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**NETWORK ENGINEER**

**SCOPE OF WORK:**

Work involves the administration, provisioning, design, testing and implementation of a statewide data and communications network providing services to a variety of customers including state government, political subdivisions (cities and counties), higher education, K-12 education, public health units, local law enforcement, emergency management and libraries.

**DUTIES PERFORMED AT ALL LEVELS:**

- Establish networking environment by designing system configuration and directing system installation; defining, documenting and enforcing system standards.
- Interprets network architectural designs and develops plans for successful implementation.
- Provides content expertise on one or more key aspects of the infrastructure and network designs.
- Provides research/direction into the capabilities of highly technical products utilized on the network and authors technical articles and whitepapers to assist co-workers in understanding the technologies.
- Conducts problem and root cause analyses spanning multiple aspects or products on significant segments or across multiple services of the network infrastructure.
- Monitor, interpret and analyze performance metrics, events, issues and operational logs of network infrastructure.
- Maximize network performance by monitoring performance, troubleshooting network problems and outages, scheduling upgrades and collaborating with network architects on network optimization.
- Secure network system by establishing and enforcing policies; defining and monitoring access.
- Implement, deploy and test network infrastructure based on standard configuration and test plans that require significant customization for broad services or customers.
- Take a lead role in testing proof of concept solutions during the design phase.
- Develop and maintain documentation on network design and performance, including architectural and engineering documents that represent significant segments of the network or multiple services offered on the network.
- Research and recommend measures to accomplish Network Services Dept. and organizational mission.

**NOTE:** The duties listed are not intended to be all-inclusive. Duties assigned any individual employee are at the discretion of the appointing authority.

**NETWORK ENGINEER I**

0188

GRADE M

**LEVEL DEFINITION:**

Work at this level generally involves network engineering and design, administration, troubleshooting and support, and research activities related to network infrastructure that encompasses a significant segment of the network and management of network infrastructure across the customer premises network equipment. Act as subject matter expert for one or more significant network infrastructure components.

**ADDITIONAL DUTIES PERFORMED AT THIS LEVEL:**

- None

**MINIMUM QUALIFICATIONS:**

Requires a bachelor's degree in network systems, computer science, or data systems design and four years experience in the evaluation and analysis of major portions of a large data network. The employing agency, at its discretion, may substitute additional professional work experience for the formal education requirement. The amount and type of work experience that may be substituted will be defined by the employing agency at the time of recruitment.

**NETWORK ENGINEER II**

0189

GRADE N

**LEVEL DEFINITION:**

Design and engineer highly complex network solutions that span the entire network involving multiple services, products and vendors. Work at this level generally involves provisioning, designing, testing and implementation of all major installations.

**ADDITIONAL DUTIES PERFORMED AT THIS LEVEL:**

- Daily administration and management of network infrastructure across the entire enterprise network.
- Interprets architectural designs and develops a plan for successful implementation and is considered a content expert on the majority of the gear and network designs that the division implements.
- Implement, deploy and test mission critical network services.
- Collaborate with a variety of subject matter experts across divisions with multiple products and vendors to analyze, diagnose and interpret both network infrastructure technologies as well as application technologies in support of application level incident response.

- Facilitate, coordinate, negotiate and direct incident response across multiple products and/or vendors that impacts significant network infrastructure or services.
- Recognize and mitigate network operational and security concerns.

MINIMUM QUALIFICATIONS:

Requires a bachelor's degree in network systems, computer science, or data systems design and five years experience in the evaluation and analyses of a large data network. The employing agency, at its discretion, may substitute additional professional work experience for the formal education requirement. The amount and type of work experience that may be substituted will be defined by the employing agency at the time of recruitment.

Eff. Date: 10/13