

Job Title: Systems Programmer II - Linux Systems Administrator
Department: Network Services
Supervisor: Network Services Manager
Date: April 1997
Updated: April 2008

A. PURPOSE OF THE JOB:

To perform advanced professional and complex technical work supervising the development, implementation, and maintenance of the Linux and UNIX systems on the Local Area Network (LAN).

B. DUTIES:

This is a technical position requiring specific knowledge and skills in the field of Linux and Unix operating systems administration. Additionally, the incumbent provides training for support staff and users of these systems.

1. Major Duties:

- a. Installs, manages, and maintains Linux systems operated by the Department of Media, Computer, and Telecommunications Services,
- b. Installs, manages, and maintains UNIX systems operated by, the Department of Media, Computer, and Telecommunications Services,
- c. Installs, manages, and maintains Internet client and server software including; E-Mail (electronic mail), Telnet, FTP, Secure Shell, Instant Messaging (chat), and HTTP (web) access,
- d. Performs Linux and Unix system administration tasks to include; installation and maintenance of operating system and software, setup and maintenance of user accounts, implementation and maintenance of a regular backup plan,

and other measures to ensure a robust and secure computing environment,

- e. Works with Texas A&M University – Corpus Christi (TAMU-CC) support staff to provide Internet services to every LAN connected workstation accessible by students, faculty and staff, and to troubleshoot network related problems,
 - f. Creates, manages, and maintains Linux account system,
 - g. Creates, manages, and maintains dial-up account system, and
 - h. Performs programming assignments to support the operation and maintenance of Linux and Unix systems.
2. Occasional and subordinate duties: the incumbent is required to perform various operational duties such as;
- a. Performing programming assignments to support the operations of other system administrators,
 - b. Reviewing server specifications before purchases occur, and
 - c. Policy writing.

C. KNOWLEDGE AND SKILLS:

- 1. Required education: Bachelor Degree and Masters Degree and both should be in a Computer Science-related discipline as well as extensive experience or vocational training in operations related to Linux or Unix systems administration.
- 2. Skills required:
 - a. System administration experience with two or more of the following Linux distributions; Red Hat Enterprise Linux, SUSE Linux Enterprise Server, Fedora Linux, Debian GNU/Linux, Slackware Linux, Gentoo Linux, or CentOS Linux,

- b. System administration experience with two or more of the following versions of Unix; HP Tru64 Unix, HP-UX, Sun Solaris, or Mac OS X Server,
- c. Familiarity with both SystemV and BSD-Based based Unix systems,
- d. Familiarity with Microsoft Windows and Apple Mac OS desktop environments,
- e. Demonstrated ability to program in the PERL, PHP, or Python scripting languages and Unix style shell scripts,
- f. Experience programming in the C/C++ programming language,
- g. Experience configuring network file systems such as NFS, AFS, and SMB,
- h. Experience troubleshooting Ethernet networks,
- i. Experience with dial-up networking protocols such as SLIP, PPP, or UUCP,
- j. Experience installing and configuring Domain Name Service,
- k. Experience installing, configuring and maintaining Internet services such as; Telnet, FTP, Secure Shell, Instant Messaging (chat), and HTTP (web),
- l. Experience serving as postmaster at an Internet site to include experience installing and configuring Sendmail along with virus and spam filtering solutions,
- m. Experience with an SNMP network management system,
- n. Experience with firewalls, Kerberos, SELinux, and other Linux security mechanisms,
- o. Experience installing and configuring computer hardware such as RAID controllers, memory, or hard disk drives,

- p. Demonstrate ability to communicate technical information effectively, orally, and written,
- q. Ability to establish and maintain effective working relationships with others, and
- r. Ability to utilize standard office equipment such as telephones, voice-mail, photocopiers, and fax machines.

D. FISCAL RESPONSIBILITY:

The incumbent is responsible for designing specifications for computer server equipment to be purchased by the Department of Media, Computer, and Telecommunications Services.

E. APPLICATION OF KNOWLEDGE AND SKILLS:

The most creative aspects of the job relate to the design and implementation of computer programs to help fulfill the variety of issues related to the daily administration of the Linux and Unix servers. Programs are developed using the incumbents experience and through research of the issue in question via computer literature and the Internet. The incumbent is often required to devise programs or solutions to solve a temporary or immediate problem that is outside the normal systems administration tasks.

F. SUPERVISION:

1. The incumbent has supervisory authority of the Linux and Unix servers managed by the Department of Media, Computer, and Telecommunications Services. The incumbent is required to administer these systems in accordance with all local, state, and federal rules, regulations, and policies related to Information Technology.
2. Supervision given others: the incumbent shares management of the Student Account Manager position with other systems administrators in the Department of Media, Computer, and Telecommunications Services. Supervision given is both direct and advisory while daily supervision of the employee above is maintained through observation, formal, and informal meetings.

G. EXTENT OF PUBLIC CONTACT:

The incumbent is required to interact with all members of the University community.

1. Within the University: daily contact with Network Services Manager and other Network Services personnel. Frequent contact with students, full time staff, and faculty.
2. Outside the University: infrequently as requests for information or advice on Linux and Unix when questions arise.