

FUNCTIONAL AREA 7

Server and Systems Support (SSS)

Incumbents in this functional area serve both internal and external clients and perform a range of duties related to the evaluation, design, development, testing, and implementation of mainframe, mid-range and/or PC servers and operating systems and all supporting hardware and software solutions. Information technology systems supported include: software and hardware infrastructure and/or the connectivity capability between different platforms that manage IT resources and support the execution of automated applications. Responsibilities may also include the installation, configuration, and maintenance of the operating systems environment, such as systems servers and operating systems software for program applications; and installation, configuration, and administration of back office applications such as electronic mail, document management, VOIP, video conferencing, and other time sensitive data services.

| SERVER AND SYSTEMS SUPPORT | Assistant Information Technology Specialist | Information Technology Specialist I | Information Technology Specialist II | Information Technology Specialist III |
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| Knowledge of: | | | | |
| Operating systems and hardware backup and recovery procedures | | X | X | X |
| General computer architecture (CPU, memory allocation, peripheral devices in order to perform basic server and systems support functions) | | X | X | X |
| Operating systems testing and evaluation principles, methods, and tools | | X | X | X |
| Functionality and operability of current operating environment | | X | X | X |
| Data recovery tools and techniques | | X | X | X |
| Back office application administration and client configuration support | | X | X | X |
| Basic security tools | | X | X | X |
| Basic network functionality | | X | X | X |
| Server and systems administration methods and procedures | | | X | X |
| Server and systems installation and configuration procedures | | | X | X |
| Server and systems performance monitoring principles and methods | | | X | X |
| Server and systems security methods and procedures | | | X | X |
| Network configuration methods and procedures | | | X | X |
| Data structures, file organizations, and methods for data storage and retrieval | | | X | X |
| Software distribution tools and mechanisms | | | X | X |
| Capacity management principles, concepts | | | | X |

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| and tools | | | | |
| Server and systems management/measurement tools and techniques | | | | X |
| Server and systems modeling and simulation tools and techniques | | | | X |
| New and emerging server and systems technologies and/or industry trends | | | | X |
| Optimization concepts and methods | | | | X |
| Software design principles, methods, theories, and concepts | | | | X |
| System engineering concepts and methods | | | | X |
| Ability to: | | | | |
| Assist to develop basic systems specifications | | X | X | X |
| Develop and implement solutions to complex IT operational problems | | X | X | X |
| Effectively apply knowledge in evaluating alternative proposals and recommending optimal solutions | | X | X | X |
| Identify and define business or technical requirements applied to the design, development, implementation, testing, evaluation, management, and support of server and systems and networks | | X | X | X |
| Ensure high reliability and optimal availability of applications | | X | X | X |
| Install updates or temporary fixes to existing software/hardware | | X | X | X |
| Install, configure and maintain server and systems | | X | X | X |
| Monitor and troubleshoot server and systems availability | | X | X | X |
| Recover data in the event of hardware or software failure | | X | X | X |
| Select technical tools and/or select alternatives to resolve problems or complete projects | | | X | X |
| Test and optimize the functionality of systems, network, and data. | | | X | X |
| Back office application installation, configuration, and maintenance | | | X | X |
| Provide technical direction and leadership on group enterprise systems support projects | | | | X |
| Develop new theories, concepts, standards, and methodologies in operating enterprise systems management and administration | | | | X |
| Ensure optimal use of commercially available products | | | | X |
| Evaluate and make recommendations for the acquisition of enterprise server and systems products or services | | | | X |
| Provide advice and guidance on a wide range and variety of complex enterprise server and systems issues | | | | X |

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| Provide guidance to determine hardware and operating resource requirements for the larger and more complex systems within the organization | | | | X |
| Serve as expert and consultant to executive management to direct the design, development and implementation of recommended technical solutions to achieve optimal enterprise system data communication capability across multiple platforms. | | | | X |

Information Technology Specialist I (Server and Systems Support)

Incumbents apply a basic understanding of operating systems security, data recovery tools and networks in order to perform installation and configuration procedures. They also apply a basic knowledge of the organizations operating environment and systems administration methods and procedures. Incumbents assist a more experienced specialist to design, program, install, and test, evaluate and/or maintain computer resources supporting applications, operating systems software and hardware, and/or database servers in a mid-range/mainframe and/or client server environment.

Information Technology Specialist II (Server and Systems Support)

Incumbents demonstrate proficiency of business and technical IT competencies, with a specialization in operating systems and security administration. Incumbents apply knowledge of the organization's technology and business infrastructure to effectively perform the full range of work involving the functionality and operability of the operating environment. Systems usually involve several customers and multiple platforms or operating environments. The scope of the work at this level includes isolating and resolving hardware/software and interoperability problems; monitoring day-to-day operation of the overall system to ensure optimal performance; providing advice on utilization, capacity and performance issues; and participating in installation, debugging, testing, evaluation, and maintenance of operating system updates, enhancements, patches, and zaps.

Information Technology Specialist III (Server and Systems Support) RANGE A

At this advanced level incumbents display exceptional knowledge of enterprise software and hardware infrastructure, security and/or the connectivity capability between platforms. This level also emphasizes enterprise systems administration knowledge, specifically system design and life-cycle issues. Incumbents serve in a lead capacity and direct the work of assigned staff and/or serve as expert specialists who work independently and deal with the most complex enterprise systems environment. They lead in the analysis, evaluation, development, coordination, implementation, deployment, testing, support and maintenance of multiple enterprise systems. This includes determining hardware/software and operating system resource requirements for the larger and more complex systems within the department; planning and overseeing the execution

of hardware/software platform changes, and implementing and supporting multi-vendor, multi-product hardware/software infrastructures and/or diverse platforms.

Information Technology Specialist III (Server and Systems Support) RANGE B

Incumbents at Range B demonstrate skills and abilities that set them apart from other IT professionals as leaders with respect to the State's enterprise wide systems environment. They design extremely complex interfaces, integration strategies and plans, and lead in defining system integration and security processes and practices. This includes defining and implementing strategies for the interoperability of multiple operating systems and applications within the organization, employing system management tools and techniques. Incumbents make decisions or recommendations to establish department-wide standards, best practices, and practices for interoperability of multiple operating systems and applications for the largest and most complex systems within the state, which are typically found in either large departments or data centers. Typical tasks for these systems are described as follows:

- Integrate hardware and software components.
- Analyze system requirements in response to business requirements, risks and costs.
- Resolve hardware/software interface and interoperability problems.
- Implement security standards, policies, and procedures and tools which would affect the State-wide security standards, policies and procedures.