



HANOVER COUNTY GOVERNMENT POSITION DESCRIPTION

IT Systems Engineer (CD)
(22425)

Department of Human Resources
PO Box 470
Hanover, VA 23069
Telephone (804) 365-6075
Facsimile (804) 365-6334

*Information Technology
(31 and 14)*

Revision Date: July 2011

General Description: This is a professional position that requires expertise in a specific technology area (depending on assignment: network services, server support, business application support, web support, or service desk/desktop). The incumbent is responsible for: developing customer-focused, business-appropriate solutions in a cross-functional team environment; and applying analytical and problem-solving skills to identify and resolve issues in order to help maximize the benefit of IT systems investments. ITD has five specializations for this position: Network, Server, Service Desk/Desktop, Applications Support and Web Developer.

Organization: The Systems Engineer position is part of Hanover County's Career Development Program (CD). The Systems Engineer Ladder has four (4) levels: Systems Engineer I, II, III and Senior. Incumbents normally report to a Project Manager and supervise no staff, though they may lead teams.

Essential Functions:

- Performs problem-solving and analysis, including incident management, problem management and root cause analysis.
- Has a knowledge of the customer's business, as appropriate for the specified area of specialization. Leverages knowledge to develop customer-focused, business-appropriate solutions. Engages stakeholders in solution development.
- Communicates effectively with customers and team members.
- Vendor management. Works closely with vendors to develop solutions that meet customer needs; effectively escalate and resolve issues with vendors. Gain strategic insights from vendors.
- Develops and manages appropriate documentation.
- Systems implementation and systems management. Has working knowledge of relevant standards, protocols and languages used within domain of assignment and applies these to develop appropriate solutions.
- Manages work and priorities and utilizes project management practices.
- Stays current in developments within the specified area of specialization and proactively researches trends.
- Manages personal growth and development.
- Adheres to the department's change management standards.
- Performs other duties as assigned.

Assignment-Specific Essential Functions:

- Network Services:
 - Performs fault isolation, repair and analysis of the various network components and systems used to support the County Information Technology enterprise.
 - Configures, operates and maintains Cisco Integrated Service Routers and Cisco IOS as well as a firm understanding of general routing concepts, standards and protocols.
 - Configures, operates and maintains Layer2 and multilayer switching in an enterprise environment.
 - Configures, operates and maintains firewalls in the enterprise.
 - Configures, operates and maintains unified and autonomous wireless infrastructure in the enterprise environment.
 - Configures, operates and maintains LAN to LAN and remote access VPN installations, software and hardware.
 - Integrates multi-vendor network equipment and systems using open standards.
 - Manages authentication and authorization functions including RADIUS and TACACS policy configuration and application.
 - Uses tools and resources to monitor and maintain the integrity and performance of the enterprise network.



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- **Server Support:**
 - Performs general fault isolation and equipment repair
 - Performs capacity planning and develops server sizing requirements based on user system requirements
 - Creates and manages fault tolerant environments based on user systems requirements
 - Manages server operating systems and performs server upgrades
 - Builds and manages physical and virtual server environments
 - Designs and manages server back-up and recovery processes for both ISeries and Microsoft servers
 - Develops technical requirements and documentation
 - Designs and manages storage environments according to user data requirements
- **Service Desk/Desktop:**
 - Performs general fault isolation and equipment repair for personal computers
 - Provides end user support on Microsoft Office Products
 - Records, tracks, and documents IT help desk request problem-solving process, including successful and unsuccessful decisions made, and actions taken, through to final resolution.
 - Performs on-site and/or remote analysis, diagnosis, and resolution of everyday PC problems
 - Provides management and support of personal computer operating systems
 - Performs support for personal computer, printer, Multi-Function and mobile device hardware
 - Provides customer-focused solutions
- **Business Application Support Systems Engineer:**
 - Conducts business analysis and in business process analysis
 - Develops business and technical requirements
 - Develops project justifications, business cases and cost-benefit analysis
 - Queries/analyzes data using standard tools
 - Develops appropriate systems and applications diagrams
 - Implements, supports and configures third-party software packages
- **Web Developer/Designer:**
 - Performs web site updates using current web technologies deployed within the County
 - Performs information architecture planning
 - Develops website requirements and conducts website analysis
 - Develop and maintain web related policies
 - Develops appropriate systems and applications diagrams
 - Implements and manages content management solutions
 - Makes recommendations for the direction of the County website and technologies used
- **GIS Developer:**
 - Performs relational database management (Microsoft Sql Server, etc.)
 - Queries/analyze data using standard tools
 - Develops applications using standard programming languages (python, VBA, etc.)
 - Develops business and technical requirements
 - Develops, designs, and maintains GIS web-based applications using standard development tools (ArcServer, Flex, Silverlight, Java)
 - Implements, supports, and configures third-party software packages
 - Provides technical support and training, including developing pertinent documentation

Working Conditions:

- A. Hazards: None known
- B. Environment: Office, field. Travel for support, training and conferences.
- C. Physical effort: Moderate – lifts supplies and equipment (PCs, network equipment, etc.)



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D. Exempt

- **Knowledge, Skills and Abilities:** Strong customer service orientation. Requires solid general knowledge of Information Technology industry and best practices and expertise in area of assignment. Excellent analytical ability; creative problem-solving and trouble-shooting skills. Excellent oral and written communications skills. Communication must be proactive, timely and audience appropriate. Ability to work independently and use independent judgment. Must be able to prioritize multiple tasks and assignment. Adept at working in a team-oriented, collaborative environment. Ability to work and communicate with County staff, the public, and professional peers. Depending on area of assignment, must understand the relationship between core infrastructure services, desktop and server operating systems; understand the relationship between core infrastructure services, desktop and server operating systems; understand TCP/IP and Ethernet related concepts; understands basic information technology security concepts; understand the relationship between core infrastructure services, desktop and server operating systems; and be familiar with the basics of managing Microsoft SQL Server environments

Education, Experience and Training: Four years' college education required with a Bachelor's degree in Information Systems, Computer Science or related field preferred. Relevant experience in specific area of expertise, depending on area of assignment, required. – OR – Any equivalent combination of education, experience and/or training sufficient to demonstrate the required knowledge, skills and abilities is acceptable.

Special Conditions:

- Criminal Records check, including fingerprinting
- Valid Commonwealth of Virginia Driver's License
- Twelve month probationary period
- Rotational on-call after-hours support (including evenings, weekends, holidays).
- Must perform regular, periodic on-call duties and beyond normal work schedule to resolve critical issues and system upgrades. Includes evenings, weekends and holidays.