

University of Virginia

Job Summary

Job Code:	Job Title:	Network Engineer II
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 and manage network performance; resolve moderately complex network problems. Anticipate and mitigate potential attacks through network or other connections to ensure the security of the University network and connected systems. Work with end users, departments and vendors 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, design, 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 moderately complex network modeling, analysis, and capacity planning. Design and implement systems to scale and provide fault tolerance. Provide network communications site planning and management.
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. Participate in procurement evaluations.
4. Plan, 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 and evaluate 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 working knowledge of his/her discipline including all required certifications as well as an understanding of the business environment of a large university system. Incumbent must demonstrate a basic understanding of the University system, its policies, and its operating procedures. Incumbent is expected to maintain currency of knowledge with respect to relevant state-of-the-art technology, equipment, and/or systems.

Incumbent should have 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 design and 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 moderately complex problems and will use experience and judgment in selecting among authorized procedures. Incumbent seeks assistance when guidelines are inadequate, significant deviations are proposed, or when unanticipated problems arise. Incumbent will assist more junior-level staff in solving routine problems if necessary.

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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 and decision-making can affect the productivity of students, faculty and/or staff. Impact of errors can be substantial and/or university-wide.

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 will also have interactions with assigned student, faculty, or staff clients. Incumbent may work with external vendors or service providers. Incumbent should possess good verbal and written communication skills to convey technical guidance and information to users and to provide excellent customer service. Incumbent may train or provide guidance to more junior staff members.

Distinguishing Characteristics

This is the intermediate level for the discipline. Incumbent possesses all requirements and skills for Level 1 and has achieved proficiency in the typical tasks assigned to Level 1.

- **Skills:** Distinguished from Level 1 skills in that the Level 2 incumbent has developed his/her technical skills and begins to apply them regularly.
- **Level of Work:** Distinguished from Level 1 work by additional variation in activities and the latitude to apply skills to solve routine problems without review. Assignments at Level 2 become longer-term and the incumbent will have some latitude to devise the approach and method to performing the assignment.
- **Supervision:** Distinguished from Level 1 by the types and duration of assignments. Level 2 incumbents are expected to perform routine, daily activities without supervisory intervention. Level 2 incumbents also receive longer-term assignments for which he/she will have immediate supervision. Also distinguished from Level 1 in that the incumbents serve as a resource to Level 1 incumbents on routine problems. Level 2 incumbents will often train Level 1 incumbents on work processes and policies.
- **Interactions:** Distinguished from Level 1 in that the Level 2 incumbent will begin working beyond his/her own team. The Level 2 incumbent will work with related teams and with client groups.
- **Focus:** Level 2 focus is distinguished from Level 1 in that the Level 2 incumbent also begins to work toward specific team goals.

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

Minimum Education: Bachelor's degree or equivalent experience in Computer Science, MIS, Computer Engineering or related disciplines.	Preferred Education: Bachelor's degree in Computer Science, MIS, Computer Engineering or related discipline.
Minimum Experience: 1-3 years	Preferred Experience: 3-5 years

Required Licenses/Certifications: