



Job Description Print Report

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Position Review

Position Number	059433	Position Type	CFE/JPO	Subject to Radiation	Yes	Subject to GD	No
Hyperion Position Number		Fund Type	EBR	Parent Position	018456 Team Leader (SGTS-Data Management)		
Organization	SGTS-Data Management Team	FTE	1	CCOG 1	1B07B		
Grade	P3	Duty Station	Vienna, Austria	CCOG 2			
Classified Grade		Position Title	Data Management Engineer	Proposed New Title			
Master Version	1	Master Status	Approved	Approval Date			
Position Version	1	Position Status	Not Initiated	Approval Date			

Job Description Review

Organization Settings

The Department of Safeguards carries out the IAEA's duties and responsibilities as the world's nuclear inspectorate, supporting global efforts to stop the spread of nuclear weapons. The primary role of the Department is to develop and implement IAEA safeguards to ensure that there is no diversion of declared nuclear material from peaceful activities and no indications of undeclared nuclear material or activities in a State as a whole.

The Department comprises nuclear safeguards inspectors, responsible for carrying out inspections and verifications of all-safeguards relevant information for nuclear facilities in over 180 States; and technical staff responsible for a wide range of activities including: developing concepts and approaches for implementing safeguards; developing and maintaining safeguards equipment; providing analytical and laboratory services for sample analysis; collecting, evaluating and analysing safeguards-relevant information; providing information and communication technology infrastructure and services; and providing programme coordination support.

The Division of Technical and Scientific Services ensures the provision of state-of-the-art equipment and related expertise for the accomplishment of the Department of Safeguards activities. Within this mandate, the Division is responsible for procurement, testing, provision, inventory control, performance monitoring and maintenance of safeguards equipment and supplies required by SGO Divisions; management of equipment development and engineering activities to meet quality and safeguards requirements; development and provision of documentation, procedures, instrumentation methods and techniques; provision of specialized technical and scientific support to inspectors and inspection activities in the field and at headquarters; and, radiation contamination monitoring of returned equipment and timely write-off of obsolete or contaminated equipment. The Division also coordinates departmental health and safety activities.

Main Purpose

Reporting to the Team Leader and with guidance from the Section's Network experts, the Data Management Engineer implements, tests, maintains and upgrades software applications and data network related to data processing and review and to remote data collection and transmission. In particular, the software applications are used to handle the data of various safeguards (SG) equipment installed in the field and to remotely handle the SG equipment itself. Furthermore, the Data Management Engineer provides guidance on data integration methodologies and best practices, ensuring that all interfaces for the various software/network subsystems are in place and that the performance of integrated systems is consistently reliable.

Role		
The Data Management Engineer is: (1) a software developer, maintaining and customizing data collection software, based on state of the art technologies which may include artificial intelligence/machine learning (AI/ML) tools and technologies; (2) a project contributor, initiating, planning, executing and monitoring agreed work, and taking part in various team, Section and divisional activities; and (3) a contributor to network configurations and data security, including securing data by applying cryptographic concepts.		
Partnership		
The Data Management Engineer works closely with colleagues from all SGTS Sections, and liaises and contributes to software/network projects with other staff within the Department, staff of external R&D organizations, and commercial vendors. Furthermore, the Data Management Engineer assists the Division's technical teams with integration issues, particularly with regard to establishing uniformity of practices and quality standards, as well as optimization of processes in the Division.		
Functions / Key results Expected		
Maintain and upgrade any assigned data review software applications, in order to improve communications, data transfers and data evaluation from specialized safeguards equipment at remote facilities. Analyse and correct the requirements for any assigned new software applications, especially those related to remote data transmission tools and those dedicated to reviewing data from remote equipment, including the analysis of its State of Health (SoH) data. Ensure proper practices are followed by providing user support to the Operations Divisions, including the provision of (i) field support during inspections; (ii) instructions on the use of data review software; and (iii) well-documented system operations procedures. Participate in the testing, implementation, maintenance and upgrade of network configurations and network components (e.g. VPNs, router, etc.) and of data review software applications using state of the art techniques and tools.		
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	Specialist	Establishes effective relationships with clients to understand and meet or exceed their needs. Finds ways to ensure client satisfaction.
Judgement/decision making	Specialist	Consults with supervisor/manager and makes decisions in full compliance with the Agency's regulations and rules.
Technical/scientific credibility	Specialist	Acquires and applies new skills to remain up to date in his/her area of expertise. Reliably applies

		knowledge of basic technical/scientific methods and concepts.
Expertise		
Expertise	Description	Asset
Safeguards Industrial Safety and Hazardous Materials	Basic knowledge of safety regulations working in a laboratory	Y
Information Technology IT Security	Knowledge of basic cryptographic concepts (e.g. PKI).	N
Management and Programme Analysis Project Management	Knowledge of project management tools and familiarity with project management principles as described by PRINCE2 or PMI.	Y
Nuclear Engineering Quality Assurance and Control	Familiarity with, or training in, quality assurance and control.	Y
Information Technology Application Architecture	Disciplined, methodical approach to the analysis of requirements and system design.	N
Information Technology Computer Programming	Understanding of software engineering processes and the software engineering life cycle.	N
Information Technology Database Development	Experience in relational database management software (e.g. SQL Server) and programming (e.g. SQL).	Y
Information Technology Software Development	Experience in web programming (JavaScript, AJAX/JSON, PERL, HTML) and with programming languages e.g. C#/C++, Java, XML, R, Perl	N
Information Technology Network Security	Experience in network systems and components, including at least basic knowledge of TCP/IP, routing protocols, VPN, firewalls, telecommunications and IT security techniques.	N
Management and Programme Analysis / Partnership Development	Strong interpersonal skills to establish and maintain good relationships with internal and external counterparts, e.g. designers, manufacturers and facility operators.	Y
Position Specific FC		
Occupational Role	Definition	
Position Specific Expertise		
Description	Asset	
Languages		
Languages	Asset Languages	
English	Arabic Chinese French Russian Spanish	
Qualification		
Qualification Title	Description	
Bachelor's Degree	University degree in physics, electronics, computer engineering, or a related field.	
Experience		
Minimum of five years of relevant working experience in software development and/or network implementations Experience in the technical management of projects an asset.		

Job Description Remarks							
Requisition							
Contract Type		Expected Start Date		Duration		Mobility	
Fully Competitive Recruitment			Travel				
Approval History							
Seq.	Name	Category			Status	Date	