

Post Title:	Data Solution Architect
Grade:	8

Job Description

2.1. Purpose

The Data Solution Architect will architect and design data and database systems in line with the overall enterprise data architecture and in accordance with the needs of the business. They will work with the Enterprise Data Architect to assure the cyber-security needs of the business and to deliver the Information Security Strategy for the University Group.

The post holder will have an excellent understanding of technology and technology trends within the field of data and database technology. They will apply this insight to enable the business to innovate through the use of technology.

They will understand the vital importance of data to the business and will be an advocate for data governance and information management.

They will pro-actively scan the market and look to bring in emerging technologies that the University Group might leverage for competitive advantage.

The post will be line-managed by the Enterprise Data Architect and will work closely with other solution architects across disciplines in order to build effective solutions for the University Group.

2.2. Main Duties and Responsibilities

1. Leads the development of solution architectures for specific data systems. Ensures that appropriate tools and methods are available, understood and employed in architecture development. Within a change programme, leads the preparation of technical plans and, in liaison with business assurance and project staff, ensures that appropriate technical resources are made available. Provides advice on technical aspects of solution development and integration and ensures that relevant technical strategies, policies, standards and practices (including security) are applied correctly.
2. Actively maintains recognised expert level knowledge in data systems and data technologies. Provides definitive and expert advice in data systems and data technologies. Oversees the provision of specialist advice by others, consolidates expertise from multiple sources, including third party experts, to provide coherent advice to further organisational objectives. Supports and promotes the development and sharing of specialist knowledge within the organisation.

3. Takes responsibility for the design, procurement, installation, upgrading, operation, control, maintenance and effective use of IT data systems components and monitors their performance. Provides technical management of IT data systems, ensuring that agreed service levels are met and all relevant policies and procedures are adhered to. Schedules and supervises IT data systems maintenance and installation work. Ensures that operational problems are identified, recorded, monitored and resolved. Provides appropriate status and other reports to specialists, users and managers. Ensures that operational procedures and working practices are fit for purpose and current. Investigates and manages the adoption of appropriate tools, techniques and processes (including automation) for the management of data systems and services.
4. Devises and implements master data management processes, including classification, security, quality, ethical principles, retrieval and retention processes. Derives data management structures and metadata to support consistency of information retrieval, combination, analysis, pattern recognition and interpretation, throughout the organisation. Plans effective data storage, sharing and publishing within the organisation. Independently validates external information from multiple sources. Assesses issues which might prevent the organisation from making maximum use of its information assets.
5. Sets standards for data modelling and design tools and techniques, advises on their application, and ensures compliance. Manages the investigation of corporate data requirements, and co-ordinates the application of data analysis, design and modelling techniques, based upon a detailed understanding of the corporate information requirements. Does this in order to establish, modify or maintain data structures and their associated components (entity descriptions, relationship descriptions, attribute definitions). Manages the iteration, review and maintenance of data requirements and data models.
6. Provides expert guidance in the selection, provision and use of database and data warehouse architectures, software and facilities. Provides specialist expertise in the design characteristics of database management systems (DBMS) or data warehouse products/services. Ensures that physical database design policy supports transactional data requirements for performance and availability. Ensures that data warehouse design policy supports demands for business intelligence and data analytics.
7. Provides advice and guidance on security strategies to manage identified risks and ensure adoption and adherence to standards. Obtains and acts on vulnerability information and conducts security risk assessments, business impact analysis and accreditation on complex information systems. Investigates major breaches of security, and recommends appropriate control improvements. Contributes to development of information security policy, standards and guidelines.
8. Reviews current and proposed data systems for compliance with the organisation's obligations (including legislation, regulatory, contractual and agreed standards/policies)

and adherence to overall strategy. Provides specialist advice to those accountable for governance to correct compliance issues.

9. Maintains an awareness of the global needs of the organisation. Promotes (to both information systems and business management) the benefits that a common approach to information and communications technology deployment will bring to the business as a whole. Coordinates the promotion, acquisition, development, and implementation of data systems and services in close liaison with those responsible for management and strategy.
10. Manages the data systems innovation pipeline and executes innovation processes. Develops, evolves and adapts innovation tools, processes and infrastructures to drive the process of innovation. Identifies resources and capabilities needed to support innovation. Encourages and motivates innovation communities, teams and individuals to share creative ideas and learn from failures. Manages and facilitates the communication and open flow of creative ideas between interested parties and the set-up of innovation networks and communities.
11. Monitors the external environment to gather intelligence on emerging data systems technologies. Assesses and documents the impacts, threats and opportunities to the organisation. Creates reports and technology roadmaps and shares knowledge and insights with others.
12. Provides advice, guidance and expertise to promote adoption of methods and tools and adherence to policies and standards. Evaluates and selects appropriate methods and tools in line with agreed policies and standards. Implements methods and tools at programme, project and team level including selection and tailoring in line with agreed standards. Manages reviews of the benefits and value of methods and tools. Identifies and recommends improvements. Contributes to organisational policies, standards, and guidelines for methods and tools.

Deputises for the Enterprise Data Architect as required.

AND such other duties as are within the scope of the spirit of the job purpose, the title of the post and its grading.

2.3. Supervision Received

Line management is from the Enterprise Data Architect.

2.4. Supervision Given

None.

2.5. Contacts

- IT Services staff, including Executive Team.

- University Group Leadership Team.
- Staff and students in other Schools / Support Areas of the University Group.
- External Suppliers and other education institutions.

3. Person Specification

ATTRIBUTES	ESSENTIAL	ADVANTAGEOUS
<i>Education & Qualifications</i>	<ul style="list-style-type: none"> Educated to degree level in a relevant discipline with a professional qualification or substantial experience in related field in lieu of the above. 	<ul style="list-style-type: none"> Postgraduate or professional qualification in a relevant discipline, or chartered member. MCSE (Data Management and Analytics). OCP (Database). CISSP.
<i>Knowledge & Experience</i>	<ul style="list-style-type: none"> Substantial experience of data solution architecture in a large, complex organisation. Significant knowledge of database management systems. Experience with Oracle DBMS. Experience with SQL Server DBMS. 	<ul style="list-style-type: none"> Higher Education experience.
<i>Job-related Skills, Abilities & Competencies</i>	<ul style="list-style-type: none"> Excellent analytical, strategic conceptual thinking, strategic planning and execution skills. Exceptional leadership skills with the ability to develop and communicate the data solution architecture vision and inspire, motivate and develop staff. Takes accountability and has strong sense of ownership. Results oriented and a commitment to a high quality customer service A distinctive blend of business, IT, financial and communication skills. Understanding business organisation, politics and culture. Ability to build and maintain broad network of business relationships. Knowledge of customer behaviours, needs and expectations. Ability to lead a team/discipline to quickly resolve complex problems in the provision of IT services. Good understanding of current and 	<ul style="list-style-type: none"> Designing modular architecture. Public cloud infrastructure. Microsoft Azure. Amazon Web Services.

	<p>emerging technologies and how other enterprises are employing them to drive digital business support.</p> <ul style="list-style-type: none"> • Data and database solution design & architecture. • Cyber-security within data and database technologies. 	
<i>Interpersonal Skills</i>	<ul style="list-style-type: none"> • Able to influence and negotiate at all levels and also where resources may not be in direct control of this role. • Excellent communication, and presentation skills. • Ability to forge effective relationships in a complex matrix management environment. • Results oriented, adaptive and decisive. • Ability to build trust and display integrity. • Ability to work collaboratively and be a key team player. • Creative and innovative thinking. • Can resolve conflicts and problems. 	
<i>Other Requirements</i>	<ul style="list-style-type: none"> • A flexible approach to working hours and location, including a willingness to travel, locally, nationally or overseas, as required. • An appreciation of other cultures; the global reach of the University Group and its international agenda. • Ability to work flexibly and extended hours by agreement to meet tight, fixed deadlines or as required by service imperatives. • Requirement to work on call in order to facilitate the 24*7 support demands of a global organisation. 	