ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Program Management					
Program Manager – Senior	Description: Responsible for the operational planning, establishment, execution, and evaluation of a multifaceted program/project typically consisting of a set of closely related subprograms or associated activities. Oversees fiscal, operational, administrative, and human resources management of the program; seeks and develops outside funding sources, serves as principal point of representation and liaison with external constituencies on operational matters, and provides day-to-day technical/professional guidance and leadership as appropriate to the area of expertise.	Senior/Lead	MA/MS (PMI certification required)	10+ yrs	BA/BS w/12+ yrs
Program Manager – Intermediate	Description: Under general direction, oversees the operational planning, establishment, execution, and evaluation of a multifaceted program/project typically consisting of a set of closely related subprograms or associated activities. Oversees fiscal, operational, administrative, and human resources management of the program; seeks and develops outside funding sources, serves as principal point of representation and liaison with external constituencies on operational matters, and provides day-to-day technical/professional guidance and leadership as appropriate to the area of expertise.	Intermediate/ Journeyman	BA/BS (PMI certification desired)	5+ yrs	AA w/7+ yrs
Program Manager – Associate	Description: Under immediate supervision, oversees the operational planning, establishment, execution, and evaluation of a multifaceted program/project typically consisting of a set of closely related subprograms or associated activities. Oversees fiscal, operational, administrative, and human resources management of the program; seeks and develops outside funding sources, serves as principal point of representation and liaison with external constituencies on operational matters, and provides day-to-day technical/professional guidance and leadership as appropriate to the area of expertise.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Project Management					
Project Manager - Senior	Description: Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.	Senior/Lead	MA/MS (PMI certification required)	10+ yrs	BA/BS w/12+ yrs
Project Manager - Intermediate	Description: Under general direction, responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.	Intermediate/ Journeyman	BA/BS (PMI certification desired)	5+ yrs	AA w/7+ yrs
Project Manager - Associate	Description: Under direct supervision, responsible for assigned aspects of the development and implementation of assigned projects and provides a single point of contact for those aspects. Interfaces with all areas affected by the project including end users, computer services, and client services. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Recommends action to direct the analysis and solutions of problems.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Enterprise Architect	Description: Responsible for instructing, directing, and checking the work of other project engineers. Responsible for developing strategies for technical IT infrastructures and the completion of assigned engineering projects within budgetary and scheduling guidelines. Leads a group of engineers, analysts, and/or technicians assigned for the duration of a project or may function as ongoing lead within a group of engineers associated with one or more technical areas within the telecom function (such as, but not limited to, network design, engineering, implementation, or operations/user support). Does not have formal supervisory responsibilities, although may provide input for (project) team member performance appraisals.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Business Analyst -- Functional	Description: Under general supervision, has duties of instructing, directing, and checking the work of other project engineers. Responsible for the completion of assigned engineering projects within budgetary and scheduling guidelines. Leads a group of engineers, analysts, and/or technicians assigned for the duration of a project or may function as ongoing lead within a group of engineers associated with one or more technical areas within the telecom function (such as, but not limited to, network design, engineering, implementation, or operations/user support). Does not have formal supervisory responsibilities, although may provide input for (project) team member performance appraisals.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Business Analyst -- Technical	Description: Under direct supervision, has duties of instructing, directing, and checking the work of other project engineers. Reviews design documents and ensures technical specifications and designs are correct. Responsible for the completion of assigned engineering projects within budgetary and scheduling guidelines. Leads a group of engineers, analysts, and/or technicians assigned for the duration of a project or may function as ongoing lead within a group of engineers associated with one or more technical areas within the telecom function (such as, but not limited to, network design, engineering, implementation, or operations/user support). Does not have formal supervisory responsibilities, although may provide input for (project) team member performance appraisals.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Project Administrator	Description: Under general direction, interpret and compose complex correspondences and presentations to include charts and diagrams directly supporting the DoD Enterprise infrastructure and infostructure IT goals and projects. Accountable for financial budgeting and tracking project KPI's and goals. Apply effective networking skills to carry out job responsibilities. Gather pertinent information from a variety of sources to perform duties. Resolve administrative issues/problems that arise and recommend process improvements. Ensure timely completion of multiple, simultaneous, independent events and projects of moderate complexity. Coordinate multiple work projects and other responsibilities (i.e. Training/ status reporting, etc.). Some duties may be considered special assignments particular to either the department or manager. Prepare reports and correspondence from information gathered to support the entire effort. Interprets and applies standard policies and procedures to respond to complex inquiries, to resolve issues.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Project Administrator - Associate	Description: Under immediate supervision, interpret and compose complex correspondences and presentations to include charts and diagrams directly supporting the DoD Enterprise infrastructure and infostructure IT goals and projects. Apply effective networking skills to carry out job responsibilities. Gather pertinent information from a variety of sources to perform duties. Resolve administrative issues/problems that arise and recommend process improvements. Ensure timely completion of multiple, simultaneous, independent events and projects of moderate complexity. Coordinate multiple work projects and other responsibilities (i.e. Training/ status reporting, etc.). Some duties may be considered special assignments particular to either the department or manager. Prepare reports and correspondence from information gathered to support the entire effort. Interprets and applies standard policies and procedures to respond to complex inquiries, to resolve issues.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Facility Staff Support – Senior	Description: Responsible for developing & monitoring assigned department budget and risk management efforts directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Can include tasks associated with receiving, distributing, or shipping of materials. Coordinate on-site emergencies. Must possess strategic planning skills and have a thorough understanding of internal & external compliance policies. Accurately completes paperwork or system transactions applicable to function, such as documentation of material movement (i.e., Receipt, Shop Order, and Packing Lists). Ability to organize, plan & schedule work with minimal supervision.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Facility Staff Support – Intermediate	Description: Under general direction, assists in developing & monitoring assigned department budget and risk management efforts directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Can include tasks associated with receiving, distributing, or shipping of materials. Coordinate on-site emergencies. Must possess strategic planning skills and have a thorough understanding of internal & external compliance policies. Accurately completes paperwork or system transactions applicable to function, such as documentation of material movement (i.e., Receipt, Shop Order, and Packing Lists). Ability to organize, plan & schedule work with minimal supervision.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Facility Staff Support – Associate	Description: Under immediate supervision, assists in developing & monitoring assigned department budget and risk management efforts directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Can include tasks associated with receiving, distributing, or shipping of materials. Coordinate on-site emergencies. Must possess strategic planning skills and have a thorough understanding of internal & external compliance policies. Accurately completes paperwork or system transactions applicable to function, such as documentation of material movement (i.e., Receipt, Shop Order, and Packing Lists). Ability to organize, plan & schedule work with minimal supervision.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Quality Assurance					
Quality Assurance Manager - Senior	Description: Responsible for carrying out procedures to ensure that all information systems products and services meet organization standards and end-user requirements. Performs and leads tests of software to ensure proper operation and freedom from defects. May create test data for applications. Documents and works to resolve all complex problems. Reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Acts as information resource about assigned areas to technical writers and other Quality Assurance Analysts. Performs complex workflow analysis and recommends quality improvements.	Senior/Lead	MA/MS Black Belt certification (Six Sigma)	10+ yrs	BA/BS w/12+ yrs
Quality Assurance Analyst – Intermediate	Description: Under general supervision, carries out procedures to ensure that all information systems products and services meet minimum organization standards and end-user requirements. Thoroughly tests software to ensure proper operation and freedom from defects. Documents and works to resolve all problems. Reports progress on problem resolution to management. Devise improvements to current procedures and develops models of possible future configurations. Performs workflow analysis and recommends quality improvements.	Intermediate/ Journeyman	BA/BS Green Belt Certification (Six Sigma)	5+ yrs	AA w/7+ yrs
Quality Assurance Analyst – Associate	Description: Under direct supervision, carries out procedures to ensure that all information systems products and services meet organization standards and end-user requirements. Assists in the testing of software to ensure proper operation and freedom from defects. Documents and works to resolve basic problems. Reports progress on problem resolution to management. This position is staffed by beginners who have had sufficient educational background and/or experience to qualify them to start in quality assurance analysis.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
IT Systems Architecture					
Chief Enterprise Architect	Description: Leads and directs large teams with diverse functional and technical disciplines to include enterprise architects, systems engineers, business analysts, and network engineers. Works directly with senior executives of the enterprise to consult, coach, and advise on strategy, business alignment, enterprise architecture, information technology solutions, and the associated impact on the organization and its stakeholders. Coordinates resolution of highly complex problems and tasks, selling new ideas and concepts in support of operational goals and objectives. Provides technical and analytical guidance to enterprise architecture team. Integrates and translates complex concepts into tactical action plans. Directs high-level enterprise architecture analysis, evaluation, design, integration, documentation, and development. Has a deep understanding of DoD business transformation and processes, DoD organizational structure, experience in developing briefings and responses to GAO, OMB, and executives within the department, and coordinated and developed BEA Compliance Guidance criteria and various BEA evolution strategies. Possesses extensive knowledge of the DoDAF, the DoD Net-Centric and Data Strategies, the DoD Information Assurance Guidance, and the DoD Federation Strategy, and has had hands-on experience with the Business Enterprise Architecture and Enterprise Transition Plan, Service Oriented Architecture, and the Business Mission Area Federation Strategy and Roadmap.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

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Lead Enterprise Architect	Description: Responsible for all aspects of the development and maintenance of assigned enterprise architecture project and takes project from planning through final delivery. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives and develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Leads a group of engineers, architects, and analysts and ensures adherence to quality standards and reviews enterprise architecture deliverables. Provides technical and analytical guidance to enterprise architecture team. Directs and participates in high-level enterprise architecture analysis, evaluation, design, integration, documentation and development. Applies high-level business and technical principles and methods to very difficult technical problems to arrive at creative engineering solutions. Recommends and takes action to direct the analysis and solutions of problems. Has a deep understanding of DoD business transformation and processes, DoD organizational structure, and experience in developing briefings and responses to GAO, OMB, and executives within the department. Possesses extensive knowledge of and hands-on experience with the DoDAF, the Business Enterprise Architecture and Enterprise Transition Plan, Service Oriented Architecture, and the Business Mission Area Federation Strategy and Roadmap. Lead the development of the BEA and updates to the BEA Development Methodology and Architecture Planning Guide. Familiar with the Core Business Mission and Business Enterprise Priority architecture liaisons.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Senior IT Systems Solution Architect	Description: Participates in the design, creation, and maintenance of computerized databases. Responsible for the quality control and auditing of Telelogic System Architect (SA) databases to ensure accurate and appropriate use of data. Consults with and advises users on access, works directly with users to resolve data conflicts and inappropriate data usage, and directs the maintenance and use of the enterprise architecture encyclopedia. Consults with SA programming personnel to resolve system performance issues. Responsible for the installation, maintenance, configuration, and integrity of SA. Implements application enhancements that will improve the reliability and performance of the application. Works with network engineers to schedule installations and upgrades and maintains them in accordance with established IT policies and procedures. Responsible for file maintenance, control, and product support and facilitates change control, problem management, and communication among architects, engineers, and analysts. Establishes and enforces processes to ensure a consistent, well-managed, and well-integrated application infrastructure. Develops appropriate application and process documentation. Expertise with the BEA SA repository and its internal structure, Visual Basic, SA macros, Windows XT server, SQL server, and DoDAF modeling methodology. Has a deep understanding of BTA business transformation and enterprise architecture's role in it, the BTA organizational structure, and experience in coordinating delivery and publishing of the BEA.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Client/Server Network Architect	Description: Top-level technical expert responsible for design and development of a client/server environment. Develops strategy of client/server system and the design infrastructure necessary to support that strategy. Advises on selection of technological purchases with regards to processing, data storage, data access, and applications development. Sets standards for the client/server relational database structure for the organization (SQL, ORACLE, SYBASE, etc.). Advises of feasibility of potential future projects to management.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Software Architect	Description: Works independently designing and developing new software products or major enhancements to existing software. May lead a large development team in design of highly complex software systems. Acts as highest-level technical expert, addressing problems of systems integration, compatibility, and multiple platforms. Responsible for project completion. Performs feasibility analysis on potential future projects to management.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Systems Engineer - Senior	Description: Responsible for performing high-level systems analysis, evaluation, design, integration, documentation, and implementation of very complex application that require a thorough knowledge of administrative, and technical skills. Directs and participates in all phases of system development with emphasis on planning, analysis, evaluation, integration, testing and acceptance phases (IV&V and DT&E). Applies higher-level business or technical principles and methods to very difficult technical problems to arrive at automated engineering solution. Designs and prepares technical reports and related documentation, and makes charts and graphs to record results. Prepare and deliver presentations and briefings as required by the Task Order. May be required to serve as Task Leader. Responsible for ensuring the quality and services delivered for particular task(s) for which this skill is performing the Task Leader position.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Systems Engineer - Intermediate	Description: Under general supervision, performs high-level systems analysis, evaluation, design, integration, documentation, and implementation of very complex application that require a thorough knowledge of administrative and technical skills. Directs and participates in all phases of system development with emphasis on planning, analysis, evaluation, integration, testing and acceptance phases (IV&V and DT&E). Applies higher-level business or technical principles and methods to very difficult technical problems to arrive at automated engineering solution.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Systems Engineer - Associate	Description: Under direct supervision assists in performing systems analysis, evaluation, design, integration, documentation, and implementation of applications that require comprehensive knowledge and technical skills.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Network Engineer – Senior	Description: Responsible for Installation, configuration, and support of an organization's local area network (LAN), wide area network (WAN), Agency Internet Network (AIN), Intranet and Internet and other data communications systems or a segment of a network system; maintains network hardware and software; monitors network to ensure network availability to all system users and perform necessary maintenance to support network availability; may supervise other network support and client server specialists and plan, coordinate, and implement network security measures; and will provide leadership/mentorship to junior & mid level network engineers. Oversees network control center; provides support to projects that involve networks; performs a full range of complex network designs encompassing multiple technologies within a single network; evaluates new network technologies and makes recommendations to project managers regarding the integration of these technologies into the existing network; plans new configurations for integration into the network, using knowledge of the performance characteristics of the systems being added o the network and the specifications for network interfaces to insure effective integration and optimal network performance; ensures that adequate and appropriate planning is provided for hardware and communications facilities to develop and implement methodologies for analysis, installation and support of voice communications systems; and provides support in the translation of business requirements into telecommunications (e.g., LAN, MAN, WAN, Voice and Video) requirements, designs and orders. The overarching INFOSEC and COMSEC security requirements for the Agency network add to the complexity of these positions.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Network Engineer – Intermediate	Description: Will complete tasks assigned by Senior Network Engineer. Under general supervision will install, configure, and support an organization's local area network (LAN), wide area network (WAN), Agency Internet Network (AIN), Intranet and Internet and other data communications systems or a segment of a network system; maintain network hardware and software; monitors network to ensure network availability to all system users and perform necessary maintenance to support network availability; provides support to projects that involve networks; and provides support in the translation of business requirements into telecommunications (e.g., LAN, MAN, WAN, Voice and Video) requirements, designs and orders.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Network Engineer – Associate	Description: Will complete tasks assigned by Senior Network Engineer. Under direct supervision will install, configure, and support an organization's local area network (LAN), wide area network (WAN), Agency Internet Network (AIN), Intranet and Internet and other data communications systems or a segment of a network system; maintain network hardware and software; monitors network to ensure network availability to all system users and perform necessary maintenance to support network availability; provides support to projects that involve networks; and provides support in the translation of business requirements into telecommunications (e.g., LAN, MAN, WAN, Voice and Video) requirements, designs and orders.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Managed System Engineer - Senior	Description: Responsible for performing duties such as site surveys, architecture design, system evaluation, system analysis, and infrastructure assessment. The managed system engineer shall perform duties on tasks that require expertise in system/processor architecture, wired for management baseline, desktop management interface, SNMP, client/server architecture, operating systems, software applications, network protocols, routers, switches, remote access servers, and firewalls.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Managed Systems Engineer - Intermediate	Description: Under general supervision, performs duties such as site surveys, architecture design, system evaluation, system analysis, and infrastructure assessment. Performs duties on tasks that require expertise in system/processor architecture, wired for management baseline, desktop management interface, SNMP, client/server architecture, operating systems, software applications, network protocols, routers, switches, remote access servers, and firewalls.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Managed Systems Engineer - Associate	Description: Under direct supervision, assists in site surveys, architecture design, system evaluation, system analysis, and infrastructure assessment.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
IT Functional Area Expert (Note: The IT Functional Area Expert may only be used if no other labor category can satisfy the requirement and is applicable at the task order level only. Education and experience levels are negotiable with individual task orders. Offerors are not required to submit rates for IT Functional Area Expert in this price model.)	Description: Recognized for strong expertise in industry issues and trends. Utilizes functional area expertise gained through direct industry experience to assess the operational and functional baseline of an organization and its organizational components. Works with senior managers and executives to provide industry vision and strategic direction with regard to their enterprise. Guides the determination of information technology inadequacies and/or deficiencies that affect the functional area's ability to support/meet organizational goals. Generates functional area strategies for enhanced IT operations in a cross-functional area mode throughout the organization. Participates in account strategy sessions, strategic assessments and design reviews to validate enterprise approach and associated work products. Provides guidance and direction to other professionals, acts in a consulting and/or advisory capacity; coordinates resolution of highly complex problems and tasks, possesses ability to meet and operate under deadlines.	n/a	n/a	n/a	n/a
IT Subject Matter Expert (Note: The IT Subject Matter Expert may only be used if no other labor category can satisfy the requirement and is applicable at the task order level only. Education and experience levels are negotiable with individual task orders. Offerors are not required to submit rates for IT Subject Matter Expert in this price model.)	Description: Executes tasks and projects relevant to subject matter. Reduces issues to practical recommended options. Explains recommendation to decision-makers in terms that permit decisions. Performs studies and analyses on subjects within the technical scope of work. Develops requirements from a project's inception to its conclusion for a particular IT subject matter area (i.e., simple to complex systems). Assists other project members with analysis and evaluation and with the preparation of recommendations for system improvements, optimization, development, and/or maintenance efforts in the following specialties: information systems architecture; networking; telecommunications; automation; communications protocols; risk management/electronic analysis; software; lifecycle management; software development methodologies; and modeling and simulation. Recognized at the industry level in a technical field or specialized engineering or technology area and is proficient in relevant engineering principles and practices. Applies experience, skills, and expert knowledge within an engineering discipline to complex assignments. Generates unique concepts as evidenced by synthesis of new products or processes. Creates or uses engineering/scientific tools to solve technical problems. Utilizes and develops tools, techniques, processes and/or facilities such as state-of-the-art simulation environments, laboratories, and test facilities. Provides leadership for engineering activities in a specialized engineering or technology subject area. Serves as a major contributor to technical planning process and for providing technical management and guidance.	n/a	n/a	n/a	n/a
Application Systems					
Applications Systems Analyst – Senior	Provides daily supervision and direction to staff who are responsible for phone and in-person support to users in the areas of E-mail, directories, standard Windows desktop applications, and other network services. Manages personnel who serve as the first point of contact for troubleshooting hardware and software PC and printer problems.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Applications Systems Analyst – Intermediate	Description: Under general supervision, formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Prepares detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. Competent to work on most phases of applications systems analysis activities, but requires instruction and guidance in other phases. May use CASE tools.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Applications Systems Analyst – Associate	Description: Under immediate supervision, assists in research and fact-finding to develop or modify information systems. Assists in preparing detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. May use CASE tools.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Software Engineer – Senior	Description: Responsible for conducting or participating in multidisciplinary research and collaborates with equipment designers and/or hardware engineers in the planning, design, development, and utilization of electronic data processing systems software. Determines computer user needs; advises hardware designers on machine characteristics that affect software systems such as storage capacity, processing speed, and input/output requirements; designs and develops compilers and assemblers, utility programs, and operating systems.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Software Engineer – Intermediate	Description: Under general supervision, conducts or participates in multidisciplinary research and collaborates with equipment designers and/or hardware engineers in the planning, design, development, and utilization of electronic data processing systems software. Determines computer user needs; advises hardware designers on machine characteristics that affect software systems such as storage capacity, processing speed, and input/output requirements; designs and develops compilers and assemblers, utility programs, and operating systems.	Intermediate/ Journeyman	BS	5+ yrs	AA w/7+ yrs
Software Engineer – Associate	Description: Under direct supervision, assists in designing and developing compilers and assemblers, utility programs, and operating systems.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Applications Programmer – Senior	Description: Responsible for devising or modifying procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Designs, codes, tests, debugs and documents those programs. Competent to work at the highest technical level of all phases of applications programming activities. Note: This position does not perform systems analysis functions.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Applications Programmer – Intermediate	Description: Under general supervision, modifies moderately complex applications programs from detailed specification. Codes, tests, debug, and documents and maintains those programs. Competent to work on most phases of applications programming activities, but requires instruction and guidance in phases. Note: This position does not perform systems analysis functions.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Applications Programmer – Associate	Description: Under immediate supervision, modifies applications programs from detailed specifications. Codes, tests, debugs, documents and maintains those programs This level is staffed by beginners who have had sufficient educational background and/or experience to qualify them to start in applications programming. Note: This position does not perform systems analysis functions.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
IT Certified Professional – Senior	Description: Responsible for the most complex testing and analysis of all elements of the network facilities including: power, software, communications devices, lines, modems and terminals. Monitors and controls the performance and status of the network resources. May function in a lead capacity within the department. Provides guidance and direction for less experienced personnel.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
IT Certified Professional –Intermediate	Description: Under general supervision, responsible for moderately complex tasks typically relating to network monitoring, operations, installation or maintenance. Handles routine network activities and identifies and resolves routine network problems.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
IT Certified Professional – Associate	Description: Under direct supervision, assists in monitoring and responding to technical control facility hardware and software problems utilizing hardware and software testing tools and techniques. May provide LAN server support. May assist installing terminals and associated hardware. Requires knowledge of data scopes, patch panels, modems, concentrators, and associated terminal and network management software.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Operations and Logistics					
Seat Management Administrator.	The seat management administrator shall perform duties such as configuration management, infrastructure management, asset management, help desk, system analysis, and infrastructure assessment. The seat management administrator shall perform duties on tasks that require expertise in system/processor architecture, wired for management baseline, desktop management interface, SNMP, client/server architecture, operating systems, software applications, network protocols, routers, switches, remote access servers, and firewalls.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Configuration Management (CM) Specialist - Senior	Description: Responsible for effectively tracking, logging, categorizing, and maintaining changes made against the accepted Army baseline(s) standards. Develops, distributes, and tracks all change packages resulting from approved Configuration Control Board action. Trains personnel by conducting workshops and seminars on the proper methodology to maintain a proactive CM program. Provides daily support and direction to staff as to change status requirements, deadlines, and problems.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Configuration Management (CM) Specialist - Intermediate	Description: Under immediate supervision, responsible for effectively tracking, logging, categorizing, and maintaining changes made against the accepted Army baseline(s) standards. Develops, distributes, and tracks all change packages resulting from approved Configuration Control Board action.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Configuration Management (CM) Specialist - Associate	Description: Under immediate supervision, distributes and tracks all change packages resulting from approved Configuration Control Board action. Provides daily support to staff as to change status requirements, deadlines, and problems.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Computer Operator – Senior	Description: Responsible for monitoring and controlling one or more servers by operating the central console or on-line terminals. Studies program operating instruction sheets to determine equipment setup and run operations. Continuously observes the operation of the console panel, storage devices, printers, and the action of the console printer to monitor the system and determine the point of equipment or program failure. Manipulates controls in accordance with standard procedures to rearrange sequence of job steps to continue operations when individual units of the system malfunction. Confers with software systems engineering or applications programming personnel in the event errors require a change of instructions or sequence of operations. Maintains operating records such as machine performance and production reports. Competent to work at the highest level of all computer operations phases.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Computer Operator – Intermediate	Description: Under general supervision, monitors and controls a computer by operating the central console or on-line terminals. May operate auxiliary equipment directly associated with the computer. May maintain records regarding output units and supply inventories. May assist in manipulating controls to rearrange sequence of job steps to continue operations when individual units of the system malfunction. Competent to work on most phases of computer operations, but still may require some instruction and guidance for other phases.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Computer Operator – Associate	Description: Under immediate supervision, assists in performing routine tasks associated with operating a computer in accordance with detailed instructions.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Distribution Operations Specialist – Senior	Description: Responsible for review/develop/modify/test procedures and systems requirements to manage property book requirements directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Train internal and external customers regarding procedures/ processes and software applications. Conduct internal audits and development/ review of corrective action plans. Negotiate supplier agreements and service contracts as required by job. Have knowledge of capital procurement processes. Perform duties and responsibilities as the lead on process improvement teams. Coordinate workflow and material movement to meet program and customer delivery requirements.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Distribution Operations Specialist – Intermediate	Description: Under general direction, responsible for review/develop/modify/test procedures and systems requirements to manage property book requirements directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Train internal and external customers regarding procedures/ processes and software applications. Conduct internal audits and development/ review of corrective action plans. Negotiate supplier agreements and service contracts as required by job. Have knowledge of capital procurement processes. Perform duties and responsibilities as the lead on process improvement teams. Coordinate workflow and material movement to meet program and customer delivery requirements.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Distribution Operations Specialist - Associate	Description: Under immediate supervision, responsible for review/develop/modify/test procedures and systems requirements to manage property book requirements directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Train internal and external customers regarding procedures/ processes and software applications. Conduct internal audits and development/ review of corrective action plans. Negotiate supplier agreements and service contracts as required by job. Have knowledge of capital procurement processes. Perform duties and responsibilities as the lead on process improvement teams. Coordinate workflow and material movement to meet program and customer delivery requirements.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Information Assurance					
Information Assurance Engineer - Senior	Description: Responsible for all activities relating to information assurance procedures and systems. Develops information systems assurance programs and control guidelines. Confers with and advises subordinates on administrative policies and procedures and resolving technical problems, priorities, and methods. Consults with and advises other sections regarding internal controls and security procedures. Prepares activity and progress reports relating to the information systems audit function.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Information Assurance Engineer - Intermediate	Description: Under general supervision, develops information systems assurance programs and control guidelines, assists in resolving technical problems, priorities, and methods.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Information Assurance Engineer - Associate	Description: Under general supervision, audits new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that systems procedures are in compliance with corporate standards	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Information Systems Auditor – Senior	Description: Responsible for auditing the most complex new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that information systems procedures are in compliance with corporate standards. Competent to work at the highest level of all phases of information systems auditing.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Information Systems Auditor – Intermediate	Description: Under general supervision, audits moderately complex new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that systems and procedures are in compliance with corporate standards. Competent to work on most phases of information systems auditing.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Information Systems Auditor – Associate	Description: Under direct supervision, carries out routine phases of the systems audit function. Assists in the auditing of new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that systems and procedures are in compliance with corporate standards. Staffed by skilled employees who have had sufficient educational background and/or experience in information systems auditing.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Data Security Analyst – Senior	Description: Responsible for performing all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction. Interfaces 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. May require familiarity with domain structures, user authentication, and digital signatures. Conducts accurate evaluation of the level of security required. May require understanding of firewall theory and configuration. Must be able to weigh business needs against security concerns and articulate issues to management. Frequently reports to a Data Security Administration Manager.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Data Security Analyst – Intermediate	Description: Under general supervision, performs all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction. Interfaces 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. May require familiarity with domain structures, user authentication, and digital signatures. Conducts accurate evaluation of the level of security required. May require understanding of firewall theory and configuration. Frequently reports to a Data Security Administration Manager.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Data Security Analyst – Associate	Under direct supervision, performs all procedures necessary to ensure the safety of information, systems assets and to protect systems from intentional or inadvertent access or destruction. Interfaces 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. Conducts accurate evaluation of the level of security required. Provides management with status reports. Frequently reports to a Data Security Administration Manager.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Disaster Recovery/COOP/Contingency Administrator	Description: Responsible for preparing contingency plans for system software, hardware, and applications for the organization. Implements procedures to ensure business applications continue to function through disruptive incidents within an organization. Develops and maintains various security controls to protect technology assets from internal or inadvertent modification, disclosure or destruction. Provide reports to supervisors regarding effectiveness of data security and make recommendations for the adoption of new procedures. Oversees and facilitates the preparation of an organization-wide business resumption plan. Responsible for ensuring the business resumption plan adequately addresses the organization's requirements and established timeframes. Responsible for day-to-day security administration of the organization's data systems and data networks including systems access administration.	Senior/Lead	MS	10+ yrs	BS/12+ yrs
Information Security Specialist - Senior	Description: Responsible for using current information security technology disciplines and practices to ensure the confidentiality, integrity and availability of corporate information assets in accordance with established standards and procedures. Develops and maintains knowledgebase on changing regulatory, threat, and technology landscapes to continually develop or maintain security policies and standards, and ensure compliance throughout the organization.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Information Security Specialist - Intermediate	Description: Under general supervision, uses current information security technology disciplines and practices to ensure the confidentiality, integrity and availability of corporate information assets in accordance with established standards and procedures. Develops and maintains knowledgebase on changing regulatory, threat, and technology landscapes to continually develop or maintain security policies and standards, and ensure compliance throughout the organization.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Information Security Specialist - Associate	Description: Under direct supervision, assists in developing and maintaining knowledgebase on changing regulatory, threat, and technology landscapes to continually develop or maintain security policies and standards, and ensure compliance throughout the organization.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
IA Policy and Compliance Certified Professional – Senior	Responsible for performing and leading support of Certification and Accreditation (C&A) or other IA/CND Compliance and Auditing processes and inspections for all enterprise systems and networks; ensures validity and accuracy review of all associated documentation. Leads and performs compliance reviews of computer security plans, performs risk assessments, and validates and performs security test evaluations and audits. Analyzes and defines security requirements for information protection for enterprise systems and networks. Assists in the development of security policies. Analyzes the sensitivity of information and performs vulnerability and risk assessments on the basis of defined sensitivity and information flow. Professionally certified as Technical Level III as defined by DODI 8570 is a requirement.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
IA Policy and Compliance Certified Professional – Intermediate	Under general supervision, performs Certification and Accreditation (C&A) or other IA/CND Compliance and Auditing processes and inspections for all enterprise systems and networks; ensures validity and accuracy review of all associated documentation. Performs compliance reviews of computer security plans, performs risk assessments, and performs security test evaluations and audits. Analyzes security requirements for information protection for enterprise systems and networks. Assists in the development of security policies. Analyzes the sensitivity of information and performs vulnerability and risk assessments on the basis of defined sensitivity and information flow. Professionally certified as Technical Level II as defined by DODI 8570 is a requirement.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
IA Policy and Compliance Certified Professional – Associate	Under general supervision, assists in the support of Certification and Accreditation (C&A) or other IA/CND Compliance and Auditing processes and inspections for all enterprise systems and networks; assists in the development of all associated documentation. Assists in the compliance reviews of computer security plans, performs risk assessments, and assists in security test evaluations and audits. Analyzes security requirements for information protection for enterprise systems and networks. Professionally certified as Technical Level I as defined by DODI 8570 is a requirement.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Cyber Operations Research Analyst – Senior	Responsible for leading and participating in analysis of actual and predictable interacting operational activities of business to obtain a quantitative, rational basis for decision making through the application of logic and scientific or economic disciplines and techniques. Ability to devise modeling and measuring techniques; utilizes mathematics, statistical methods, engineering methods, operational mathematics techniques (linear programming, game theory, probability theory, symbolic language, etc.), and other principles and laws of scientific and economic disciplines. Ability to demonstrate a complete understanding and wide application of technical principles, theories, and concepts within the Cyber Research field and provide consultation to technical solutions over a wide range of complex difficult problems in which proposed solutions are imaginative, thorough, practicable, and consistent with organization objectives. Professionally certified as Technical Level III as defined by DODI 8570 is a requirement.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Cyber Operations Research Analyst – Intermediate	Under general supervision, participates in analysis of actual and predictable interacting operational activities of business to obtain a quantitative, rational basis for decision making through the application of logic and scientific or economic disciplines and techniques. Assists in devising models and measuring techniques; utilizes mathematics, statistical methods, engineering methods, operational mathematics techniques (linear programming, game theory, probability theory, symbolic language, etc.), and other principles and laws of scientific and economic disciplines. Ability to demonstrate a thorough understanding and ability to apply technical principles, theories, and concepts within the Cyber Research field and provide consultation to technical solutions over a wide range of complex difficult problems in which proposed solutions are imaginative, thorough, practicable, and consistent with organization objectives. Professionally certified as Technical Level II as defined by DODI 8570 is a requirement.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Cyber Operations Research Analyst – Associate	Under general supervision, assists in analysis of actual and predictable interacting operational activities of business to obtain a quantitative, rational basis for decision making through the application of logic and scientific or economic disciplines and techniques. Assists with devising models and measuring techniques; utilizes mathematics, statistical methods, engineering methods, operational mathematics techniques (linear programming, game theory, probability theory, symbolic language, etc.), and other principles and laws of scientific and economic disciplines. Ability to demonstrate an understanding and ability to apply technical principles, theories, and concepts within the Cyber Research field and assists in providing consultation to technical solutions over a wide range of complex difficult problems in which proposed solutions are imaginative, thorough, practicable, and consistent with organization objectives. Professionally certified as Technical Level I as defined by DODI 8570 is a requirement.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Cyber Operations Malware Analyst – Senior	Under general direction, leads and participates in the evaluation and analysis of complex malicious code through the utilization of tools, including dissemblers, debuggers, hex editors, un-packers, virtual machines, and network sniffers. Responsible for providing findings in a technical report with details of the malware, identification parameters, advanced capabilities, and mitigation strategies. Conducts research in the area of malicious software, vulnerabilities, and exploitation tactics. Requires experience with application security, network security, reverse engineering, or malware. Requires strong knowledge of worms, viruses, Trojans, rootkits, botnets, Windows internals, and the Win32 API. Extensive experience required in programming (assembly and web) and system analysis with various tools, including IDA Pro, Ollydbg, PCAP tools, or TCP Dump. Professionally certified, within a CND discipline, as Technical Level III as defined by DODI 8570 is a requirement.	Associate/ Entry Level	MA/MS	10+ yrs	BA/BS w/12+ yrs
Cyber Operations Malware Analyst – Intermediate	Under general supervision, participates in the evaluation and analysis of complex malicious code through the utilization of tools, including dissemblers, debuggers, hex editors, un-packers, virtual machines, and network sniffers. Responsible for providing findings in a technical report with details of the malware, identification parameters, advanced capabilities, and mitigation strategies. Conducts research in the area of malicious software, vulnerabilities, and exploitation tactics. Requires experience with application security, network security, reverse engineering, or malware. Requires thorough knowledge of worms, viruses, Trojans, rootkits, botnets, Windows internals, and the Win32 API. Additional experience required in programming (assembly and web) and system analysis with various tools, including IDA Pro, Ollydbg, PCAP tools, or TCP Dump. Professionally certified, within a CND discipline, as Technical Level II as defined by DODI 8570 is a requirement.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Cyber Operations Malware Analyst – Associate	Under general supervision, assists in the evaluation and analysis of complex malicious code through the utilization of tools, including dissemblers, debuggers, hex editors, un-packers, virtual machines, and network sniffers. Assists with providing findings in a technical report with details of the malware, identification parameters, advanced capabilities, and mitigation strategies. Provides research assistance in the area of malicious software, vulnerabilities, and exploitation tactics. Requires experience with application security, network security, reverse engineering, or malware. Requires knowledge of worms, viruses, Trojans, rootkits, botnets, Windows internals, and the Win32 API. Additional experience required in programming (assembly and web) and system analysis with various tools, including IDA Pro, Ollydbg, PCAP tools, or TCP Dump. Professionally certified, within a CND discipline, as Technical Level I as defined by DODI 8570 is a requirement.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Cyber Watch Operations Certified Analyst – Senior	Responsible for leading security event monitoring and correlation within a tiered Security Operations Center. Proven experience and ability to leverage CND analyst toolsets to detect and respond to IT security incidents. Ability to implement standard procedures for incident response interfacing with Information Security Officer and IT staff. Conducts research and document threats and their behavior to include monitoring external CSIRTS/CERTs. Provide recommendations to threat mitigation strategies. Employ effective web, email, and telephonic communications to clearly manage security incident response procedures. Perform routine event reporting over time including trend reporting and analysis. Experience required in security or network technology (Unix/Windows OS, Cisco/Juniper Routing-Switching) within a hands-on design/Implementation/Administration role. Demonstrates in-depth knowledge of TCP-IP protocol implementations for all common network services in addition to demonstrated capability to perform network packet analysis and anomaly detection. Professionally certified, within a CND discipline, as Technical Level III as defined by DODI 8570 is a requirement.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Cyber Watch Operations Certified Analyst – Intermediate	Under general supervision, participates in security event monitoring and correlation within a tiered Security Operations Center. Proven experience and ability to leverage CND analyst toolsets to detect and respond to IT security incidents. Conducts research and document threats and their behavior to include monitoring external CSIRTS/CERTs. Assist in providing recommendations to threat mitigation strategies. Employ effective web, email, and telephonic communications to clearly manage security incident response procedures. Perform routine event reporting over time including trend reporting and analysis. Experience required in security or network technology (Unix/Windows OS, Cisco/Juniper Routing-Switching) within a hands-on Implementation or Administration role. Demonstrates thorough knowledge of TCP-IP protocol implementations for all common network services in addition to demonstrated capability to perform network packet analysis and anomaly detection. Professionally certified, within a CND discipline, as Technical Level II as defined by DODI 8570 is a requirement.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Cyber Watch Operations Certified Analyst – Associate	Under general supervision, assists with security event monitoring, correlation, and daily event reporting within a tiered Security Operations Center. Experience with CND analyst toolsets to detect and respond to IT security incidents. Employ effective web, email, and telephonic communications to clearly manage security incident response procedures. Experience required in security or network technology (Unix/Windows OS, Cisco/Juniper Routing-Switching) within a hands-on Administration role. Demonstrates knowledge of TCP-IP protocol implementations for all common network services in addition to demonstrated capability to perform network packet analysis and anomaly detection. Professionally certified, within a CND discipline, as Technical Level I as defined by DODI 8570 is a requirement.	Intermediate/ Journeyman	BS	<5 yrs	AA or 2yr Tech School w/2+ years
System Administration					
Systems Administrator – Senior	Description: Responsible for activities related to system administration. Assigns personnel to various projects, directs their activities, and evaluates their work. Ensures long-term requirements of systems operations and administration are included in the overall information systems planning of the organization. Responsible for the installation, maintenance, configuration, and integrity of computer software. Implements operating system enhancements that will improve the reliability and performance of the system.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Systems Administrator – Intermediate	Description: Under general supervision, responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing requirements. Performs software installations and upgrades to operating systems and layered software packages. Schedules installations and upgrades and maintains them in accordance with established IT policies and procedures. Monitors and tunes the system to achieve optimum performance levels. Ensures workstation/server data integrity by evaluating, implementing, and managing appropriate software and hardware solutions. Ensures data/media recoverability by implementing a schedule of system backups and database archive operations. Supports media management through internal methods and procedures or through offsite storage and retrieval services. Develops and promotes standard operating procedures. Conducts routine hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. Develops and maintains a comprehensive operating system hardware and software configuration database/library of all supporting documentation.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Systems Administrator -Associate	Description: Under direct supervision, maintains integrity of the operating system environment. Performs system software upgrades including planning and scheduling, testing, and coordination. Performs workstation and server administration setup. Coordinates disk space planning and management. Maintains growth statistics, space forecasts, tape libraries, and software and hardware inventories. Performs data backups and recoveries. Monitors and maintains continuity with system software licensing and maintenance agreements. Provides recommendations regarding hardware and system software planning and budgeting. Maintains production change control schedule and participates in change control.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Data Administration					
Database Administrator	Description: Participates in the design, creation, and maintenance of computerized databases. Responsible for the quality control and auditing of databases to ensure accurate and appropriate use of data. Works with management to develop database strategies to support organization requirements. Consults with and advises users on access to various databases. Works directly with users to resolve data conflicts and inappropriate data usage. Directs the maintenance and use of the corporate data dictionary.	Senior/Lead	MS	10+ yrs	BS/12+ yrs
Database Analyst/Programmer – Senior	Description: Responsible for the design, implementation and maintenance of complex databases with respect to JCL, access methods, access time, device allocation, validation checks, organization, protection and security, documentation, and statistical methods. Includes maintenance of database dictionaries, overall monitoring of standards and procedures, and integration of systems through database design. Competent to work at the highest level of all phases of database management.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Database Analyst/Programmer – Intermediate	Description: Under general supervision, designs, implements, and maintains moderately complex databases. Includes maintenance of database dictionaries and integration of systems through database design. Competent to work on most phases of database administration, but may require some instruction and guidance in other phases.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Database Analyst/Programmer – Associate	Description: Under direct supervision, assists in the implementation and maintenance of databases.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Advanced Database Analyst/Programmer - Senior	Responsible for leading and participating in the development and maintenance of Cyber and IA database systems while also offering Database development resource to the development team. Required to review and provide technical solutions to projects which may be in different stages of the development life cycle. Requires knowledge and experience with Oracle or MS SQL Server DBMS, SQL Language, Unix/Linux including basic shell commands, data warehousing, report generation, job scheduling and monitoring tools, XML, HTML, open source development, and technical documenting skills (Windows Office/Visio/Cvs, etc.). Advanced Oracle or Microsoft SQL Server certification is required. Professionally certified as Technical Level III as defined by DODI 8570 is a requirement.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Advanced Database Analyst/Programmer - Intermediate	Under general supervision, participates in the development and maintenance of Cyber and IA database systems while also offering Database development resource to the development team. Required to review and provide technical solutions to projects which may be in different stages of the development life cycle. Requires knowledge and experience with Oracle or MS SQL Server DBMS, SQL Language, Unix/Linux including basic shell commands, data warehousing, report generation, job scheduling and monitoring tools, XML, HTML, open source development, and technical documenting skills (Windows Office/Visio/Cvs, etc.). Oracle or Microsoft SQL Server certification is required. Professionally certified as Technical Level II as defined by DODI 8570 is a requirement.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Advanced Database Analyst/Programmer – Associate	Under general supervision, assists in the development and maintenance of Cyber and IA database systems while also offering Database development resource to the development team. Assists with reviews and provides technical solutions to projects which may be in different stages of the development life cycle. Requires knowledge and experience with Oracle or MS SQL Server DBMS, SQL Language, Unix/Linux including basic shell commands, data warehousing, report generation, job scheduling and monitoring tools, XML, HTML, open source development, and technical documenting skills (Windows Office/Visio/Cvs, etc.). Oracle or Microsoft SQL Server certification is required. Professionally certified as Technical Level I as defined by DODI 8570 is a requirement.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Database Librarian	Description: Under general supervision, enters and maintains data dictionary information, data keyword lists, and dictionary forms. Reviews all information to be entered into the dictionary to assure adherence to standards and to ensure that all requirements are met. Maintains current library of each processing system's information recorded in the dictionary.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Data Warehousing					
Data Warehousing Project Manager	Description: Responsible for leading data warehouse team in development and enhancements of the data warehouse user interface. Works in a data warehouse environment that includes data design, database architecture, metadata and repository creation. Establishes user requirements. Creates new standards and procedures related to end user and internal interface development. Works with Data Architect on technical issues and system architecture definition. Translates high-level work plans and converts to detailed assignments for team members. Monitors status of assignments, and reviews work for completion/quality.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Data Architect	Description: Responsible for developing data warehousing blueprints, evaluating hardware and software platforms, and integrating systems. Evaluates reusability of current data for additional analyses. Works in a data warehouse environment that includes data design, database architecture, metadata and repository creation. Translates business needs into long-term architecture solutions. Defines, designs, and builds dimensional databases. Conducts data cleaning to rid the system of old, unused, or duplicate data. Reviews object and data models and the metadata repository to structure the data for better management and quicker access.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Data Warehouse Analyst	Description: Under general supervision is responsible for the development, maintenance and support of an enterprise data warehouse system and corresponding data marts. Works in a data warehouse environment that includes data design, database architecture, metadata and repository creation. Reviews data loaded into the data warehouse for accuracy. R Troubleshoots and tunes existing data warehouse applications. Conducts research into new data warehouse applications and determines viability for adoption. Assists in establishing development standards. Evaluates existing subject areas stored in the data warehouse. Incorporated existing subject areas into an enterprise model. Creates new or enhanced components of the data warehouse.	Intermediate/ Journeyman	BA/BS	5+	AA or 2yr Tech School w/2+ years
Data Warehousing Programmer	Description: Under general supervision, responsible for product support and maintenance of the data warehouse. Performs data warehouse design and construction. Codes and documents scripts and stored procedures. Designs and implements data strategy methods. Develops appropriate programs and systems documentation. Assists with metadata repository management. Prepares and implements data verification and testing methods for the data warehouse. Creates index and view scripts.	Intermediate/ Journeyman	BA/BS	5+	AA or 2yr Tech School w/2+ years

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Data Warehousing Administrator	Description: Responsible for coordinating the data administration technical function for both data warehouse development and maintenance. Plans and oversees the technical transitions between development, testing, and production phases of the workplace. Facilitates change control, problem management, and communication among data architects, programmers, analysts, and engineers. Establishes and enforces processes to ensure a consistent, well managed, and well-integrated data warehouse infrastructure. Expands and improves data warehouse to include data from all functions of the organization using data manipulation, transformation, and cleansing tools.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Help Desk/End User Support					
Help Desk Coordinator	Description: Responsible for ensuring the timely process through which problems are controlled. Includes problem recognition, research, isolation, resolution and follow-up steps. Requires experience and understanding of MIS environment. Is able to resolve less complex problems immediately, while more complex problems are assigned to second level support or supervisor. Typically involves use of problem management database and help desk system. May provide guidance/training for less experienced personnel.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Help Desk Support Service Specialist – Senior	Description: Responsible for providing second-tier support to end-users for PC, server, mainframe applications, and hardware. Handles problems that the first-tier of help desk support is unable to resolve. May interact with network services, software systems engineering, and/or applications development to restore service and/or identify and correct core problem. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Maintains currency and highest level of technical skill in field of expertise.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Help Desk Support Service Specialist – Intermediate	Description: Under general supervision, provides second-tier support to end-users for PC, server, mainframe applications and hardware. Handles problems that the first-tier of help desk support is unable to resolve. May interact with network services, software systems engineering, and/or applications development to restore service and/or identify and correct core problem. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Maintains currency and high level of technical skill in field of expertise. Escalates more complex problems to Senior Level.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Help Desk Support Service Specialist – Associate	Description: Under direct supervision, provides support to end-users for PC, server or mainframe applications, and hardware. May interact with network services, software systems engineering and/or applications development to restore service and/or identify and correct core problems. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Refers more complex problems to intermediate and/or senior level.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
PC Support Manager	Description: Responsible for overall personal computer activity. Establishes and implements PC policies, procedures and standards, and ensures their conformance with information systems goals and procedures. Studies and projects PC resource requirements including personnel, software, equipment and facilities, and makes recommendations to management. Maintains currency in new developments and technology. Provides for the training of department staff and end users. Directs setup and maintenance of library and materials for end user reference and reviews department staff. Ensures that security procedures are implemented and enforced. Provides leadership in the effective use of internal data processing, automated office systems and data communications. May also manage LAN services.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
PC Systems Specialist	Description: Under general supervision, performs analytical, technical and administrative work in the planning, design and installation of new and existing personal computer systems. Works on moderately complex applications. Confers with end users to determine types of hardware and software required. Writes programs to fulfill requirements or selects appropriate off-the-shelf software and modifies to suit. May maintain or utilize telecommunications protocols. Installs new hardware and maintains existing hardware. Trains end users in use of equipment and software.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
PC Maintenance Technician	Description: Under direct supervision, performs general maintenance tasks, troubleshoots and repairs computer systems and peripheral equipment located throughout the organization. Maintains an adequate spare parts inventory of systems, subsystems, and component parts used in repair work. Prepares progress reports for all work performed. Receives work direction from supervisor on work priorities and daily assignments. Frequently reports to a PC Support Manager.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Internet/Web Operations					
Web Project Manager	Description: Responsible for web strategy and operations. Develops business plan and annual budget for website function. Accountable for buget, staff planning, management, and products and service delivery. Oversees operational activities of the website(s) with specific attention aimed at content creation and website maintenance.	Senior/Lead	MS	10+ yrs	BS/12+ yrs
Web Designer - Senior	Description: Responsible for designing and building web pages using a variety of graphics software applications, techniques, and tools. Designs and develops user interface features, site animation, and special-effects elements. Contributes to the design group's efforts to enhance the look and feel of the organization's online offerings. Designs the website to support the organization's strategies and goals relative to external communications. Requires understanding of web-based technologies and thorough knowledge of HTML, PhotoShop, Illustrator, and/or other design-related applications.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Web Designer - Intermediate	Description: Under general supervision, designs and develops user interface features, site animation, and special-effects elements. Contributes to the design group's efforts to enhance the look and feel of the organization's online offerings. Designs the website to support the organization's strategies and goals relative to external communications. . Develops applications based on current, new and future net-based applications. Requires significant graphics and design experience as well as HTML knowledge.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Web Designer - Associate	Description: Under direct supervision assists in designing and developing user interface features, site animation, and special-effects elements. Assists in designing the website to support the organization's strategies and goals relative to external communications. Requires graphics and design experience as well as HTML knowledge.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Web software Developer - Senior	Description: Responsible for design, development, troubleshooting, debugging, and implementation of software code (such as HTML, CGI, and JavaScript) for a component of the website. Works with graphic designers and other members of a project team to develop the site concept, interface design, and architecture of the website. Responsible for interface implementation. Integrates web applications with backend databases. Deploys large web-based transaction systems using application servers. Researches, tests, build and coordinates the integration of new products per production and client requirements. Requires strong navigation and site-design instincts.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Web software Developer - Intermediate	Description: Under general supervision, develops, codes, tests, and debugs new software and enhancements to existing web software. Competent to work on fairly complex programs with guidance. Works with technical staff to understand problems with web software and resolve them.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Web software Developer - Associate	Description: Under direct supervision, assists in developing, coding, testing, and debugging new software and enhancements to existing web software.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Web Technical Administrator	Description: In role of onsite administrator, responsible for achieving overall technical integrity of organization's website. Maintains and upgrades hardware and software including website technical architecture related to hardware and telecommunication connectivity. Administers e-mail, chat, and FTP services. Communicates router configuration changes and troubleshoots system errors and bugs. Maintains servers, creates monitoring reports and logs, and ensures functionality of links. Monitors site for acceptable performance and user accessibility. Establishes backups and monitors site security.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Web Content Administrator	Description: Responsible for developing and providing content that will motivate and entertain users so that they regularly access the website and utilize it as a major source for information and decision-making. Responsible for managing/performing website editorial activities including gathering and researching information that enhances the value of the site. Locates, negotiates, and pursues content. Seeks out customers to gather feedback for website improvement and enhancements. Requires experience in production management, web page design, HTML, and web graphics types and standards.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Network Administration/Support					
Network Administrator – Senior	Description: Responsible for the acquisition, installation, maintenance and usage of the company's local area network. Studies contractor products to determine those which best meet company needs; assists in presentation of information to management resulting in purchase and installation of hardware, software, and telecommunication equipment. Manages network performance and maintains network security. Ensures that security procedures are implemented and enforced. Installs all network software. Evaluates, develops and maintains telecommunications systems. Troubleshoots network problems. Establishes and implements network policies, procedures and standards and ensures their conformance with information systems and company's objectives. Trains users on network operation.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Network Administrator – Intermediate	Description: Under general supervision, responsible for the acquisition, installation, maintenance, and usage of the organization's local area network. Manages network performance and maintains network security. Ensures that security procedures are implemented and enforced. Installs all network software. Evaluates, develops and maintains telecommunications systems. Troubleshoots network problems. Establishes and implements network policies, procedures, and standards and ensures their conformance with information systems and organization objectives. Trains users on network operation. Frequently reports to a PC support manager or Senior network Administrator.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Network Administrator - Associate	Description: Under direct supervision, assists in the installation, maintenance, and usage of the organization's local area network. Assists in the establishment of network procedures regarding access methods and time, security validation checks, and documentation. Maintains network software and hardware inventories. Researches software and hardware issues regarding the network. Inform users when there are network problems. Monitors and maintains continuity with software licensing and maintenance agreements. Troubleshoots network problems. Frequently reports to a PC Support Manager or Senior network Administrator.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Network Support Technician – Senior	Description: Responsible for monitoring and responding to complex technical control facility hardware and software problems utilizing a variety of hardware and software testing tools and techniques. Provides primary interface with contractor support service groups or provides internal analysis and support to ensure proper escalation during outages or periods of degraded system performance. May provide network server support. Requires extensive knowledge of PC/network communications hardware/software in a multi-protocol environment, and network management software. May function as lead job providing guidance and training for less experienced technicians.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Network Support Technician – Intermediate	Description: Under general supervision, ,monitors and responds to technical control facility hardware and software problems utilizing hardware and software testing tools and techniques. May interface with contractor support service groups to ensure proper escalation during outages or period of degraded system performance. May assist with installation of terminals and associated hardware. May provide network server support. Requires strong knowledge of PC/Network communications hardware/software, in a multi-protocol environment, and network management software.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Network Support Technician – Associate	Description: Under direct supervision, assists in monitoring and responding to technical control facility hardware and software problems utilizing hardware and software testing tools and techniques. May provide network server support. May assist with installation of terminals and associated hardware. Requires knowledge of data scopes, patch panels, modems, concentrators, and associated terminals and network management software.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Documentation					
Documentation Specialist – Senior	Description: Responsible for preparing and/or maintaining systems, programming, and operations documentation, procedures, and methods including user manuals and reference manuals. Maintains a current internal documentation library. Provides or coordinates special documentation services as required. Competent to work at the highest level of all phases of documentation. May act as project leader for large jobs.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Documentation Specialist – Intermediate	Description: Under general supervision, prepares and/or maintains systems, programming, and operations documentation, including user manuals. Maintains a current internal documentation library. Competent to work on most phases of documentation.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Documentation Specialist –Associate	Description: Under direct supervision, prepares and/or maintains systems, programming and operations documentation, including user manuals. Maintains a current internal documentation library.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Technical Editor	Description: Responsible for content of technical documentation. Checks author's document for spelling, grammar and content problems (e.g., missing instructions or sections; redundant or unnecessary sections). Accuracy of content may fall under this position or the programmer, depending on the expertise of the editor. Ensures that documents follow the style laid out in the organization's style guide. May also be responsible for maintaining the style guide. Suggests revisions to the style guide as appropriate. Editor is often a technical writer who has moved to this position.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
CAD Specialist	Description: Under general direction. Ability to prepare various drawings that communicate engineering ideas, designs, and information in support of engineering functions directly supporting infostructure IT goals and projects. Drawings consist of parts and assemblies including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Requires experience in current conventional computer-aided design drafting techniques and application programs.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Graphics Specialist	Description: Under general direction. Responsible for graphics design and use, operation and setup of computer graphic systems for business communications. Executes graphic projects and assists in coordination of all graphic production scheduling; coordinates production support with outside contractors, as needed. Ensures that graphic projects are completed on time, within budget and to user's satisfaction. Interfaces with users to determine scope of project and best graphic medium. Trains other personnel in proper use of computer graphic equipment. Troubleshoots computer equipment problems and performs minor preventive maintenance.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Draftsman – Senior	Description: Responsible for preparing various drawings that communicate engineering ideas, designs, and information in support of engineering functions directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Drawings consist of parts and assemblies including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Require experience in current conventional computer-aided design drafting techniques and application programs.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Draftsman – Intermediate	Description: Under general direction, responsible for preparing various drawings that communicate engineering ideas, designs, and information in support of engineering functions directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Drawings consist of parts and assemblies including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Requires experience in current conventional computer-aided design drafting techniques and application programs.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Draftsman - Associate	Description: Under immediate supervision, responsible for preparing various drawings that communicate engineering ideas, designs, and information in support of engineering functions directly supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Drawings consist of parts and assemblies including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Requires experience in current conventional computer-aided design drafting techniques and application programs.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Enterprise Resource Planning (ERP)/Business Process Development					
ERP Business Analyst – Senior	Description: Responsible for serving as senior subject matter expert associated with content, processes and procedures associated with ERP. Defines the detailed requirements, analyzes the business needs, and validates solutions with the client. Details requirements through the product development and other functions to support the project team. Monitors other business analysts in software development methods and processes and implementation of those methods. Evaluates development projects and assists in tailoring the development process to meet the project needs.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
ERP Business Analyst – Intermediate	Description: Under general supervision, serves as subject matter expert associated with content, processes, and procedures associated with enterprise applications. Applies functional knowledge to design and customization of workflow systems that provide seamless integration for client/server applications. Writes functional requirements, develops test plans, and works with production issues.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
ERP Business Analyst – Associate	Description: Under direct supervision, serves as subject matter expert associated with content, processes and procedures associated with enterprise applications. Applies functional knowledge to design and customization of workflow systems that provide seamless integration for client/server applications. Writes functional requirements, develops test plans and works with production issues.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Business Systems Analyst – Senior	Description: Responsible for formulating and defining systems scope and objectives based on both user needs and a good understanding of applicable business systems and industry requirements. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Includes analysis of business and user needs, documentation of requirements, and translation into proper system requirement specifications. Guides and advises less experienced Business Systems Analysts. Competent to work at the highest technical level of most phases of systems analysis while considering the business implications of the application of technology to the current and future business environment.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Business Systems Analyst – Intermediate	Description: Under general supervision, formulates and defines systems scope and objectives through research and fact-finding combined with an understanding of applicable business systems and industry requirements. With this knowledge, develops or modifies moderately complex information systems. Includes analysis of business and user needs, documenting requirements, and revising existing system logic difficulties as necessary. Guides and advises less experienced Business Systems Analysts. Competent to work in some phases of systems analysis and considers the business implications of the application of technology to the current business environment.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Business Systems Analyst – Associate	Description: Under direct supervision, assists in formulating and defining systems scope and objectives through research and fact-finding combined with a basic understanding of business systems and industry requirements. Includes analysis of business and user needs, documenting requirements, and revising existing system logic difficulties as necessary under direction of experienced Business System Analysts. Competent to consider most business implications of the application of technology to the current business environment.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
IS Training					
Information Systems Training Manager	Description: Responsible for all activities associated with education programs for both the information technology and end-user/PC personnel. Advises on administrative policies and procedures, technical problems, priorities, and methods. Assigns personnel to the various training tasks and directs their activities, reviews and evaluates their work, conducts performance appraisals and makes decisions on personnel.	Senior/Lead	MS	10+ yrs	BS w/12+ yrs
Information Systems Training Specialist – Senior	Description: Responsible for organizing, preparing, and conducting complex training and educational programs for information systems or user personnel. May design and develop in-house programs. Maintains records of training activities, employee progress, and program effectiveness. Competent to work at the highest level of all phases of information systems training.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Information Systems Training Specialist – Intermediate	Description: Under general supervision, organizes and conducts moderately complex training and educational programs for information systems or user personnel. Maintains records of training activities, employee progress, and program effectiveness. Competent to work on most phases of information systems training.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs

ITES-3S Labor Category descriptions, minimum qualifications, and qualification substitutions

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Information Systems Training Specialist – Associate	Description: Under direct supervision, organizes and conducts basic training and educational programs for information systems or user personnel. Maintains record of training activities, employee progress, and program effectiveness.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Instructor Technical Training – Senior	Description: Responsible for provides technical expertise and instruction according to customer specifications and standards (operate, maintain, and repair in classroom or laboratory settings) supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Analyzes System and Network related information and interprets it into useable instruction/training for intended audience. Develops courseware/content in specific technical subject matter area. Provides advice to customers in system design and optimal configuration. Provides technical telephone support to customers with hardware and software problems. Also, provides technical and training input for development of training proposals. May be required to deploy and train US Forces in CONUS or OCONUS field locations.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Instructor Technical Training – Intermediate	Description: Under general direction, responsible for provides technical expertise and instruction according to customer specifications and standards (operate, maintain, and repair in classroom or laboratory settings) supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Analyzes System and Network related information and interprets it into useable instruction/training for intended audience. Develops courseware/content in specific technical subject matter area. Provides advice to customers in system design and optimal configuration. Provides technical telephone support to customers with hardware and software problems. Also, provides technical and training input for development of training proposals. May be required to deploy and train US Forces in CONUS or OCONUS field locations.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Instructor Technical Training – Associate	Description: Under immediate supervision, responsible for provides technical expertise and instruction according to customer specifications and standards (operate, maintain, and repair in classroom or laboratory settings) supporting DoD Enterprise infrastructure and infostructure IT goals and projects. Analyzes System and Network related information and interprets it into useable instruction/training for intended audience. Develops courseware/content in specific technical subject matter area. Provides advice to customers in system design and optimal configuration. Provides technical telephone support to customers with hardware and software problems. Also, provides technical and training input for development of training proposals. May be required to deploy and train US Forces in CONUS or OCONUS field locations.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years
Audio Visual					
Audio Visual Fabrication Engineer - Senior	Description: Responsible for installing, pulling, terminating and testing all audio visual (AV) type cables, connectors, and interfaces. Ability to install projections screens, plasma TV's and different types of speakers. Installation of AV systems on client sites. Read blueprints and wire AV racks. Manage AV projects with various models and makes of equipment. Has a thorough understanding and working knowledge of testing, analyses and corrective action on systems, networks, hardware and software in a Professional Audio/Video environment. Know and understand all wire and connector types on all AV related cable.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Audio Visual Fabrication Engineer - Intermediate	Description: Under general direction, installs, pull, terminate and test all audio visual (AV) type cables, connectors, and interfaces. Ability to install projections screens, plasma TV's and different types of speakers. Installation of AV systems on client sites. Read blueprints and wire AV racks. Manage AV projects with various models and makes of equipment. Has a thorough understanding and working knowledge of testing, analyses and corrective action on systems, networks, hardware and software in a Professional Audio/Video environment. Know and understand all wire and connector types on all AV related cable.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Audio Visual Fabrication Engineer - Associate	Description: Under immediate supervision, installs, pull, terminate and test all audio visual (AV) type cables, connectors, and interfaces. Ability to install projections screens, plasma TV's and different types of speakers. Installation of AV systems on client sites. Read blueprints and wire AV racks. Manage AV projects with various models and makes of equipment. Has a thorough understanding and working knowledge of testing, analyses and corrective action on systems, networks, hardware and software in a Professional Audio/Video environment. Know and understand all wire and connector types on all AV related cable.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Audio Visual Programmer - Senior	Description: Responsible for designing and programming control interface touch panels for audio visual systems. Works with Design Engineer and Contracting Officer's Technical Representative to ensure a user-friendly operating environment for controlling audio/visual equipment. Provide training to users to ensure proper use and care.	Senior/Lead	MA/MS	10+ yrs	BA/BS w/12+ yrs
Audio Visual Programmer - Intermediate	Description: Under general direction, designs and programs control interface touch panels for audio visual systems. Works with Design Engineer and Contracting Officer's Technical Representative to ensure a user-friendly operating environment for controlling audio/visual equipment. Provide training to users to ensure proper use and care.	Intermediate/ Journeyman	BA/BS	5+ yrs	AA w/7+ yrs
Audio Visual Programmer - Associate	Description: Under immediate supervision, designs and programs control interface touch panels for audio visual systems. Works with Design Engineer and Contracting Officer's Technical Representative to ensure a user-friendly operating environment for controlling audio/visual equipment. Provide training to users to ensure proper use and care.	Associate/ Entry Level	BS	<5 yrs	AA or 2yr Tech School w/2+ years

Labor Category	Work Description/Functional Responsibility	Skill Level	Minimum Education Level	Minimum Years	Substitute for Minimum Education/Years
Artificial Intelligence (AI)					
Artificial Intelligence (AI) Engineer - Intermediate	Description: An artificial intelligence engineer is an individual who works with traditional machine learning techniques like natural language processing and neural networks to build models that power AI-based applications. An artificial intelligence programmer helps develop operating software that can be used for robots, artificial intelligence programs or other artificial intelligence applications. They may work closely with electrical engineers or robotics engineers and others in order to produce systems that utilize artificial intelligence. This is the capability of adapting or changing based on adding data. It may also mean programming a system to look for or seek out specific conditions and respond based on those factors. Candidates should possess excellent math, science, and analytical skills necessary to solve complex problems and find efficient solutions.	Intermediate/ Journeyman	A bachelors' degree in computer science, engineering, mathematics, or related discipline.	5+ yrs	AA w/7+ yrs
Machine Learning Engineer – Intermediate	Machine learning is a form of AI that enables a system to learn from data rather than through explicit programming. Once an ML program is written, it must be "trained" before it is deployed in its intended use. Training is the process by which the machine learns. The programming utilizes algorithms that ingest training data supplied by a machine learning engineer, making it possible to produce more precise models based on that data.	Intermediate/ Journeyman	BA/BS (PMI certification desired)	5+ yrs	AA w/7+ yrs
Machine Learning (Data) Scientist – Senior	Description: Data science can be described as the description, prediction, and causal inference from both structured and unstructured data. This discipline helps individuals and enterprises make better business decisions. It's also a study of where data originates, what it represents, and how it could be transformed into a valuable resource. To achieve the latter, a massive amount of data has to be mined to identify patterns to help businesses. The field of data science employs computer science disciplines like mathematics and statistics and incorporates techniques like data mining, cluster analysis, visualization, and machine learning.	Senior/Lead	Master's or Ph.D. in computer science, mathematics, engineering, or related disciplines.	10+ yrs	BA/BS w/12+ yrs
Cloud Services					
Cloud Architect- Intermediate	Description: A cloud architect, or cloud computing architect, is responsible for setting up all of the components required for successful cloud computing. A cloud computing network, as opposed to a more traditional computer network, involves storing and managing data across a number of remotely located servers, rather than a local server. Cloud architects are in charge of creating these cloud networks by connecting remotely located servers. This involves setting up front- and back-end platforms and developing an operational cloud based delivery system. A strong background in scripting and programming languages. Cloud architects combine a technical education background with a number of years of work experience in the field of computing and technology.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
Cloud Developer - Associate	Description: A professional Cloud Developer builds scalable and highly available applications using virtual systems, practices, and tools. They design and implement cloud infrastructures, and ensure the effective design of business processes in the cloud. They have a deep understanding of cloud provider architectures and are able to monitor cloud maintenance, planning, security and usage across the company.	Associate/ Entry Level	BA/BS	<5 yrs	AA or 2yr Tech School w/2+ years
Cloud DevOps Engineer- Intermediate	Description: A DevOps engineer is an IT professional who is responsible for bridging software development, engineering, and management to make the software development process faster. A DevOps engineer introduces processes, tools, and methodologies to balance needs throughout the software development life cycle, from coding and deployment, to maintenance and updates.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
Cloud Engineer - Intermediate	Description: A cloud engineer is an IT expert responsible for the design, planning, management, maintenance, and support, and any other technological duties associated with an organization's cloud computing environment. Cloud operations engineers specialize in creating and implementing cloud-based solutions such as Software as a Service (SaaS) and Platform as a Service (PaaS).	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
Cloud Engineer - Senior	Description: Under general supervision, has duties of instructing, directing, and checking the work of other project engineers. Responsible for the completion of assigned engineering projects within budgetary and scheduling guidelines. Leads a group of engineers, analysts, and/or technicians assigned for the duration of a project or may function as ongoing lead within a group of engineers associated with one or more technical areas within the telecom function (such as, but not limited to, network design, engineering, implementation, or operations/user support). Does not have formal supervisory responsibilities, although may provide input for (project) team member performance appraisals.	Senior/Lead	A master's degree in computer science, engineering, or related discipline.	10+ yrs	BA/BS w/12+ yrs
Cloud Network Engineer - Intermediate	Description: Cloud network engineering roles assess an organization's technology infrastructure and explore options for moving to the cloud. If the organization elects to move to the cloud, a cloud engineer is responsible for overseeing the process, referred to as migration, and maintaining the new system. Job Duties: Implement, support, maintain, and optimize the network hardware, software, and communications links of the company's cloud infrastructure.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
Cloud Security Engineer - Intermediate	Description: Cloud security engineers specialize in providing security systems and tools management related to the cloud technologies and playing a vital role in protecting an organization's data. A cloud security engineer specializes in providing security for cloud-based digital platforms and plays an integral role in protecting an organization's data. This may involve analyzing existing cloud structures and creating new and enhanced security methods. They often serve as part of a larger team dedicated to cloud-based management and security. Cloud security engineers usually work full-time in an office environment, with some positions requiring personnel to respond to after-hours emergencies.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline. May require security certifications such as Certified Information Systems Security Professional (CISSP) or Certified Information Security Manager (CISM).	5+ yrs	AA w/7+ yrs
Platform Engineer - Intermediate	Description: Platform engineers enable application developers to put software into the hands of users in an easier manner. This is the case when there is integration between on premise systems and cloud services. Platform engineers build systems that allow teams to build on. A platform engineer writes code that bridges the gap between software and hardware and tests the system so that it runs effectively and smoothly.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs

Test Engineer - Intermediate	Description: A test engineer is a professional who determines how to create a process that would best test a particular product in manufacturing and related disciplines, in order to assure that the product meets applicable specifications. Test engineers are also responsible for determining the best way a test can be performed in order to achieve adequate test coverage.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
User Interface, User Experience (UI/UX) Designer - Associate	Description: UI Designer/Developer designs web pages and develops web-based technical solutions that engage users and meet business requirements. Handles projects from conceptualization through delivery. A UI Designer/Developer III develops and applies creative designs, ensuring that content meets brand standards and targets the intended audience.	Associate/ Entry Level	BA/BS Technical skills in graphics / visual design, software development, digital marketing. or related disciplines with understanding of code and software architecture.	<5 yrs	AA or 2yr Tech School w/2+ years
Cybersecurity Services					
Cyber Security Architect - Intermediate (Alternate job titles: Cyber Security Systems Designer, IT Security Architect)	Cyber Security Architects are responsible for the overall maintenance of an organization's information technology security systems and protocols. They design and implement security measures for hardware, software, and network platforms to ensure protection from cyber attacks and any other possible harmful intrusions that could compromise or damage an organization's data and network infrastructure. These architects assess existing cybersecurity systems and protocols and design and implement upgrades to existing measures as well as implementing new procedures.	Intermediate / Journeyman	A bachelor's degree in computer science, engineering, or related discipline. May require security certifications such as Certified Information Systems Security Professional (CISSP) or Certified Information Security Manager (CISM).	5+ yrs	AA w/7+ yrs
Data Services					
Data Architect - Senior	Description: Data architects focus on how information moves across the system from one application to another. Demonstrated expertise in requirements engineering, software architecture, software testing, and software deployment including understanding how the software interacts with the technical architecture. Data architects allow a company to easily publish and share their data with others in the industry, data architects design database systems. By creating the system according to industry standards, they also help a business accurately report information to the necessary bureaus. First, the architect may review any data architecture already in place, while also determining the specifications for the size of the new system. The databases they create organize large bits of information, such as company spending. Additionally, they design with growth in mind, allowing for future modifications to the database as the company develops.	Senior/Lead	A master's degree in computer science, engineering, or related discipline.	10+ yrs	BA/BS w/12+ yrs
Data Engineer - Intermediate	Description: Under general supervision, carries out procedures to ensure that all information systems products and services meet minimum organization standards and end-user requirements. Thoroughly tests software to ensure proper operation and freedom from defects. Documents and works to resolve all problems. Reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Performs workflow analysis and recommends quality improvements.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
Data Labeler - Intermediate	Description: Data labeling is the manual curation of data by humans on machine learning and AI applications. Data Steward coordinates an organization's quality, security, and maintenance of data. Defines data elements and establishes policies and procedures related to the collection and accuracy of data, and performs tests on data systems. Being a Data Steward ensures sufficient data quality is maintained so that the data can effectively support the business process.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or related discipline.	5+ yrs	AA w/7+ yrs
Data Scientist - Senior	Description: Data Scientists build analytics tools that utilize the data pipeline to provide actionable insights into customer acquisition, operational efficiency and other key business performance metrics. Create data tools for analytics and data scientist team members that assist them in building and optimizing products. Communicate effectively through listening, documentation and presentations, especially using compelling visualization tools to share analysis and interpretation of data.	Senior/Lead	A master's degree in computer science, engineering, or related discipline.	10+ yrs	BA/BS w/12+ yrs
Operations Research and Systems Analyst (ORSA) - Intermediate	Description: Operations research analysts use advanced mathematical and analytical methods to help solve complex issues.	Intermediate/ Journeyman	A bachelor's degree in business, operations research, management science, analytics, mathematics, engineering, computer science, or related discipline.	5+ yrs	AA w/7+ yrs
Application Systems					
Continuous Integration, Continuous Delivery or Deployment (CI/CD) Engineer - Intermediate	Description: In software engineering, CI/CD or CICD generally refers to the combined practices of continuous integration and either continuous delivery or continuous deployment. CI/CD bridges the gaps between development and operation activities and teams by enforcing automation in building, testing and deployment of applications. Modern day DevOps practices involve continuous development, continuous testing, continuous integration, continuous deployment and continuous monitoring of software applications throughout its development life cycle. The main concepts attributed to CI/CD are continuous integration, continuous delivery, and continuous deployment. Responsible for improving and managing the productivity of technology processes by creating automated workflows to replace the manual ones.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or equivalent.	5+ yrs	AA w/7+ yrs
DevOps Engineer - Intermediate	Description: A DevOps engineer introduces processes, tools, and methodologies to balance needs throughout the software development life cycle, from coding and deployment, to maintenance and updates.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or equivalent.	5+ yrs	AA w/7+ yrs

Role	Description	Level	Education	Experience	Substitution
Full Stack Developer - Associate	Description: A full-stack developer is a programmer who works within software development and is knowledgeable in both the front end and back end of an application. They work to create a seamless user experience through their diverse skill set. They're also well-versed in databases, server configuration, user interface and more.	Associate/ Entry Level	BA/BS Technical skills such as software, languages and databases. Programing languages such as HTML/ CSS, JAVA script, Python, PHP, and SQL.	<5 yrs	AA or 2yr Tech School w/2+ years
DevSecOps Engineer - Intermediate	Description: DevSecOps is short for development, security, and operations. The DevSecOps Engineer automates the integration of security at every phase of the software development lifecycle, from initial design through integration, testing, deployment, and software delivery.	Intermediate/ Journeyman	A bachelor's degree in computer science, engineering, or equivalent.	5+ yrs	AA w/7+ yrs
Information Technology Services					
Telecommunications Specialist - Senior	Provides installation and operational support of voice and data communications hardware and software systems. Designs, develops, implements, tests, debugs, and maintains communications systems. Performs configuration of operating system and security patches for host and distributed systems, and implements incident response procedures during incidents of a network or host security breach. May provide leadership and direction to a team of specialists for these functions. Reviews customer requirements and makes recommendations for changes to existing technical architecture. Complies with prescribed customer, industry and agency standards.	Senior / Lead	A master's degree in computer science, engineering, or related discipline.	10+ yrs	BA/BS w/12+ yrs
Telecommunications Specialist - Intermediate	Provides installation and operational support of voice and data communications hardware and software systems. Designs, develops, implements, tests, debugs, and maintains communications systems. Performs configuration of operating system and security patches for host and distributed systems, and implements incident response procedures during incidents of a network or host security breach. Complies with prescribed customer, industry and agency standards.	Intermediate / Journeyman	Bachelor's degree	5+ yrs	AA w/7+ yrs
Telecommunications Specialist - Associate	Assists in providing installation and operational support of voice and data communications hardware and software systems. Participates in design, development, implementation, test, debugging, and maintaining communications systems. Complies with prescribed customer, industry and agency standards.	Associate / Entry Level	Associate's degree	< 5 yrs	AA or 2yr Tech School w/2+ years