

## JOB DESCRIPTION

Senior Network Architect	
<b>Location:</b>	Cape Town
<b>Date:</b>	1 <sup>st</sup> October 2011
<b>Reporting To:</b>	SysOps Manager
<b>Reporting to You:</b>	Team members as/if assigned
<b>Purpose</b>	Assist the SysOps manager in aligning the Networks team and infrastructure with the core requirements of the Operations organisation, company architecture and strategy, through a proactive approach to system and network administration and design.
<b>Key Responsibility Areas:</b>	<p><u>Essential Functions</u></p> <ul style="list-style-type: none"> <li>- responsible for effective provisioning, installation/configuration, operation and maintenance of network hardware, software and related infrastructure</li> <li>- participation in technical research and development to enable continuing innovation within the infrastructure</li> <li>- ensuring network hardware, operating systems, software applications and any related procedures adhere to organizational values, enabling staff, customers and partners</li> <li>- service, maintain, commission and support global networks, with a view towards high availability</li> </ul> <p><u>Project Functions</u></p> <ul style="list-style-type: none"> <li>- assist project teams with technical issues in initiation and planning stages</li> <li>- definition of needs, benefits and technical strategy</li> <li>- research and development within project life-cycles</li> <li>- technical analysis and design</li> <li>- support of operations staff in executing, testing and rolling out solutions</li> </ul> <p><u>Architecture and Provisioning</u></p> <ul style="list-style-type: none"> <li>- engineering of solutions for various project and operational needs</li> <li>- installation/rebuilding of gear, configuration of hardware, peripherals, services, etc. in accordance with standards and project/operational requirements</li> <li>- develop and maintain installation and configuration procedures</li> <li>- research and recommend innovative and automated approaches for network administration tasks</li> <li>- identify approaches that leverage resources and provide economies of scale</li> <li>- research technologies and present recommendations and justifications for implementing</li> <li>- design and architect recommendation and implementations of expansion, according to industry leading practice</li> <li>- investigate business benefits of standards from different organisations</li> </ul>

being followed, such as SOX or ISO, for governance purposes

- understand current strategies and how they were developed, and understand the impact based upon business, applications, and infrastructure – and use this knowledge to supply infrastructure risk assessments, mitigation planning and reporting
- maintain an ongoing awareness of emerging developments and trends in technology that could impact current projects and influence new projects, and conduct infrastructure research, technical evaluations and POCs
- plan, contribute and help implement the technical enterprise architecture, including both short and long term strategies for retiring legacy systems/networks, integrating existing systems/networks and new systems/networks implementation recommendations

#### Operations and Support

- perform or confirm network monitoring, verifying the integrity and availability of all hardware, network resources, systems and key processes, reviewing network and application logs, and verifying completion of scheduled jobs
- perform or confirm regular data management as necessary
- create, change, and delete user/system accounts per request
- provide Tier 3 or other support per request from various constituencies
- investigate and troubleshoot issues, including logging of defects, performing preliminary root-cause analysis and identifying course of action
- repair and recover from hardware or software failures, including coordinating and communicating with impacted constituencies

#### Maintenance

- apply patches and upgrades on a regular basis, and upgrade administrative tools and utilities, as directed by business need
- configure and/or add new services as necessary
- upgrade and configure network software that supports infrastructure applications per project or operational needs
- maintain operational, configuration and/or other procedures
- perform periodic performance reporting to support capacity planning
- perform ongoing performance tuning, hardware upgrades, and resource optimisation as required
- develop, deploy and maintain custom systems scripts and applications

#### Security

- perform or confirm regular security monitoring to identify any possible intrusions
- contribute to and maintain system standards
- perform or confirm daily backup operations, ensuring all required file systems and system data are successfully backed up to the appropriate media, recovery tapes or disks are created, and media is recycled and sent off site as necessary
- maintain data centre/server room environmental and monitoring equipment as required
- ensure secure operation of all network gear and services through the use of security and encryption tools, staff training and documentation

	<p><u>Leadership</u></p> <ul style="list-style-type: none"> <li>- <b>conduct quarterly assessments of Networks team</b></li> <li>- assist with skills and career development of Networks team</li> <li>- manage escalated queries, concerns or communications</li> <li>- foster a department and company culture</li> <li>- deliver daily, weekly and monthly reports, as required</li> <li>- <b>mentor and coach the Networks and other SysOps teams</b></li> <li>- <b>contribute on a monthly, quarterly and annual basis to the SysOps department budgeting process</b></li> <li>- <b>team building, supervision, morale building, motivation and encouraging creativity and innovation</b></li> <li>- <b>contribute to planning and policy formulation of SysOps department</b></li> </ul>
<p><b>Core Competencies:</b></p>	<p><u>Technical</u></p> <ul style="list-style-type: none"> <li>- understanding and experience of the primary enterprise architectural frameworks and guidelines (e.g. POSIX, Zachman, TOGAF, NIST EA, NEBS, etc.)</li> <li>- must have a solid understanding of operating systems, from bare steel to network services</li> <li>- must have proven, solid understanding of and experience with network architecture design and implementation, from LANS and WANS to leased lines and MPLS/VPN interconnects to IP and BGP, etc.</li> <li>- must have proven Unix or derivative proficiency, from user perspective to systems and network management</li> <li>- must have proven knowledge and experience of at least one scripting language (preferably one of: bash, python, Perl, PHP)</li> <li>- must have a solid understanding of backup methodology and infrastructure</li> <li>- ability to understand and contribute to the development of Request for Information and Request for Proposal documentation</li> </ul> <p><u>Management</u></p> <ul style="list-style-type: none"> <li>- <b>must have a strong understanding of business and personal ethics, be prepared support an environment based on accountability, and have sufficient technical credibility</b></li> <li>- <b>must have the proven ability to manage technological and human resources</b></li> <li>- <b>must contribute to strategic planning and direction of department</b></li> <li>- <b>must be able to manage diversity and change within a dynamic environment</b></li> <li>- <b>must have a strong understanding of knowledge management</b></li> <li>- <b>must have experience managing a budget</b></li> <li>- <b>must have the capacity to manage external relations, including influencing, negotiating, presenting and conflict management</b></li> </ul>
<p><b>General Competencies:</b></p>	<ul style="list-style-type: none"> <li>- <b>must</b> have some degree of SS7 exposure and experience</li> <li>- <b>must</b> have solid experience with network management solutions (i.e. build/buy, implement, manage/maintain)</li> <li>- <b>must</b> have solid work/infrastructure experience with VPN and router devices</li> </ul>

	<p>(preferably Cisco)</p> <ul style="list-style-type: none"> <li>- must have a good understanding of security principles, specifically as they apply to network-level procedures</li> <li>- must have an understanding of data management principles (including database and storage)</li> <li>- proven experience with architectural diagramming, including understanding of the different techniques for modelling</li> <li>- solid work experience and knowledge of web architecture and technologies, including but not limited to: Linux, Apache, MySQL, PHP, HTTP, LDAP, etc.</li> <li>- experience with Service Oriented Architecture advantageous</li> </ul>
<p><b>Experience and Education:</b></p>	<ul style="list-style-type: none"> <li>- minimum of 10 years in the IT industry</li> <li>- minimum of 7 years in a system/network administrative or analyst position</li> <li>- minimum of 5 years working experience with Unix or derivative</li> <li>- minimum of 3 years programming or scripting experience</li> <li>- network-related diploma or degree will be advantageous</li> <li>- familiarity with project management concepts and tools advantageous</li> <li>- experience with USSD/IN integration a <b>definite</b> advantage</li> <li>- systems/network analysis training or certification advantageous</li> </ul>
<p><b>Personal Characteristics:</b></p>	<ul style="list-style-type: none"> <li>- strong interpersonal and communication skills, from managing expectations and abundant feedback to written and verbal intercourse, including enabling, collaboration, confidence and ability to listen</li> <li>- previous experience teaching or training others advantageous</li> <li>- free thinker, having the ability to try non-traditional, intuitive or novel approaches to problems, and applying the strongest approach in the solution of a problem regardless of origin</li> <li>- results-oriented, delivering activities to the best of ability and being motivated by achieving and delivering excellence</li> <li>- customer focused, able to identify and effectively respond to the diverse needs of project customers and constituents</li> <li>- team player, able to work reliably and responsibly with internal and external colleagues, demonstrating cross-functional paradigm: working, encouraging and supporting others to achieve project and organisational goals</li> <li>- initiative, able to work alone and reliably and responsibly achieve departmental, organisational and company goals</li> <li>- problem solver, able to reduce problems to manageable units, hypothesizing and assembling solutions to overcome the broader challenge in a reproducible and reliable manner</li> <li>- assertive, being able to convince others of the right course of action, and explain a point of view convincingly</li> <li>- ability to learn and understand new products, technologies and applications</li> <li>- willingness to learn and change</li> <li>- responsible, ability to take ownership and willingness to assume accountability</li> <li>- time management skills, ability to balance inbound priorities while attending to those deemed most important, and able to clearly justify those decisions</li> <li>- productive mind, having analytical and logical abilities, systematic and orderly attention to detail</li> <li>- ability to work with a minimum of supervision, under stressful conditions,</li> </ul>

	maintaining a professional attitude
<b>Special Requirements:</b>	<ul style="list-style-type: none"><li>- punctual, regular and on time attendance</li><li>- standby, required to perform after hours on-call duties per roster</li><li>- availability, after hours work if required</li><li>- travel, may be required to travel locally and abroad</li></ul>
<b>Note:</b>	<ul style="list-style-type: none"><li>- to perform this job successfully, the individual must be able to perform each essential duty satisfactorily</li><li>- the requirements listed above are representative of the knowledge, skill and or ability required and are not intended to be an exhaustive list of all duties and responsibilities associated with this job</li><li>- you will be required to perform all reasonable duties assigned to you or related or incidental to the proper completion of your job tasks</li><li>- during a colleague's leave of absence from the company or during month end or peak business periods, you may be required to perform other job tasks upon reasonable request from your line manager</li><li>- relocation costs (if applicable) will be for own account</li></ul>