

Title Database Administration Engineer	Department Resources	Post Ref. RES/T4/105
Job Purpose <p>To maintain the Authority's databases including preventive maintenance and tuning, investigation and resolution of incidents and problems.</p> <p>The delivery of a fully tested solution that is implemented into the server infrastructure and delivering services to the satisfaction of all parties.</p>		
Key Responsibilities <ol style="list-style-type: none"> 1. Provide technical advice to the Enterprise Architecture team and Project & Resources project teams on Database architecture projects 2. Implement and integrate Database architecture designs into the server environment 3. The building, installation, maintenance, administration and support of all Databases within the Authority 4. Carrying out of tuning and balancing of databases to maximise efficiency and speed of response 5. To monitor Key Performance Indicators and Service Level Agreements to ensure that targets are being met, and the provision of performance and KPI statistics 6. Actively manage & monitor the performance of Databases 7. Implementing changes, patches and upgrades in accordance with the Change Management process 8. Updating of the CMDB & DSL (Definitive Software Library) 9. Providing 2nd & 3rd line support for Database incidents and problems 10. Provide technical advice and work with the Service Level Management teams on any Service Management issue 	Key Accountabilities <ol style="list-style-type: none"> 1. To the Database Team Leader for delivering services to agreed SLA's and to the required standard. 2. You will keep under review your developmental needs, where appropriate the developmental needs of staff, and keep yourself informed of current issues within the context of corporate and departmental learning and development strategy, policy and practice. You will ensure that any employees you manage are kept informed of and understand all policies relevant to their work. 3. You will personally and through the employees you manage, implement and positively promote equal opportunities in service delivery and employment practices. 4. You will take reasonable care for your health and safety and that of other persons who may be affected by the performance of your duties and where appropriate to safeguard the health and safety of all persons and premises under your control and guidance in accordance with the provisions of Health & Safety legislation, and Authority and Departmental Codes of Practice and 	

<ul style="list-style-type: none"> 11. Provide technical advice to the Continuity team on DR testing 12. Provision of Database technical advice for Customer Service Managers 13. Provision of data and file recovery 14. Out of hours and weekend support as required 15. Use database management system software and tools to investigate problems and collect performance statistics and create reports. Carry out routine configuration/installation and reconfiguration of database and related products. The installation, configuration, upgrade, administration, monitoring and maintenance of physical databases 16. Develop and maintain specialist knowledge of database concepts, object and data modelling techniques and design principles and a detailed knowledge of database architectures, software and facilities. Analyse data requirements to establish, modify or maintain object/data models. Evaluate potential solutions, demonstrating, installing and commissioning selected products. The specification, design and maintenance of structures for information storage and access to support business information needs. 17. Use database management tools to investigate, diagnose and resolve database problems within service level agreement tolerances, referring to database users, other staff and suppliers as necessary 18. Use database management systems software and appropriate analysis tools to collect routine database performance statistics and create reports, including proposals for improvement. 19. Carry out routine configuration/installation and reconfiguration of database and related products 20. Develop specialist technical and application knowledge of database (DB) concepts, object and data modelling techniques and design principles. Maintains a detailed knowledge of database architectures, software and facilities and their application in local use. 21. Analyse the data requirements of a part of the organisation to establish, modify or maintain an object/data model (using the Object-Entity-Relationship-Attribute or other appropriate model). 	<p>Procedures. You will exercise proper care in handling, operating and safeguarding any equipment, vehicle or appliance provided, used or issued by the County Council or provided or issued by a third party for individual or collective use in the performance of your duties.</p> <ul style="list-style-type: none"> 5. Within resource constraints, you will promote and deliver fair and quality services that are sensitive and responsive to customers. You will ensure implementation of customer care policies by the staff who you supervise. 6. You will take account of environmental issues arising from any service developments, and ensure that all staff are familiar with the County Council's green policies and established office and work practices. 7. In accordance with "The Introduction of New Technology Agreement", you will work with computers, new technology and associated systems as required and support the employee(s) you manage in its use. 8. You will personally and through the employees you manage ensure compliance with the County Council's Data Protection, Freedom of Information Act and ICT codes of practice.
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<p>Interprets the model into an appropriate DB schema within set constraints (e.g. consistency, security, ownership)</p> <p>22. Work with clients/users on development projects to make effective use of (object) database management systems (O/DBMS), query languages, and other DB tools and techniques. Interpret installation standards to meet particular project needs and produces object/database components as required.</p> <p>23. Work with clients/users to define their needs for O/DBMS, other DB tools and facilities, evaluating potential solutions, demonstrating, installing and commissioning selected products.</p> <p>24. Construct, extend or maintain, test, correct and document software components of DBMS, to achieve well engineered products.</p>	
<p>The post holder will perform any duty or task that is appropriate for the role described</p>	

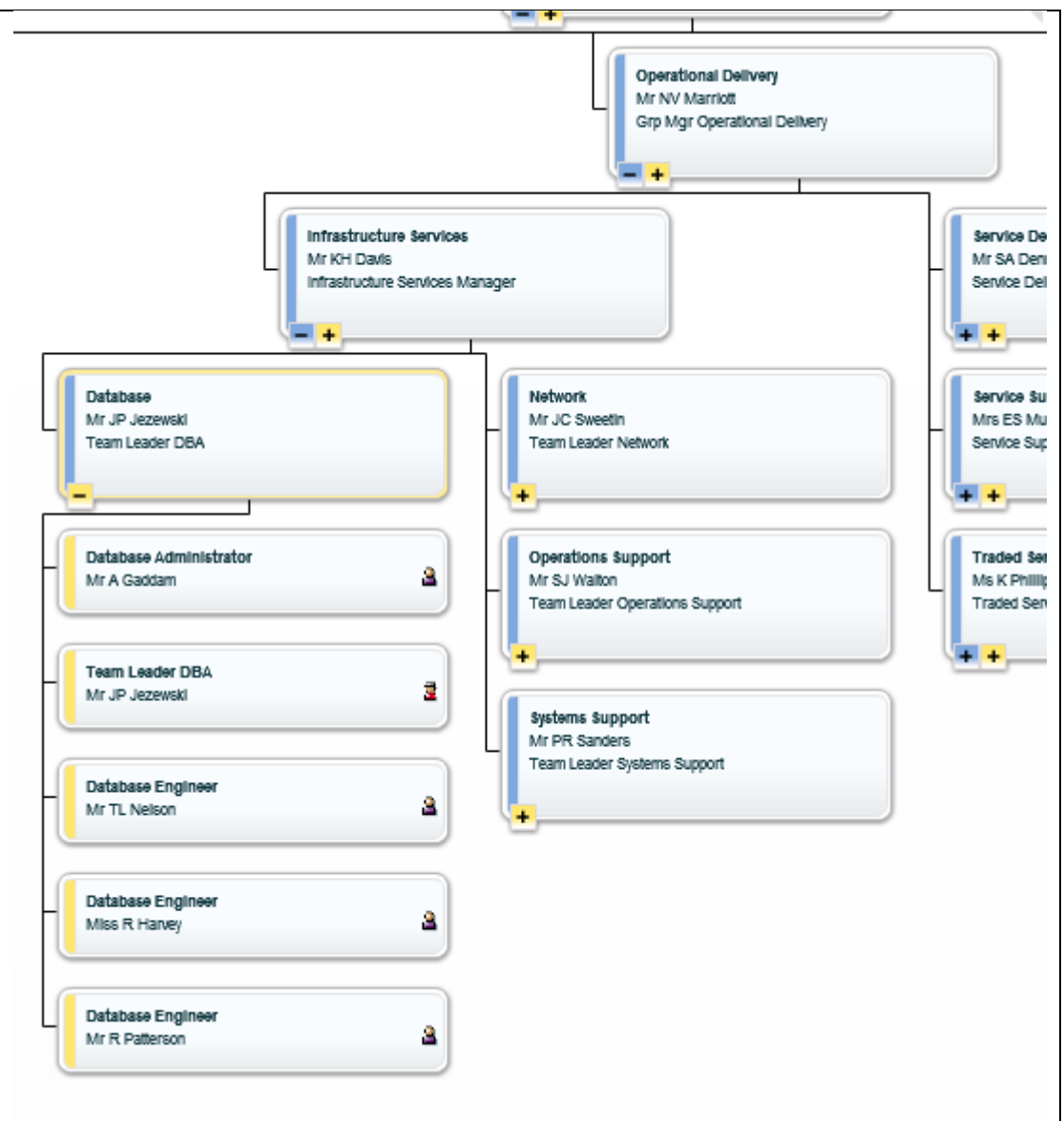
Person Specification	
<p>Education and Knowledge</p> <ol style="list-style-type: none"> 1. Educated to at least GCE A level, SQA Highers or equivalent standard. 2. Has a general understanding of information systems concepts and practice and, especially, of object and data modelling, databases and database management systems, and the use of information as a resource. Shows good communication skills. 	<p>Personal skills and general competencies</p> <ol style="list-style-type: none"> 1. A high level of personal drive and commitment to excellent customer care and the ability to set an example for other staff 2. Strong interpersonal skills to gain the agreement and acceptance of others including colleagues, senior managers and customers.

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<p>3. Takes a logical, analytical approach to problem solving and pays close attention to detail. Has acquired a broad understanding of Information Systems concepts and database practices, particularly those used within own organisation. Shows good interpersonal skills, especially with regard to communication of technical matters to non-technical people.</p> <p>4. See 'knowledge and skills' table below.</p>	<p>3. Ability to make decisions and solve problems to meet operational targets, involving devising solutions and prioritising the resources available</p> <p>4. Ability to meet agreed objectives and delivery targets by the effective use of resources.</p>
<p><i>Experience</i></p> <p>1. EITHER: Has achieved proficiency in the Task of Database design - Level 3 or at Level 3 in another related SFIA Skill , OR: has gained experience (typically three years) in commercial/administrative/industrial working environments with practical experience of developing, using or supporting one or more O/DBMS</p> <p>2. EITHER: Has achieved proficiency in the Task of Database administration - Level 3, OR: Has gained experience (typically three years with some at Level 4) in other relevant SFIA Skills.</p>	
<p><i>Role Dimensions</i></p> <p>1. To be responsible to the Database Administration Team Leader</p> <p>2. No direct financial responsibility</p> <p>3. No direct reports</p> <p>4. Acquiring understanding of the underlying issues in complex problems or situations by correctly relating these to simpler or better understood concepts, models or previous experiences.</p> <p>5. Establishing relationships and maintaining contacts with people from a wide variety of backgrounds.</p> <p>6. Understanding the hierarchy and culture of own, customer and supplier organisations and being able to identify the decision makers and influencers.</p> <p>7. Determining a course of action by breaking it down into smaller steps and by planning and resourcing each of these, making allowance for potential problems</p> <p>8. Working co-operatively (rather than competitively) with others to achieve a common goal.</p> <p>9. Tools which assist in modelling a logical entity model, and generating a physical database. Example: Oracle Designer.</p> <p>10. Software which enables the user to create, populate and manipulate data structures. Examples: Access, SQL Server, DB2, Oracle, Informix, Sybase</p>	

11. The application of automated (software) tools which enable selective access to information held within some form of database or "data warehouse". Example: SQL
12. Knowledge of the IT infrastructure (hardware, databases, operating systems, local area networks etc) used within own organisation.
13. Testing techniques used to plan and execute software tests of all application components (functional and non-functional) to verify that the software satisfies specified requirements and to detect errors. Examples: dynamic testing techniques, static testing techniques, non-functional testing techniques, test automation techniques.
14. Organised and documented sets of techniques, intended to facilitate the structured development of applications. Examples: SSADM, DSDM, Objectory/UML.
15. Software tools which automate or assist part of the development process. Examples: Oracle Developer, Business Objects, Select.
16. The application of automated systems to the support of specific business functions or processes. Examples: enterprise resource planning, sales forecasting, airline reservations, petroleum reservoir modelling.
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18. The control and management of IT assets (or configuration items) including hardware, software, documentation, services, suppliers and network facilities by the use and application of strict change management and recording
19. Standards associated with the practitioner's current Role. Examples: safety standards, departmental programming standards, organisational network performance standards, help desk procedures, corporate quality and change management processes, IT Infrastructure Library, TickIT.
20. Tools and techniques (manual or automated) which can be used to document an understanding of the structure, relationships and use of information within an organisation. Examples: information usage model, entity model, class diagram, relational data model, data flow model
21. The selection and application of information gathering methods, tools and techniques which are appropriate to the information required and the sources available. Examples: contextual enquiries, focus groups, structured interviews, questionnaires, observation, statistical analysis.
22. Techniques for ensuring that full account is taken of customers' real and stated needs in the delivery of products and services.
23. Methods and techniques for reporting progress and financial compliance against an agreed plan.
24. The system or method for the management of quality within the employing organisation.
25. Methods and techniques for writing effective reports.
26. Methods, techniques and tools for planning, organising, resourcing, directing, co-ordinating and monitoring ongoing (non project) activities

See structure chart below



Date 2/5/17

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