



# DOANE

## UNIVERSITY

### **Job Summary**

The Systems Engineer III is a senior position involved in the planning, design, commissioning and monitoring of Doane University's server, storage, backup infrastructure and is responsible for a broad range of enterprise hardware equipment from complex virtual compute, storage systems, directory, email, backup systems/management and enterprise endpoint protection software.

Works autonomously and will often be called upon to work on systems and equipment that are new and complex. This often calls for the identification of creative solutions to problems. An important responsibility of a senior systems engineer is keeping records of the equipment and facilities the company is using.

This position exhibits a combination of capabilities from the Skills Framework for the Information Age (SFIA). Within the SFIA profile, the senior systems engineer has [Level 4](#) and [Level 5](#) capabilities, i.e. enables, ensures, advises, and manages on the skills and duties outlined below.

### **Primary/Essential Job Duties:**

Specialist advice - Actively maintains knowledge in one or more identifiable specialisms. Provides detailed and specific advice regarding the application of their specialism(s) to the organization's planning and operations. Recognizes and identifies the boundaries of their own specialist knowledge. Collaborates with other specialists, where appropriate, to ensure advice given is appropriate to the needs of the organization.

IT infrastructure - Provides technical expertise to enable the correct application of operational procedures. Uses infrastructure management tools to determine load and performance statistics. Contributes to the planning and implementation of maintenance and installation work, including building and configuration of infrastructure components in virtualized environments. Implements agreed infrastructure changes and maintenance routines. Configures tools to automate the provisioning, testing and deployment of new and changed infrastructure. Identifies operational problems and contributes to their resolution, checking that they are managed in accordance with agreed standards and procedures. Provides reports and proposals for improvement, to specialists, users and managers.

System software - Evaluates new system software, reviews system software updates and identifies those that merit action. Ensures that system software is tailored to facilitate the achievement of service objectives. Plans the installation and testing of new versions of system software. Investigates and coordinates the resolution of potential and actual service problems. Ensures that operational documentation for system software is fit for purpose and current. Advises on the correct and effective use of system software.

Storage Management - Manages the storage and backup systems to provide agreed service levels. Responsible for creating, improving, and supporting quality IT services with optimal utilisation of storage resources, ensuring data security, availability and integrity of business data. Develops standards, procedures and guidelines for implementing data protection and disaster recovery functionality for all business applications and business data using different online and offline storage devices.

Information Assurance - Interprets information assurance and security policies and applies these in order to manage risks. Provides advice and guidance to ensure adoption of and adherence to information assurance architectures, strategies, policies, standards and guidelines. Uses testing to support information assurance. Contributes to the development of policies, standards and guidelines.

Capacity Management - Manages capacity modelling and forecasting activities. Pro-actively reviews information in conjunction with service level agreements to identify any capacity issues and specifies any required changes. Provides advice to support the design of service components including designing in flexible and scalable capacity. Works with business representatives to agree and implement short- and medium-term modifications to capacity. Drafts and maintains standards and procedures for service component capacity management. Ensures the correct implementation of standards and procedures.

Information security - Provides advice and guidance on security strategies to manage identified risks and ensure adoption and adherence to standards. Obtains and acts on vulnerability information and conducts security risk assessments, business impact analysis and accreditation on complex information systems. Investigates major breaches of security, and recommends appropriate control improvements. Contributes to development of information security policy, standards and guidelines.

Security administration - Maintains security administration processes and checks that all requests for support are dealt with according to agreed procedures. Provides guidance in defining access rights and privileges. Investigates security breaches in accordance with established procedures and recommends required actions and supports / follows up to ensure these are implemented.

Network support - Identifies and resolves network problems following agreed procedures. Uses network management software and tools to collect agreed performance statistics. Carries out agreed network maintenance tasks.

Facilities management - Uses data center management tools to produce management information on power, cooling and space and investigate issues where necessary. Carries out routine audit and checks to ensure adherence to policies and procedures.

Continuity management - Implements and contributes to the development of a continuity management plan.

Application Support - Drafts and maintains procedures and documentation for applications support. Manages application enhancements to improve business performance. Advises on application security, licensing, upgrades, backups, and disaster recovery needs. Ensures that all requests for support are dealt with according to set standards and procedures.

Methods and Tools Management - Provides advice, guidance and expertise to promote adoption of methods and tools and adherence to policies and standards. Evaluates and selects appropriate methods and tools in line with agreed policies and standards. Implements methods and tools at programme, project and team level including

selection and tailoring in line with agreed standards. Manages reviews of the benefits and value of methods and tools. Identifies and recommends improvements. Contributes to organisational policies, standards, and guidelines for methods and tools.

Asset management - Controls IT assets in one or more significant areas, ensuring that administration of the acquisition, storage, distribution, movement and disposal of assets is carried out. Produces and analyses registers and histories of authorized assets (including secure master copies of software, documentation, data, licenses and agreements for supply, warranty and maintenance), and verifies that all these assets are in a known state and location. Acts to highlight and resolve potential instances of unauthorized assets such as unlicensed copies of software.

Change management - Assesses, analyses, develops, documents and implements changes based on requests for change.

Problem management - Initiates and monitors actions to investigate and resolve problems in systems, processes and services. Determines problem fixes/remedies. Assists with the implementation of agreed remedies and preventative measures.

Incident management - Prioritizes and diagnoses incidents according to agreed procedures. Investigates causes of incidents and seeks resolution. Escalates unresolved incidents. Facilitates recovery, following resolution of incidents. Documents and closes resolved incidents according to agreed procedures.

Project management - Defines, documents and carries out small projects or sub-projects (typically less than six months, with limited budget, limited interdependency with other projects, and no significant strategic impact), alone or with a small team, actively participating in all phases. Identifies, assesses and manages risks to the success of the project. Ensures that own projects are formally closed and, where appropriate, subsequently reviewed, and that lessons learned are recorded.

Systems installation/decommissioning - Undertakes routine installations and de-installations of items of hardware and/or software. Takes action to ensure targets are met within established safety and quality procedures, including, where appropriate, handover to the client. Conducts tests of hardware and/or software using supplied test procedures and diagnostic tools. Corrects malfunctions, calling on other experienced colleagues and external resources if required. Documents details of all hardware/software items that have been installed and removed so that configuration management records can be updated. Develops installation procedures and standards, and schedules installation work. Provides specialist guidance and advice to less experienced colleagues to ensure best use is made of available assets, and to maintain or improve the installation service.

Configuration management - Applies tools, techniques and processes to track, log and correct information related to configuration items. Verifies and approves changes ensuring protection of assets and components from unauthorized change, diversion and inappropriate use. Ensures that users comply with identification standards for object types, environments, processes, lifecycles, documentation, versions, formats, baselines, releases and templates. Performs audits to check the accuracy of information and undertakes any necessary corrective action under direction.

**Supervisory Responsibilities:** None

**Qualifications/Skills/Abilities Required for Position:**

- Experience with network/infrastructure support, network/systems design, and network/systems planning
- Experience demonstrates level 4 and 5 capabilities as described in the Skills Framework for the Information Age (SFIA), i.e. enables, ensures, advises, and manages

**Qualifications/Skills/Abilities Preferred for Position:**

- Experience with information security, security administration, and knowledge of ITIL

**Education/Training:**

- Bachelor's Degree in Information Systems or a related field or equivalent work or military experience.

**Licenses and Certifications:**

- Microsoft, Azure, VMWare certifications preferred.

**Working Conditions:**

- Normal business hours
- Evening and weekends as necessary (i.e. emergencies)
- Remote option available
- Travel to Doane campuses as necessary for projects, installations, maintenance, etc.

**Physical Requirements (select one):**

X  Light work. Exerting up to 20 lbs. of force occasionally, and/or up to 10 lbs. of force frequently, and/or a negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for sedentary work and the worker sits most of the time, the job is rated for light work.