



Information Technology Job Family: **Systems Administrator Progression**

These generic job title summaries are intended to indicate the kinds of tasks and levels of work complexity that will be required of positions classified to any of these titles and are not intended to be construed as declaring the specific duties and responsibilities of any particular position. The use of particular expressions or illustrations describing functions within a specific job title does not exclude other duties of a similar kind and/or level of complexity. Positions are classified to a particular job title based upon the predominant level of expected work complexity. ***A position that is classified into this title and band must meet the Cornell requirements for exemption under the FLSA***

GENERIC JOB PROFILE SUMMARIES

| Systems Administrator II INDIVIDUAL CONTRIBUTOR | Systems Administrator III INDIVIDUAL CONTRIBUTOR | Systems Administrator IV INDIVIDUAL CONTRIBUTOR |
|--|---|--|
| Maintain integrity of the operating system environment. | Ensure workstation/server data integrity by evaluating, implementing, and managing appropriate software and hardware solutions. | Manage workstation/server data integrity by evaluating and implementing appropriate software and hardware solutions. |
| Perform system software upgrades including planning/ scheduling, testing and coordination; inform users when there are network problems. | Perform software installations and upgrades to operating systems and layered software packages. | Responsible for the installation, maintenance, configuration, and integrity of computer software. |
| Monitor and respond to technical control facility hardware and software problems utilizing hardware and software testing tools and techniques. | Monitor and respond to complex technical control facility hardware and software problems utilizing a variety of hardware and software testing tools and techniques. | Monitor and respond to highly complex technical control facility hardware and software problems utilizing a variety of hardware and software testing tools and techniques. |
| Schedule and perform workstation and server administration setup and maintain them in accordance with established IT policies and procedures. | Schedule installations and upgrades and maintain them in accordance with established IT policies and procedures. | Oversee the installations and upgrades and ensure they are maintained in accordance with established IT policies and procedures. |
| Maintain growth statistics, space forecasts, tape libraries, and software and hardware inventories; coordinate disk space planning and management. | Provide management with status reports. | Develop management reports; provide reports regarding effectiveness of data security and makes recommendations for the adoption of new procedures. |
| Performs data backups and recoveries. | Monitor, document and ensure data/media recoverability by implementing a schedule of system backups and database archive operations. | Develop and implement the backup strategy and disaster recovery plan |

| Systems Administrator II INDIVIDUAL CONTRIBUTOR | Systems Administrator III INDIVIDUAL CONTRIBUTOR | Systems Administrator IV INDIVIDUAL CONTRIBUTOR |
|---|---|--|
| Monitor and maintain continuity with system software licensing and maintenance agreements. | | |
| Research and provide recommendations regarding hardware and system software upgrades; assist with planning and budgeting. | Research and provide recommendations regarding hardware and system software upgrades; assist in the planning and development of the budget. | Recommend and implement hardware and system software upgrades; develop budget. |
| Responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing requirements. | Responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing requirements. | Develop and maintain system configuration management program to document organizational information system assets and ensure organizational standards. |
| Conduct hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. | Conduct hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. | Oversee hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. |
| Maintain a comprehensive operating system hardware and software configuration database/library of all supporting documentation. | Develop and maintain a comprehensive operating system hardware and software configuration database/library of all supporting documentation. | |
| Perform all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction; conducts accurate evaluation of the level of security required. | Perform all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction; conducts accurate evaluation of the level of security required. | Manage and implement the necessary controls and procedures to cost effectively protect information systems assets from intentional or inadvertent modification, disclosure, or destruction. |
| Interface with user community to understand their security needs and follows procedures to accommodate them; ensures that user community understands and adheres to necessary procedures to maintain security. | Interface with user community to understand their security needs and implements procedures to accommodate them; ensures that user community understands and adheres to necessary procedures to maintain security. | Provide guidance and direction for the physical protection of information systems assets to functional units. |
| | | Implement information systems security consistent with organization security policy; develops and maintains process for information assurance vulnerability assessment. |
| Monitor the system to achieve optimum performance levels. | Monitor and tune the system to achieve optimum performance levels. | Implement operating system enhancements that will improve the reliability and performance of the system. |
| | | May assign staff to projects, oversee their activities and evaluate their work; may monitor performance and conduct performance appraisals; may interview and make recommendations for additional staff. |

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| | | Ensure long-term requirements of systems operations and administration is included in the overall information systems planning of the organization. |
| | Support media management through internal methods and procedures or through offsite storage and retrieval services. | |
| Assist in the establishment and documentation of procedures regarding access methods and time and security validation checks, and documentation. | Establish, document and promotes standard operating procedures. | Implement and ensure standard operating procedures are met. |
| Interface with vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. | Interface with vendor support service groups; provides internal analysis and support to ensure proper escalation during outages or periods of degraded system performance. | Consult with vendor support service groups; provides internal analysis and support to ensure proper escalation during outages or periods of degraded system performance. |
| Provide VMware server administration, including installation, configuration, maintenance, and troubleshooting, backup, recovery and support services; resolve complex technical problems related to the integration of these technologies. | Provide VMware server administration, including installation, configuration, maintenance, and troubleshooting, backup, recovery and support services; resolve complex technical problems related to the integration of these technologies. | |
| Support enterprise server migrations and virtualization efforts, building for scalability and redundancy; perform file system maintenance, data migration and tuning of servers and related systems. | Support enterprise server migrations and virtualization efforts, building for scalability and redundancy; provide expertise in virtualization analysis and consolidation activities. | Oversee and plan enterprise server migrations and virtualization efforts, building for scalability and redundancy; provide expertise in virtualization analysis and consolidation activities. |
| Monitor performance of virtual infrastructure; automatically discover, identify, and monitor the new virtual machines added; track virtual machine (VM) availability and performance, including key metrics such as CPU, memory, disk space, and network bandwidth. | | |
| | Conduct virtual infrastructure capacity planning; optimize resource utilization. | Responsible for virtual infrastructure capacity planning. |

JOB FACTOR PROFILE TABLE

| FACTOR PROFILE | 11474 SYSTEMS ADMINISTRATOR II, BAND E | 11475 SYSTEMS ADMINISTRATOR III, BAND F | 11476 SYSTEMS ADMINISTRATOR IV, BAND G |
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| MINIMUM EDUCATION AND EXPERIENCE EQUIVALENCY | Bachelor's degree; up to 2 years experience or equivalent | Bachelor's degree; more than 3 year and less than 5 years experience or equivalent | Bachelor's degree; more than 5 year and less than 7 years experience or equivalent |
| IMPACT | Moderate impact | Moderate impact | Substantial impact |
| CONTACTS - INSIDE | Assist others Cooperation of task completion | Provides guidance to others Coordinates activities | Persuade others to take particular course of action Coordinate major activities |
| CONTACTS - OUTSIDE | Provide/receive guidance, advice or information that must be analyzed and developed by the position | Provide/receive guidance, advice or information that must be analyzed and developed by the position | Develop and make presentations and negotiate with others |
| CONTACTS - STUDENTS | Limited contact | Limited contact | Limited contact |

| FACTOR PROFILE | 11474 SYSTEMS ADMINISTRATOR II, BAND E | 11475 SYSTEMS ADMINISTRATOR III, BAND F | 11476 SYSTEMS ADMINISTRATOR IV, BAND G |
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| SUPERVISION | Provides guidance, counsel, and information in specific support areas | Provides guidance, counsel, and information in specific support areas | Provide on-the-job training, guidance, advice and counsel to other employees in the group and others in a similar position |
| COMPLEXITY | Frequently adapt, combine, or make improvements to services, products, processes, & programs. Work requires reasoning skills and judgment | Occasionally required to develop new innovative solutions, services, products, processes, & programs. Work requires sophisticated reasoning skills | Continually required to develop new innovative solutions, services, products, processes, & programs. Work requires conceptual and imaginative thinking in a highly complex environment |
| LEVEL OF DECISION MAKING | Assist in and influence decisions concerning policy-setting, research, planning, or students | Assist in and influence decisions concerning policy-setting, research, planning, or students | Assist in and influence decisions concerning policy-setting, research, planning, or students |
| FREEDOM OF ACTION | General supervision Some interpretation of established work policies and procedures is required | Very general supervision Interpretation of work policies and procedures, and, at times deviation from standard work practice | Very general supervision Interpretation of work policies and procedures, and, at times deviation from standard work practice |
| EFFECT OF DECISION MAKING | Directly effects multiple functional areas Limited effect on students and employees | Directly effects entire department Moderate effect on students and employees | Directly effects several depts within a college Significant effect on students and employees |
| WORKING CONDITIONS | Normal working conditions, including limited or no exposure to hazardous conditions/materials/ equipment. Safety gear may sometimes be required | Normal working conditions, including limited or no exposure to hazardous conditions/materials/ equipment. Safety gear may sometimes be required | Normal working conditions, including limited or no exposure to hazardous conditions/materials/ equipment. Safety gear may sometimes be required |