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| Employee Name: |  | Fresno State ID # |  |
| Classification: | Network Analyst – Career | Working Title: | Network Analyst |
| Prepared By (MPP/Chair): | Mike Garvey | Department: | Technology Services |
| Bargaining Unit: | R09 | FLSA Status: | Exempt | Date Prepared: | 5/2023 |

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| **POSITION DESCRIPTION** |

**Overview:**

Under the general direction of an appropriate administrator or the guidance of another recommended Information Technology (IT) professional, the Network Analyst is primarily responsible at varying levels for the architecture, design, installation, ongoing analysis, administration, and/or control of the voice, data and video networks serving the campus and any distance learning facilities. Work includes designing, engineering, programming, monitoring, and maintenance of the wide area, local (wired and wireless), closed circuit and voice networks to meet campus requirements. Incumbents at this level work relatively independently and possess the experience to be fully proficient in performing most or all of the work assignments defined for their position. Typically, incumbents have acquired the requisite skills and knowledge through a combination of education, training, and progressive work experience to be able to demonstrate competence in independently applying technical judgment to standard and nonstandard applications and systems, solving a wide range of problems, and developing practicable and thorough solutions, and using effective communication and listening skills.

**General Responsibilities:**

All members of the Technology Services staff must perform their work in accordance with the principles below. Specific service levels and procedures associated with these responsibilities will be defined by the employee's manager and may vary depending on the duties, tasks and projects assigned.

* Maintain positive working relationships and appropriate interpersonal interactions with colleagues and members of the university community. For example:
	+ Show courtesy and respect towards others.
	+ Communicate in an effective and timely manner and take steps to ensure proper understanding.
	+ Collaborate willingly with others to help advance the goals of the department and university.
* Interact with customers in a manner that ensures that we deliver the best possible service. For example:
	+ Respond quickly and affirmatively to ensure that customers and support staff are aware that their issues are being addressed and know when they have been resolved.
	+ Complete work of a quality that helps ensure ongoing customer satisfaction with the capability, performance, and timeliness of services provided.
	+ Provide timely communication to customers and support staff so that they are kept up to date on the progress of their Incidents, Service Requests, and Problems.
	+ Communicate appropriately to internal and vendor support teams regarding operational matters.
* Work towards the stated goals and outcomes of the department and university and take an active role in maintaining your understanding of these goals and outcomes.
* Comply with university and departmental policies and take an active role in maintaining your understanding of these policies.
* Comply with university and departmental procedures and practices as defined by the employee's manager and take an active role in maintaining your understanding of these procedures and practices.
* Maintain regular attendance and respect your colleagues’ time by arriving promptly for work, shared tasks, and meetings.
* Maintain appropriate security and confidentiality according to University policies and industry best practices.

**Major duties of the job include:**

Network Planning and Implementation:

* Design and engineer network installations to meet information processing and traffic needs in accordance with guidance provided by the Office of the Chancellor.
* Develop systems and/or network configurations, including hardware, software, and integration requirements.
* Plan, design, and engineering of assigned networks.
* Determine network architecture, topology, and transmission media appropriate for the installation.
* Develop/recommend network standards and protocols.
* Design networked facilities (e.g., off campus locations, distance learning sites).
* Design satellite and/ or microwave transmission systems as needed.
* Evaluate user needs, systems, and new technologies to recommend the most effective communication and transmission systems. Examples of typical work activities include:
* Research and evaluate network/systems, performance capacity, and compatibility with existing systems.
* Analyze information processing, transmission, and data flow needs.
* Analyze system elements such as system cabling and software and expansion capacity.
* Evaluate software/hardware network features.
* Coordinate network development activities with systems as appropriate.
* Act as the technical liaison for network products or system vendors. Network Analysis and Management:
* Proactively analyze and monitor network activity to ensure optimal network operation. Examples of typical work activities include:
* Monitor network traffic, usage, and performance; Run diagnostics to forecast performance thresholds.
* Perform analysis of network efficiency (e.g., channel, trunks, etc.) and routing of traffic, troubleshoot system failures and ensure appropriate corrective actions are taken.
* Develop appropriate reporting and distribute to other staff (and management) as required.
* Control network activity to ensure sound and secure operations. Examples of typical work activities include:
* Secure network resources from inappropriate access.
* Maintain network security and integrity of data on the network.
* Implement and periodically rehearse disaster recovery procedures,

Network Administration and Support:

* Administration of assigned networks to optimize services and access to telecommunications and related networks. Examples of typical work activities include:
* Install, configure, maintain, and support network equipment and network operating systems (e.g., routers, switches, load balancers, DNS/ DHCP systems).
* Troubleshoot network problems, referring to vendor or technicians as appropriate.
* Provide (or order) network connectivity, ensuring appropriate integration of data, voice, and video networks.
* Conduct network tests.
* Recommend and modify network configuration to improve efficiency and cost effectiveness.
* Routinely update and maintain network documentation.
* Ensure that the installed network is fully operational and appropriately integrated for access with other systems. Examples of typical work activities include:
* As required, install, upgrade, and maintain network software and related hardware.
* Act as a liaison with product vendors.
* Perform file conversions and system backups.
* Ensure adequate inventory of network supplies.

**Secondary duties of the job include:**

* Respond to and complete service requests generated by the campus community maintaining appropriate service levels in accordance with departmental practices.
* Ensure that all completed work is documented accurately and in the proper manner.
* Effectively manage personal work queues to maintain acceptable levels of productivity as outlined by department manager or supervisor.
* Perform other duties as assigned.

Supervisory Responsibility:

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| Who Supervises/leads this Position: | Michael Garvey |
| Who is Responsible for completing the Performance Appraisal: | Michael Garvey |
| What other classifications does this position supervise or provide lead, work oversight: | none |

**Minimum Requirements: Knowledge, Skills, and Abilities:**

Knowledge of:

* Campus network standards for hardware and operating systems such as Alcatel Lucent, Aruba Wireless, Infoblox and F5 Load Balancers.
* Computer operating systems, network functions, or telecommunication switching systems.
* Monitoring and reporting applications such as StatSeeker and What’s Up Gold.
* Network architecture, configuration, protocols, and interconnectivity requirements for internal/external information transmission.
* Network traffic and performance parameters to interpret variance and service impact to users.

Ability to:

* Use engineering techniques in the design of network and transmission systems.
* Interpret data on system usage and develop engineering specifications to support changing service levels.
* Maintain vendor relationships to ensure responsiveness and quality.
* Resolve impaired service conflicts.
* Determine the most cost-effective structure and design for networks.
* Translate user-defined requirements into networking specifications and features.
* Appropriately maintain confidentiality of data files, data elements, and personal information.

**Education and Experience:**

* A bachelor's degree in computer science, engineering, industrial technology, telecommunications or a related technical field, or equivalent training and experience.
* 3-5 years of directly related professional work experience to demonstrate the required knowledge, skills, and abilities.

**Specialized Skills:**

* Cisco Certification.
* Knowledge and understanding of current network security standards and best practices.
* Knowledge of video over IP, streaming video, and broadcast standards.
* A+ Computer Training.

**Preferred Skills:**

* Specialized vendor training or licensing to meet a specified departmental need.
* Ability to interface campus defined operating systems with software and other systems such as collaboration, web, and directory services software.
* Ability to identify and implement critical maintenance fixes and isolate and correct malfunctions.
* Knowledge of data communication network architecture, configuration, protocols, and interfaces.
* Knowledge of system management and security procedures including scripting languages and authentication services.

**SPECIAL CONDITIONS OF EMPLOYMENT AND POSITION DESIGNATIONS:**

This position will have a duty to report to the Campus Title IX Officer information pertaining to victims of sex discrimination, sexual harassment, sexual misconduct, dating/domestic violence, and stalking as required by [CSU Executive Order 1095](http://www.calstate.edu/eo/EO-1095-rev-6-23-15.html).

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| Department: | Technology Services | Date Prepared: | 5/2023 |

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| **WORKING ENVIRONMENT** |

Check the appropriate box which most accurately describes the extent of the specific activity performed by the employee on a daily basis. If the activity is performed less than one (1) hour each day, check the N/A box.

**PHYSICAL EFFORT**

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|  | Number of hours/day |  |  | Number of hours/day |
|  | N/A | 1-2 | 3-4 | 5-6 | 7+ |  |  | N/A | 1-2 | 3-4 | 5-6 | 7+ |
| 1. Sitting |[ ] [ ] [ ] [ ] [x]   | 12. Lifting or carrying |[ ] [x] [ ] [ ] [ ]
| 2. Standing |[ ] [x] [ ] [ ] [ ]   | A. 10 lbs. or less |[ ] [x] [ ] [ ] [ ]
| 3. Walking |[ ] [x] [ ] [ ] [ ]   | B. 11 to 25 lbs. |[x] [ ] [ ] [ ] [ ]
| 4. Bending Over |[ ] [x] [ ] [ ] [ ]   | C. 26 to 50 lbs. |[x] [ ] [ ] [ ] [ ]
| 5. Crawling |[x] [ ] [ ] [ ] [ ]   | D. 51 to 75 lbs. |[x] [ ] [ ] [ ] [ ]
| 6. Climbing |[x] [ ] [ ] [ ] [ ]   | E. 76 to 100 lbs. |[x] [ ] [ ] [ ] [ ]
| 7. Reaching overhead |[x] [ ] [ ] [ ] [ ]   | F. Over 100 lbs. |[x] [ ] [ ] [ ] [ ]
| 8. Crouching |[x] [ ] [ ] [ ] [ ]   | 13. Repetitive use of hands/arms |[ ] [x] [ ] [ ] [ ]
| 9. Kneeling |[x] [ ] [ ] [ ] [ ]   | 14. Repetitive use of legs |[ ] [x] [ ] [ ] [ ]
| 10. Balancing |[x] [ ] [ ] [ ] [ ]   | 15. Eye/hand coordination |[ ] [x] [ ] [ ] [ ]
| 11. Pushing or pulling |[ ] [x] [ ] [ ] [ ]

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|  | Yes | No |
| 16. Driving cars, trucks, forklifts and other equipment |[ ] [x]
| 17. Being around scientific equipment and machinery |[x] [ ]
| 18. Walking on uneven ground |[ ] [x]

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| **MENTAL EFFORT** |  | **ENVIRONMENTAL FACTORS** |
|  | Number of hours/day |  |  | Number of hours/day |
|  | N/A | 1-2 | 3-4 | 5-6 | 7+ |  |  | N/A | 1-2 | 3-4 | 5-6 | 7+ |
| 1. Directing Others |[ ] [ ] [x] [ ] [ ]   | 1. Inside |[ ] [ ] [ ] [ ] [x]
| 2. Writing |[ ] [ ] [x] [ ] [ ]   | 2. Outside |[x] [ ] [ ] [ ] [ ]
| 3. Using math/calculations |[ ] [ ] [x] [ ] [ ]   | 3. Humid |[x] [ ] [ ] [ ] [ ]
| 4. Talking |[ ] [ ] [x] [ ] [ ]   | 4. Hazards |[x] [ ] [ ] [ ] [ ]
| 5. Working at various tempos |[ ] [ ] [ ] [ ] [x]   | 5. High places |[x] [ ] [ ] [ ] [ ]
| 6. Concentrating amid distractions |[ ] [ ] [ ] [ ] [x]   | 6. Hot |[x] [ ] [ ] [ ] [ ]
| 7. Remembering names |[ ] [x] [ ] [ ] [ ]   | 7. Cold |[x] [ ] [ ] [ ] [ ]
| 8. Remembering details |[ ] [ ] [ ] [ ] [x]   | 8. Dry |[ ] [ ] [ ] [ ] [x]
| 9. Making decisions |[ ] [ ] [ ] [ ] [x]   | 9. Wet |[x] [ ] [ ] [ ] [ ]
| 10. Working rapidly |[ ] [ ] [ ] [ ] [x]   | 10. Change of temp |[x] [ ] [ ] [ ] [ ]
| 11. Examining/observing details |[ ] [ ] [ ] [ ] [x]   | 11. Dirty |[x] [ ] [ ] [ ] [ ]
| 12. Discriminating colors |[ ] [x] [ ] [ ] [ ]   | 12. Dusty |[x] [ ] [ ] [ ] [ ]
|  |  |  |  |  |  |  | 13. Odors |[x] [ ] [ ] [ ] [ ]
|  |  |  |  |  |  |  | 14. Noisy |[x] [ ] [ ] [ ] [ ]
|  |  |  |  |  |  |  | 15. Working With others |[ ] [ ] [x] [ ] [ ]
|  |  |  |  |  |  |  | 16. Working around others |[ ] [ ] [x] [ ] [ ]
|  |  |  |  |  |  |  | 17. Working alone |[ ] [ ] [x] [ ] [ ]