



## Information Technology Job Family: **Network Engineer 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***

**COMPUTER/TECHNICAL:** The work in this title progression includes responsibilities in the following areas at increasing levels of complexity:

Provide in-depth assessment of networked application needs.

Evaluates and implements new advances networking technologies.

Provides networking modeling and simulation consulting to further clarify networking needs.

Install, maintain, monitor and/or manage the operations of the local area network.

### GENERIC JOB PROFILE SUMMARIES

Network Engineer II INDIVIDUAL CONTRIBUTOR	Network Engineer III INDIVIDUAL CONTRIBUTOR	Network Engineer Senior INDIVIDUAL CONTRIBUTOR	Network Engineer Specialist INDIVIDUAL CONTRIBUTOR	Network Engineer Lead INDIVIDUAL CONTRIBUTOR
Possess broad understanding of one or more network transport protocols, hardware platforms and/or application areas.	Possess in-depth understanding of one or more network transport protocols, hardware platforms and/or application areas.	Possess in-depth understanding of multiple network transport protocols, hardware platforms and/or application areas.	Possess broad and deep understanding of multiple network transport protocols, hardware platforms and/or application areas.	
Identify and monitor how low to moderately complex problems might affect or interact with function and performance of other systems; propose solutions as appropriate.	Identify and monitor how moderately complex problems might affect or interact with function and performance of other systems; propose and implement solutions as appropriate.	Identify and monitor how complex problems might affect or interact with function and performance of other systems; propose and implement solutions as appropriate.	Identify and monitor how highly complex problems might affect or interact with function and performance of other systems; propose and implement solutions as appropriate.	Identify and monitor how extremely complex problems might affect or interact with function and performance of other systems; propose and implement solutions as appropriate.
Monitor network traffic to identify problems and make capacity planning recommendations.	Monitor network traffic to identify problems and make capacity planning recommendations.	Monitor network traffic to identify problems and make capacity planning recommendations.		

<b>Network Engineer II INDIVIDUAL CONTRIBUTOR</b>	<b>Network Engineer III INDIVIDUAL CONTRIBUTOR</b>	<b>Network Engineer Senior INDIVIDUAL CONTRIBUTOR</b>	<b>Network Engineer Specialist INDIVIDUAL CONTRIBUTOR</b>	<b>Network Engineer Lead INDIVIDUAL CONTRIBUTOR</b>
Install and configure network and security infrastructure including the core network switches, routers, firewalls, intrusion detection/prevention systems, proxy servers, VPN concentrators, spam firewalls, configuration management and network performance management.	Design, install and configure network and security infrastructure including the core network switches, routers, firewalls, intrusion detection/prevention systems, proxy servers, VPN concentrators, spam firewalls, configuration management and network performance management.	Design, install and configure network and security infrastructure including the core network switches, routers, firewalls, intrusion detection/prevention systems, proxy servers, VPN concentrators, spam firewalls, configuration management and network performance management.	Design and configure network and security infrastructure including the core network switches, routers, firewalls, intrusion detection/prevention systems, proxy servers, VPN concentrators, spam firewalls, configuration management and network performance management.	Design and implement network and security infrastructure including the core network switches, routers, firewalls, intrusion detection/prevention systems, proxy servers, VPN concentrators, spam firewalls, configuration management and network performance management.
Maintain and update the network and security infrastructure; test and implement vendor security patches; install workarounds for un-patched security vulnerabilities.	Maintain and update the network and security infrastructure; test and implement vendor security patches; implement workarounds for un-patched security vulnerabilities.	Maintain and update the network and security infrastructure; test and implement vendor security patches; implement workarounds for un-patched security vulnerabilities.	Configure and implement updates for the network and security infrastructure; implement vendor security patches; implement workarounds for un-patched security vulnerabilities.	
Adapt, combine, and/or improve existing service products, processes, and programs; help develop innovative solutions when appropriate.	Adapt, combine, and/or improve existing service products, processes, and programs; develop innovative solutions when appropriate.	Adapt, combine, and/or improve existing service products, processes, and programs; frequently develop innovative solutions.	Adapt, combine, and/or improve existing service products, processes, and programs; continuously develop innovative solutions.	
Ensure effective identification and resolution of low to moderately complex issues.	Ensure effective identification and resolution of moderately complex issues.	Ensure effective identification, negotiation and resolution of complex issues.	Work collaboratively and negotiate as needed to ensure the effective identification and resolution of highly complex issues.	Work collaboratively and negotiate as needed to ensure the effective identification and resolution of extremely complex issues.
Design, code, test, debug and document programs or systems of low to moderate complexity.	Design, code, test, debug, document and maintain programs or systems of moderate complexity.	Design, code, test, debug, document and maintain complex programs or systems.	Design, code, test, debug, document and maintain highly complex programs or systems.	Design, code, test, debug, document and maintain extremely complex programs or systems.
Assist in research and fact-finding to develop, modify, update or acquire hardware and software systems of low to moderate complexity.	Formulate and define system scope and objectives to develop, modify, update or acquire moderately complex hardware and software systems.	Formulate, define system scope and objectives to develop, modify, or acquire complex hardware and software.	Design, formulate, define system scope and objectives to develop, modify, or acquire highly complex hardware and software systems.	Plan, design, formulate, define system scope and objectives to develop, modify, or acquire extremely complex hardware and software systems.
Assists in working with users in determining problem analysis and resolution.	May communicate with users for needs analysis and provide resolution.	Works with users for needs analysis and provide resolution.	Works with and may be responsible to users for needs analysis and provide resolution.	Responsible for and coordinates with users for needs analysis and provide resolution.

Network Engineer II INDIVIDUAL CONTRIBUTOR	Network Engineer III INDIVIDUAL CONTRIBUTOR	Network Engineer Senior INDIVIDUAL CONTRIBUTOR	Network Engineer Specialist INDIVIDUAL CONTRIBUTOR	Network Engineer Lead INDIVIDUAL CONTRIBUTOR
	May contribute to and may influence managerial planning and organization.	May contribute to and may influence managerial planning and organization.	Works with management in planning and organizing.	Works with management to contribute to and influence planning and organizing.
	May assist in planning, implementing, tracking and/or reporting on low to moderately complex projects.	Manages the planning, implementing, tracking and reporting on moderately complex projects.	Manages or leads the planning, implementing, tracking and reporting on significantly complex projects.	Leads the planning, implementing, tracking and reporting on highly complex projects.
		Assist in the development, implementation and maintenance of complex IT services/products including stakeholder management, integration and sourcing of resources.	Manage the development, implementation and maintenance of highly complex IT services/ products including stakeholder management, integration and sourcing of resources.	Lead the development, implementation and maintenance of extremely complex IT services/ products including stakeholder management, integration and sourcing of resources.

## JOB FACTOR PROFILE TABLE

FACTOR PROFILE	10479 NETWORK ENGINEER II, BAND E	10480 NETWORK ENGINEER III, BAND F	10484 NETWORK ENGINEER SENIOR, BAND F	10483 NETWORK ENGINEER SPECIALIST, BAND G	10481 NETWORK ENGINEER LEAD, BAND H
<b>MINIMUM EDUCATION AND EXPERIENCE EQUIVALENCY</b>	Bachelor's degree or equivalent; up to 2 years of experience or equivalent	Bachelor's degree or equivalent; 2 but less than 4 years of experience or equivalent	Bachelor's degree or equivalent; 3 but less than 5 years of experience or equivalent	Bachelor's degree or equivalent; 5 but less than 7 years of experience or equivalent	Bachelor's degree or equivalent; 7 but less than 10 years of experience or equivalent
<b>IMPACT</b>	Moderate impact	Moderate impact	Substantial impact	Substantial impact	Substantial impact
<b>CONTACTS - INSIDE</b>	Assists others Cooperation of task completion	Provide guidance to others Coordinate activities	Coordinate activities Persuade others to take a particular course of action	Coordinate activities Persuade others to take a particular course of action	May involve sensitive issues Coordinate major activities
<b>CONTACTS - OUTSIDE</b>	Providing and/or receiving guidance, advice or information that must be analyzed and developed by the position	Providing and/or receiving guidance, advice or information that must be analyzed and developed by the position	Providing and/or receiving guidance, advice or information that must be analyzed and developed by the position	Developing and making presentations and negotiating with others	Developing and making presentations and negotiating with others
<b>CONTACTS - STUDENTS</b>	Occasional contact dealing with confidential matters	Frequent contact to provide information and instruction	Occasional contact dealing with confidential matters	Limited contact	Limited contact

<b>FACTOR PROFILE</b>	<b>10479 NETWORK ENGINEER II, BAND E</b>	<b>10480 NETWORK ENGINEER III, BAND F</b>	<b>10484 NETWORK ENGINEER SENIOR, BAND F</b>	<b>10483 NETWORK ENGINEER SPECIALIST, BAND G</b>	<b>10481 NETWORK ENGINEER LEAD, BAND H</b>
<b>SUPERVISION</b>	Provide guidance, counsel and information to employees throughout the University in specific support areas	Provide guidance, counsel and information to employees throughout the University in specific support areas	Provide on-the-job training, guidance, advice and counsel to other employees in the group, and to positions performing essentially the same work or related technical task	Provide on-the-job training, guidance, advice and counsel to other employees in the group, and to positions performing essentially the same work or related technical task	Provide on-the-job training, guidance, advice and counsel to other employees in the group, and to positions performing essentially the same work or related technical task
<b>COMPLEXITY</b>	Frequently adapt, combine or make improvements in an existing service, product, process or program. Work requires reasoning skills and judgment	Occasionally required to develop new, imaginative or innovative solutions, services, products, processes or programs. Work requires sophisticated reasoning skills	Occasionally required to develop new, imaginative or innovative solutions, services, products, processes or programs. Work requires sophisticated reasoning skills	Continually required to develop new, imaginative or innovative solutions, services, products, processes or programs. Work requires conceptual and imaginative thinking in a highly complex and uncharted environment	Continually required to develop new, imaginative or innovative solutions, services, products, processes or programs. Work requires conceptual and imaginative thinking in a highly complex and uncharted environment
<b>LEVEL OF DECISION MAKING</b>	Responsible for assisting in and influencing decisions concerning policy-setting, research, planning, or students	Responsible for assisting in and influencing decisions concerning policy-setting, research, planning, or students	Responsible for assisting in and influencing decisions concerning policy-setting, research, planning, or students	Responsible for assisting in and influencing decisions concerning policy-setting, research, planning, or students	Responsible for making decisions concerning policy-setting, research, planning, or students
<b>FREEDOM OF ACTION</b>	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	Very general supervision Interpretation of work policies and procedures, and at times deviation from standard work practice	Little direct supervision Considerable latitude for exercising judgment and self-direction
<b>EFFECT OF DECISION MAKING</b>	Directly affect multiple functional areas Limited effect on students and employees	Directly effects an entire department Moderate effect on students and employees	Directly effects an entire department Moderate effect on students and employees	Directly affect several dept within a college, school or administrative unit Significant effect on students and employees	Directly affect entire college or school administrative unit Critical effect on students and employees

FACTOR PROFILE	10479 NETWORK ENGINEER II, BAND E	10480 NETWORK ENGINEER III, BAND F	10484 NETWORK ENGINEER SENIOR, BAND F	10483 NETWORK ENGINEER SPECIALIST, BAND G	10481 NETWORK ENGINEER LEAD, BAND H
<b>WORKING CONDITIONS</b>	Normal working conditions, including no or limited exposure to hazardous conditions/ materials/equipment. Safety gear may sometimes be required	Normal working conditions, including no or limited exposure to hazardous conditions/ materials/equipment. Safety gear may sometimes be required	Normal working conditions, including no or limited exposure to hazardous conditions/ materials/equipment. Safety gear may sometimes be required	Normal working conditions, including no or limited exposure to hazardous conditions/ materials/equipment. Safety gear may sometimes be required	Normal working conditions, including no or limited exposure to hazardous conditions/ materials/equipment. Safety gear may sometimes be required