

STATE OF MONTANA

JOB DESCRIPTION

Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

Job Title: IT Systems Administrator

Position Number: 44007, 81004, 82005, 81116, 81025, 25013, 81003

Location: Helena

Department: Transportation

Division and Bureau: Information Service Division/Infrastructure and Applications Bureau

Section and Unit: Infrastructure Section

Job Overview:

This position is responsible for all activities related to Windows and Linux Systems Administration including security, support, technical project management, and disaster recovery. Much of this work will be through analysis, testing and evaluation activities as well as recommendations for improvements or changes and/or replacement events. The incumbent will maintain and administer Windows and Linux computing environments including hardware, systems software, and associated configurations as well as applications software used in support of analysis tasks. The position will be involved in diagnosing more complex hardware and software problems, identifying strategies to improve the infrastructure both on the network and server platforms. The incumbent will be involved in the planning, coordination, and implementation of security measures of the Windows and Linux environment to protect data, software and hardware and all aspects of disaster recovery to ensure environment stability. The incumbent designs, configures, tests, and implements complex computer hardware, software, and network operating system software in a Windows and Linux environment.

This position is in a career ladder. Placement in career ladder is based upon the candidate's education, experience, qualifications at the time of application.

Essential Functions (Major Duties or Responsibilities):

Maintain Operating Systems - 50%

Maintains integrity of the operating system environment and performs system software updates and upgrades including planning and scheduling, testing and coordination. Uses MDT's productivity tools to effectively manage assignments. The incumbent will have demonstrated ability to read and understand technical materials. He or she will work independently with limited supervision, and will have strong time management skills.

- Performs server configuration, installation, and setup including Web Servers and Application Servers. Provide server maintenance and support on two of three operating systems utilized by MDT and provides detailed documentation.
- Monitors and controls the performance and status of the network resources including LAN, WAN, and internet. Ensures that the system has achieved and maintains optimum performance levels. Diagnoses hardware and software problems, and replaces defective components.
- Identifies and recommends changes to improve system and network configuration. Determines hardware and/or software requirements related to these changes. Prepares new equipment specifications, ensuring accuracy and compatibility with existing systems.
- Responsible for installation, maintenance, configuration, and integrity of computer systems software. Ensures optimal computer resource utilization through load balancing. Provides short-term and long-term recommendations on needed adjustments.
- Responsible for implementation of operating system enhancements that improve the reliability and performance of the system. Develops and implements scripted code to enhance operations processes and web applications.
- Monitors file share security, developing an understanding of security requirements. Works with senior staff to identify and implement security requirements.
- Provides general storage management. Assists in implementation. Monitors usage and performance. Recommends options and alternatives as appropriate.
- Coordinates with the Department of Administration in the administration and maintenance of cross Agency servers/projects.
- Performs complex system tests. Develops detailed 'use case' scenarios, including recovery failures. With general supervision, responsible for the routine testing and analysis of system elements.
- Able to effectively lead small to medium project efforts; assign duties and roles appropriately.
- Effectively utilizes OS, database, and networking specific utilities and tools.
- Provides business applications security analysis and recommendations. Performs patch testing, impact analysis and recommendations for implementation on the PC platform.

- Develops understanding of MDT applications and their inter-relationship and impact on the infrastructure.
- Monitors network—and systems performance indicators to determine whether adjustments need to be made on either the short or longer term.

Document Processes and Outputs - 25%

Follow MDT's documentation standards to develop and maintain documentation and to provide status reports and updates using MDT's productivity tools. Maintain operations documentation for individual restorability and Disaster Recovery. Develop and provide security reporting necessary for senior technicians. Provide status reports and regular updates to supervisor or project lead.

- Develops and gains approval of documentation for duties as assigned.
- Uses trouble-shooting skills and analytical thinking to assist in the investigation, planning, documentation, implementation, and maintenance of Windows and Linux Disaster Recovery plans.
- Develops and writes procedures for installation, use, and troubleshooting issues of common hardware and software. Develops and writes techniques for approaching unique MDT hardware and software.
- Conduct Business Application Security analysis providing recommendations to ISD Staff.
- Develops clear position papers detailing pros and cons of a given technology under consideration.

Staff Support - 25%

Maintain active interactions with ISD staff, consultants, and vendors. Provide next level support and mentoring for user support staff.

- Independently performs routine security access procedures.
- Performs issue resolution and escalation. Effectively interacts with consultants, vendors, and ISD staff on support issues.
- Uses problem solving skills to diagnosis and resolve Windows and Linux, network or security problems encountered by development or user support staff. Work with senior staff to implement extensive changes.
- Conducts both user and staff training when needed.
- Provides mentoring and guidance, including limited work direction, to other staff.

Supervision

The number of employees supervised is: 0

The position number for each supervised employee is: N/A

Knowledge, Skills and Abilities (Behaviors):

Expanded knowledge or experience with computer operating systems (both server and PC) specific to MDT (Linux, Windows OS); network administration, VPN, Wireless or other technology, Oracle and/or SQL database basics and security understanding (AD, DB and/or file); High-level understanding of Disaster Recovery and Business Resumption planning contrasted with High Availability; familiarity with domain structures and user authentication. Basic understanding of networking topology at; Understanding of database from both developer and systems view, Understanding of virtual technology.

SKILLS

Reading Comprehension, Active Listening, Writing, Speaking, Logical, Analytical, and Critical Thinking, Deductive and Inductive Reasoning, Active Learning, Service Orientation, Problem Solving, Operations Analysis, Troubleshooting, Quality Control, SDLC, MS Office (Word, Excel, Outlook), typing, Scripting languages (at least 2), Negotiation and/or Persuasion, Judgement and Decision Making, Systems Analysis

Minimum Qualifications (Education and Experience):

The required knowledge and skills are typically acquired through a combination of education and experience equivalent to Bachelor's Degree in Computer Science or a closely related field such as Networking.

The level of experience for a Level 1 IT Systems Administrator with the BA degree in Computer Science would be 0 years.

The level of experience for a Level 2 IT Systems Administrator with the BA/BS degree in Computer Science would be 2 years.

The level of experience for a Level 3 IT Systems Administrator with the BA/BS degree in Computer Science would be 4 years.

Certifications, licensure, or other credentials include:

- Working knowledge and experience with computer operating systems for both servers and personal computers, such as Linux, Windows, Active Directory Management, network equipment, tools, techniques, or general network administration. Knowledge of database structures at a more generic level. Certification or training on Windows and Linux system design, maintenance, administration, and security are preferred.

Alternative qualifications include: Any combination of additional related work experience and education equivalent to the minimum qualifications.

Special Requirements:

- | | |
|--|---|
| <input type="checkbox"/> Fingerprint check | <input type="checkbox"/> Valid driver's license |
| <input checked="" type="checkbox"/> Background check | <input type="checkbox"/> Other; Describe |
| 035 Union Code | Safety Responsibilities |

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.

Signatures

My signature below indicates the statements in the job description are accurate and complete.

Immediate Supervisor	Title	Date
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Administrative Review	Title	Date
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My signature below indicates that I have read this job description.

Employee	Title	Date
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Human Resources Review

Job Code Title: IT Systems Administrator 1.0, 1.1, 1.2, 2.0 and 2.1 Job Code Number: C1E011 and C1E012 Level: 1, 2 & 3

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

- | | |
|--|--|
| <input type="checkbox"/> FLSA Exempt | <input checked="" type="checkbox"/> FLSA Non-Exempt |
| <input checked="" type="checkbox"/> Telework Available | <input type="checkbox"/> Telework Not Available |
| <input type="checkbox"/> Classification Complete | <input type="checkbox"/> Organizational Chart attached |

Human Resources:

Signature	Title	Date
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