

CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT

NETWORK SYSTEMS SPECIALIST I NETWORK SYSTEMS SPECIALIST II

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

SUMMARY DESCRIPTION

Under direction, create and maintain District-wide network connectivity; plan, develop, and administer District data communication systems and networked services; and provide effective network system design and implementation.

DISTINGUISHING CHARACTERISTICS

Positions in this series may be assigned a variety of duties from among those listed in the Representative Duties section or a combination of those and other related work functions. Duties include both support functions and primary lead responsibilities. The class titles within the series are not interchangeable; each class title requires a particular level of responsibility, independent initiative, and qualifying experience.

Network Systems Specialist I - This classification is given substantial but limited responsibility for assigned duties including well-defined projects of limited scope. The Network Systems Specialist I requires fundamental knowledge of the District's network design, technologies, devices, operational rules, testing and monitoring systems, network operating systems, network services, client operating systems, and applications. The Network Systems Specialist I is expected to resolve most technical problems on his/her own initiative, while major problems are solved after consultation with higher level staff.

Network Systems Specialist II - This classification is assigned the highest levels of responsibility for network system and service planning, development, and technical administration and performs these tasks autonomously. The Network Systems Specialist II requires extensive and comprehensive knowledge of the District's network design, technologies, devices, operational rules, testing and monitoring systems, network operating systems, network services, client operating systems, and applications. The Network Systems Specialist II is assigned primary lead responsibility for an area of focus and performs these responsibilities with limited coordination. This position also may include lead responsibility for network development or systems administration projects of broad scope. The Network Systems Specialist II is expected to resolve nearly all technical problems on his/her own initiative, though consultation with management is appropriate for exceptional problems and policy issues.

REPRESENTATIVE DUTIES

The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.

1. Oversee the District's data communications systems, administrative network servers, and administrative network client systems including system planning, development, software distribution, operational control, monitoring, and security.
2. Coordinate data communications network planning and implementation with District staff.

Chabot-Las Positas Community College District
Network Systems Specialist I/II (Continued)

3. Maintain network security; monitor security bulletins and announcements; research security issues; configure or update system software to enhance security; develop recommendations for operational procedures and security policies.
4. Perform or direct technical administration of the District's internet hosts and services, District network systems and services, and administrative servers.
5. Manage or direct the management of network devices such as switches, routers, hubs, repeaters, modems, terminal servers, and print servers.
6. Develop and maintain documentation of the network cable plant and infrastructure for buildings, sites, and the entire District; develop and maintain documentation of network device configuration and operating rules.
7. Recommend District-wide technical standards for data communications network infrastructure and devices.
8. Implement and monitor network management software, communications software, analysis software, and instruments.
9. Manage maintenance contracts for network infrastructure devices.
10. Perform or direct systems administration of the District's network servers.
11. Implement and administer District-wide email systems.
12. Establish and document server operational procedures, including maintenance, backup, and recovery.
13. Recommend District-wide standards for network server software, including operating systems, utilities, management software, and office automation applications.
14. Manage maintenance contracts for network servers and related software.
15. Install or coordinate systems for distribution of computer-based hardware and software to the network's administrative clients.
16. Plan and implement procedures to help maintain software security and copyright compliance; monitor and report compliance violations.
17. Recommend District-wide standards for networked client computers, printers, and other end-user devices.
18. Provide direct support for District-owned client computers, including hardware and software installation, configuration, troubleshooting, and repair.
19. Analyze District requirements for network systems technologies, capacity, and utilization and recommend specific strategies, plans, and designs to meet those requirements.
20. Plan and estimate required resources and timetables for systems project implementation.
21. Perform complex systems analysis tasks required to administer and maintain the District's data communications systems, servers, and clients, including problem definition, analysis, and solution planning.
22. Monitor computer network and server operational status parameters and performance.
23. Analyze and troubleshoot network system, server, and client problems and malfunctions; resolve technical problems or assist vendors' representatives in the resolution of these problems.
24. Coordinate installation, maintenance, and repair of network equipment by outside vendors.

**Chabot-Las Positas Community College District
Network Systems Specialist I/II (Continued)**

25. Recommend strategies to maintain the technical currency of network systems, services, and equipment.
26. Make budget recommendations to management concerning communications systems, software, and equipment.
27. Prepare and distribute technical tips and advice to network users through memos, bulletins, and newsletters.
28. Conduct orientations, training sessions, and workshops on operation of the District's networks and network services.
29. Provide regular liaison with College computing staff; coordinate systems and services as required.
30. Coordinate network services and technical systems with other staff and consultants; perform backup duties as required.
31. Learn and use new technologies required to remain current in the field.
32. Perform related duties as required.

MINIMUM QUALIFICATIONS

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

1. Principles of computer systems, network administration, and programming.
2. Data communication network design, planning, documentation, and technical administration.
3. Principles and methods of network technology, design, security, and administration.
4. Router configuration and management in a multiprotocol environment.
5. Modern computer operating systems and their related network technology, including Novell Netware, Unix/Linux, Windows Server, and other modern operating systems and environments.
6. Modern data communications technologies, local and wide-area networking, computer network client and server administration, user applications, and a user functions.
7. Wide area networking technologies including T-1, T-3, and metropolitan area network (MAN).
8. Local area network (LAN) and wireless technologies.
9. Internet services, network protocols, network transmission standards, and data communication technologies and standards.
10. TCP/IP routing protocols, OSI network model, Virtual Local Area Networks (VLAN), DNS, SNMP, and SMTP.
11. Network cabling and hardware, including hubs, repeaters, switches, bridges, routers, network interface cards, modems, multiplexers, terminal servers, and print servers.
12. Email exchange methods and messaging standards and protocols.
13. Network server software and related network server utilities.
14. Basic systems analysis and design concepts.
15. Information sources to remain current in the field.

**Chabot-Las Positas Community College District
Network Systems Specialist I/II (Continued)**

Ability to:

1. Administer and support a complex network.
2. Operate computers and related network equipment.
3. Set up and manage network cables and devices, including routers, switches, hubs, repeaters, network interface cards, terminal servers, and print servers.
4. Configure and manage routers in a multi-protocol environment.
5. Select, implement, set up and use software for network administration, management, and monitoring.
6. Resolve technical malfunctions in network-related hardware and software.
7. Use software for network administration, management, and monitoring.
8. Use computer-assisted drawing software or other computer applications for network infrastructure documentation.
9. Analyze technical data and solve problems.
10. Adapt to changing technologies and learn functionality of new equipment and systems.
11. Plan for future network development.
12. Complete technical tasks without close supervision.
13. Communicate clearly and concisely, both orally and in writing.
14. Establish and maintain effective working relationships with those contacted in the course of work.
15. Work with and exhibit sensitivity to and understanding of the varied racial, ethnic, cultural, sexual orientation, academic, socio-economic, and disabled populations of community college students.

Minimum Education & Experience - Any combination of the following would provide a typical way to obtain the required knowledge and abilities.

Network Systems Specialist I

Education/Training:

A Bachelor's degree from an accredited college or university with major course work in computer science or a related field.

Experience:

Two years of increasingly responsible network or systems administration experience.

Network Systems Specialist II

Education/Training:

A Bachelor's degree from an accredited college or university with major course work in computer science or a related field.

Experience:

Two years of experience comparable to that of a Network Systems Specialist I with Chabot-Las Positas Community College District.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Chabot-Las Positas Community College District
Network Systems Specialist I/II (Continued)

Environment: Work is performed primarily in a standard office setting.

Physical: Primary functions require sufficient physical ability and mobility to work in an office setting; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information.

6/15/99

Adopted by Board of Trustees on October 20, 2015

Effective: October 21, 2015

Job Family: Management Information Services