SONOMA STATE UNIVERSITY

Sonoma State University is committed to achieving excellence through teaching, scholarship, learning and inclusion. In line with our Strategic Plan and our Seawolf Commitment, our values include diversity, equity, sustainability, community engagement, respect, responsibility, excellence and integrity. We strive to cultivate a community in which a diverse population can learn and work in an atmosphere of civility and respect. We encourage innovation, experimentation and creativity, as well as contributions to equity and inclusion, in the pursuit of excellence for all members of our university community.

Position Purpose: Reporting to the Chief Technology Officer and Information Security Officer (CTO/ISO), the Lead Linux Systems Analyst provides advanced level technical support, implementation and administration of Information Technology's (IT) Linux systems. The incumbent directly oversees and is responsible for performing new system installation, account maintenance and access rights, system security, upgrades and patches, and provides lead work direction, guidance, assistance, and support to other staff as it relates to IT's Linux systems. The incumbent works with other members of Information Technology to install and maintain server-based applications in order to provide services to the campus community. The incumbent strategically oversees and maintains network-based services such as web, identity management and authentication, and other network-based services supported by IT. The incumbent serves as a subject matter expert to design and implement Linux infrastructure architecture, for on-premises and hosted processing sites. The incumbent evaluates hardware and software requirements for physical and virtual systems, and works with data center staff to ensure the equipment is installed and configured correctly. The incumbent also serves as a primary stakeholder and subject matter expert for disaster recovery assessments, implementation, documentation and routine testing to ensure services are cataloged and restored within established timelines and prioritization.

Major Duties: Major duties of the position include, but are not limited to, the following:

- Serving as the lead and subject matter expert, provide advanced oversight of system management for campus Linux servers.
- Strategically oversee, design, configure, develop and maintain methods for account issuance and access; maintain system integrity and security, monitor system performance and troubleshoot and diagnose problems with the server systems.
- Serve as a project lead in planning and developing deployment plans for new services.
- Serve as a lead administrator of cloud productivity platforms (Google Workspace, O365), email postmaster, DNS, and cloud infrastructure and services with Linux dependencies.
- Lead the implementation and installation of system upgrades and system patches. Provide strategic in-depth research for the development of best practices for performing requested tasks or jobs on Linux systems, such as data backup, account maintenance, and network-based services.
- Participate in planning, designing, developing, testing, and implementing disaster recovery of these systems.
- Strategically evaluate and recommend hardware and system software procurements.
- Design, execute and maintain new physical and virtual servers as needed for various projects, correctly provisioning the servers for their specific use including determining the most effective form of storage for a given project.
- Provide strategic in-depth research to develop, plan, and recommend system and hardware upgrades to ensure optimal performance for campus Linux systems.
- Serve as the primary point of contact and directly oversee the installation of server-based applications. Collaborate with other members of IT who may be responsible for these applications to see that the applications provide the best performance possible. Collaborate with other groups in IT to ensure their Linux needs are being met and that the systems are providing the best possible performance and integrity for the applications they are running.
- Oversee the installment, configuration and maintenance of enterprise databases, including MySQL and MariaDB. In collaboration with the Identity Management team, install, update and maintain authentication and identity management tools that are used by the campus, including LDAP, CAS, and Shibboleth. Periodically test systems for security holes using a variety of tools, including "hacker" tools.

- Ensure the highest level of data accessibility possible for systems. Provide expert level support and oversight for installing and maintaining system management tools such as Puppet, git and other Linux tools.
- Utilize tools such as syslog, Zabbix, and Splunk to monitor and troubleshoot servers.
- Design, execute and maintain professional quality documentation for procedures, SSU systems and subsystems.
- Provide lead work direction, assignment of work priorities, and serve as the primary resource for the Linux administrators.
- Responsible for participating in project planning for new projects within EIS and IT and participating in the long-range plans for the data center and IT services to campus.
- Work closely with other system administrators including the Window system administrators to architect service delivery of service provided through the datacenter.
- Collaborate with the CIOO, Lead Windows administrator and lead virtualization and storage administrator in planning future service needs, data center architecture and configuration.
- Serve as a subject matter expert in applying project management principles and practices to contribute to the successful achievement of all IT project objectives.

Secondary Duties: Performs other secondary duties as assigned.

Work Environment: Duties will primarily take place in an office setting however additional duties may be performed in various locations on the Sonoma State University campus, including working both indoors and outdoors to support and participate in university activities and events. As an exempt employee you have some flexibility in your schedule however must be available during the regular campus hours Monday through Friday to meet the operational needs of the campus and department. The incumbent must maintain regular and acceptable attendance at such levels as is determined by the Appropriate Administrator. This position may also be eligible to participate in the campus Telecommuting Program to engage in limited telecommuting as operationally feasible. The position may require occasional travel, by automobile and airplane, and the incumbent must be able to work some night and weekend hours with overnight stays.

This position requires, with or without reasonable accommodations, the ability to frequently sit, move or stand for office and/or event functions, be at a computer for 6-8 hours/day, occasionally reach with hands and arms, climb or balance, stoop and kneel and lift objects of up to 45 lbs in weight.

Minimum Qualifications: This position requires an advanced and comprehensive knowledge of operating systems, applications, and of the interaction between hardware and system software. The incumbent must have a solid understanding of the interaction of computer hardware, operating system, and the network with the ability to analyze a complex array of symptoms in order to diagnose the cause of system problems and develop working solutions. The incumbent is expected to possess excellent verbal and written communication skills, including the ability to prepare and deliver formal and informal documentation, presentations, and training to a variety of end users. Must possess strong troubleshooting skills, plus the ability to think in a logical and systematic fashion. This knowledge and experience foundation would normally be obtained through a bachelor's degree in computer science, information systems, educational technology, mathematics, or related technical fields, along with a minimum of seven years of extensive knowledge and experience with Linux servers, including five years of progressively responsible experience performing a high level of responsibility for maintaining and safeguarding an enterprise's systems and data. Advanced knowledge of operating system concepts, and of the interaction between hardware and system software and advanced ability to apply that knowledge in a systematic and practical approach to maintaining and enhancing Linux systems required. Advanced ability to analyze a highly-complex array of symptoms in order to diagnose the cause of system problems and advanced ability to systematically work toward a solution to a performance or availability problem when more than one diagnosis is possible required. Advanced understanding of the interaction of computer hardware, operating systems and network with the ability to distinguish a local hardware problem from an operating system problem from an application problem from a network problem required. Experience in shell and/or Perl scripting with the ability to use such tools to automate server related tasks is highly preferred. Demonstrated ability to troubleshoot problems with server applications and to develop working solutions required. Thorough understanding of security "best practices" for Linux systems required. Demonstrated ability to oversee and manage records and write professional quality documentation required. Thorough understanding of networking and IP, especially as applied to Linux systems and thorough understanding and significant experience with email (SMTP, IMAP, POP, MAPI), and Domain Name System (BIND 9.X is desirable)

required. Must possess advanced experience with Apache web servers in a Linux environment, plus knowledge of Drupal. Familiarity with industry standard databases in an enterprise environment, including MySQL, MariaDB, and Oracle. Must have demonstrated experience with setup and provisioning of virtual servers, fiber attached storage and network attached storage. Additional experience programming in Puppet, and the ability to use programming languages such as Perl, Ruby, or Python highly preferred. Advanced proficiency with computers, Google Suite and Microsoft Office Suite (Word, Excel) required. Knowledge of PeopleSoft preferred.

In addition, this position requires the following:

- Advanced knowledge and ability to perform high-level troubleshooting for complex situations, along with the ability to think in a logical and systematic fashion, particularly when troubleshooting or planning server and or storage resources.
- Ability to develop, test, and execute disaster recovery plans.
- Advanced ability to automate routine operating systems tasks while minimizing disruption to users.
- Advanced working knowledge of and experience with network/client/server protocols.
- Advanced knowledge of server virtualization practices and experience with virtualization software.
- Advanced ability to identify, recommend and develop system utility programs and procedures to enhance operations, applications, and general system usage.
- Advanced knowledge of and experience using current operating system administration practices, including backup/restore, system maintenance, network interface, and security.
- Advanced ability to plan upgrades to system configuration that improve utilization and reliability based on analysis of application and production requirements.
- Advanced knowledge of common software application packages and tools for performance monitoring and issues tracking.
- Advanced ability to research and evaluate new technologies and vendor software to meet user needs.
- Advanced ability to work with technical and non-technical staff to identify user requirements and translate them into technology-based solutions.
- Demonstrated ability to apply campus information security policy and standards to develop specific security requirements for departmental systems.
- Excellent verbal and written communication skills, including the ability to prepare and deliver formal and informal documentation, presentations, and training to a variety of end users.
- Ability to communicate with end users: understand their needs and explain how they can use system capabilities to meet their needs.
- Excellent organizational and time management skills with the ability to set own priorities to best meet departmental service needs.
- General knowledge of requirements for accessibility compliance.
- Ability to interpret, communicate and apply university policies and procedures as they apply to departmental computing resources.
- Demonstrated ability to complete and handle multiple tasks with competing importance in a timely fashion.
- Ability to provide lead work direction, work as a collaborative team member, adapt and be flexible to change in the work environment.
- Ability to actively work on areas needing improvement; work to resolve conflicts; work in a fast-paced environment; and maintain positive interpersonal relationships.

Must have the ability to effectively communicate with all levels within the university and establish and maintain productive and effective, inclusive working relationships amongst diverse populations including staff, faculty, administration, students, and other internal and external constituents. Must be able to accept constructive feedback and work cooperatively in group situations. Must also possess the ability to operationalize sustainability concepts (economy, society, environment) into all aspects of performing job duties.