



STATE OF SOUTH DAKOTA  
CLASSIFICATION SPECIFICATION

**Network Series**

*In this series:*

<b>Classification</b>	<b>Class Code</b>	<b>Pay Grade</b>	<b>Civil Service</b>	<b>FLSA</b>
<a href="#">Network Analyst</a>	808203	IT 3	Covered	Non-exempt
<a href="#">Network Administrator</a>	808205	IT 5	Covered	Non-exempt
<a href="#">Network Engineer</a>	808207	IT 7	Covered	Exempt
<a href="#">Network Professional</a>	808208	IT8	Exempt	Exempt
<a href="#">Network Architect</a>	808209	IT 9	Exempt	Exempt
<a href="#">Network Manager I</a>	808218	IT 8	Exempt	Exempt
<a href="#">Network Manager II</a>	808220	IT 10	Exempt	Exempt

**Purpose of Series**

This series captures the breadth and depth of work that enable users of state information technology resources to access, store, manipulate, and/or download information needed to perform their assigned duties. Employees in this series work in Ethernet switching, routing, firewalls, IP networks, wireless networks, web filtering, communications and radio frequency (RF) infrastructure, and RF support for state government public K-12 education, public Board of Technical Education and Board of Regents clients.



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Network Analyst	808203	IT 3	Covered	Non-exempt

**Role Description**

Under general supervision, incumbents typically perform a variety of tasks requiring problem-solving and a scope that encompasses one or more agencies, functions or processes in information technology and communications networks. Network Analysts may execute guidelines for technology governance and process improvement.

**Example Functions**

- Applying secure configuration standards and processes to ensure the integrity and security of state networks.
- Building, testing, repairing network components within parameters or a predetermined process.
- Gathering data to monitor, document, analyze, and interpret network performance and systems.
- Installing and testing of network equipment and systems, including routine maintenance activities, capacity analysis and root-cause analysis on issues and outages.
- Investigating new products and technologies relevant to assigned network under the direction and guidance of network engineers.
- Resolving client incidents and requests.
- Tracking, monitoring, and auditing information technology assets.

**Requisite Knowledge, Skills, and Experiences**

- Working knowledge of local area networks (LAN), internetworking and transport layers.
- General knowledge of the Transmission Control Protocol and the Internet Protocol (TCP/IP).



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Network Administrator	808205	IT 5	Covered	Non-exempt

**Role Description**

Under administrative supervision Network Administrators apply knowledge and skill in the maintenance and monitoring of networks with limited need for direction. Network Administrators are subject matter experts on information technology and communications components and ensure and maintain the network once developed.

**Example Functions**

- Analyzing localized network capacity and performance and assessing poor data management practices.
- Assisting with establishment and enforcement of network business practices, policies, and standards.
- Assisting with root-cause analysis on issues and outages.
- Identifying technical network requirements to support business needs.
- Interacting with network vendors for technical support within existing vendor agreements.
- Investigating new products and technologies relevant to assigned network under the direction and guidance of network engineers.
- Monitoring network service level agreements (SLA) and key performance indicators (KPI).
- Resolving client incidents and fulfilling requests.
- Troubleshooting hardware and software problems by analyzing a chain of events and following established procedures and standards.

**Requisite Knowledge, Skills, and Experiences**

- In-depth knowledge of communications and local area networks (LAN), internetworking and transport layers.
- In-depth knowledge of the Transmission Control Protocol and the Internet Protocol (TCP/IP).
- Broad understanding and knowledge of IT project management methodologies such as cost-benefit analysis and decision analysis.
- Understanding of how data should be packetized, addressed, transmitted, routed, and received.
- Knowledge of electronic equipment, and computer hardware and software; transmission, broadcasting, switching, control, wiring principles, and operation of telecommunications systems.



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Network Engineer	808207	IT 7	Covered	Exempt

**Role Description**

Under administrative supervision Network Engineers apply knowledge and skill in the design and development of networks with limited need for direction. Network Engineers are subject matter experts on information technology and communications components and provide specialized consultative advice, insights, implications, and recommendations for decisions.

**Example Functions**

- Assessing tradeoffs between business needs, technology requirements, and costs and advises and presents resolution to client issues.
- Designing, implementing, and managing mid-level and core state information technology, and communications systems software and equipment based on architectural designs.
- Establishing and enforcing network business practices, policies, and standards.
- Identifying technical network requirements to support business needs.
- Implementing disaster recovery and contingency plans develops plans for emergencies.
- Investigating, experimenting, and testing new and non-standard technology solutions and assesses the impact of changes to business practices.
- Managing project related costs and other assigned expenses for budgeting purposes and providing input to budget and resource planning processes.
- Monitoring network service level agreements (SLA) and key performance indicators (KPI).
- Performing root-cause analysis on issues and outages.
- Writing and reviews network-related Requests for Proposal (RFP) documents and projects.

**Requisite Knowledge, Skills, and Experiences**

- Broad understanding and knowledge of IT project management methodologies such as cost-benefit analysis and decision analysis.
- Understanding of how data should be packetized, addressed, transmitted, routed, and received.
- Knowledge of electronic equipment, and computer hardware and software; transmission, broadcasting, switching, control, wiring principles, and operation of telecommunications systems.



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Network Professional	808208	IT 8	Exempt	Exempt

**Role Description**

Network Professionals (platform engineers) assure the follow-through and execution of the enterprise vision for network services. They serve as an interface between management and the network engineering staff. They are responsible for researching hardware and software solutions to network challenges as well as opportunities for new services. They develop, vet, and enforce technical network policies, and remain accountable for network operational reporting and resource planning. They assure the network team contributes to and accomplishes the vision and goals developed and provided by architect and management staff.

**Example Functions**

- Act as a key technical advisor to technology project leaders.
- Manage infrastructure or system software related projects, involving multiple stakeholders.
- Negotiate contract terms and conditions with technology vendors and procurement officers.
- Advise agencies, clients, and vendors on issues, requirements, new standards, methods, and practices towards operational efficiency.
- Is responsible for the planning, execution, and finalizing of the platform-wide portions of a project, keeping the project on time, and within the estimated budget.
- Design and deploying multiple systems that have enterprise-wide impact. Maintain knowledge of how assigned platform(s) are interdependent with other platforms.
- Interact with network and system vendors for technical support within existing vendor agreements for upper-level technical support calls.
- Provide technical guidance and oversight for the team's training, cross-training, and mentoring for the assigned platform(s).
- Provide architect and engineering staff with platform design and functional analysis.
- Overseeing the design and standards for disaster recovery and emergency operations.
- Perform root-cause analysis on issues and outages.
- Collects and provides feedback on capabilities and limitations of assigned platform(s)/system(s) and its components.
- Responsible for ensuring that the implementation and functioning of assigned platform(s)/system(s) are developed, enhanced, and maintained for optimum operational efficiency across diverse business needs and processes.
- Ensure technical designs, standards, and execution of appropriate processes meets expectations and fit into enterprise vision and direction.
- Write and review network-related Requests for Proposal (RFP) documents and projects.
- Interface between management and networking teams while directing after-action activities for events affecting networking services.



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### **Requisite Knowledge, Skills, and Experiences**

- Knowledge of electronic equipment, and computer hardware and software; transmission, broadcasting, switching, control, wiring principles, and operation of telecommunications systems.
- Interpersonal skills to work with multiple collaborative teams to identify and resolve issues.
- Broad understanding and knowledge of IT project management methodologies such as cost-benefit analysis, decision analysis.



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Network Architect	808209	IT 9	Exempt	Exempt

**Role Description**

Performs work without guidance and applies advanced knowledge and skills in complex or novel work situations. Network Architects demonstrate strategic leadership, influence, and expertise that drive the improvement of the state’s use of technology. Incumbents are responsible for the most complex, statewide infrastructure systems, as well as planning for and evaluating large-scale core information technology and communications equipment, systems, and software.

**Example Functions**

- Advising agencies on issues when applying or adapting new theories, concepts, principles, standards, methods, or practices.
- Designing networking systems and standards to ensure stability and reliability.
- Integrating network programs with other programs of equivalent scope and complexity.
- Mentoring and training network staff including the development of training material.
- Overseeing the design and standards for disaster recovery and emergency operations.
- Performing network modeling, analysis, and planning for information technology and communications infrastructures.
- Researching, analyzing, and testing proof of concepts in design phase and provides direction regarding the capabilities of highly technical or specialized products.
- Reviewing industry trends in networking to anticipate changes and to plan direction of multiple networking technologies.

**Requisite Knowledge, Skills, and Experiences**

- Broad understanding and knowledge of IT project management methodologies such as cost-benefit analysis, decision analysis.
- Knowledge of electronic equipment, and computer hardware and software; transmission, broadcasting, switching, control, and operation of telecommunications systems.
- Knowledge of design techniques, tools, and principals involved in production of precision technical plans, blueprints, drawings, and models.



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Network Manager I	808218	IT 8	Exempt	Exempt

**Role Description**

Supervises and manages a team of network staff who are responsible for technologies such as Ethernet switching, routing, firewalls, IP networks, wireless networks, web filtering, communications and radio frequency (RF) infrastructure, and RF support for state government public K-12 education, public Board of Technical Education and Board of Regents clients.

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Network Manager II	808220	IT 10	Exempt	Exempt

**Role Description**

Supervises and manages multiple teams of network staff who are responsible for technologies such as Ethernet switching, routing, firewalls, IP networks, wireless networks, web filtering, communications and radio frequency (RF) infrastructure, and RF support for state government public K-12 education, public Board of Technical Education and Board of Regents clients.