



Systems Software Engineer

Issued 1/1/04

Systems Software Engineer I	PN345	Salary Sch: IP, SG 12	EEO Code: 50	FLSA: non-exempt
Systems Software Engineer II	PN346	Salary Sch: IP, SG 13	EEO Code: 50	FLSA: non-exempt
Systems Software Engineer - Senior	PN352	Salary Sch: IP, SG 14	EEO Code: 50	FLSA: non-exempt
Systems Software Engineer - Lead	PN336	Salary Sch: IP, SG 15	EEO Code: 50	FLSA: exempt
Union: P&A Union, Local 1979, UAW				

Basic Purpose:

Positions in the Systems Software Engineer job family are responsible for evaluating, selecting, installing, and maintaining enterprise operating systems and technical applications for assigned platforms including enterprise servers and networks and for serving as a technical resource on enterprise hardware issues. Incumbents interact with technical and business customers to provide training and expertise in the design of specific applications to ensure the optimization of the platforms or technologies involved. The focus of work is on the efficient operation of enterprise operating platforms to support customer applications and the effective use of hardware and operating software in new or enhanced applications.

Essential Functions:

The functions within the job family will vary by level and specific assignment but will include the following:

- Evaluate, install, customize, configure, and maintain enterprise operating systems including installing and testing new releases;
- Evaluate operating efficiency, analyze performance and tuning, and assist in capacity planning and DASD management;
- Analyze and troubleshoot operating problems to find problem areas and make fixes or work with the vendor for correction;
- Advise technical staff in complex applications development to assist in avoiding problems of incompatibility with software capabilities;
- Document changes to system functions and/or configurations for technical and customer reference; and
- Review and evaluate new or upgraded systems software packages and related hardware and make recommendations based on established standards.

Comments (Level Descriptions):

The Systems Software Engineer family has four levels:

Systems Software Engineer I

This is the *proficiency* level where incumbents apply their basic skills and expertise, typically with a specific operating system and platform. They perform routine assignments to complete system change and modification requests and assist higher level staff in all aspects of maintaining, updating, documenting, and monitoring the operating systems. Incumbents also provide continuing support for their assigned operating system, trouble-shooting and resolving common immediate problems. Work is assigned to provide a broader knowledge of the technology supported and to develop a high level of creative problem-solving in preparation for qualification at the next level of the family.

Systems Software Engineer II

This is the *career* level where incumbents are fully knowledgeable in the operating system and platform-supported and work as a part of a team to develop or install new systems software or supporting applications. The emphasis at this level is the incumbent's ability to identify and resolve all but the most unusual operating systems problems quickly and with dispatch. While at this level, incumbents are increasing their knowledge and expertise in a complex operating system and platform or are expanding their capabilities in a second technology. They may also have specific assignments in areas such as performance tuning, security, disaster recovery, and the like to broaden their overall knowledge of their assigned technology.

Senior Systems Software Engineer

This is the *specialist* level where incumbents have full and specialized knowledge in their assigned operating system(s). This may be a single, highly complex system or multiple, less complex systems. Incumbents have primary accountability for the installation, maintenance, and operating efficiency of their assigned systems. They work with a high degree of independence, providing technical leadership and work review for less experienced staff. Individuals at this level are able to identify and resolve the most complex system-related problems and deal directly with key vendor service representatives. Their work is characterized by the rapid application of technical knowledge to increase the efficiency and operation of the platform(s) supported. Incumbents may also be a Subject Matter Expert for their assigned system serving as third-tier support for operating problems and technical consultant on complex applications development projects. They are key members of project teams for enterprise applications involving their assigned system.

Lead Systems Software Engineer

This is the *leadership* level where incumbents are recognized experts in a complex operating system and related areas such as network or database applications. Incumbents lead projects for major upgrades or installations, providing technical guidance and work direction to technical staff and ensuring that projects are completed smoothly and on time. Incumbents may also be a Subject Matter Expert for an enterprise-wide system, assisting in technology planning and serving as a technical consultant on enterprise applications development project teams. They may also have formal leadership responsibilities for enterprise-wide functions such as security, disaster recovery, and the like.

Minimum Qualifications:

Knowledge, Skills, and Abilities:

- Knowledge of the specific operating systems, networks, and/or platforms supported;
- Understanding of the hardware supported including mainframe, servers, workstations, peripheral devices, and the like;
- Skill in the use of operating system software, companion software, utilities, and the like;
- High level skill in identifying and resolving technical problems and/or effectively communicating the problems to vendor representatives; and
- Ability to analyze complex operating problems, working independently until the problem is resolved.
- Knowledge of operating systems software, platforms, and computer operations typically acquired through an undergraduate program in Computer Science with an emphasis on systems software or the equivalent and one to two years of related experience; and
- Specific knowledge and experience in at least one related platform and operating system.

