Working Title: Telecommunications Software Programmer

Job Code Title: OS Programmer Intermediate

Job Code Number: **102289**

Department Name: ITS Infrastructure

Salary Range: $56,538 - $73,500

FLSA Status: Exempt

**Job Summary**:

Information and Technology Services (ITS) at the University of Michigan has an exciting opportunity for a OS Programmer Intermediate.  This person will join the ITS Unified Communications team. This position is responsible for the network and voice communications systems and tools and will collaborate with ITS Infrastructure technical teams on production support, tool development and project efforts.

Reporting to the Communications Systems Operations Manager, the incumbent will develop, configure, test, deploy, and maintain performance monitoring and measuring network tools for Linux environment. The role will provide configuration automation for real-time systems.

This position requires someone who can work under minimal supervision utilizing strong analytical and problem solving skills. Someone who will proactively anticipate and resolve problems, has experience in a role providing excellent customer service, demonstrates the ability to follow documented procedures and standards in a consistent manner, and has the passion to meet or exceed customer expectations.

**Responsibilities**:

* Responsibilities include the tactical planning, operational management and service delivery for Linux based systems. Develop and implement advanced system designs including server sizing, specifications and configuration. Configures, deploys, tests and maintains various network tools to include: Spectrum, Network Authentication (AAA), Intermapper, CA Spectrum and CA Network Flow Analysis . Develop documentation and deliverable plans for enterprise implementation and support.
* Mentors others on products and technologies. Duties also include overseeing the implementation, operation, maintenance, upgrades, backup/recovery, security, virus protection, spam protection, performance monitoring, supporting, and problem solving in a large, 24 X 7 computing environment.
* Assists users with development and optimization of complex searches, alerts, data extractions, dashboards and reports from tools within the monitoring infrastructure
* Provides design, development, integration and implementation of IP enabled real time unified communication systems, including but not limited to leveraging open source software and cloud based services.  Participates in the development of diagnostic, and test software for communication systems.
* Develops, tests, and validates software solutions for unified communication systems to support the collaborative real time communication needs of student, faculty and staff.  Delineates gaps between requirements and the capabilities of existing technology and resources, and recommends proactive improvements/ designs that are compliant with technical requirements.
* Actively coordinates with team members and service support groups to effectively resolve incidents, fixes, and minor enhancements.  Assignments include but are not limited to: coordination in the analysis, acquisition, and installation of software; analyzing data and developing recommendations for efficiency, upgrades, and replacement of communications systems; troubleshooting; upgrades; integration; and maintenance of systems.   Communicates to ITS and customers on adherence to design and service architecture guidelines

**ORGANIZATIONAL COMPETENCIES:**

Successful Candidates will be expected to demonstrate in this role the following organizational competencies, but not limited to:  
  
Building Relationship / Interpersonal Skills   
\*Demonstrated ability to use formal/informal networks to accomplish tasks and objectives, developing and maintaining smooth, cooperative working relationships.  
\*Demonstrated ability to address and manage conflict and offer constructive criticism and feedback in a positive manner.  
  
Creative Problem Solving / Strategic Thinking   
\*Demonstrated ability to provide necessary attention to solve different level problems, often multitasking to solve moderate level problems.    
\*Defines problems, analyzes causes, identifies possible solutions, selects the best solution, and develops action plans.  Generates new ideas and goes beyond the status quo.    
\*Demonstrated ability to use creative thinking to improve processes and solve complex problems.  
\*Plans and acts strategically, analyzing data and utilizing trend information.  
  
Communication   
\*Demonstrated ability to communicate about complex topics effectively to groups, using visual aids as needed, varying style to fit the audience.  
  
Flexibility / Adaptability to Change   
\*Understanding and accepting the need for change, cooperating in implementation, and constructively voicing concerns and proposing alternatives.  
  
Quality Service   
\*Demonstrated stewardship in understanding and helping others to understand the impact of recommendations to both short-term and long-term needs of the organization.  
\*Develops strategic partnerships with customers based on in-depth understanding of the customers objectives/business

**REQUIRED QUALIFICATION (EDUCATION & TECHNICAL COMPETENCIES)**

* Bachelor’s degree in computer science or a related field, or equivalent combination of education, certification, and experience.
* Basic understanding of networking concepts and protocols (e.g. TCP/IP, DNS/DHCP, HTTPS ), related technologies
* Minimum of two years Linux operations environment with some experience in design, troubleshooting, installation, configuration of systems in large environments
* Demonstrated ability to leverage appropriate technical tools to perform day-to-day administration tasks, root-cause analysis and service restoration (such as backup, restore, failover, log interpretation, and performance monitoring)
* Minimum of two year experience with programming languages, scripting languages or automation platforms (Shell Script, Python, PHP, HTML, RESTful API, docker container, and automation tools (e.g. ansible, puppet, salt etc)
* Demonstrated ability to troubleshoot difficult issues, and problem solving skills with a focus on process improvement and/or automation.
* Ability to manage small to medium projects
* Demonstrated ability to communicate effectively in technical concepts both verbally and in writing to teams and customers

**PREFERRED QUALIFICATION (EDUCATION & TECHNICAL COMPETENCIES)**

* Proficient with various operating systems, applications and tools such as Linux, MacOS, Mysql
* Experience with Network Monitoring System
* Experience with DevOps
* Familiarity with Containerization
* Familiarity with SNMP
* Programming experience in Python
* 2 Years experience as Linux System Administrator
* Experience working with data correlation, analysis and integration with upstream systems

**Work Schedule:**

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| --- | --- |
|  | * May require working during non-business hours and on weekends. * May require travel to various locations on and off campus. May require on-call availability |

**Additional Information**:

* Successful candidates must meet the requirements of driving a U-M vehicle and have a valid driver license with less than 7 points.
* After hire, candidate must have a personal mobile communication device and home internet connection.
* The University of Michigan was featured as one of the "Great Colleges to Work For" in the 2014 Chronicle of Higher Education.
* The University of Michigan is a recipient of the 2015 Seal of Distinction by the WorldatWork Alliance, recognizing strategies and practices that help employees achieve success in work-life effectiveness.