

Information and Communications Technologies Career Ladder ■ Titles and Roles

	Title	Description	Education and Experience	Salary Range	
Database Administration	Database Technician	Helps users resolve their data issues, often in a call center setting or at a customer's location. Suggests procedures that will ensure data quality and integrity.	A bachelor's degree in a technical discipline or equivalent experience and certifications and 0-2 years of experience.	\$45,000-\$75,000	
	Data Analyst	Performs analysis of an organization's business processes, information systems and data requirements. Designs data models, such as relational databases, to meet the organization's data and business needs. Develops strategies to maximize the data's use while preserving its integrity.	A bachelor's degree in a technical discipline or equivalent experience and certifications and 0-5 years of experience.	\$50,000-\$95,000	
	Database Analyst	Responsible for a database's physical design in accordance with an organization's data needs and IT requirements. In charge of the review, evaluation, design, implementation and maintenance of databases.	A bachelor's degree in a technical discipline or equivalent experience and certifications and 0-5 years of experience.	\$40,000-\$70,000	
	Database Developer	Designs relational databases. Decides what tables to create and how the entities in them should relate to one another. Builds client applications and maintains database management systems.	A bachelor's in a technical discipline and 2-6 years of related experience.	\$65,000-\$80,000	
	Database Engineer	Designs, develops and implements database systems that work with new and existing applications and meet business and technical requirements.	A bachelor's degree in a technical discipline and 2-7 years related experience.	\$75,000-\$100,000	
	Database Administrator	Sets up, administers, coordinates, tests and manages computer databases. Establishes and upholds policies and procedures concerning the management, security and integrity of databases. Imports, user reports or data, organizes, stores, models and runs end	A bachelor's degree in a technical discipline and 2-7 years related experience.	\$75,000-\$100,000	
	Data Architect	Leads, monitors and makes recommendations for an organization's data technology activities. Builds and maintains a data infrastructure and architecture that meets the organization's data and business needs and requirements. Establishes procedures for acquiring, archiving and maintaining data within databases.	An advanced degree in a technical discipline and at least 4 years of related experience.	\$45,000-\$120,000	
	Knowledge Architect	Leads, monitors and makes recommendations to a client's technology projects. Builds and maintains the client's technology infrastructure, architecture and the complex information systems that support them while meeting the client's ICT and business needs and requirements.	An advanced degree in a technical discipline and at least 8 years of related experience.	\$55,000-\$120,000	
Multimedia Digital Media Specialists	Production Artist	Translates preexisting designs into digital files in various programs, such as Photoshop. May create basic designs, sketches and copy layouts for websites.	Vocational training, associate's degree or bachelor's degree in design discipline. No experience necessary.	\$30,000-\$54,000	
	Drafter/Designer (CAD-CAM)	Uses Computer Aided Design Software (CAD) to produce blue prints, product component illustrations and other 3D models used in product design/development, publications, animation and other visual applications.	An associate's degree in a design discipline and 0-2 years of related experience.	\$32,000-\$42,000	
	Graphic Artist	Creates and modifies artwork incorporating traditional and computer graphics, sound, video and/or animation for multimedia products.	A bachelor's degree or its equivalent and 2-4 years of related experience.	\$35,000-\$65,000	
	Animator	Creates animation for websites, video games and other multimedia products. Designs and animates characters, backgrounds and storyboards. Applies graphic design, layout and modeling skills. Uses paint, animation and computer graphics software programs.	No formal training necessary. Experience with paint and animation software programs is required.	\$47,000-\$61,000	
	Audio/Video Engineer	Designs and plans audio and video activities for multimedia products. Maintains, sets up and adjusts audio and video equipment. Performs or assists with filming, recording, mixing and editing.	An associate's degree or its equivalent and 2-4 years of related experience.	\$37,000-\$53,000	
	Multimedia Developer	Acts as the liaison between design and content teams for multimedia projects, such as interactive websites. Programs and implements prototypes, screen displays, database queries and overall design structure.	A bachelor's or an advanced degree in a technical or design discipline and 3-5 years of related experience.	\$55,000-\$85,000	
Multimedia Digital Media Designers	User Interface Designer	Designs parts of a website from the user's point of view. Creates prototypes or mock-ups of the final website, including dynamics such as user flow.	An associate's degree with 0-2 years of related experience.	\$45,000-\$100,000	
	Multimedia Producer	Acts as the liaison between creative and technical teams. Facilitates the production process of multimedia products. Oversees budgets, establishes timelines and coordinates staff.	A bachelor's degree and 5-7 years of experience in the field.	\$67,000-\$85,000	
	Art Director	Conceives, develops and directs the execution of artwork and designs for online products. Responsible for the visual design of the organization's marketing tools and overall image.	A bachelor's degree in a design discipline with at least 10 years of experience in the field, including a few years of experience as a designer.	\$80,000-\$124,000	
	Creative Director	Advances the overall creative direction of an organization's online products and services. Assesses the organization's needs and develops strategies to meet business goals through design technology-based projects. Oversees the creative process throughout a project's lifecycle.	An advanced degree in business management with at least 5 years of experience in the field, including several years of design experience.	\$106,000-\$150,000	
Technical Support/Operations-Computing	Computer Operator	Monitors, manages and operates computers and their related hardware, programs and peripheral equipment.	Certifications (A+, Network+, Server+) or an associate's and 0-3 years of experience.	\$28,000-\$38,000	
	Help Desk Technician	Provides technical support over the telephone or via email. Diagnoses problems with software, hardware, computer systems and related products and guides the computer user through the steps to resolve the issue.	Pertinent certifications, completion of a certificate program, an associate's or a bachelor's in a technical discipline and 0-2 years of related experience.	\$38,000-\$49,000	
	Computer Service Technician	Provides customer support to internal and external customers. Resolves computer users' technical issues concerning hardware, software and other products and services. Uses diagnostic software to diagnose computer problems. Updates, installs and modifies both hardware and software to resolve problems. May train computer users and participate in the repair, installation and maintenance of the organization's computer systems.	An associate's degree in a technical discipline area or equivalent experience and certifications and 0-3 years of related experience.	\$25,000-\$65,000	
	Field Engineer	Installs and provides on-going support and on-site maintenance for a customer's computer products and peripheral equipment. Resolves any maintenance issues that may arise. May recommend additional products and services.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$35,000-\$46,000	
	Support Engineer	Acts as intermediary between first-level technical support staff and engineers involved with design and development.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$42,000-\$57,000	
	Webmaster	Oversees the overall performance of websites, client and server applications and intranet/internet systems. Evaluates, develops and maintains the websites' accessibility, user interface, content, appearance and efficiency.	A bachelor's degree in a technical or design discipline and 2-6 years of related experience.	\$54,000-\$80,000	
	Computer Security Specialist	Ensures the organization's information, computer and network security. Establishes and implements network and data security policies. Constantly inspects the network and other devices for unauthorized use, cyber attacks and security-related system flaws. Installs and updates security software.	A bachelor's degree in mathematics or a technical discipline with at least 5 years of related experience.	\$55,000-\$77,000	
	Technical Support Manager	Manages and trains technical support staff. Leads, evaluates and sets standards and procedures for technical support/customer service activities. Analyzes products and services and recommends changes.	A bachelor's degree with at least 7 years of related experience.	\$67,000-\$89,000	
	Systems Administrator	Ensures the proper functioning of the servers, network hardware, software and other computer systems. Responsible for all aspects of IT systems, including upgrades, backups, change management, configuration, data storage and data recovery.	A bachelor's degree in a technical discipline with 0-5 years of related experience.	\$53,000-\$61,000	
	Call Center Director	Oversees the customer service/technical support staff and all call center activities. Constantly expands and applies knowledge of the organization's products and services, those of competitors, and emerging technologies and customer services/technical support strategies. Generally reports to CIO/CTO.	An advanced degree, such as an MBA with a technology concentration, preferred or a bachelor's degree and at least 15 years of related experience.	\$105,000-\$191,000	
	Software Development and Support	Programmer	Codes, documents, tests, maintains and debugs computer programs including web applications. Converts symbolic program specifications into instructions using programming languages.	Certifications, an associate's or a bachelor's in a technical discipline and 0-3 years of experience for an entry-level programmer position.	\$44,000-\$80,000
		Software Quality Assurance Specialist	Performs and tracks a variety of tests on software products prior to their distribution. Ensures that a program is reliable, secure, bug-free and meets the preset product standards and requirements. Reports test findings and recommends product modifications to developers/engineers.	A bachelor's degree in a technical field or equivalent experience and certifications (especially in automated test tools) and 0-4 years of experience and/or knowledge of programming/scripting languages.	\$45,000-\$100,000
Web Quality Assurance Analyst		Inspects a website before it is posted. Tests the functionality of a website's online interface, navigation tools and web applications. Troubleshoots technical and design flaws, reports findings and makes recommendations for improvements and modifications.	A bachelor's degree in a technical field or equivalent experience and certifications (especially in automated test tools) and 0-4 years of experience and/or knowledge of programming/scripting languages.	\$45,000-\$100,000	
Support Engineer		Acts as intermediary between first-level technical support staff and engineers involved with design and development.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$42,000-\$57,000	
Technical Writer		Writes, develops and edits product documentation, including user manuals, white papers and content for electronic help files and tutorials. Collaborates with engineers, graphic artists and publishers.	Bachelor's in communications, Journalism, English or a technical discipline and 0-2 years of related experience.	\$38,000-\$85,000	
Firmware Engineer		Designs, develops, implements and tests firmware systems and software embedded into hardware devices such as CPUs and broadband IP devices. Writes, troubleshoots and debugs code for embedded firmware. Utilizes knowledge of programming languages and embedded operating systems.	A bachelor's degree in a technical discipline and at least 3 years of related experience.	\$75,000-\$85,000	
Web Designer		Designs, maintains and develops an organization's web catalogs and websites, including online applications, user interface, graphics and overall design. Tracks modifications made to the web structure. Helps fashion a website into a promotional or marketing tool.	A bachelor's degree in a technical or design discipline and 2-4 years of related experience.	\$52,000-\$70,000	
Software Engineer		Designs, develops and modifies computer applications, software systems and technology solutions.	A bachelor's or an advanced degree in software engineering and 0-2 years of related experience.	\$48,000-\$98,000	
Webmaster		Oversees the overall performance of websites, client and server applications and intranet/internet systems. Evaluates, develops and maintains the websites' accessibility, user interface, content, appearance and efficiency.	A bachelor's degree in a technical or design discipline and 2-6 years of related experience.	\$54,000-\$80,000	
Web Producer		Oversees the content and technical activities of an organization's website. Communicates with the management and business departments to establish primary objectives of web projects and cultivate an organization's online image. Sets project objectives, coordinates the work of the design and programming staff, and monitors and guides a web project throughout its lifecycle. Oversees the general website maintenance, including updates, edits and quality assurance testing.	An advanced degree in a related area and at least 3 years of related experience.	\$70,000-\$89,000	
Project Engineering Manager		Oversees a project's design, development and evaluation. Manages the project's engineering staff.	An advanced degree in a technical discipline and at least 7 years of related experience.	\$85,000-\$105,000	
Software Architect		Constructs the software architecture and supervises a large technical staff. Guides and informs the software development process. Possesses a comprehensive understanding of programming languages, operating systems, industry trends and software design.	An advanced degree in a technical discipline and at least 8 years of software development experience.	\$90,000-\$125,000	
Operations-Networking and Telecommunications		Cable Splicer	Specializes in splicing together two telecommunication lines.	High school diploma, 1-year certificate program or an associate's. May require several years of on-the-job training.	\$14-\$25/hr
		Central Office Operator	Helps customers to complete local and long-distance calls, usually under special circumstances. Interrupts busy lines if an emergency warrants the interruption. Provides callers with emergency phone contacts during natural disasters.	High school diploma. May require several weeks of classroom and/or on-the-job instruction.	\$12-\$19/hr
	Network Support Technician	Ensures the proper functioning of an organization's network systems. Performs back-ups, network evaluation, security measures and necessary hardware and software upgrades. Resolves problems, schedules repairs and provides training to network users.	An associate's degree in a related area and 0-3 years of related experience.	\$41,000-\$52,000	
	Deployment Engineer	Performs on-site installation of a customer's network and provides on-going technical support. May direct network connectivity activities.	A bachelor's in a technical discipline and 3-5 years of related experience.	\$35,000-\$46,000	
	Line Installer and Repairer	Connects central offices to customer's buildings. May install lines or equipment inside a customer's home or residence.	A high school diploma, 1-year certificate program or an associate's. May require several years of on-the-job training.	\$14-\$25/hr	
	Telephone Station Installer and Repairer	Installs, services and repairs telephone systems and other communications equipment on customers' property. Relocates telephones or makes changes to existing equipment when customers move or request new types of service or an additional line. Determines if a maintenance problem is located in the customer's premises or in the outside service lines.	High school diploma and postsecondary electronics training and experience with computers or as a line installer.	\$19-\$27/hr	
	Cable Installer	Sets up pay television service on customers' premises. Connects a customer's television set to the cable serving the entire neighborhood.	High school diploma and postsecondary electronics training and experience with computers or as a line installer.	\$19-\$27/hr	
	Central Office Installer	Sets up switches, cables and other equipment in central offices.	High school diploma and postsecondary electronics training and a familiarity with computers.	\$19-\$27/hr	
	Network Administrator	Designs, installs, monitors and administers the network. Supports an organization's web presence. Performs network back-ups and security activities. Identifies and addresses network needs. Ensures that the software, hardware and the network function smoothly together.	A bachelor's degree in area of specialty and 0-2 years of related experience.	\$41,000-\$70,000	
	PBX Installer and Repairer	Sets up private branch exchange (PBX) switchboards. Installs equipment such as power systems, alarms and telephone sets. Installs software or programs the equipment to provide specific features. Determines the origin of problems within the PBX system or in the telephone lines.	High school diploma and postsecondary electronics training and a familiarity with computers.	\$19-\$27/hr	
	Telecommunications Equipment Repairer	Diagnoses the source of equipment problems, often using spectrum and/or network analyzers. Removes and replaces defective equipment components, such as circuit boards or wiring. May install updated software or programs that maintain existing software.	High school diploma and postsecondary electronics training and a familiarity with computers.	\$19-\$27/hr	
	Network Analyst	Evaluates network systems and network planning projects. Develops strategies to best implement network-related projects. Troubleshoots network problems and provides solutions. Tracks, documents and reports on network planning projects.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$40,000-\$50,000	
	Telecommunications Technician	Maintains, troubleshoots and repairs telecommunications systems, including telephone, email, fax and voicemail systems. Coordinates and performs the installation of telecommunication services, equipment and related software. Enables telecommuting for employees, monitors misuse of telephone and internet services, provides training on telecommunications systems, and maintains accounts with telecommunication providers.	An associate's degree or its equivalent and 0-3 years of related experience.	\$36,000-\$49,000	
	Network Engineer	Maintains all network technology and network-related equipment. Makes sure that the physical components of the network such as wires and routers are installed correctly and functioning properly. Troubleshoots connectivity problems and monitors network use. May test, install and design network systems.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$44,000-\$66,000	
	Computer Security Specialist	Ensures the organization's information, computer and network security. Establishes and implements network and data security policies. Constantly inspects the network and other devices for unauthorized use, cyber attacks and security-related system flaws. Installs and updates security software.	A bachelor's degree in mathematics or a technical discipline with at least 5 years of related experience. Certifications are highly desirable for this position.	\$55,000-\$77,000	
	LAN/WAN Manager	Designs, plans and implements the organization's network. Evaluates and modifies hardware, systems software and application software to improve network functioning. Carries out security procedures and documents the network systems and back-ups.	A bachelor's or an advanced degree, such as an MBA with a technology concentration, and 10 years of experience.	\$72,000-\$118,000	
Network Architect	Designs, configures and implements the network architecture. Oversees the organization's network systems, including its hardware, software, infrastructure and its overall performance.	Bachelor's degree in a technical discipline and 10+ years of related experience.	\$80,000-\$90,000		
Engineering (in alphabetical order)	Audio/Video Engineer	Designs and plans audio and video activities for multimedia products. Maintains, sets up and adjusts audio and video equipment. Performs or assists with filming, recording, mixing and editing.	An associate's degree or its equivalent and 2-4 years of related experience.	\$37,000-\$53,000	
	Computer Hardware Engineer	Researches, designs, develops, tests and oversees the installation of computer hardware and supervises its manufacture and installation.	A bachelor's or an advanced degree in a technical discipline and 0-2 years of related experience.	\$43,000-\$102,000	
	Database Engineer	Designs, develops and implements database systems that work with new and existing applications and meet business and technical requirements.	A bachelor's degree in a technical discipline and 2-7 years related experience.	\$75,000-\$100,000	
	Deployment Engineer	Performs on-site installation of a customer's network and provides on-going technical support. May direct network connectivity activities.	A bachelor's in a technical discipline and 3-5 years of related experience.	\$35,000-\$46,000	
	Electrical Engineer	Researches, develops, tests and monitors the production and performance of electrical and electronic equipment such as communications systems.	A bachelor's or an advanced degree in a technical discipline and 0-2 years of related experience.	\$50,000-\$88,000	
	Engineering Technician	Assists scientists and engineers in the research, development and testing of new electrical and electronic products. Sets up machinery, constructs prototypes and runs experiments. May install and repair new products.	A high school diploma, its equivalent or 2 years of postsecondary training and 0-3 years of related experience.	\$34,000-\$56,000	
	Field Engineer	Installs and provides on-going support and on-site maintenance for a customer's computer products and peripheral equipment. Resolves any maintenance issues that may arise. May recommend additional products and services.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$35,000-\$46,000	
	Firmware Engineer	Designs, develops, implements and tests firmware systems and software embedded into hardware devices such as CPUs and broadband IP devices. Writes, troubleshoots and debugs code for embedded firmware. Utilizes knowledge of programming languages and embedded operating systems.	A bachelor's degree in a technical discipline and at least 3 years of related experience.	\$75,000-\$85,000	
	Network Engineer	Maintains all network technology and network-related equipment. Makes sure that the physical components of the network such as wires and routers are installed correctly and functioning properly. Troubleshoots connectivity problems and monitors network use. May test, install and design network systems.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$44,000-\$66,000	
	Sales Engineer	Applies technical experience and sales expertise to cultivate relationships with potential and current customers. Provides information about the organization's products and services, devises product solutions to meet the customer's needs, and performs cost-benefit analysis to achieve sales. May work with consultants, systems integrator, developers/engineers and salespeople.	A bachelor's or an advanced degree in software engineering and 0-2 years of related experience.	\$48,000-\$105,000	
	Software Engineer	Designs, develops and modifies computer applications, software systems and technology solutions.	A bachelor's degree in engineering and 0-2 years of related experience.	\$48,000-\$98,000	
	Support Engineer	Acts as intermediary between first-level technical support staff and engineers involved with design and development.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$42,000-\$57,000	
Systems Analysis	Systems Analyst	Devises, implements and evaluates system solutions that address the organization's operational problems and maximize the use of its budget, personnel, business processes and IT technology. Performs data modeling, testing and structure analysis. Designs, expands or modifies new and existing hardware systems, software systems and applications.	A bachelor's degree in a technical discipline and 3-10 years of experience.	\$52,000-\$83,000	
	Systems Integrator	Devises customized solutions to integrate computer systems that are geographically separated or have incompatible technologies. Examines and evaluates the organization's IT needs, standards and security issues.	A bachelor's degree and 1-5 years of related experience.	\$80,000-\$140,000	
	Knowledge Architect	Leads, monitors and makes recommendations to a client's technology projects. Builds and maintains the client's technology infrastructure, architecture and the complex information systems that support them while meeting the client's ICT and business needs and requirements.	An advanced degree in a technical discipline and at least 8 years of related experience.	\$55,000-\$120,000	
Hardware	Engineering Technician	Assists scientists and engineers in the research, development and testing of new electrical and electronic products. Sets up machinery, constructs prototypes and runs experiments. May install and repair new products.	A high school diploma, its equivalent or 2 years of postsecondary training and 0-3 years of related experience.	\$34,000-\$56,000	
	Hardware Quality Assurance Analyst	Monitors the production process and inspects computer hardware before its distribution. Conducts virtual and physical stress tests of hardware equipment. Troubleshoots design flaws, reports findings and may make recommendations for improvements and modifications.	A bachelor's degree and 0-2 years of related experience.	\$45,000-\$68,000	
	Support Engineer	Acts as intermediary between first-level technical support staff and engineers involved with design and development.	A bachelor's degree in a technical discipline and 0-2 years of related experience.	\$42,000-\$57,000	
	Technical Writer	Writes, develops and edits product documentation, including user manuals, white papers and content for electronic help files and tutorials. Collaborates with engineers, graphic artists and publishers.	Bachelor's in communications, Journalism, English or a technical discipline and 0-2 years of related experience.	\$38,000-\$85,000	
	Firmware Engineer	Designs, develops, implements and tests firmware systems and software embedded into hardware devices such as CPUs and broadband IP devices. Writes, troubleshoots and debugs code for embedded firmware. Utilizes knowledge of programming languages and embedded operating systems.	A bachelor's degree in a technical discipline and at least 3 years of related experience.	\$75,000-\$85,000	
	Computer Hardware Engineer	Researches, designs, develops, tests and oversees the installation of computer hardware and supervises its manufacture and installation.	A bachelor's or an advanced degree in a technical discipline and 0-2 years of related experience.	\$43,000-\$102,000	
	Electrical Engineer	Researches, develops, tests and monitors the production and performance of electrical and electronic equipment such as communications systems.	A bachelor's or an advanced degree in a technical discipline and 0-2 years of related experience.	\$50,000-\$88,000	
	Hardware Architect	Develops, analyzes and implements hardware infrastructure.	A bachelor's or an advanced degree in a technical discipline and 4-10 years of related experience.	\$100,000-\$125,000	
Project Engineering Manager	Oversees a project's design, development and evaluation. Manages the project's engineering staff.	An advanced degree in a technical discipline and at least 7 years of related experience.	\$85,000-\$105,000		
Supporting Functions Business and Finance	Business Development Associate	Cultivates and maintains strategic business relationships. Proposes, negotiates and closes business deals. Achieves business goals through cooperation with sales, marketing and engineering departments.	Preferably an MBA or a bachelor's in business, finance or marketing and 0-3 years of experience.	\$40,000-\$80,000	
	Financial Analyst	Performs financial analysis, accounting and financial-forecasting duties. Implements, evaluates and creates regular reports based on numerical analyses of the organization's operations, production, profit and costs. May research other companies for future partnerships and business deals.	A bachelor's degree or an MBA and 0-2 years of experience.	\$35,000-\$85,000	
	Business Development Manager	Maintains and directs strategic business relationships with third-party companies. Presides over, negotiates and closes business deals, acquisitions, mergers and partnerships. Achieves business goals through management of sales, marketing and engineering departments. Constantly aims to acquire more business, form new business alliances and increase the organization's profitability.	A bachelor's degree in business, finance or marketing with 4 years of related experience.	\$73,000-\$101,000	
Supporting Functions Marketing	Marketing Communications Assistant	Helps organize public relations and marketing activities for the organizations and/or its products. Assists in the coordination of promotional events, including trade shows and press conferences. Aids in the dissemination of online and print advertising and other marketing materials.	A bachelor's degree with 0-2 years of related experience.	\$30,000-\$45,000	
	Marketing Associate	Creates and promotes the organization's brand, online presence and overall image. Develops, coordinates and implements online and print advertising campaigns for the organization and/or its products.	A bachelor's degree and marketing experience.	\$30,000-\$90,000	
	E-commerce Manager	Develops, implements and manages online marketing goals and policies. Cultivates and maintains relationships with business partners and other websites. Makes and negotiates business deals. Keeps up with emerging online marketing strategies. May administer the marketing and advertising portions of the website.	A bachelor's degree with at least 7 years of marketing experience.	\$68,000-\$87,000	
	Marketing Director	Plans, manages and evaluates the organization's marketing strategies, goals and procedures. Possesses comprehensive understanding of the industry and stays abreast of market trends.	A bachelor's degree with at least 10 years of related experience.	\$115,000-\$174,000	
Supporting Functions Regulation	IT Compliance Specialist	Verifies that the organization's IT operations abide by license agreements as well as industry regulations. Monitors and evaluates IT resources and data and implements procedures to maintain their security, availability and consistency.	A bachelor's degree in a related area and 2-4 years of experience in the field or in a related area.	\$49,000-\$65,000	
	Public Relations and Government Relations Manager	Manages relationships with press and government agencies. Lobbies, produces favorable press and develops legislative strategies that will benefit the organization.	A bachelor's degree in communications or a related discipline and 7-10 years of related experience.	\$50,000-\$150,000	
Supporting Functions Sales	Inside Sales/Customer Service Representative	Takes and records orders from customers over the phone. Uses extensive product knowledge to help them solve technical problems.	A high school diploma or its equivalent and 0-3 years of related experience.	\$26,000-\$50,000	
	Outside Sales Representative	Makes sales and manages client accounts. Performs product demonstrations at sales meetings and trade shows. Uses extensive knowledge of the organization and its products to attract new clientele and develop marketing materials.	A bachelor's and 0-3 years of experience.	\$25,000-\$105,000	
	Inside Sales/Customer Service Manager	Organizes and manages the activities of the customer service and inside sales representatives. Guides staff to achieve sales goals and customer satisfaction objectives. Makes recommendations to sales techniques and customer service procedures.	An associate's degree in business with 2-4 years of sales experience.	\$53,000-\$71,000	
	Sales Engineer	Applies technical experience and sales expertise to cultivate relationships with potential and current customers. Provides information about the organization's products and services, devises product solutions to meet the customer's needs, and performs cost-benefit analysis to achieve sales. May work with consultants, systems integrator, developers/engineers and salespeople.	A bachelor's degree in engineering and 0-2 years of related experience.	\$48,000-\$105,000	
Sales Manager	Directs sales activities and supervises sales staff. Aims to achieve sales goals and increase profits and market share through the development and execution of sales techniques, strategies and procedures. Researches competitors and analyzes customer and sales data. Recommends product changes.	A bachelor's degree in area of specialty and 7-10 years of related experience.	\$90,000-\$121,000		
Supporting Functions Training	IT Trainer	Conducts technology training programs. Develops and administers technical didactic materials, such as online tutorials, informational packets and laboratory exercises. Tests and evaluates trainees' performance. May be involved in technical writing and/or the training of sales staff and clients.	A bachelor's degree in a related area and 2-4 years of related experience.	\$49,000-\$67,000	
	E-Learning Designer	Designs, documents and produces the content and audio/visual elements of online courses and e-learning products. Collaborates with and may lead the work of multimedia specialists and programmers.	A bachelor's degree in education or technical discipline and at least 4 years of related experience.	\$48,000-\$74,000	
Supporting Functions Management	Project Manager	Manages work of project team. Plans and allocates staffing and technical resources. Sets and monitors a project's schedule, deadlines and budget. Reports to senior management and other interested parties.	An advanced in a technical discipline or business and extensive technical and/or business experience.	\$60,000-\$105,000	
	Program Manager	Coordinates all activities associated with a program including schedules, budgets, testing and outside relationships. Manages the work of engineers, quality assurance staff and technical writers.	An advanced degree in a technical discipline or business and 10-15 years of related experience.	\$89,000-\$124,000	
	MIS Director	Oversees the organization's IT operations and IT personnel. Ensures the quality, consistency and security of the computer/information systems, services and resources. Assigns and coordinates the work of IT staff; plans modifications to hardware, software, networks and computer-related systems; establishes IT goals; and devises business plans. May work under the CIO/CTO or may be the top-level management position.	A master's, such as an MBA with technology concentration, preferred or a bachelor's degree in a technical discipline and 5+ years of management experience.	\$72,000-\$118,000	
	VP IS/MIS/Systems/Services/Networks	Conceives, plans and implements the strategies, policies and procedures of the information systems department. Confers with management to determine the organization's overall goals. Often reports to the CEO.	A bachelor's or an advanced degree in a technical discipline and 10+ years of experience in the technology field.	\$140,000-\$165,000	
	Chief Information Officer (CIO)	Develops and implements the overall technological direction and IT-related business objectives of the organization. Hires, directs and assigns projects to IT staff. Oversees equipment purchases and project budgets.	A bachelor's or an advanced degree in a related area with at least 10 years of experience in the information technology field.	\$152,000-\$228,000	
	Chief Technology Officer (CTO)	Establishes and implements the organization's information technology goals, standards and procedures. Monitors and evaluates emerging IT trends and technologies. Incorporates appropriate technological advancements into the IT operations in order to keep the organization competitive and cost-effective. Often reports to the CIO.	A bachelor's or an advanced degree in a related area with at least 10 years of experience in the information technology field.	\$152,000-\$228,000	
Chief Executive Officer (CEO)	Oversees the organization's total operational procedures. Establishes and directs business strategies, projects, policies and objectives. Monitors and evaluates the organization's overall productivity and profitability.	A bachelor's degree with at least 15 years of experience in the field.	\$447,000-\$787,000		