

University of Virginia

Job Summary

Job Code:	Job Title:	Network Engineer I
UVA Survey Code:	UVA Survey Code Title:	
Pay Band:	Career Path:	Network Engineering
FLSA Status:	Management or Individual Contributor:	Individual Contributor

Position Summary: Describe below the primary purpose and function of this job.

Provide functional and empirical analysis related to the planning, design, installation and implementation of the University core network infrastructure supporting University wide applications and systems and Internet connectivity. Monitor network performance; resolve network problems. Mitigate potential attacks through network or other connections to ensure the security of the University network and connected systems. Work with end users and departments to resolve network capacity, hardware/software and security issues.

Key Roles & Responsibilities: List up to 6 key roles and responsibilities of this job.

1. Research, analyze, configure, test, install and support the University's core network routing, switching, monitoring and management hardware and software; support and maintain LAN, WAN and metro networks.
2. Perform basic network modeling, analysis, and capacity planning. Assist with the design and implementation of systems to scale and provide fault tolerance. Provide network communications site planning.
3. Research network technologies, hardware and software to support secure high speed delivery of voice, data and video traffic across all areas of the University for wired and wireless devices.
4. Coordinate, and implement network security measures in accordance with best practices and University policy. Provide hardware and software to secure mission critical systems and to provide secure access.
5. Maintain network monitoring, management and access software for wired and wireless networks. Adapt and modify existing software or develop software to meet specific needs. Test hardware and software to determine efficiency, reliability, and compatibility with existing system.
6. Monitor network and performance to ensure network availability to all system users and perform necessary maintenance to support network availability. Work with end users to resolve network hardware/software issues.

Expertise: Describe the requirement for knowledge and expertise about the subject area as well as how various parts of the University work together to achieve objectives. Explain the degree of understanding required of the industry and university environment.

Incumbent is required to have a basic understanding of his/her discipline including all required certifications as well as a basic understanding of the business environment of a large university system. Incumbent is expected to maintain currency of knowledge with respect to relevant state-of-the-art technology, equipment, and/or systems.

Incumbent should have basic knowledge of computer engineering; network architecture; network hardware, monitoring and management software; network protocols; network services; network security methodologies; and a variety of system scripting and programming languages. Incumbent should have the ability to coordinate the installation of high-speed data network switching, routing and security equipment; determine, troubleshoot and resolve network problems; and program software to monitor, manage and integrate solutions to monitor and manage a complex high-speed network supporting data, voice and video.

Problem Solving: Describe the nature and complexity of the problems this position encounters on a recurring basis. Include information regarding the level of innovation required, if any, and include mention of environmental factors that may add to the complexity of resolving issues.

Incumbent will address routine problems and will use judgment in selecting among authorized procedures. Incumbent seeks assistance when guidelines are inadequate, significant deviations are proposed, or when unanticipated problems arise.

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Nature & Area of Impact: To what degree does this job affect the University (i.e., through interactions with faculty or students, making decisions, defining or setting strategy, etc.)? What is the breadth of the impact that this job has, either positive or negative (i.e., affects own team, department, function, business unit, entire university, etc.)?

Impact is typically limited to the team/department for which the incumbent works. Daily work quality can affect the productivity of students, faculty and/or staff.

Interactions / Interpersonal Skills: Describe the nature and level of interactions this job has with others, both internally and externally. Explain any specific interpersonal skills necessary to successfully perform this role (i.e., negotiation skills, represents business at external events or to governmental bodies, etc.).

Interactions are typically with fellow team members, but the incumbent may have interactions with assigned student, faculty, or staff clients. Incumbent should possess good verbal and written communication skills to convey technical guidance and information to users and to provide excellent customer service.

Distinguishing Characteristics

This is the entry-level job for the discipline.

- **Skills:** Level 1 incumbents are developing skills but possess a basic knowledge of the discipline from his/her education and/or training and a basic understanding of the University and its business environment.
- **Level of Work:** Level 1 work is generally routine in nature, with assignments provided at a task level, typically on a daily or short-term basis.
- **Supervision:** Level 1 incumbents work under immediate supervision, have minimal latitude for unreviewed actions/decisions. Level 1 incumbents have no supervisory responsibilities.
- **Interactions:** Level 1 incumbents typically have limited interactions with those outside his/her own team.
- **Focus:** Level 1 incumbents focus primarily on his/her own work quality and accuracy

Job Requirements And Qualifications: Indicate the minimum and preferred education and experience for this job and any licenses and certifications required.

<p>Minimum Education: Bachelor's degree or equivalent experience in Computer Science, MIS, Computer Engineering or related disciplines.</p>	<p>Preferred Education: Bachelor's degree in Computer Science, MIS, Computer Engineering or related discipline.</p>
<p>Minimum Experience: <1 year</p>	<p>Preferred Experience: 1-3 years</p>

Required Licenses/Certifications: