**Job Description**

Job Title:       Senior Infrastructure Engineer

POSCODE:

Grade:           CCC P1/ PCC GR10

## Overall purpose of the job

This role reports to the Infrastructure Team Lead to deliver services for Cambridgeshire County and Peterborough City councils.

The Infrastructure Engineer is responsible for managing the configuration, capacity, security and availability of all Cambridge County and Peterborough City council's shared server based and cloud IT services to ensure that they operate reliably, securely, efficiently and meet the requirements of the Service Level agreements.

## Main accountabilities

| | Main accountabilities |
|---|---|
| 1. | Coordinate technical support for the ITDS server infrastructure such that it is maintained according to manufacturer's recommendations, client requirements and SLA targets. Liaise with all appropriate groups (ITDS, clients and external suppliers), to resolve technical issues and problems. Travel to sites around the county to resolve technical problems. Invoke third party maintenance contracts as and when appropriate and ensure that the operating system software is maintained appropriately. |
| 2. | Perform a range of system management tasks so that potential problems with the ITDS managed servers and services can be identified, analysed and where possible preventative action taken prior to service degradation (e.g. managing server backups, monitoring servers for hardware and operating systems errors, reviewing server disk space capacity, testing and applying server patches and service packs). |
| 3. | Plan and undertake small/medium sized projects, in accordance with Project Management standards ensuring delivery to timescales and budget, proper control of external suppliers and good communication with clients and other teams within ITDS IT at all times. |
| 4. | Plan and implement IT scheduled service break work to avoid or counter capacity, security, availability or performance issues such that service to the user community is not compromised and that SLA performance targets are met at all times. |
| 5. | Ensure change management procedures for all server based services are followed such that all change is in accordance with relevant ITDS standards, is documented, tested and planned and that implementation of changes causes minimum disruption to production services (e.g. by performing QA of new servers). |
| 6. | Ensure that all technical changes made by the Network infrastructure supplier that affect the service delivery of the ITDS server environment are made according to agreed contractual and IT change control procedures such that service to the user community meets SLA targets and requirements. |

| 7. | Develop and maintain a good understanding of relevant server-based services, network technologies, standards, protocols and products in order to provide specialist advice/consultancy to other ITDS IT teams and clients. |
|---|---|
| 8. | Assessing the existing server based structure for opportunities to move/migrate to cloud based services/environments. |
| 9. | Embed cloud technology and best practices within ITDS. |
| 10. | Work with technical architects to translate architectural designs into operable solutions. |
| 11. | Systems design. Along with architects, you design systems characterised by medium levels of risk, impact, and business or technical complexity. You select appropriate design standards, methods and tools and ensure they are applied effectively. You review the systems designs of others to ensure selection of appropriate technology, efficient use of resources and integration of multiple systems and technology. |
| 12. | Carry out non-guaranteed overtime and standby in line with operational service needs, this may include<br>• Participation in monthly infrastructure maintenance upgrades or updates or patching<br>• project work.<br>• Participation in a rota for out-of-hours support |
| 13. | Provide support for Business Continuity activities |
| 14. | Carry out any other duties which fall within the broad spirit, scope and purpose of this job description and which are commensurate with the grade of the post. |
| 15. | To demonstrate awareness/understanding of equal opportunities and other people's behavioural, physical, social and welfare needs. |

| Qualifications, knowledge, skills and experience | | |
|---|---|---|

| Qualifications Required | Subject | Essential/ Desirable |
|---|---|---|
| 'A' Level or equivalent or equivalent relevant experience | | **Essential** |
| **Formal PC/Server Training and qualification** | **Professional vendor level certificate eg Microsoft Certified Solutions Expert (MCSE) for Windows 2003** | **Essential** |
| **Educated to Degree level or equivalent** | | **Desirable** |
| **ITIL Qualification** | | **Desirable** |
| | | |

| Identify | Describe | Essential/ Desirable |
|---|---|---|
| **Knowledge** | | |
| | Knowledge of building, configuring, administering and supporting infrastructure technologies and solutions such as: computing, storage, networking, physical infrastructure, software, COTS and open source packages and solutions, and virtual and cloud computing, including IaaS, PaaS, SaaS. | Essential |
| | Problem solving. Able to investigate problems in systems, processes and services, with an understanding of the level of a problem (for example, strategic, tactical, operational). You can contribute to the implementation of remedies and preventative measures. | Essential |
| | Expertise in supporting technologies such as Active Directory, DNS, DHCP, firewalls, web/mail filtering, certificates and VPNs | Essential |
| | A good working knowledge of the LAN and WAN technologies and protocols | Desirable |
| | A good knowledge of virtualisation, thin client and application delivery primarily using Citrix technologies and VMware | Essential |
| | | |
| **Skills** | | |
| | Able to work well under pressure and prioritise own work. | **Essential** |
| | Able to analyst complex issues and identify possible solutions based on a sound analysis of the information available. | **Essential** |
| | Gives careful attention to detail and thoroughly checks work for accuracy and quality standards. | **Essential** |
| | Excellent verbal and written communication skills. | **Essential** |

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|---|---|---|---|
| | | Able to communicate and work effectively with external technical consultants. | **Essential** |
| | | Committed team member with an ability to work joint goals and standards. | **Essential** |
| | | Languages / Coding You are competent in writing and understanding the relevant languages for the role – predominantly YAML, JSON, PowerShell, BASH. | Desirable |
| | | Troubleshooting and problem resolution. You can troubleshoot and identify problems across different technology capabilities. | **Essential** |
| | | | |
| **Experience** | | | |
| | | Extensive experience with PC based networks with substantial involvement in Microsoft Windows server administration, backup & Voice related technologies, SAN administration and management virtual machine administration using VMware vSphere, use of scripts (VB and Powershell). | **Essential** |
| | | Experience of configuration management, problem and change management. | **Essential** |
| | | In depth knowledge of major networking technologies, protocols and standards with specific understanding of the issues connected with the interoperability of desktop and server operating systems and voice technology. | **Essential** |
| | | Previous experience of 3rd party liaison and management and/or project management of small/medium sized projects | **Desirable** |
| | | Experience with VoiP infrastructure. | **Desirable** |
| | | Experience with Microsoft Exchange. | **Desirable** |
| | | Cloud infrastructure. You should be adept and experienced in designing and deploying resources using infrastructure as code (IaC) primarily in Microsoft Azure (CI/CD in Azure DevOps) although knowledge of AWS is also an advantage. Expertise in provisioning resource through Azure DevOps and ARM templates, managing Azure AD groups and have a good understanding of Key Vault, storage accounts and web services. You should be able to implement, administer and support infrastructure technologies, solutions and services such as: computing, storage, Data pipelines, networking, software, COTS and open source packages and solutions, including IaaS, PaaS and SaaS. | **Desirable** |
| | | Experience of building, maintaining and patching windows servers. | **Essential** |

| | Prepared to work outside normal working hours (Monday – Friday 08:00 – 18:00) and provide weekend/evening cover. | **Essential** |
|---|---|---|
| | | |
| **Equal opportunities** | Ability to demonstrate awareness/understanding of equal opportunities and other people's behaviour, physical, social and welfare needs | |

## Disclosure level

| | None X | Standard |
|---|---|---|
| | Enhanced | Enhanced with barred list checks |

## Work type

| What work type does this role fit into? (tick one box that reflects the main work type, the default workers type is flexible) | Fixed | Flexible X | Field | Home |
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