JOB PROFILE	
Profile	Solutions Architect
MITA Career Level *Based on SFIA v6 Responsibility Levels*	4

SUMMARY STATEMENT

Plans and is accountable for the implementation and integration of software, systems, networks and infrastructure.

MISSION

Designs, integrates and implements complex ICT solutions from a technical perspective. Ensures, that technical solutions, procedures and models for development are up-to-date and comply with standards. Watches technology development and integrates into new solutions. Acts as a mentor and guide for developers, TSOs and other technical personnel.

DELIVERABLES

Accountable	• Solution specification • Integrated solution
Responsible	• New technology integration proposal • Systems in operation
Contributor	• Design and development process of systems/components

MAIN TASKS

- Analyse technology, business and technical requirements.
- Specify, implement, and operates complex ICT solutions.
- Lead development, integration and support of components.
- Lead and conduct system integration.
- Be aware of technology/service/product brokering, re-purposing and mash-up opportunities.
- Lead and actively participate in the operation & maintenance of systems within assigned area.
- Other duties as assigned.

ESSENTIAL BASIC ATTRIBUTES *Based on SFIA v6 according to Responsibility Levels (Appendix I)*

Autonomy	Works under general direction within a clear framework of accountability. Exercises substantial personal responsibility and autonomy. Plans own work to meet given objectives and processes.
Influence	Influences customers, suppliers and partners at account level. May have some responsibility for the work of others and for the allocation of resources. Participates in external activities related to own specialism. Makes decisions which influence the success of projects and team objectives.

Complexity	Work includes a broad range of complex technical or professional activities, in a variety of contexts. Investigates, defines and resolves complex issues.
Business Skills	Selects appropriately from applicable standards, methods, tools and applications. Communicates fluently, orally and in writing, and can present complex information to both technical and non-technical audiences. Facilitates collaboration between stakeholders who share common objectives. Plans, schedules and monitors work to meet time and quality targets. Rapidly absorbs new information and applies it effectively. Maintains an awareness of developing technologies and their application and takes some responsibility for driving own development.

ESSENTIAL PROFESSIONAL ATTRIBUTES *Based on SFIA v6 (Appendix I)*

Code	Description	SFIA Level
SCTY	Information Security	4[1]
TECH	Technical Specialism	4
EMRG	Emerging Technology Monitoring	4[2]
COPL	Continuity Management	4
NTPL	Network Planning	5[3]
ARCH	Solution Architecture	5
DATM	Data Management	4
METL	Methods and Tools	4
BUAN	Business Analysis	4
REQM	Requirements Definition and Management	4
DLMG	Systems Development Management	5
DBAD	Database Administration	4[4]
ITOP	IT Operations	4[5]
NTAS	Network Support	4[6]
DESN	Systems Design	4
NTDS	Network Design	5[7]
DBDS	Database Design	4[8]
PROG	Programming Software Development	4[9]
SINT	Systems Integration	4
SCAD	Security Administration	4[10]

---

1 Level 4 is required for ISC, Level 3 is required for all other areas
2 Level 4 is required for Technology
3 Level 5 is required for Networks
4 Level 4 is required for Systems, Level 3 is required for ISC, Software and Technology
5 Level 4 is required for Systems and Networks, Level 3 is required for all other areas
6 Level 4 is required for Systems and Networks, Level 3 is required for all other areas
7 Level 5 is required for Networks
8 Level 4 is required for Systems, Level 3 is required for ISC, Software and Technology
9 Level 4 is required for Software, Level 2 is required for all other areas
10 Level 4 is required for ISC

ESSENTIAL SOFT SKILLS *Based on ESCO database (Appendix II)*

Social Skills – Working with others and as a team

Attitudes and Values

Thinking – Creative and Analytical

Communication – Verbal and non-Verbal

CERTIFICATION

Name	Relevant Professional Certification
Mandatory	No

ELIGIBILITY CRITERIA

One of the following:
   i.   A qualification in a related area (MQF Level 7 OR higher) OR
   ii.   A qualification in a related area (MQF Level 6) AND an additional 1 year experience in a related area; OR
   iii. A qualification in a related area (MQF Level 5) AND an additional 3 years experience in a related area; OR
   iv.   A qualification in a related area (MQF Level 4) AND an additional 4 years experience in a related area; OR
   v.   5 years experience in a related area.

REPORTING LINE

Reports to	Head of Department or delegate
Interacts with	Peers
Supervises	As assigned

WORKING CONDITIONS

Normal office hours with possibility to provide support in unscheduled or crisis situations after hours and/or on weekends.

APPENDIX I - SFIA SKILLS DEFINITION

SCTY Information Security: Level 4 Explains the purpose of and provides advice and guidance on the application and operation of elementary physical, procedural and technical security controls. Performs security risk, vulnerability assessments, and business impact analysis for medium complexity information systems. Investigates suspected attacks and manages security incidents. Uses forensics where appropriate.

TECH Technical Specialism: Level 4 Maintains knowledge of specific specialisms, provides detailed advice regarding their application and executes specialised tasks. The specialism can be any area of information or communication technology, technique, method, product or application area.

EMRG Emerging Technology Monitoring: Level 4 Maintains awareness of opportunities provided by new technology to address challenges or to enable new ways of working. Within own sphere of influence, works to further organisational goals, by the study and use of emerging technologies and products. Contributes to briefings and presentations about their relevance and potential value to the organisation.

COPL Continuity Management: Level 4 Provides input to the service continuity planning process and implements resulting plans.

NTPL Network Planning: Level 5 Creates and maintains network plans for own area of responsibility, contributes to setting service level agreements, and plans the infrastructure necessary to provide the network services to meet such agreements.

ARCH Solution Architecture: Level 5 Uses appropriate tools, including logical models of components and interfaces, to contribute to the development of systems architectures in specific business or functional areas. Produces detailed component specifications and translates these into detailed designs for implementation using selected products. Within a business change programme, assists in the preparation of technical plans and cooperates with business assurance and project staff to ensure that appropriate technical resources are made available. Provides advice on technical aspects of system development and integration (including requests for changes, deviations from specifications, etc.) and ensures that relevant technical strategies, policies, standards and practices (including security) are applied correctly.

DATM Data Management: Level 4 Takes responsibility for the accessibility, retrievability and security of specific subsets of data. Assesses the integrity of data from multiple sources (including, for example, from sensors & measurement systems). Provides advice on the transformation of data/information from one format/medium to another, where appropriate. Maintains and implements information handling procedures. Enables the availability, integrity and search ability of information through the application of formal data structures and protection, measures. Manipulates specific data from information services, to satisfy local or specific information needs.

METL Methods & Tools: Level 4 Provides expertise and support on use of methods and tools.

BUAN Business Analysis: Level 4 Investigates operational requirements, problems, and opportunities, seeking effective business solutions through improvements in automated and non-automated components of new or changed processes. Assists in the analysis of stakeholder objectives, and the underlying issues arising from investigations into business requirements and problems, and identifies options for consideration. Works iteratively with stakeholders, to identify potential benefits and available options for consideration, and in defining acceptance tests.

REQM Requirements Definition and Management: Level 4 Facilitates scoping and business priority-setting for change initiatives of medium size and complexity. Contributes to selection of the most appropriate means of representing business requirements in the context of a specific change initiative, ensuring traceability back to source. Discovers and analyses requirements for fitness for purpose as well as adherence to business objectives and consistency, challenging positively as appropriate. Obtains formal agreement by stakeholders and recipients to scope and requirements and establishes a base-line on which delivery of a solution can commence. Manages requests for and the application of changes to base-lined requirements. Identifies the impact on business requirements of interim (e.g. migration) scenarios as well as the required end position.

DLMG Systems Development Management: Level 5 Defines solution development projects which support the organisation's objectives and plans. Ensures that senior management is both aware of

and able to provide the required resources. Contributes effectively to improving solution development processes within the organisation justified by measurable business benefits. Facilitates availability and optimum utilisation of resources, especially in Agile projects. Monitors and reports on the progress of development projects, ensuring that projects are carried out in accordance with agreed standards, methods and procedures (including secure software development). Applies secure development improvement practices.

DBAD Database Administration: Level 4 Uses database management system software and tools, and knowledge of logical database schemata, to investigate problems and collect performance statistics and create reports. Carries out routine configuration/installation and reconfiguration of database and related products.

ITOP IT Operations: Level 4 Provides technical expertise to enable the correct application of operational procedures. Uses network management tools to determine network load and performance statistics. Contributes to the planning and implementation of maintenance and installation work, including building and management of systems and components in virtualised computing environments. Implements agreed network changes and maintenance routines. Identifies operational problems and contributes to their resolution, checking that they are managed in accordance with agreed standards and procedures. Provides reports and proposals for improvement, to specialists, users and managers.

NTAS Network Support: Level 4 Maintains the network support process and checks that all requests for support are dealt with according to agreed procedures. Uses network management software and tools to investigate and diagnose network problems, collect performance statistics and create reports, working with users, other staff and suppliers as appropriate.

DESN Systems Design: Level 4 Recommends/designs structures and tools for systems which meet business needs and takes into account target environment, performance & security requirements and existing systems. Delivers technical visualisation of proposed applications for approval by customer and execution by system developers. Translates logical designs into physical designs, and produces detailed design documentation. Maps work to user specification and removes errors and deviations from specification to achieve user-friendly processes.

NTDS Network Design: Level 5 Produces outline system designs and specifications, and overall architectures, topologies, configuration data-bases and design documentation of networks and networking technology within the organisation. Specifies user/system interfaces, including validation and error correction procedures, processing rules, access, security and audit controls. Assesses associated risks, and specifies recovery routines and contingency procedures. Translates logical designs into physical designs.

DBDS Database/Repository Design: Level 4 Develops and maintains specialist knowledge of data-base concepts, object and data modelling techniques and design principles and a detailed knowledge of database architectures, software and facilities. Analyses data requirements to establish, modify or maintain object/data models. Evaluates potential solutions, demonstrating, installing and commissioning selected products.

PROG Programming/Software Development: Level 4 Designs, codes, tests, corrects and documents large and/or complex programs and program modifications from supplied specifications using agreed standards and tools, to achieve a well engineered result. Takes part in reviews of own work and leads reviews of colleagues' work.

SINT Systems Integration: Level 4 Defines the integration build, accepts software modules from software developers, and produces software builds for loading onto the target environment. Configures the hardware environment, produces integration test specifications, and conducts tests, recording details of any failures and carrying out fault diagnosis.

SCAD Security Administration: Level 4 Maintains security administration processes and checks that all requests for support are dealt with according to agreed procedures. Provides guidance in defining access rights and privileges. Investigates security breaches in accordance with established procedures and recommends required actions and supports / follows up to ensure these are implemented.

APPENDIX II - ESCO DATABASE

Social Skills

Working with Others - work as part of a team

- o Accept constructive criticism
- o Collaborate on tasks
- o Foster social networks
- o Give constructive criticism
- o Share information
- o Share opinions
- o Share resources

Attitudes and Values at Work

Attitudes

- o Demonstrated commitment – attend to detail, attend to quality, be curious, make an effort, meet commitments, persist, show enthusiasm, work efficiently, work independently
- o Handles challenges – adapts to changes, build on experience, cope with pressure, deal with uncertainty, learn from mistakes, manage frustration

Values

- o Follow ethical work practice – identify environmental impact, identify ethical issues, identify social impact, make ethical choices, reflect on own work practices
- o Show respect – demonstrate tolerance, show consideration, show good manners, treat people fairly, work with different viewpoints

Thinking

Creative and Entrepreneurship

- o Generate new ideas – anticipate needs, experiment, recognise opportunity, show originality, visualise completed work
- o Turn new ideas into action – adapt implementation strategy, create implementation strategy, produce original work

Critical thinking

- o Examine evidence – check facts, consider alternative views, consider impact of judgement, critique reasoning, notice bias
- o Explore issues – ask key questions, draw conclusions, explain reasoning, identify live topics, identify patterns, make judgements, question assumptions, recognise connections

Learning

- o Manage learning process – monitor learning process, plan learning, use different learning strategies
- o Manage the learning self – prioritise learning tasks, reflect on learning process

Planning own work

- o Follow plan – monitor progress
- o Manage time – work out time line
- o Sets target – identify tasks

Problem Solving

- o Analyse the problem – examine causes of problem, explore context of problem, identify stakeholders involved
- o Plan for action – devise strategy, prioritise actions, set goals
- o Take action to solve the problem – coordinate actions, evaluate success, implement strategy, multi task, troubleshoot

File Name: HRO-JBP-SolutionsArchitect-v4.0.docx
Author: Human Resource Office
Page: 6 of 7

Communication
Non-verbal communication   - Respond to cultural differences   - Understands non-verbal cues – read different types of eye contact, read different types of touch, read facial expressions, understand gestures, understand postures, understand uses of personal space   - Use non-verbal cues – make appropriate use of eye contact, make appropriate use of personal space, make appropriate use of touch, use appropriate facial expressions, use appropriate gestures, use appropriate postures   Verbal communication   - Spoken interaction – debating techniques, interrogating, negotiating, persuading   - Spoken production – presentation techniques