices. Analyses processes and procedures, and proposes improvements.
Technical/scientific credibility	Specialist	Ensures work compliance with internationally accepted professional standards and scientific methods. Provides scientifically/technically accepted information that is credible and reliable.

Position Specific Expertise	Description	Asset
Information Technology | Enterprise Information	Expert knowledge of Linux systems infrastructure, operations, architectures, practices and policies	
Information Technology | Systems Engineering	Engineering of Linux systems, and information technology services	
Information Technology | IT Disaster Recovery Frameworks	Exposure to IT systems and network infrastructure business continuity and disaster recovery (BC/DR) design, implementation and operation.	
Information Technology | Systems Engineering	Work experience and expert knowledge of the Cisco Unified Computing System and Hyperconverged Infrastructure	
Information Technology | Systems Engineering	Knowledge of VMware based virtualisation platforms and the setup and operations of containers	

Languages

Languages	Asset Languages
English	Arabic Chinese French Russian Spanish

Qualification (drop down list)	(Free text field)
Qualification Title	Description
Advanced Degree	Advanced university degree in computer science, information systems or related field
Bachelor Degree	A first level university degree in computer science, information systems or other related field with 3 additional years of relevant professional experience may be considered in lieu of the advanced university degree.
Other	Professional certifications in Data Science
Other	Certifications in information security are beneficial

Experience (free text to capture information not accommodated elsewhere – do not duplicate information in competencies or expertise)

At least 7 years of work experience as a Systems Engineer with at least 5 of those years supporting Linux systems
Recent experience with configuring, updating, managing and monitoring Linux systems
Experience with infrastructure foundations for VMware based virtualization platform
Experience with architecting and implementation of business continuity and disaster recovery
Experience with databases and other information systems.
Experience with data science is an asset
Experience with containers is an asset.

Job Description Remarks

Requisition

Contract Type		Expected Start Date		Duration		Mobility	
Fully Competitive Recruitment			Travel				

Approval History

Seq.	Name	Category		Status	Date