GENERAL SERVICES ADMINISTRATION
Authorized Federal Supply Schedule Price List

Multiple Award Schedule (MAS)
FSC/PSC: D305 and D399

Contract Period: March 20, 2015 – March 19, 2025
Modification No: A812. Effective: May 11, 2020
Large Category: Information Technology. Subcategories: IT Services; IT Solutions
Large Category: Miscellaneous. Subcategory: Complementary Services

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!, a menu driven database system. The INTERNET address for GSA Advantage! is: www.GSAAdvantage.gov.

For more information on ordering from Federal Supply Schedules go to the internet address: http://www.gsa.gov/schedules. Find link to GSA Schedules. Then find link to Customers Ordering from Schedules. Next, find links to Ordering Procedures for Services Requiring a Statement of Work and Ordering Procedures for Services not Requiring a Statement of work.

CONTRACTOR:
COMMUNICATIONS TRAINING ANALYSIS CORPORATION (CTAC)
3120 FAIRVIEW PARK DRIVE, STE. 600
FALLS CHURCH, VA 22042
Phone: 703-289-3820
Fax: 703-359-0952
http://www.ctacorp.com

CONTRACT ADMINISTRATION:
Donald S. Royal
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BUSINESS SIZE: *Small business*

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CUSTOMER INFORMATION

1a. Table of awarded Special Item Numbers (SINs):

SIN#	SIN DESCRIPTION
54151S	Information Technology (IT) Professional Services (PSC D399)
54151HEAL	Health Information Technology (IT) Services (PSC D399)
518210C	Cloud and Cloud-Related IT Professional Services (PSC D305)
70 500	Order-Level Materials (OLMs)

1b. Identification of the lowest priced service for each special item number awarded in the contract.

SIN #	Model	Price
518210C	APS3-BoxUsage:t2.micro	$0.01

1c. Hourly rates – see pages 25 and 35

2. Maximum order for each SIN:

SIN#	MAXIMUM ORDER
54151S	$500,000
54151HEAL	$500,000
518210C	$500,000
70-500	$100,000

*If the best value selection places your order over the Maximum Order identified in this catalog/pricelist, you have an opportunity to obtain a better schedule contract price. Before placing your order, contact the aforementioned contactor for a better price. The contractor may (1) offer a new price for this requirement (2) offer the lowest price available under this contract or (3) decline the order. A delivery order that exceeds the maximum order may be placed under the schedule contract in accordance with FAR 8.404.

3. Minimum order: $100

4. Geographic coverage (delivery area): Domestic delivery

5. Point(s) of production: Falls Church, VA

6. Net prices are included on this price list

7. Quantity discounts:

SIN 54151S, 54151HEAL, and 518210C IT Professional Services: 1% for orders over $2,000,000
SIN 518210C Cloud Computing Services - PaaS, SaaS, and AWS: None

8. Prompt payment terms: 5% 5 days; Net 30
Information for Ordering Offices: Prompt payment terms cannot be negotiated out of the contractual agreement in exchange for other concessions.

9a. Notification that Government purchase cards are accepted at or below the micro-purchase threshold: Yes

9b. Notification whether Government purchase cards are accepted or not accepted above the micro-purchase threshold: Yes

10. Foreign items: Not Applicable

11a. Time of delivery: As agreed to by the ordering agency and the contractor

11b. Expedited delivery: As agreed to by the ordering agency and the contractor

11c. Overnight and 2-day delivery: As agreed to by the ordering agency and the contractor

11d. Urgent requirements: As agreed to by the ordering agency and the contractor

12. F.O.B. point(s): Destination

13a. Ordering address: 3120 Fairview Park Drive, Suite 600, Falls Church, VA 22042

13b. Ordering procedures: For supplies and services, the ordering procedures, information on blanket purchase agreements (BPAs), and a sample BPA can be found at the GSA/FSS schedule homepage (www.fss.gsa.gov/schedules).

14. Payment address: 3120 Fairview Park Drive, Suite 600, Falls Church, VA 22042

15. Warranty provision: Not Applicable

16. Export packing charges: Not Applicable

17. Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level).

18.-24b. Not Applicable

25. Data Universal Number System (DUNS) number: 956975809

26. Notification regarding registration in the System for Award Management (SAM) database. CTAC is registered and active in SAM, Cage Code: 0YXH7.

27. Company's policy regarding uncompensated overtime: Not Applicable

TERMS AND CONDITIONS APPLICABLE TO INFORMATION TECHNOLOGY (IT) PROFESSIONAL SERVICES (SPECIAL ITEM NUMBER (SIN) 54151S) AND HEALTH INFORMATION TECHNOLOGY (IT) SERVICES (SPECIAL ITEM NUMBER (SIN) 54151HEAL)

1. Scope

a. The prices, terms and conditions stated under Special Item Number (SIN) 54151S Information Technology Professional Services and Special Item Number (SIN) 54151HEAL Health Information Technology Services apply exclusively to IT Services within the scope of this Information Technology Schedule.
b. The Contractor shall provide services at the Contractor's facility and/or at the Government location, as agreed to by the Contractor and the ordering office.

2. Performance Incentives

a. When using a performance-based statement of work, performance incentives may be agreed upon between the Contractor and the ordering office on individual fixed price orders or Blanket Purchase Agreements, for fixed price tasks, under this contract in accordance with this clause.
b. The ordering office must establish a maximum performance incentive price for these services and/or total solutions on individual orders or Blanket Purchase Agreements.
c. Incentives should be designed to relate results achieved by the Contractor to specific targets. To the maximum extent practicable, ordering offices shall consider establishing incentives where performance is critical to the agency's mission and incentives are likely to motivate the contractor. Incentives shall be based on objectively measurable tasks.

3. Order

a. Agencies may use written orders, EDI orders, blanket purchase agreements, individual purchase orders, or task orders for ordering services under this contract. Blanket Purchase Agreements shall not extend beyond the end of the contract period; all services and delivery shall be made and the contract terms and conditions shall continue in effect until the completion of the order. Orders for tasks that extend beyond the fiscal year for which funds are available shall include FAR 52.232-19 (Deviation – May 2003) Availability of Funds for the Next Fiscal Year. The purchase order shall specify the availability of funds and the period for which funds are available.
b. All task orders are subject to the terms and conditions of the contract. In the event of conflict between a task order and the contract, the contract will take precedence.

4. Performance of Services

a. The Contractor shall commence performance of services on the date agreed to by the Contractor and the ordering activity.
b. The Contractor agrees to render services only during normal working hours, unless otherwise agreed to by the Contractor and the ordering activity.
c. The Agency should include the criteria for satisfactory completion for each task in the Statement of Work or Delivery Order. Services shall be completed in a good and workmanlike manner.
d. Any Contractor travel required in the performance of IT Services must comply with the Federal Travel Regulation or Joint Travel Regulations, as applicable, in effect on the date(s) the travel is performed. Established Federal Government per diem rates will apply to all Contractor travel. Contractors cannot use GSA city pair contracts.

5. Stop-Work Order (FAR 52.242-15) (AUG 1989)

a. The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either-

1) Cancel the stop-work order; or
2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

b. If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if-
   1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
   2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

c. If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

d. If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

6. Inspection of Services

The Inspection of Services–Fixed Price (AUG 1996) clause at FAR 52.246-4 applies to firm-fixed price orders placed under this contract. The Inspection–Time-and-Materials and Labor-Hour (JAN 1986) clause at FAR 52.246-6 applies to time-and-materials and labor-hour orders placed under this contract.

7. Responsibilities of the Contractor

The Contractor shall comply with all laws, ordinances, and regulations (Federal, State, City, or otherwise) covering work of this character. If the end product of a task order is software, then FAR 52.227-14 Rights in Data – General, may apply.

8. Responsibilities of the Ordering Activity

Subject to security regulations, the ordering office shall permit Contractor access to all facilities necessary to perform the requisite IT Services.

9. Independent Contractor

All IT Services performed by the Contractor under the terms of this contract shall be as an independent Contractor, and not as an agent or employee of the Government.

10. Organizational Conflicts of Interest

a. Definitions:
   "Contractor" means the person, firm, unincorporated association, joint venture, partnership, or corporation that is a party to this contract.

"Contractor and its affiliates" and "Contractor or its affiliates" refers to the Contractor, its chief executives, directors, officers, subsidiaries, affiliates, subcontractors at any tier, and consultants and any joint venture involving the Contractor, any entity into or with which the Contractor subsequently merges or affiliates, or any other successor or assignee of the Contractor.

An "Organizational conflict of interest" exists when the nature of the work to be performed under a proposed Government contract, without some restriction on activities by the Contractor and its affiliates, may either (i) result in an unfair competitive advantage to the Contractor or its affiliates or (ii) impair the Contractor's or its affiliates' objectivity in performing contract work.

b. To avoid an organizational or financial conflict of interest and to avoid prejudicing the best interests of the Government, ordering offices may place restrictions on the Contractors, its affiliates, chief executives, directors, subsidiaries and subcontractors at any tier when placing orders against schedule contracts. Such restrictions shall be consistent with FAR 9.505 and shall be designed to avoid, neutralize, or mitigate organizational conflicts of interest that might otherwise exist in situations related to individual orders placed against the schedule contract. Examples of situations, which may require restrictions, are provided at FAR 9.508.

11. Invoices

The Contractor, upon completion of the work ordered, shall submit invoices for IT services. Progress payments may be authorized by the ordering office on individual orders, if appropriate. Progress payments shall be based upon completion of defined milestones or interim products. Invoices shall be submitted monthly for recurring services performed during the preceding month.

12. Payments

For firm-fixed price orders the ordering activity shall pay the Contractor, upon submission of proper invoices or vouchers, the prices stipulated in this contract for service rendered and accepted. Progress payments shall be made only when authorized by the order. For time and materials orders, the Payments under Time and Materials and Labor Hour Contracts at FAR 52.232-7 (DEC 2002), (Alternate II – Feb 2002) (Deviation – May 2003) applies to time and materials orders placed under this contract. For labor hour orders, the Payment under Time and Materials and Labor Hour Contracts at FAR 52.232-7 (DEC 2002), (Alternate II – Feb 2002) (Deviation – May 2003)) applies to labor hour orders placed under this contract.

13. Resumes

Resumes shall be provided to the GSA Contracting Officer or the user agency upon request.

14. Incidental Support Costs

Incidental support costs are available outside the scope of this contract. The costs will be negotiated separately with the ordering agency in accordance with the guidelines set forth in the FAR.

15. Approval of Subcontracts

The ordering activity may require that the Contractor receive, from the ordering activity's Contracting Officer, written consent before placing any subcontract for furnishing any of the work called for in a task order.

16. Description of IT Professional Services (SIN 54151S) and Pricing

16.1 Description of Services

1) Commercial Job Title: Senior Manager

Minimum/General Experience:

15-years of relevant work experience.

Functional Responsibility:

Senior executive responsible for providing strategic direction, vision, leadership, and overall program management to the team. Contributes to organizational direction through regular involvement with senior level client leadership and team members. Maintains productive and effective client relationship with the most senior levels of the client organization, establishes goals and business plans for area of responsibility and have broad latitude for decision-making. Interacts with executives in current and potential client and customer organizations on matters of substantial importance and sensitivity. Requires a highly developed sense of strategy and timing as well as exceptional negotiation and presentation skills. Ensures the most effective use of company's human resources within area of responsibility. Responsible for developing and sustaining client and customer base, ensuring high quality technical and scientific products and services are provided to clients and customers, and cultivating business contacts and leads. Responsible for identifying and targeting business opportunities and ensuring resources are committed to developing such targets. Continually evaluates strategy and plans to meet changing technical and competitive conditions. Has over responsibility for multiple programs providing a variety of services to a diverse customer base. Works with executive leadership in client organizations to plan and implement new programs and ensure quality products and services consistent with the terms of each agreement are provided in a timely manner. Works with clients to identify and resolve complex problems or contractual issues.

Minimum Education:

Bachelor's degree in a related discipline. A graduate degree in a related discipline is preferred.

2) Commercial Job Title: Program Manager

Minimum/General Experience:

A minimum of 7 years experience in management of programs with direct experience in information management and information technology. A minimum of 4 years experience at a supervisory level.

Functional Responsibility:

The Program Manager (PM) is a senior manager responsible for coordinating the management of all work performed under this contract. The PM is ultimately responsible for coordinating the efforts of subcontractors, team members, vendors, etc. The PM shall act as the central point of contact and shall have the full authority to act for the Contractor in the performance of the required work and services under all task orders. The PM works independently on all phases of performance, including contract management, project/task

order management, coordination of resource needs, coordination with corporate resources and management, and has direct accountability for the technical correctness, timeliness and quality of deliverables. The PM shall have broad and deep knowledge of business administration, and human resource management and shall have excellent oral and written communications skills.

Minimum Education:

Bachelor's Degree in Business Administration, Computer Science, or related field.

3) Commercial Job Title: Project Manager

Minimum/General Experience:

7-years related experience. PMP certification preferred. Demonstrates skills in the scope of work encompassed by the task order; provides technical guidance to the project team in performance of the work.

Functional Responsibility:

Maintains and manages the client interface at the COTR levels of the client organization and management personnel to provide technical advice, resolve problems, and anticipate future requirements; assists the Program Manager as required in managing contract performance. Manages a team of professionals in providing a wide range of services and managing assigned projects within scope and budget. Prepares or reviews project or task proposal or plan to determine time frame, schedules, funding requirements and limitations, procedures for accomplishing project, staffing requirements, and allotment of available resources to various phases of project or task. Directs and coordinates activities of project personnel to ensure timeliness of products and services, maintenance of project schedule, cost control to ensure conformance with prescribed budget, responsiveness to customer requirements, and that the quality of product and services is maintained.

Minimum Education:

Bachelor's degree and 7-years related experience or equivalent combination of education and experience in related field.

4) Commercial Job Title: Task Manager / Leader

Minimum/General Experience:

10-years of experience (without degree) OR 6-10 years of experience (with Bachelor's degree OR 4-6 years of experience (with advanced degree). Experience in applying the innovative applications of specialized knowledge (e.g., technical expertise in a specific discipline) or the resolution of complex management problems requiring innovative solutions.

Functional Responsibility:

Prepares complex data analysis plans or engineering plans. Manages data collection and analysis work and provides technical oversight of assigned projects. Assists the Program and Project Managers serving as the working level focal point between contractor, government technical and government contracting staffs. Provides technical direction for the complete task effort and keeps the Project and Program Manager(s) abreast of all problems and accomplishments. For assigned task orders, allocates resources, provides technical and management oversight, provides technical expertise, and participates in briefings and meetings. Anticipates problems and works to mitigate the anticipated problems. Experienced in task management, responsible for ensuring successful task completion within the scheduled timeframe consistent with the established scope of work to include both the

technical and financial solutions. Reviews task requirements, prepares project synopses, compares alternatives, prepares specifications, coordinates work with others, and orients clients. Reviews and evaluates work of subordinate staff and prepares performance reports in writing and orally to company and client representatives.

Minimum Education:

Advanced technical training and more than 10 years of experience OR a Bachelor's degree and 6-10 years of experience OR an Advanced degree and 4-6 years of experience.

5) Commercial Job Title: Technical Subject Matter Expert

Minimum/General Experience:

Senior expert with extensive, enterprise-wide knowledge and experience in one or more designated technical and/or domain areas. Typically, a former high-ranking military or civilian official and recognized by industry as an expert in their specific field.

Functional Responsibility:

Provides insight and advice concerning strategic direction and applicability of up to date, industry standard solutions; responsible for providing high-level vision to program/project manager or senior client leadership to influence objectives of complex efforts. Provides highest-level functional expertise to prepare, advise and/or review the most technically demanding and sophisticated work being performed within assigned area of responsibility. Analyzes complex problems, makes recommendations, develops alternative solutions and draft and executes implementation plan. Converses with and provides assistance to highest levels of corporate and government management. The Technical Subject Matter Expert is primarily utilized on projects for their specific expertise, not in a managerial capacity, in support of the creation of comprehensive methods for describing current and/or future structure and behavior of an organization's processes, systems, personnel and organizational sub-units, so that they align with the organization's core goals and strategic direction.

Minimum Education:

Requires bachelor's degree in field relative to area of expertise, masters preferred plus 15 years professional expertise of which at least 10 years experience is directly relative to subject matter. One additional year of relevant experience can be substituted for each year of education shortfall.

6) Commercial Job Title: Functional Subject Matter Expert

Minimum/General Experience:

Senior expert with extensive knowledge in designated field or discipline. Recognized industry competence at the highest level in specialty area; a bona fide expert, is well read and likely published in subject field. Requires a master's degree in field relative to area of expertise, PhD preferred plus fifteen years professional expertise of which at least 10 years experience is directly relative to subject matter.

Functional Responsibility:

Provides insight and advice concerning task or project strategic direction and outcomes. May contribute to the evaluation, analysis, and development of recommended solutions. Resolves complex problems, which require an in-depth knowledge of subject matter related to the designated field or discipline. Applies principles and methods of the subject matter to specialized solutions. Generally, possess demonstrated ability and experience in management consulting and cross-team facilitation at the senior management level. Other areas of

expertise may include, but is not limited to, safeguards and security, business process reengineering, statistical process control, individual and organizational assessment and evaluation, process modeling and simulation, strategic and business planning, change management, organizational development, and the development of leadership/management skills.

Minimum Education:

Master's degree in field relative to area of expertise, PhD preferred plus 15 years professional expertise of which at least ten years experience is directly relative to subject matter.

7) Commercial Job Title: Principal Business Analyst

Minimum/General Experience:

Ten years related experience, six years of which must be relevant work experience specific to function and/or training (e.g., business process reengineering/ improvement methods, enterprise applications, etc.); or equivalent combination of education and experience. Recognized for providing solutions in the area of contract administration and procurement, communications, training, and other business disciplines to achieve optimized program/project performance.

Functional Responsibility:

Prepares plans, documents, presentations, testimony, and other material needed for high-level briefings and hearings. Assists in collecting information, analyzing information, preparing exhibits and briefing presentations, and producing reports. Identifies potential issues that could influence the acceptance and provides recommendations to ensure the success of an initiative. Serves as a leader, member or advisor of self-directed teams, or to management directed teams. Assists in conducting studies and analyses of programs/projects and provides client support and assistance the areas of public affairs, communications, training, contract administration and procurement, and paralegal issues. Assists in providing problem resolution, consensus building, and in conducting evaluations. Assists in the administration of personnel functions, such as training, work scheduling, as well as the evaluation of current economic conditions, and helps to prepare budget forecasts and documentation. Participates in the development of solutions by leveraging knowledge of the designated field or discipline. Contributes to the implementation of strategy and helps assess the impact of industry trends, policy, and/or standard methodologies. Directs the activities of Specialists or other staff as necessary on activities related to the specified field or discipline. Recognized for understanding and communicating common best practices for the industry. Utilize a knowledge base to create conceptual business models and to point out relevant issues and considerations in selecting application software packages, such as those provided by ERP vendors. Assess the operational and functional baseline of an organization and its organizational components and help to define the direction and strategy for an engagement while ensuring the organizational needs are being addressed. Examples of the functional areas would include but not limited to, Human Resources, Finance, Supply, Service, etc. Work with senior managers to provide industry vision and guidance with regard to their industry. Lead the determination and classification of information technology inadequacies and/or deficiencies that affect the functional area's ability to support/meet organizational goals. Support the development of functional area strategies for enhanced operations in a cross-functional area mode throughout the organization. Provides work direction and guidance to other personnel; ensures accuracy of the work of other personnel, operates under deadlines, able to work on multiple tasks.

Minimum Education:

Bachelor's degree. A master's or doctorate degree is desired. One additional year of relevant experience can be substituted for each year of education shortfall.

8) Commercial Job Title: Senior Business Analyst

Minimum/General Experience:

6-years related experience, three years of which must be relevant work experience specific to function and/or training (e.g., business process reengineering/ improvement methods, enterprise applications, etc.); or equivalent combination of education and experience.

Functional Responsibility:

Provides solutions in the area of contract administration and procurement, communications, training, and other business disciplines to achieve optimized program/project performance. Prepares plans, documents, presentations, testimony, and other material needed for high-level briefings and hearings. Assists in collecting information, analyzing information, preparing exhibits and briefing presentations, and producing reports. Identifies potential issues that could influence the acceptance and provides recommendations to ensure the success of an initiative. Serves as a leader, member or advisor of self-directed teams, or to management directed teams. Assists in conducting studies and analyses of programs/projects and provides client support and assistance the areas of public affairs, communications, training, contract administration and procurement, and paralegal issues. Assists in providing problem resolution, consensus building, and in conducting evaluations. Assists in the administration of personnel functions, such as training, work scheduling, as well as the evaluation of current economic conditions, and helps to prepare budget forecasts and documentation. Participates in the development of solutions by leveraging knowledge of the designated field or discipline. Contributes to the implementation of strategy and helps assess the impact of industry trends, policy, and/or standard methodologies. Directs the activities of Specialists or other staff as necessary on activities related to the specified field or discipline. Understands and communicates common best practices for the industry. Utilize a knowledge base to assist in creating conceptual business models and to point out relevant issues and considerations in selecting application software packages, such as those provided by ERP vendors. Assesses the operational and functional baseline of an organization and its organizational components and help to define the direction and strategy for an engagement while ensuring the organizational needs are being addressed. Examples of the functional areas would include but not limited to, Human Resources, Finance, Supply, Service, etc. Work with senior managers to provide industry vision and guidance with regard to their industry. Assists in determining and classifying information technology inadequacies and/or deficiencies affecting the functional area's ability to support/meet organizational goals. Support the development of functional area strategies for enhanced operations in a cross-functional area mode throughout the organization. Operates under deadlines, and able to work on multiple tasks.

Minimum Education:

Bachelor's degree in a related field.

9) Commercial Job Title: Business Analyst

Minimum/General Experience:

3-years related experience, 1-year of which must be relevant work experience specific to function and/or training (e.g., business process reengineering/ improvement methods, enterprise applications, etc.); or equivalent combination of education and experience.

Functional Responsibility:

Assists in providing solutions in the area of contract administration and procurement, communications, training, and other business disciplines to achieve optimized program/project performance. Assists in preparing plans, documents, presentations, testimony, and other material needed for high-level briefings and hearings. Assists in collecting information, analyzing information, preparing exhibits and briefing presentations, and producing reports. Identifies potential issues that could influence the acceptance and provides recommendations to ensure the success of an initiative. Serves as a member of self-directed teams and assists in conducting studies and analyses of programs/projects and provides client support and assistance the areas of public affairs, communications, training, contract administration and procurement, and paralegal issues. Assists in providing problem resolution, consensus building, and in conducting evaluations. Assists in the administration of personnel functions, such as training, work scheduling, as well as the evaluation of current economic conditions, and helps to prepare budget forecasts and documentation. Participates in the development of solutions by leveraging knowledge of the designated field or discipline. Contributes to the implementation of strategy and helps assess the impact of industry trends, policy, and/or standard methodologies. Understands and communicates common best practices for the industry. Assists in creating conceptual business models and in assessing the operational and functional baseline of an organization and its organizational components and help to define the direction and strategy for an engagement while ensuring the organizational needs are being addressed. Examples of the functional areas would include but not limited to, Human Resources, Finance, Supply, Service, etc. Assists managers to provide industry vision and guidance with regard to their industry. Assist in determining and classifying information technology inadequacies and/or deficiencies that affect the functional area's ability to support/meet organizational goals. Supports the development of functional area strategies for enhanced operations in a cross-functional area mode throughout the organization. Ability to work on multiple tasks.

Minimum Education:

Bachelor's degree and three years related experience, one year of which must be relevant work experience specific to function and/or training (e.g., business process reengineering/improvement methods, enterprise applications, etc.); or equivalent combination of education and experience.

10) Commercial Job Title: Implementation Specialist

Minimum/General Experience:

8-years related experience, four years of which must be relevant work experience specific to function and/or training (e.g., business process reengineering/ improvement methods, enterprise applications, etc.); or equivalent combination of education and experience.

Functional Responsibility:

Independent development of comprehensive and highly complex project plans and schedules and continual monitoring and updating of same to ensure that project goals are achieved. Must have broad latitude for decision-making at the operations center level and are reviewed on the basis of results achieved. Prepares intricate and/or complex engineering or data analysis plans, which require a very high level of specialized knowledge or the resolution of complex management problems that require extensive cross-functional knowledge. Leads the design and implementation of a variety of interventions that will foster the implementation of organizational change in such areas as business processes, policy, culture, environment or workplace. Works with senior executives to develop strategies to lead and manage major change. Assist in the design, development and implementation of

communication plans. Possesses knowledge in designated field or discipline. Experienced in the evaluation of commercial off the shelf software to assess their value as potential technology solutions for new or redesigned business processes. Is well versed in the systems development lifecycle and is capable of developing testing plans and conducting acceptance testing for new systems. Independently leads proof of concept tasks. Facilitates the implementation of major interventions related to an organization's redesign of existing business processes or design new processes to support the attainment of mission critical business goals. Frequently provide subject matter expertise and may lead inter-disciplinary work teams. Conducts data collection, analysis, research in support of identifying individual and organizational performance barriers and recommend courses of action to minimize or eliminate obstacles preventing the achievement of optimal performance. Participates in major business process reengineering assignments to support organizational improvement through implementation of new technology solutions or major restructuring initiatives. Conduct analyses of complex business processes and data processing requirements to develop functional requirements documents and programming design specifications. Experienced in the evaluation of commercial off the shelf software to assess their value as potential technology solutions for new or redesigned business processes. Is well versed in the systems development lifecycle and is capable of developing testing plans and conducting acceptance testing for new systems.

Minimum Education:

Bachelor's degree or equivalent combination of education and experience. A master's or doctorate degree is desired. One additional year of relevant experience can be substituted for each year of education shortfall.

11) Commercial Job Title: Principal Consultant

Minimum/General Experience:

A minimum of 8 years experience in programs with direct experience with information management and information technology programs. A minimum of 2 years experience at a supervisory level.

Functional Responsibility:

Oversees various tasks of a highly complex nature. Responsible for assembling the task team, assigning individual responsibilities, identifying appropriate resources needed, and developing the schedule to ensure the timely completion of the task's milestones and final acceptance. Must be familiar with the systems scope and project objectives, as well as the role and function of each team member, in order to effectively coordinate the activities of the team. Monitors each assigned task, implements and assures adherence to task level quality and methodology standards, and keeps the Program Manager abreast of all problems and accomplishments. Anticipates problems and works to mitigate the anticipated problems. As a task leader, provides technical direction for the complete task effort. Reviews and evaluates work of subordinate staff and prepares performance reports. May serve as a technical authority for a particular task area. Interacts with client management personnel. Prepares activity and progress reports regarding all assigned tasks. Reports in writing and orally to company and client representatives.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

12) Commercial Job Title: Senior Consultant

Minimum/General Experience:

A minimum of 6 years direct experience with information management and information technology programs.

Functional Responsibility:

Establishes system information requirements using analysis in the development of enterprise-wide or large scale information systems. Designs architecture to include the software, hardware, and communications to support the total requirements as well as provide for present and future cross-functional requirements and interfaces. As appropriate, ensures these systems are compatible and in compliance with the standards for open systems architectures - as they apply to the implementation and specification of Information Management (IM) solution of the application platform, across the application program interface (API), and the external environment/software application. Analytically and systematically evaluates problems in workflows, organization, and planning and develops appropriate corrective action. Provides daily supervision and direction to staff.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

13) Commercial Job Title: Consultant

Minimum/General Experience:

A minimum of 3 years direct experience with information management and information technology programs.

Functional Responsibility:

Responsible for the effective development and implementation of programs to ensure that all information systems products and services meet minimum company standards and end-user requirements. Administers the change control process for zero defects software development. Responsible for configuration management of requirements, design, and code. Administers problem management process including monitoring and reporting on problem resolution. Ensures adequate product testing prior to implementation. Coordinates with users and systems development personnel on releases of software. May supervise lower level personnel. Must have demonstrated capability for oral and written communications.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

14) Commercial Job Title: Principal Analyst

Minimum/General Experience:

A minimum of 8 years experience in the development, modification or maintenance of a management information system. A minimum of 4 years experience at a supervisory level.

Functional Responsibility:

Highly specialized in one or more phases of systems engineering and development. Acts independently under general direction. Advises technical personnel on the conceptualization, development, and implementation of a broad range of information systems issues, including hardware/software integration, compatibility and multiple platforms. Performs feasibility analysis on potential future projects to management. Plans strategies for improvement of information systems and services. Communicates current innovations and trends in information systems development to technical staff. Prepares justification for selection of new technology. May serve as the chief architect for complex

information systems development. Designs and develops proposed solutions to business problems and client requirements. Performs high-level system analysis and directs technical strategy for accomplishing new objectives. Maintains knowledge of current systems and system development actions and analyzes for data redundancies and system/program overlap. Responsible for task completion.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

15) Commercial Job Title: Senior Analyst

Minimum/General Experience:

A minimum of five years experience in the development, analysis and system functional requirements.

Functional Responsibility:

Formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Exercises analytical techniques when gathering information from users, defining work packages, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Reviews task requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

16) Commercial Job Title: Analyst

Minimum/General Experience:

A minimum of 2 years experience.

Functional Responsibility:

With limited direction, carries out procedures to ensure that all information systems products and services meet company and client standards and end-user requirements. Thoroughly tests software to ensure proper operation and freedom from defects and/or supports testing as a witness to testing requirements. Organizes and maintains all quality assurance documentation. Performs workflow analysis and recommends quality improvements. Researches, writes, edits, and proofreads technical data for use in documents or sections of documents. Excellent verbal and written communication skills are required.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

17) Commercial Job Title: Principal Software Developer

Minimum/General Experience:

8 years experience in applications programming on database management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs, and refines computer software to produce the required product. Prepares required documentation. Enhances software to reduce operating time, add functionality, or improve efficiency. Demonstrated ability to work independently or under only general direction. Provides technical direction to other programmers.

Minimum Education:

Bachelor's degree in a related field.

18) Commercial Job Title: Senior Software Developer

Minimum/General Experience:

6-years experience in applications programming on database management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives.

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs, and refines computer software to produce the required product. Prepares required documentation. Enhances software to reduce operating time, add functionality, or improve efficiency. Demonstrated ability to work independently or under only general direction.

Minimum Education:

Bachelor's degree in a related field.

19) Commercial Job Title: Software Developer

Minimum/General Experience:

4 years experience in applications programming on database management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives.

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs, and refines computer software to produce the required product. Prepares required documentation. Enhances software to reduce operating time, add functionality, or improve efficiency.

Minimum Education:

Bachelor's degree in a related field.

20) Commercial Job Title: Principal Application Developer

Minimum/General Experience:

6 years of general computer programming experience, with at least 3-years of specialized web and mobile application development experience.

Functional Responsibility:

Performs Web and mobile application development from conception to implementation, including planning, design, and programming. Provides enhancement, multimedia conversion, maintenance, and application administration. Provides quality control services and demonstrated expertise in both current Internet related and application software languages and current interactive application developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2-years of relevant work experience.

21) Commercial Job Title: Senior Application Developer

Minimum/General Experience:

4 years of general computer programming experience with a minimum of 2-years experience specializing in web and mobile application development.

Functional Responsibility:

Performs Web and mobile application development from conception to implementation, including planning, design, and programming. Provides enhancement, multimedia conversion, maintenance, and application administration. Provides quality control services and demonstrated expertise in both current Internet related and application software languages and current interactive application developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2-years of relevant work experience.

22) Commercial Job Title: Application Developer

Minimum/General Experience:

2 years general computer programming experience with at least 1-year specialized experience in web and mobile application development.

Functional Responsibility:

Performs Web and mobile application development from conception to implementation, including planning, design, and programming. Provides enhancement, multimedia conversion, maintenance, and application administration. Provides quality control services and demonstrated expertise in both current Internet related and application software languages and current interactive application developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

23) Commercial Job Title: Principal Web Developer

Minimum/General Experience:

6 years of general computer programming experience, with at least 3-years of specialized web development experience.

Functional Responsibility:

Performs Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

24) Commercial Job Title: Senior Web Developer

Minimum/General Experience:

4 years of general computer programming experience with a minimum of 2-years experience specializing in web site development.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

25) Commercial Job Title: Web Developer

Minimum/General Experience:

2 years general computer programming experience with at least 1 year specialized experience in web site development.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

26) Commercial Job Title: Principal Systems Analyst

Minimum/General Experience:

8 years experience in the development and analysis of programs and system functional requirements.

Functional Responsibility:

Interacts with senior management and formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Independently exercises analytical techniques when gathering information from users, defining work problems, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Analyzes methods of approach. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. An advanced degree is preferred.

27) Commercial Job Title: Senior Systems Analyst

Minimum/General Experience:

A minimum of 5 years experience in the development and analysis of programs and system functional requirements.

Functional Responsibility:

Formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Exercises analytical techniques when gathering information from users, defining work problems, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Analyzes methods of approach. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

28) Commercial Job Title: Systems Analyst

Minimum/General Experience:

A minimum of 2 years experience in systems support or maintenance planning/analysis tasks involving preparation of technical documentation and data analysis of functional process areas.

Functional Responsibility:

Under general direction, 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. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

29) Commercial Job Title: Principal Security Specialist (IT)

Minimum/General Experience:

10 years experience, of which at least 8 years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

Functional Responsibility:

Analyzes and defines security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Responsible for the

development and implementation MLS systems. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses that also includes risk assessments. Provides daily supervision and direction to staff.

Minimum Education:

Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline.

30) Commercial Job Title: Senior Security Specialist (IT)

Minimum/General Experience:

8 years experience, of which at least 6 years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

Functional Responsibility:

Analyzes and defines security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses that also include risk assessments.

Minimum Education:

Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline.

31) Commercial Job Title: Security Specialist (IT)

Minimum/General Experience:

6 years experience, of which at least 4 years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

Functional Responsibility:

Analyzes and defines security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Participates in the performance of risk analyses that also include risk assessments.

Minimum Education:

Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline.

32) Commercial Job Title: Software Engineer

Minimum/General Experience:

A minimum of 6 years experience in the design and development of information systems. A minimum of 3 years experience in the practical application of information engineering tools, processes and methodologies in a systems environment.

Functional Responsibility:

Application of multiple information engineering tools, processes and methodologies, including the application of automation resources as applied to information systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

33) Commercial Job Title: Network Engineer

Minimum/General Experience:

A minimum of 4 years practical experience, including: ability to plan, design, implement, manage, and supervise communications networks and related infrastructures.

Functional Responsibility:

Conducting and supervising system analysis and feasibility studies on current and future systems; the design, development and implementation of the communications infrastructure, including, but not limited to, user support and systems administration, and IT network configuration. The Network Engineer will conduct briefings regarding current or planned communications efforts and techniques.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

34) Commercial Job Title: Network Technician

Minimum/General Experience:

A minimum of 2 years practical experience as a Network Technician.

Functional Responsibility:

Assist in the maintenance of start-of-the-art voice and data communications networks. Responsible for assisting in the implementation of the communications infrastructure.

Minimum Education:

High school diploma or equivalent.

35) Commercial Job Title: Senior Computer Programmer

Minimum/General Experience:

A minimum of 4 years experience in the development, modification or maintenance of information systems, of which at least 2 years must have been spent as a team leader of a group of programmers. Knowledge of two or more high order languages is required.

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs and refines the computer software to produce the required product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency. Provides technical direction to lower level programmers to ensure program deadlines are met.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

36) Commercial Job Title: Computer Programmer

Minimum/General Experience:

Knowledge of one or more high order languages.

Functional Responsibility:

Maintain and update assigned programs and assist in the development of new modules under the guidance of a more senior programmer. Tests, debugs and refines the computer software to produce the required product. Prepares required documentation, including

both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years experience may be substituted for Bachelor's Degree.

37) Commercial Job Title: Technical Data Specialist

Minimum/General Experience:

A minimum of 1 year of experience with technical data pertaining to problem analysis and project documentation. Ability to research, analyze and compile written materials or graphics in the generation of technical documentation is also required.

Functional Responsibility:

Researches, writes, edits, and proofreads technical data for use in documents or sections of documents such as manuals, procedures, specifications, special reports, and any other customer deliverables and documents. Ensures technical documentation is accurate, complete, meets editorial and client specifications and adheres to standards for quality, graphics, coverage, format, and style. Assists in establishing style guidelines and standards for texts and illustrations. Excellent written communication skills are required.

Minimum Education:

High school diploma or equivalent.

38) Commercial Job Title: Senior Testing Specialist

Minimum/General Experience:

6 years experience computer in software development with at least 4 years experience in software testing (integration and acceptance).

Functional Responsibility:

Designing and executing IT software tests and evaluating results to ensure compliance with applicable regulations. Prepares test scripts and all required test documentation. Designs and prepares all needed test data. Analyzes internal security within systems and recommends solutions to issues for consideration. Reviews test results and evaluates for conformance to design making recommendations for modifications as necessary.

Minimum Education:

Bachelor's degree in a related field.

39) Commercial Job Title: Testing Specialist

Minimum/General Experience:

4 years experience computer in software development with at least 2 years experience in software testing (integration and acceptance).

Functional Responsibility:

Designing and executing IT software tests and evaluating results to ensure compliance with applicable regulations. Prepares test scripts and all required test documentation. Designs and prepares all needed test data. Analyzes internal security within systems. Reviews test results and evaluates for conformance to design.

Minimum Education:

Bachelor's degree in a related field.

40) Commercial Job Title: Senior Usability Specialist

Minimum/General Experience:

5 years User Interface design and development experience; familiarity with the latest emerging technologies for User Experience design.

Functional Responsibility:

Working with business analysts and web designers, develop solutions to business and creative problems; recommends simple and concise solutions using visual design, working demonstrations, and written reports and presentations. Develop a broad understanding of evolved and evolving technologies and how to design for those new technologies. Supports multiple usability studies and focus groups and conduct usability testing. Define requirements as a result of empirical data, other usability studies, market research and proven user-centric design principles

Minimum Education:

Bachelor's degree in a related field.

41) Commercial Job Title: Usability Specialist

Minimum/General Experience:

3 years User Interface design and development experience; familiarity with the latest emerging technologies for User Experience design.

Functional Responsibility:

Working with business analysts and web designers, develop solutions to business and creative problems, recommend simple and concise solutions using visual design, working demonstrations, and written reports and presentations. Develop a broad understanding of evolved and evolving technologies and how to design for those new technologies. Support multiple usability studies and focus groups and conduct usability testing. Define requirements as a result of empirical data, other usability studies, market research and proven user-centric design principles

Minimum Education:

Bachelor's degree in a related field.

42) Commercial Job Title: Senior Graphic Designer

Minimum/General Experience:

6 years experience

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in related field such as Art or Computer Graphics.

43) Commercial Job Title: Graphic Designer

Minimum/General Experience:

3 years experience.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality

control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in related field such as Art or Computer Graphics. A year of college education is the equivalent of 2 years of relevant work experience.

44) Commercial Job Title: Technical Writer

Minimum/General Experience:

4 years experience as a technical writer of specifications, standards, and technical manuals. Knowledge of client style guidelines, protocols, and procedures a plus.

Functional Responsibility:

Writes technical information in easily understandable language. Works with program/project managers, analysts, engineers, scientists, and others to research, write, edit, and proofread technical data for use in documents or sections of documents such as manuals, procedures, specifications, special reports, and any other customer deliverables and documents. Capable of original drafting of management operations and business documentation requiring an understanding of the basic concepts, practices and vocabulary relevant to the subject matter. Ensures technical documentation is accurate, complete, meets editorial and client specifications and adheres to standards for quality, graphics, coverage, format, and style. Assists in establishing style guidelines and standards for texts and illustrations.

Minimum Education:

Bachelor' degree. One additional year of relevant experience can be substituted for each year of education shortfall.

45) Commercial Job Title: Executive Research Assistant

Minimum/General Experience:

4 years of related work experience. Excellent written communication skills are required.

Functional Responsibility:

Support program/project management staff within functional areas of expertise in the preparation of deliverables, internal reports, briefings, and drawings associated with the project being supported.

Minimum Education:

Bachelor's degree or equivalent experience.

46) Commercial Job Title: Administrative Assistant

Minimum/General Experience:

A minimum of 3 years practical experience as an Administrative Assistant.

Functional Responsibility:

Ability to perform a variety of administrative tasks as well as assist the Project Manager and contract technical staff in ad hoc administrative tasks and IT efforts as required.

Minimum Education:

High school diploma or equivalent.

47) Commercial Job Title: Production Specialist

Minimum/General Experience:

A minimum of 2 years experience with technical data pertaining to project documentation.

Functional Responsibility:

Assignments are routine to somewhat complex in nature and work parameters are typically well defined. Maintains files, records, and chronologies of activities. Provides phone and in-person support to users in the areas of e-mail, directories, standard Windows desktop applications and applications developed or deployed under this contractor or predecessors. Serves as the first point of contact for troubleshooting such applications.

Minimum Education:

High school diploma or equivalent.

48) Commercial Job Title: Admin/Clerical Assistant

Minimum/General Experience:

A minimum of 2 years practical experience as an Administrative Assistant.

Functional Responsibility:

Ability to perform a variety of administrative tasks as well as assist the Program Manager and contract technical staff in ad hoc administrative tasks and IT efforts as required.

Minimum Education:

High school diploma or equivalent.

49) Commercial Job Title: Word Processor

Minimum/General Experience:

A minimum of 2 years practical experience in technical typing.

Functional Responsibility:

Ability to prepare a variety of technical and administrative documents. Must be familiar with providing IT support, have the ability to manipulate electronic text, and be proficient in the use of a variety of software applications.

Minimum Education:

High school diploma or equivalent.

TABLE OF EQUIVALENCIES	
Substitutions for Educational Requirements	
Degree Requirement	Equivalent Experience Substitution
Bachelor's Degree	• Associate Degree plus 4 years experience
Master's Degree	• Bachelor's Degree plus 4 years experience
Doctorate Degree	• Master's Degree plus 4 years experience • Bachelor's Degree plus 8 years experience
Substitutions for Work Experience Requirements	
Years of Experience Required	Equivalent Degree Substitution
4 years	Master's Degree
8 years	Doctorate

16.2 Pricing for Services

Communications Training Analysis Corporation (CTAC)							
GSA Multiple Award Schedule (MAS) IT Professional Services (541511S) Pricelist							
Labor Category		3/20/19 - 3/19/20	3/20/20 - 3/19/21	3/20/21 - 3/19/22	3/20/22 - 3/19/23	3/20/23 - 3/19/24	3/20/24 - 3/19/25
1	Senior Manager	$ 268.53	$ 275.24	$ 282.12	$ 289.17	$ 296.40	$ 303.81
2	Program Manager	$ 190.50	$ 195.26	$ 200.14	$ 205.14	$ 210.27	$ 215.53
3	Project Manager	$ 182.75	$ 187.32	$ 192.00	$ 196.80	$ 201.72	$ 206.76
4	Task Manager/Leader	$ 138.11	$ 141.56	$ 145.10	$ 148.73	$ 152.45	$ 156.26
5	Technical Subject Matter Expert	$ 383.63	$ 393.22	$ 403.05	$ 413.13	$ 423.46	$ 434.05
6	Functional Subject Matter Exper	$ 345.22	$ 353.85	$ 362.70	$ 371.77	$ 381.06	$ 390.59
7	Principal Business Analyst	$ 240.27	$ 246.28	$ 252.44	$ 258.75	$ 265.22	$ 271.85
8	Senior Business Analyst	$ 225.41	$ 231.05	$ 236.83	$ 242.75	$ 248.82	$ 255.04
9	Business Analyst	$ 210.21	$ 215.47	$ 220.86	$ 226.38	$ 232.04	$ 237.84
10	Implementation Specialist	$ 153.44	$ 157.28	$ 161.21	$ 165.24	$ 169.37	$ 173.60
11	Principal Consultant	$ 205.35	$ 210.48	$ 215.74	$ 221.13	$ 226.66	$ 232.33
12	Senior Consultant	$ 171.07	$ 175.35	$ 179.73	$ 184.22	$ 188.83	$ 193.55
13	Consultant	$ 143.69	$ 147.28	$ 150.96	$ 154.73	$ 158.60	$ 162.57
14	Principal Analyst	$ 148.28	$ 151.99	$ 155.79	$ 159.68	$ 163.67	$ 167.76
15	Senior Analyst	$ 136.89	$ 140.31	$ 143.82	$ 147.42	$ 151.11	$ 154.89
16	Analyst	$ 102.64	$ 105.21	$ 107.84	$ 110.54	$ 113.30	$ 116.13
17	Principal Software Developer	$ 254.26	$ 260.62	$ 267.14	$ 273.82	$ 280.67	$ 287.69
18	Senior Software Developer	$ 238.87	$ 244.84	$ 250.96	$ 257.23	$ 263.66	$ 270.25
19	Software Developer	$ 224.36	$ 229.97	$ 235.72	$ 241.61	$ 247.65	$ 253.84
20	Principal Application Developer	$ 196.84	$ 201.76	$ 206.80	$ 211.97	$ 217.27	$ 222.70
21	Senior Application Developer	$ 157.70	$ 161.64	$ 165.68	$ 169.82	$ 174.07	$ 178.42
22	Application Developer	$ 127.68	$ 130.87	$ 134.14	$ 137.49	$ 140.93	$ 144.45
23	Principal Web Developer	$ 198.61	$ 203.58	$ 208.67	$ 213.89	$ 219.24	$ 224.72
24	Senior Web Developer	$ 183.44	$ 188.03	$ 192.73	$ 197.55	$ 202.49	$ 207.55
25	Web Developer	$ 168.46	$ 172.67	$ 176.99	$ 181.41	$ 185.95	$ 190.60
26	Principal Systems Analyst	$ 142.08	$ 145.63	$ 149.27	$ 153.00	$ 156.83	$ 160.75
27	Senior Systems Analyst	$ 121.13	$ 124.16	$ 127.26	$ 130.44	$ 133.70	$ 137.04
28	Systems Analyst	$ 102.39	$ 104.95	$ 107.57	$ 110.26	$ 113.02	$ 115.85
29	Principal Security Specialist	$ 210.25	$ 215.51	$ 220.90	$ 226.42	$ 232.08	$ 237.88
30	Senior Security Specialist	$ 175.81	$ 180.21	$ 184.72	$ 189.34	$ 194.07	$ 198.92
31	Security Specialist	$ 140.44	$ 143.95	$ 147.55	$ 151.24	$ 155.02	$ 158.90
32	Software Engineer	$ 130.62	$ 133.89	$ 137.24	$ 140.67	$ 144.19	$ 147.79
33	Network Engineer	$ 126.38	$ 129.54	$ 132.78	$ 136.10	$ 139.50	$ 142.99
34	Network Technician	$ 90.52	$ 92.78	$ 95.10	$ 97.48	$ 99.92	$ 102.42
35	Senior Computer Programmer	$ 127.55	$ 130.74	$ 134.01	$ 137.36	$ 140.79	$ 144.31
36	Computer Programmer	$ 73.34	$ 75.17	$ 77.05	$ 78.98	$ 80.95	$ 82.97
37	Technical Data Specialist	$ 123.05	$ 126.13	$ 129.28	$ 132.51	$ 135.82	$ 139.22
38	Senior Testing Specialist	$ 134.35	$ 137.71	$ 141.15	$ 144.68	$ 148.30	$ 152.01
39	Testing Specialist	$ 105.26	$ 107.89	$ 110.59	$ 113.35	$ 116.18	$ 119.08
40	Senior Usability Specialist	$ 134.35	$ 137.71	$ 141.15	$ 144.68	$ 148.30	$ 152.01
41	Usability Specialist	$ 105.26	$ 107.89	$ 110.59	$ 113.35	$ 116.18	$ 119.08
42	Senior Graphic Designer	$ 142.08	$ 145.63	$ 149.27	$ 153.00	$ 156.83	$ 160.75
43	Graphic Designer	$ 120.13	$ 123.13	$ 126.21	$ 129.37	$ 132.60	$ 135.92
44	Technical Writer	$ 115.08	$ 117.96	$ 120.91	$ 123.93	$ 127.03	$ 130.21
45	Executive Research Assistant	$ 76.72	$ 78.64	$ 80.61	$ 82.63	$ 84.70	$ 86.82
46	Administrative Assistant	$ 63.53					
47	Production Specialist	$ 63.65					
48	Admin/Clerical Assistant	$ 61.98					
49	Word Processor	$ 35.65					

SCA Eligible Contract Labor Category	SCA Equivalent Code – Title	WD Number
Administrative Assistant	01020 – Administrative Assistant	2005-2103, Rev. 14
Admin/Clerical Assistant	01113 – General Clerk III	2005-2103, Rev. 14
Production Specialist	01270 – Production Control Clerk	2005-2103, Rev. 14
Word Processor	01613 – Word Processor III	2005-2103, Rev. 14
The Service Contract Act (SCA) is applicable to this contract and includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number(s) identified in the matrix. The prices offered are based on the preponderance of where work is performed and should work be performed in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.		

17. Description of Health IT Services (SIN 54151HEAL) and Pricing

17.1 Description of Services

1) Commercial Job Title: Health Program Manager

Minimum/General Experience:

A minimum of 7 years experience in management of programs with direct experience in information management and information technology. A minimum of 4 years experience at a supervisory level.

Functional Responsibility:

The Program Manager (PM) is a senior manager responsible for coordinating the management of all work performed under this contract. The PM is ultimately responsible for coordinating the efforts of subcontractors, team members, vendors, etc. The PM shall act as the central point of contact and shall have the full authority to act for the Contractor in the performance of the required work and services under all task orders. The PM works independently on all phases of performance, including contract management, project/task order management, coordination of resource needs, coordination with corporate resources and management, and has direct accountability for the technical correctness, timeliness and quality of deliverables. The PM shall have broad and deep knowledge of business administration, and human resource management and shall have excellent oral and written communications skills.

Minimum Education:

Bachelor's Degree in Business Administration, Computer Science, or related field.

2) Commercial Job Title: Health Project Manager

Minimum/General Experience:

7-years related experience. PMP certification preferred. Demonstrates skills in the scope of work encompassed by the task order; provides technical guidance to the project team in performance of the work.

Functional Responsibility:

Maintains and manages the client interface at the COTR levels of the client organization and management personnel to provide technical advice, resolve problems, and anticipate future requirements; assists the Program Manager as required in managing contract performance. Manages a team of professionals in providing a wide range of services and managing assigned projects within scope and budget. Prepares or reviews project or task proposal or plan to determine time frame, schedules, funding requirements and limitations, procedures for accomplishing project, staffing requirements, and allotment of available resources to various phases of project or task. Directs and coordinates activities of project personnel to ensure timeliness of products and services, maintenance of project schedule, cost control to ensure conformance with prescribed budget, responsiveness to customer requirements, and that the quality of product and services is maintained.

Minimum Education:

Bachelor's degree and 7-years related experience or equivalent combination of education and experience in related field.

3) Commercial Job Title: Health Task Manager / Leader

Minimum/General Experience:

10-years of experience (without degree) OR 6-10 years of experience (with Bachelor's degree OR 4-6 years of experience (with advanced degree). Experience in applying the innovative applications of specialized knowledge (e.g., technical expertise in a specific discipline) or the resolution of complex management problems requiring innovative solutions.

Functional Responsibility:

Prepares complex data analysis plans or engineering plans. Manages data collection and analysis work and provides technical oversight of assigned projects. Assists the Program and Project Managers serving as the working level focal point between contractor, government technical and government contracting staffs. Provides technical direction for the complete task effort and keeps the Project and Program Manager(s) abreast of all problems and accomplishments. For assigned task orders, allocates resources, provides technical and management oversight, provides technical expertise, and participates in briefings and meetings. Anticipates problems and works to mitigate the anticipated problems. Experienced in task management, responsible for ensuring successful task completion within the scheduled timeframe consistent with the established scope of work to include both the technical and financial solutions. Reviews task requirements, prepares project synopses, compares alternatives, prepares specifications, coordinates work with others, and orients clients. Reviews and evaluates work of subordinate staff and prepares performance reports in writing and orally to company and client representatives.

Minimum Education:

Advanced technical training and more than 10 years of experience OR a Bachelor's degree and 6-10 years of experience OR an Advanced degree and 4-6 years of experience.

4) Commercial Job Title: Health Principal Consultant

Minimum/General Experience:

A minimum of 8 years experience in programs with direct experience with information management and information technology programs. A minimum of 2 years experience at a supervisory level.

Functional Responsibility:

Oversees various tasks of a highly complex nature. Responsible for assembling the task team, assigning individual responsibilities, identifying appropriate resources needed, and developing the schedule to ensure the timely completion of the task's milestones and final acceptance. Must be familiar with the systems scope and project objectives, as well as the role and function of each team member, in order to effectively coordinate the activities of the team. Monitors each assigned task, implements and assures adherence to task level quality and methodology standards, and keeps the Program Manager abreast of all problems and accomplishments. Anticipates problems and works to mitigate the anticipated problems. As a task leader, provides technical direction for the complete task effort. Reviews and evaluates work of subordinate staff and prepares performance reports. May serve as a technical authority for a particular task area. Interacts with client management personnel. Prepares activity and progress reports regarding all assigned tasks. Reports in writing and orally to company and client representatives.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

5) Commercial Job Title: Health Senior Consultant

Minimum/General Experience:

A minimum of 6 years direct experience with information management and information technology programs.

Functional Responsibility:

Establishes system information requirements using analysis in the development of enterprise-wide or large scale information systems. Designs architecture to include the software, hardware, and communications to support the total requirements as well as provide for present and future cross-functional requirements and interfaces. As appropriate, ensures these systems are compatible and in compliance with the standards for open systems architectures - as they apply to the implementation and specification of Information Management (IM) solution of the application platform, across the application program interface (API), and the external environment/software application. Analytically and systematically evaluates problems in workflows, organization, and planning and develops appropriate corrective action. Provides daily supervision and direction to staff.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

6) Commercial Job Title: Health Consultant

Minimum/General Experience:

A minimum of 3 years direct experience with information management and information technology programs.

Functional Responsibility:

Responsible for the effective development and implementation of programs to ensure that all information systems products and services meet minimum company standards and end-user requirements. Administers the change control process for zero defects software development. Responsible for configuration management of requirements, design, and code. Administers problem management process including monitoring and reporting on problem resolution. Ensures adequate product testing prior to implementation. Coordinates with

users and systems development personnel on releases of software. May supervise lower level personnel. Must have demonstrated capability for oral and written communications.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

7) Commercial Job Title: Health Principal Analyst

Minimum/General Experience:

A minimum of 8 years experience in the development, modification or maintenance of a management information system. A minimum of 4 years experience at a supervisory level.

Functional Responsibility:

Highly specialized in one or more phases of systems engineering and development. Acts independently under general direction. Advises technical personnel on the conceptualization, development, and implementation of a broad range of information systems issues, including hardware/software integration, compatibility and multiple platforms. Performs feasibility analysis on potential future projects to management. Plans strategies for improvement of information systems and services. Communicates current innovations and trends in information systems development to technical staff. Prepares justification for selection of new technology. May serve as the chief architect for complex information systems development. Designs and develops proposed solutions to business problems and client requirements. Performs high-level system analysis and directs technical strategy for accomplishing new objectives. Maintains knowledge of current systems and system development actions and analyzes for data redundancies and system/program overlap. Responsible for task completion.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

8) Commercial Job Title: Health Senior Analyst

Minimum/General Experience:

A minimum of five years experience in the development, analysis and system functional requirements.

Functional Responsibility:

Formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Exercises analytical techniques when gathering information from users, defining work packages, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Reviews task requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

9) Commercial Job Title: Health Analyst

Minimum/General Experience:

A minimum of 2 years experience.

Functional Responsibility:

With limited direction, carries out procedures to ensure that all information systems products and services meet company and client standards and end-user requirements. Thoroughly tests software to ensure proper operation and freedom from defects and/or supports testing as a witness to testing requirements. Organizes and maintains all quality assurance documentation. Performs workflow analysis and recommends quality improvements. Researches, writes, edits, and proofreads technical data for use in documents or sections of documents. Excellent verbal and written communication skills are required.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

10) Commercial Job Title: Health Senior Application Developer

Minimum/General Experience:

4 years of general computer programming experience with a minimum of 2-years experience specializing in web and mobile application development.

Functional Responsibility:

Performs Web and mobile application development from conception to implementation, including planning, design, and programming. Provides enhancement, multimedia conversion, maintenance, and application administration. Provides quality control services and demonstrated expertise in both current Internet related and application software languages and current interactive application developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2-years of relevant work experience.

11) Commercial Job Title: Health Principal Web Developer

Minimum/General Experience:

6 years of general computer programming experience, with at least 3-years of specialized web development experience.

Functional Responsibility:

Performs Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

12) Commercial Job Title: Health Senior Web Developer

Minimum/General Experience:

4 years of general computer programming experience with a minimum of 2-years experience specializing in web site development.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

13) Commercial Job Title: Health Web Developer

Minimum/General Experience:

2 years general computer programming experience with at least 1 year specialized experience in web site development.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

14). Commercial Job Title: Health Principal Systems Analyst

Minimum/General Experience:

8 years experience in the development and analysis of programs and system functional requirements.

Functional Responsibility:

Interacts with senior management and formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Independently exercises analytical techniques when gathering information from users, defining work problems, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Analyzes methods of approach. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor’s degree in a Computer Science, Engineering, or Mathematics, or related field. An advanced degree is preferred.

15) Commercial Job Title: Health Senior Systems Analyst

Minimum/General Experience:

A minimum of 5 years experience in the development and analysis of programs and system functional requirements.

Functional Responsibility:

Formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Exercises analytical techniques when gathering information from users, defining work problems, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Analyzes methods of approach. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

16) Commercial Job Title: Health Systems Analyst

Minimum/General Experience:

A minimum of 2 years experience in systems support or maintenance planning/analysis tasks involving preparation of technical documentation and data analysis of functional process areas.

Functional Responsibility:

Under general direction, 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. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

17) Commercial Job Title: Health Computer Programmer

Minimum/General Experience:

Knowledge of one or more high order languages.

Functional Responsibility:

Maintain and update assigned programs and assist in the development of new modules under the guidance of a more senior programmer. Tests, debugs and refines the computer software to produce the required product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years experience may be substituted for Bachelor's Degree.

18) Commercial Job Title: Health Technical Data Specialist

Minimum/General Experience:

A minimum of 1 year of experience with technical data pertaining to problem analysis and project documentation. Ability to research, analyze and compile written materials or graphics in the generation of technical documentation is also required.

Functional Responsibility:

Researches, writes, edits, and proofreads technical data for use in documents or sections of documents such as manuals, procedures, specifications, special reports, and any other customer deliverables and documents. Ensures technical documentation is accurate, complete, meets editorial and client specifications and adheres to standards for quality, graphics, coverage, format, and style. Assists in establishing style guidelines and standards for texts and illustrations. Excellent written communication skills are required.

Minimum Education:

High school diploma or equivalent.

19) Commercial Job Title: Health Senior Testing Specialist

Minimum/General Experience:

6 years experience computer in software development with at least 4 years experience in software testing (integration and acceptance).

Functional Responsibility:

Designing and executing IT software tests and evaluating results to ensure compliance with applicable regulations. Prepares test scripts and all required test documentation. Designs and prepares all needed test data. Analyzes internal security within systems and recommends solutions to issues for consideration. Reviews test results and evaluates for conformance to design making recommendations for modifications as necessary.

Minimum Education:

Bachelor's degree in a related field.

20) Commercial Job Title: Health Testing Specialist

Minimum/General Experience:

4 years experience computer in software development with at least 2 years experience in software testing (integration and acceptance).

Functional Responsibility:

Designing and executing IT software tests and evaluating results to ensure compliance with applicable regulations. Prepares test scripts and all required test documentation. Designs and prepares all needed test data. Analyzes internal security within systems. Reviews test results and evaluates for conformance to design.

Minimum Education:

Bachelor's degree in a related field.

21) Commercial Job Title: Health Graphic Designer

Minimum/General Experience:

3 years experience.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides quality

control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in related field such as Art or Computer Graphics. A year of college education is the equivalent of 2 years of relevant work experience.

22) Commercial Job Title: Health Technical Writer

Minimum/General Experience:

4 years experience as a technical writer of specifications, standards, and technical manuals. Knowledge of client style guidelines, protocols, and procedures a plus.

Functional Responsibility:

Writes technical information in easily understandable language. Works with program/project managers, analysts, engineers, scientists, and others to research, write, edit, and proofread technical data for use in documents or sections of documents such as manuals, procedures, specifications, special reports, and any other customer deliverables and documents. Capable of original drafting of management operations and business documentation requiring an understanding of the basic concepts, practices and vocabulary relevant to the subject matter. Ensures technical documentation is accurate, complete, meets editorial and client specifications and adheres to standards for quality, graphics, coverage, format, and style. Assists in establishing style guidelines and standards for texts and illustrations.

Minimum Education:

Bachelor' degree. One additional year of relevant experience can be substituted for each year of education shortfall.

23) Commercial Job Title: Health Executive Research Assistant

Minimum/General Experience:

4 years of related work experience. Excellent written communication skills are required.

Functional Responsibility:

Support program/project management staff within functional areas of expertise in the preparation of deliverables, internal reports, briefings, and drawings associated with the project being supported.

Minimum Education:

Bachelor's degree or equivalent experience.

TABLE OF EQUIVALENCIES	
Substitutions for Educational Requirements	
Degree Requirement	Equivalent Experience Substitution
Bachelor's Degree	• Associate Degree plus 4 years experience
Master's Degree	• Bachelor's Degree plus 4 years experience
Doctorate Degree	• Master's Degree plus 4 years experience • Bachelor's Degree plus 8 years experience
Substitutions for Work Experience Requirements	
Years of Experience Required	Equivalent Degree Substitution
4 years	Master's Degree
8 years	Doctorate

17.2 Pricing for Services

Communications Training Analysis Corporation (CTAC)							
GSA Multiple Award Schedule (MAS) Health IT Services (54151HEAL) Pricelist							
	Labor Category	3/20/19 - 3/19/20	3/20/20 - 3/19/21	3/20/21 - 3/19/22	3/20/22 - 3/19/23	3/20/23 - 3/19/24	3/20/24 - 3/19/25
1	Health Program Manager	$ 190.50	$ 195.26	$ 200.14	$ 205.14	$ 210.27	$ 215.53
2	Health Project Manager	$ 182.75	$ 187.32	$ 192.00	$ 196.80	$ 201.72	$ 206.76
3	Task Manager/Leader	$ 138.11	$ 141.56	$ 145.10	$ 148.73	$ 152.45	$ 156.26
4	Principal Consultant	$ 205.35	$ 210.48	$ 215.74	$ 221.13	$ 226.66	$ 232.33
5	Senior Consultant	$ 171.07	$ 175.35	$ 179.73	$ 184.22	$ 188.83	$ 193.55
6	Consultant	$ 143.69	$ 147.28	$ 150.96	$ 154.73	$ 158.60	$ 162.57
7	Principal Analyst	$ 148.28	$ 151.99	$ 155.79	$ 159.68	$ 163.67	$ 167.76
8	Senior Analyst	$ 136.89	$ 140.31	$ 143.82	$ 147.42	$ 151.11	$ 154.89
9	Analyst	$ 102.64	$ 105.21	$ 107.84	$ 110.54	$ 113.30	$ 116.13
10	Senior Application Developer	$ 157.70	$ 161.64	$ 165.68	$ 169.82	$ 174.07	$ 178.42
11	Principal Web Developer	$ 198.61	$ 203.58	$ 208.67	$ 213.89	$ 219.24	$ 224.72
12	Senior Web Developer	$ 183.44	$ 188.03	$ 192.73	$ 197.55	$ 202.49	$ 207.55
13	Web Developer	$ 168.46	$ 172.67	$ 176.99	$ 181.41	$ 185.95	$ 190.60
14	Principal Systems Analyst	$ 142.08	$ 145.63	$ 149.27	$ 153.00	$ 156.83	$ 160.75
15	Senior Systems Analyst	$ 121.13	$ 124.16	$ 127.26	$ 130.44	$ 133.70	$ 137.04
16	Systems Analyst	$ 102.39	$ 104.95	$ 107.57	$ 110.26	$ 113.02	$ 115.85
17	Computer Programmer	$ 73.34	$ 75.17	$ 77.05	$ 78.98	$ 80.95	$ 82.97
18	Technical Data Specialist	$ 123.05	$ 126.13	$ 129.28	$ 132.51	$ 135.82	$ 139.22
19	Senior Testing Specialist	$ 134.35	$ 137.71	$ 141.15	$ 144.68	$ 148.30	$ 152.01
20	Testing Specialist	$ 105.26	$ 107.89	$ 110.59	$ 113.35	$ 116.18	$ 119.08
21	Graphic Designer	$ 120.13	$ 123.13	$ 126.21	$ 129.37	$ 132.60	$ 135.92
22	Technical Writer	$ 115.08	$ 117.96	$ 120.91	$ 123.93	$ 127.03	$ 130.21
23	Executive Research Assistant	$ 76.72	$ 78.64	$ 80.61	$ 82.63	$ 84.70	$ 86.82

SCA Eligible Contract Labor Category	SCA Equivalent Code – Title	WD Number
Administrative Assistant	01020 – Administrative Assistant	2005-2103, Rev. 14
Admin/Clerical Assistant	01113 – General Clerk III	2005-2103, Rev. 14
Production Specialist	01270 – Production Control Clerk	2005-2103, Rev. 14
Word Processor	01613 – Word Processor III	2005-2103, Rev. 14
The Service Contract Act (SCA) is applicable to this contract and includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number(s) identified in the matrix. The prices offered are based on the preponderance of where work is performed and should work be performed in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.		

TERMS AND CONDITIONS APPLICABLE TO CLOUD AND CLOUD-RELATED IT PROFESSIONAL SERVICES (SPECIAL ITEM NUMBER (SIN) 518210C)

The General Terms and Conditions applicable to Information Technology (IT) Professional Services Special Item Number (SIN) 132-51 and Health Information Technology (IT) Services Special Item Number (SIN) 132-56 apply to Cloud-related Information Technology (IT) Professional Services and Cloud Computing Services Special Item Number (SIN) 518210C . Additionally, the Terms and Conditions for SIN-518210C Cloud and Cloud-Related IT Professional Services include the following:

- The term of an agreement shall be 1-year with annual 1-year renewals. The term of an Agreement will begin on the effective date and remain in effect until terminated by the purchaser.
- CTAC owns the rights to all code. Changes to the code, or customizations by the purchaser will result in termination of any warranty and no guarantee to restore the system to the original configuration.
- CTAC will provide periodic updates to the system. Patches and updates will be made during off-hours (Eastern Time).
- Availability (service level) will be 99.9%.
- Published content is the sole responsibility of the purchaser.
- CTAC reserves the right to change the cloud-hosting provider.

1. Description of IT Professional Services (SIN 518210C) and Pricing

1.1 Description of Services

1) Commercial Job Title: Cloud Senior Manager

Minimum/General Experience:

15-years of relevant work experience.

Functional Responsibility:

Senior executive responsible for providing strategic direction, vision, leadership, and overall program management to the team. Contributes to organizational direction through regular involvement with senior level client leadership and team members. Maintains productive and effective client relationship with the most senior levels of the client organization, establishes goals and business plans for area of responsibility and have broad latitude for decision-making. Interacts with executives in current and potential client and customer organizations on matters of substantial importance and sensitivity. Requires a highly developed sense of strategy and timing as well as exceptional negotiation and presentation skills. Ensures the most effective use of company's human resources within area of responsibility. Responsible for developing and sustaining client and customer base, ensuring high quality technical and scientific products and services are provided to clients and customers, and cultivating business contacts and leads. Responsible for identifying and targeting business opportunities and ensuring resources are committed to developing such targets. Continually evaluates strategy and plans to meet changing cloud-based technical and competitive conditions. Has over responsibility for multiple programs providing a variety of services to a diverse customer base. Works with executive leadership in client organizations to plan and implement new programs and ensure quality products and services consistent with the terms of each agreement are provided in a timely manner. Works with clients to identify and resolve complex problems or contractual issues.

Minimum Education:

Bachelor's degree in a related discipline. A graduate degree in a related discipline is preferred.

2) Commercial Job Title: Cloud Program Manager

Minimum/General Experience:

A minimum of 7 years experience in management of programs with direct experience in information management and information technology. A minimum of 4 years experience at a supervisory level.

Functional Responsibility:

The Program Manager (PM) is a senior manager responsible for coordinating the management of all work performed under this contract. The PM is ultimately responsible for coordinating the efforts of subcontractors, team members, vendors, etc. The PM shall act as the central point of contact and shall have the full authority to act for the Contractor in the performance of the required cloud work and services under all task orders. The PM works independently on all phases of performance, including contract management, project/task order management, coordination of resource needs, coordination with corporate resources and management, and has direct accountability for the technical correctness, timeliness and quality of deliverables. The PM shall have broad and deep knowledge of business administration, and human resource management and shall have excellent oral and written communications skills.

Minimum Education:

Bachelor's Degree in Business Administration, Computer Science, or related field.

3) Commercial Job Title: Cloud Project Manager

Minimum/General Experience:

7-years related experience. PMP certification preferred. Demonstrates skills in the scope of work encompassed by the task order; provides technical guidance to the project team in performance of the work.

Functional Responsibility:

Maintains and manages the client interface at the COTR levels of the client organization and management personnel to provide technical advice, resolve problems, and anticipate future requirements; assists the Program Manager as required in managing contract performance. Manages a team of cloud professionals in providing a wide range of services and managing assigned projects within scope and budget. Prepares or reviews project or task proposal or plan to determine time frame, schedules, funding requirements and limitations, procedures for accomplishing project, staffing requirements, and allotment of available resources to various phases of project or task. Directs and coordinates activities of project personnel to ensure timeliness of products and services, maintenance of project schedule, cost control to ensure conformance with prescribed budget, responsiveness to customer requirements, and that the quality of product and services is maintained.

Minimum Education:

Bachelor's degree and 7-years related experience or equivalent combination of education and experience in related field.

4) Commercial Job Title: Cloud Task Manager / Leader

Minimum/General Experience:

10-years of experience (without degree) OR 6-10 years of experience (with Bachelor's degree OR 4-6 years of experience (with advanced degree). Experience in applying the innovative applications of specialized knowledge (e.g., technical expertise in a specific discipline) or the resolution of complex management problems requiring innovative solutions.

Functional Responsibility:

Prepares complex data analysis plans or engineering plans. Manages data collection and analysis work and provides technical oversight of assigned projects. Assists the Program and Project Managers serving as the working level focal point between contractor, government technical and government contracting staffs. Provides cloud-based technical direction for the complete task effort and keeps the Project and Program Manager(s) abreast of all problems and accomplishments. For assigned task orders, allocates resources, provides technical and management oversight, provides technical expertise, and participates in briefings and meetings. Anticipates problems and works to mitigate the anticipated problems. Experienced in task management, responsible for ensuring successful task completion within the scheduled timeframe consistent with the established scope of work to include both the technical and financial solutions. Reviews task requirements, prepares project synopses, compares alternatives, prepares specifications, coordinates work with others, and orients clients. Reviews and evaluates work of subordinate staff and prepares performance reports in writing and orally to company and client representatives.

Minimum Education:

Advanced technical training and more than 10 years of experience OR a Bachelor's degree and 6-10 years of experience OR an Advanced degree and 4-6 years of experience.

5) Commercial Job Title: Cloud Technical Subject Matter Expert

Minimum/General Experience:

Senior expert with extensive, enterprise-wide knowledge and experience in one or more designated technical and/or domain areas. Typically, a former high-ranking military or civilian official and recognized by industry as an expert in their specific field.

Functional Responsibility:

Provides insight and advice concerning strategic direction and applicability of up to date, cloud industry standard solutions; responsible for providing high-level vision to program/project manager or senior client leadership to influence objectives of complex efforts. Provides highest-level functional expertise to prepare, advise and/or review the most technically demanding and sophisticated work being performed within assigned area of responsibility. Analyzes complex problems, makes recommendations, develops alternative solutions and draft and executes implementation plan. Converses with and provides assistance to highest levels of corporate and government management. The Technical Subject Matter Expert is primarily utilized on projects for their specific expertise, not in a managerial capacity, in support of the creation of comprehensive methods for describing current and/or future structure and behavior of an organization's processes, systems, personnel and organizational sub-units, so that they align with the organization's core goals and strategic direction.

Minimum Education:

Requires bachelor's degree in field relative to area of expertise, masters preferred plus 15 years professional expertise of which at least 10 years experience is directly relative to subject matter. One additional year of relevant experience can be substituted for each year of education shortfall.

6) Commercial Job Title: Cloud Principal Business Analyst

Minimum/General Experience:

Ten years related experience, six years of which must be relevant work experience specific to function and/or training (e.g., business process reengineering/ improvement methods, enterprise applications, etc.); or equivalent combination of education and experience. Recognized for providing solutions in the area of contract administration and procurement, communications, training, and other business disciplines to achieve optimized program/project performance.

Functional Responsibility:

Prepares plans, documents, presentations, testimony, and other material needed for high-level briefings and hearings. Assists in collecting information, analyzing information, preparing exhibits and briefing presentations, and producing reports. Identifies potential issues that could influence the acceptance and provides recommendations to ensure the success of a cloud-based initiative. Serves as a leader, member or advisor of self-directed teams, or to management directed teams. Assists in conducting studies and analyses of programs/projects and provides client support and assistance the areas of public affairs, communications, training, contract administration and procurement, and paralegal issues. Assists in providing problem resolution, consensus building, and in conducting evaluations. Assists in the administration of personnel functions, such as training, work scheduling, as well as the evaluation of current economic conditions, and helps to prepare budget forecasts and documentation. Participates in the development of solutions by leveraging knowledge of the designated field or discipline. Contributes to the implementation of strategy and helps assess the impact of industry trends, policy, and/or standard methodologies. Directs the activities of Specialists or other staff as necessary on activities related to the specified field or discipline. Recognized for understanding and communicating common best practices for the industry. Utilize a knowledge base to create conceptual business models and to point out relevant issues and considerations in selecting application software packages, such as those provided by ERP vendors. Assess the operational and functional baseline of an organization and its organizational components and help to define the direction and strategy for an engagement while ensuring the organizational needs are being addressed. Examples of the functional areas would include but not limited to, Human Resources, Finance, Supply, Service, etc. Work with senior managers to provide industry vision and guidance with regard to their industry. Lead the determination and classification of information technology inadequacies and/or deficiencies that affect the functional area's ability to support/meet organizational goals. Support the development of functional area strategies for enhanced operations in a cross-functional area mode throughout the organization. Provides work direction and guidance to other personnel; ensures accuracy of the work of other personnel, operates under deadlines, able to work on multiple tasks.

Minimum Education:

Bachelor's degree. A master's or doctorate degree is desired. One additional year of relevant experience can be substituted for each year of education shortfall.

7) Commercial Job Title: Cloud Principal Consultant

Minimum/General Experience:

A minimum of 8 years experience in programs with direct experience with information management and information technology programs. A minimum of 2 years experience at a supervisory level.

Functional Responsibility:

Oversees various tasks of a highly complex nature. Responsible for assembling the task team, assigning individual responsibilities, identifying appropriate resources needed, and developing the schedule to ensure the timely completion of the task's milestones and final acceptance. Must be familiar with the cloud-based systems scope and project objectives, as well as the role and function of each team member, in order to effectively coordinate the activities of the team. Monitors each assigned task, implements and assures adherence to task level quality and methodology standards, and keeps the Program Manager abreast of all problems and accomplishments. Anticipates problems and works to mitigate the anticipated problems. As a task leader, provides technical direction for the complete task effort. Reviews and evaluates work of subordinate staff and prepares performance reports. May serve as a technical authority for a particular task area. Interacts with client management personnel. Prepares activity and progress reports regarding all assigned tasks. Reports in writing and orally to company and client representatives.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

8) Commercial Job Title: Cloud Senior Consultant

Minimum/General Experience:

A minimum of 6 years direct experience with information management and information technology programs.

Functional Responsibility:

Establishes cloud-based system information requirements using analysis in the development of enterprise-wide or large scale information systems. Designs architecture to include the software, hardware, and communications to support the total requirements as well as provide for present and future cross-functional requirements and interfaces. As appropriate, ensures these systems are compatible and in compliance with the standards for open systems architectures - as they apply to the implementation and specification of Information Management (IM) solution of the application platform, across the application program interface (API), and the external environment/software application. Analytically and systematically evaluates problems in workflows, organization, and planning and develops appropriate corrective action. Provides daily supervision and direction to staff.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

9) Commercial Job Title: Cloud Consultant

Minimum/General Experience:

A minimum of 3 years direct experience with information management and information technology programs.

Functional Responsibility:

Responsible for the effective development and implementation of programs to ensure that all cloud-based information systems products and services meet minimum company standards and end-user requirements. Administers the change control process for zero defects software development. Responsible for configuration management of requirements, design, and code. Administers problem management process including monitoring and reporting on problem resolution. Ensures adequate product testing prior to implementation. Coordinates with users and systems development personnel on releases of

software. May supervise lower level personnel. Must have demonstrated capability for oral and written communications.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

10) Commercial Job Title: Cloud Principal Analyst

Minimum/General Experience:

A minimum of 8 years experience in the development, modification or maintenance of a management information system. A minimum of 4 years experience at a supervisory level.

Functional Responsibility:

Highly specialized in one or more phases of systems engineering and development. Acts independently under general direction. Advises technical personnel on the conceptualization, development, and implementation of a broad range of cloud-based information systems issues, including hardware/software integration, compatibility and multiple platforms. Performs feasibility analysis on potential future projects to management. Plans strategies for improvement of information systems and services. Communicates current innovations and trends in information systems development to technical staff. Prepares justification for selection of new technology. May serve as the chief architect for complex information systems development. Designs and develops proposed solutions to business problems and client requirements. Performs high-level system analysis and directs technical strategy for accomplishing new objectives. Maintains knowledge of current systems and system development actions and analyzes for data redundancies and system/program overlap. Responsible for task completion.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

11) Commercial Job Title: Cloud Senior Analyst

Minimum/General Experience:

A minimum of five years experience in the development, analysis and system functional requirements.

Functional Responsibility:

Formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex cloud-based information systems. Exercises analytical techniques when gathering information from users, defining work packages, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Reviews task requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor's Degree.

12) Commercial Job Title: Cloud Analyst

Minimum/General Experience:

A minimum of 2 years experience.

Functional Responsibility:

With limited direction, carries out procedures to ensure that all information systems products and services meet company and client standards and end-user requirements. Thoroughly tests software to ensure proper operation and freedom from defects and/or supports testing as a witness to testing requirements. Organizes and maintains all quality assurance documentation. Performs workflow analysis and recommends quality improvements. Researches, writes, edits, and proofreads cloud-based technical data for use in documents or sections of documents. Excellent verbal and written communication skills are required.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

13) Commercial Job Title: Cloud Senior Software Developer

Minimum/General Experience:

6-years experience in applications programming on database management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives.

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs, and refines computer software to produce the required cloud product. Prepares required documentation. Enhances software to reduce operating time, add functionality, or improve efficiency. Demonstrated ability to work independently or under only general direction.

Minimum Education:

Bachelor's degree in a related field.

14) Commercial Job Title: Cloud Software Developer

Minimum/General Experience:

4 years experience in applications programming on database management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives.

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs, and refines computer software to produce the required cloud product. Prepares required documentation. Enhances software to reduce operating time, add functionality, or improve efficiency.

Minimum Education:

Bachelor's degree in a related field.

15) Commercial Job Title: Cloud Senior Application Developer

Minimum/General Experience:

4 years of general computer programming experience with a minimum of 2-years experience specializing in web and mobile application development.

Functional Responsibility:

Performs Web and mobile application development from conception to implementation, including planning, design, and programming. Provides enhancement, multimedia conversion, maintenance, and application administration. Provides cloud quality control services and demonstrated expertise in both current Internet related and application software languages and current interactive application developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2-years of relevant work experience.

16) Commercial Job Title: Cloud Principal Web Developer

Minimum/General Experience:

6 years of general computer programming experience, with at least 3-years of specialized web development experience.

Functional Responsibility:

Performs Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides cloud quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

17) Commercial Job Title: Cloud Senior Web Developer

Minimum/General Experience:

4 years of general computer programming experience with a minimum of 2-years experience specializing in web site development.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides cloud quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

18) Commercial Job Title: Cloud Web Developer

Minimum/General Experience:

2 years general computer programming experience with at least 1 year specialized experience in web site development.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides cloud

quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in Computer Science. A year of college education is the equivalent of 2 years of relevant work experience.

19) Commercial Job Title: Cloud Principal Systems Analyst

Minimum/General Experience:

8 years experience in the development and analysis of programs and system functional requirements.

Functional Responsibility:

Interacts with senior management and formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex cloud information systems. Independently exercises analytical techniques when gathering information from users, defining work problems, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Analyzes methods of approach. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor’s degree in a Computer Science, Engineering, or Mathematics, or related field. An advanced degree is preferred.

20) Commercial Job Title: Cloud Senior Systems Analyst

Minimum/General Experience:

A minimum of 5 years experience in the development and analysis of programs and system functional requirements.

Functional Responsibility:

Formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex cloud information systems. Exercises analytical techniques when gathering information from users, defining work problems, designing a system of computer programs, and developing procedures to resolve the problems. Prepares detailed specifications from which programs will be written. Develops and modifies complex systems and develops subsystems to enhance the overall operational system. Analyzes and revises existing system logic difficulties and documentation as necessary. Analyzes methods of approach. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor’s degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor’s Degree.

21) Commercial Job Title: Cloud Systems Analyst

Minimum/General Experience:

A minimum of 2 years experience in systems support or maintenance planning/analysis tasks involving preparation of technical documentation and data analysis of functional process areas.

Functional Responsibility:

Under general direction, formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex cloud information systems. Prepares detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. Reviews task proposal requirements, gathers information, analyzes data, prepares project synopses, compares alternatives, prepares specifications for programs, resolves processing problems, coordinates work with programmers, and orients users to new systems.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor's Degree.

22) Commercial Job Title: Cloud Principal Security Specialist (IT)

Minimum/General Experience:

10 years experience, of which at least 8 years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

Functional Responsibility:

Analyzes and defines cloud security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Responsible for the development and implementation MLS systems. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses that also includes risk assessments. Provides daily supervision and direction to staff.

Minimum Education:

Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline.

23) Commercial Job Title: Cloud Senior Security Specialist (IT)

Minimum/General Experience:

8 years experience, of which at least 6 years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

Functional Responsibility:

Analyzes and defines cloud security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses that also include risk assessments.

Minimum Education:

Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline.

24) Commercial Job Title: Cloud Security Specialist (IT)

Minimum/General Experience:

6 years experience, of which at least 4 years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

Functional Responsibility:

Analyzes and defines cloud security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Participates in the performance of risk analyses that also include risk assessments.

Minimum Education:

Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline.

25) Commercial Job Title: Cloud Software Engineer

Minimum/General Experience:

A minimum of 6 years experience in the design and development of information systems. A minimum of 3 years experience in the practical application of information engineering tools, processes and methodologies in a systems environment.

Functional Responsibility:

Application of multiple information engineering tools, processes and methodologies, including the application of automation resources as applied to cloud information systems.

Minimum Education:

Bachelor’s degree in a Computer Science, Engineering, or Mathematics, or related field. 4 years additional experience may be substituted for Bachelor’s Degree.

26) Commercial Job Title: Cloud Senior Computer Programmer

Minimum/General Experience:

A minimum of 4 years experience in the development, modification or maintenance of information systems, of which at least 2 years must have been spent as a team leader of a group of programmers. Knowledge of two or more high order languages is required.

Functional Responsibility:

Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs and refines the computer software to produce the required cloud product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency. Provides technical direction to lower level programmers to ensure program deadlines are met.

Minimum Education:

Bachelor’s degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years additional experience may be substituted for Bachelor’s Degree.

27) Commercial Job Title: Cloud Computer Programmer

Minimum/General Experience:

Knowledge of one or more high order languages.

Functional Responsibility:

Maintain and update assigned programs and assist in the development of new modules under the guidance of a more senior programmer. Tests, debugs and refines the computer

software to produce the required cloud product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency.

Minimum Education:

Bachelor's degree in a Computer Science, Engineering, or Mathematics, or related field. 2 years experience may be substituted for Bachelor's Degree.

28) Commercial Job Title: Cloud Technical Data Specialist

Minimum/General Experience:

A minimum of 1 year of experience with technical data pertaining to problem analysis and project documentation. Ability to research, analyze and compile written materials or graphics in the generation of technical documentation is also required.

Functional Responsibility:

Researches, writes, edits, and proofreads cloud-based technical data for use in documents or sections of documents such as manuals, procedures, specifications, special reports, and any other customer deliverables and documents. Ensures technical documentation is accurate, complete, meets editorial and client specifications and adheres to standards for quality, graphics, coverage, format, and style. Assists in establishing style guidelines and standards for texts and illustrations. Excellent written communication skills are required.

Minimum Education:

High school diploma or equivalent.

29) Commercial Job Title: Cloud Senior Testing Specialist

Minimum/General Experience:

6 years experience computer in software development with at least 4 years experience in software testing (integration and acceptance).

Functional Responsibility:

Designing and executing cloud IT software tests and evaluating results to ensure compliance with applicable regulations. Prepares test scripts and all required test documentation. Designs and prepares all needed test data. Analyzes internal security within systems and recommends solutions to issues for consideration. Reviews test results and evaluates for conformance to design making recommendations for modifications as necessary.

Minimum Education:

Bachelor's degree in a related field.

30) Commercial Job Title: Cloud Testing Specialist

Minimum/General Experience:

4 years experience computer in software development with at least 2 years experience in software testing (integration and acceptance).

Functional Responsibility:

Designing and executing cloud IT software tests and evaluating results to ensure compliance with applicable regulations. Prepares test scripts and all required test documentation. Designs and prepares all needed test data. Analyzes internal security within systems. Reviews test results and evaluates for conformance to design.

Minimum Education:

Bachelor's degree in a related field.

31) Commercial Job Title: Cloud Usability Specialist

Minimum/General Experience:

3 years User Interface design and development experience; familiarity with the latest emerging technologies for User Experience design.

Functional Responsibility:

Working with business analysts and web designers, develop cloud solutions to business and creative problems, recommend simple and concise solutions using visual design, working demonstrations, and written reports and presentations. Develop a broad understanding of evolved and evolving technologies and how to design for those new technologies. Support multiple usability studies and focus groups and conduct usability testing. Define requirements as a result of empirical data, other usability studies, market research and proven user-centric design principles

Minimum Education:

Bachelor's degree in a related field.

32) Commercial Job Title: Cloud Senior Graphic Designer

Minimum/General Experience:

6 years experience

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides cloud quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in related field such as Art or Computer Graphics.

33) Commercial Job Title: Cloud Graphic Designer

Minimum/General Experience:

3 years experience.

Functional Responsibility:

Perform Web Site development from conception to implementation, including planning, content development, design, and programming. Provides enhancement, multimedia conversion, maintenance, site administration, and limited hosting services. Provides cloud quality control services and demonstrated expertise in both current Internet related software languages and current interactive Web Site developments.

Minimum Education:

Bachelor's Degree in related field such as Art or Computer Graphics. A year of college education is the equivalent of 2 years of relevant work experience.

34) Commercial Job Title: Cloud Technical Writer

Minimum/General Experience:

4 years experience as a technical writer of specifications, standards, and technical manuals. Knowledge of client style guidelines, protocols, and procedures a plus.

Functional Responsibility:

Writes cloud-based technical information in easily understandable language. Works with program/project managers, analysts, engineers, scientists, and others to research, write, edit, and proofread technical data for use in documents or sections of documents such as

manuals, procedures, specifications, special reports, and any other customer deliverables and documents. Capable of original drafting of management operations and business documentation requiring an understanding of the basic concepts, practices and vocabulary relevant to the subject matter. Ensures technical documentation is accurate, complete, meets editorial and client specifications and adheres to standards for quality, graphics, coverage, format, and style. Assists in establishing style guidelines and standards for texts and illustrations.

Minimum Education:

Bachelor' degree. One additional year of relevant experience can be substituted for each year of education shortfall.

35) Commercial Job Title: Cloud Executive Research Assistant

Minimum/General Experience:

4 years of related work experience. Excellent written communication skills are required.

Functional Responsibility:

Support program/project management staff within functional areas of cloud expertise in the preparation of deliverables, internal reports, briefings, and drawings associated with the project being supported.

Minimum Education:

Bachelor's degree or equivalent experience.

36) Commercial Job Title: Cloud Production Specialist

Minimum/General Experience:

A minimum of 2 years experience with technical data pertaining to project documentation.

Functional Responsibility:

Assignments are routine to somewhat complex in nature and work parameters are typically well defined. Maintains cloud files, records, and chronologies of activities. Provides phone and in-person support to users in the areas of e-mail, directories, standard Windows desktop applications and applications developed or deployed under this contractor or predecessors. Serves as the first point of contact for troubleshooting such applications.

Minimum Education:

High school diploma or equivalent.

TABLE OF EQUIVALENCIES	
Substitutions for Educational Requirements	
Degree Requirement	Equivalent Experience Substitution
Bachelor's Degree	• Associate Degree plus 4 years experience
Master's Degree	• Bachelor's Degree plus 4 years experience
Doctorate Degree	• Master's Degree plus 4 years experience • Bachelor's Degree plus 8 years experience
Substitutions for Work Experience Requirements	
Years of Experience Required	Equivalent Degree Substitution
4 years	Master's Degree
8 years	Doctorate

1.2 Pricing for Services

Communications Training Analysis Corporation (CTAC)							
GSA Multiple Award Schedule (MAS) Cloud and Cloud-Related IT Professional Services (518210C) Pricelist							
	Labor Category	3/20/19 - 3/19/20	3/20/20 - 3/19/21	3/20/21 - 3/19/22	3/20/22 - 3/19/23	3/20/23 - 3/19/24	3/20/24 - 3/19/25
1	Cloud Senior Manager	$ 268.53	$ 275.24	$ 282.12	$ 289.17	$ 296.40	$ 303.81
2	Cloud Program Manager	$ 190.50	$ 195.26	$ 200.14	$ 205.14	$ 210.27	$ 215.53
3	Cloud Project Manager	$ 182.75	$ 187.32	$ 192.00	$ 196.80	$ 201.72	$ 206.76
4	Cloud Task Manager/Leader	$ 138.11	$ 141.56	$ 145.10	$ 148.73	$ 152.45	$ 156.26
5	Cloud Technical Subject Matter Expert	$ 383.63	$ 393.22	$ 403.05	$ 413.13	$ 423.46	$ 434.05
6	Cloud Principal Business Analyst	$ 240.27	$ 246.28	$ 252.44	$ 258.75	$ 265.22	$ 271.85
7	Cloud Principal Consultant	$ 205.35	$ 210.48	$ 215.74	$ 221.13	$ 226.66	$ 232.33
8	Cloud Senior Consultant	$ 171.07	$ 175.35	$ 179.73	$ 184.22	$ 188.83	$ 193.55
9	Cloud Consultant	$ 143.69	$ 147.28	$ 150.96	$ 154.73	$ 158.60	$ 162.57
10	Cloud Principal Analyst	$ 148.28	$ 151.99	$ 155.79	$ 159.68	$ 163.67	$ 167.76
11	Cloud Senior Analyst	$ 136.89	$ 140.31	$ 143.82	$ 147.42	$ 151.11	$ 154.89
12	Cloud Analyst	$ 102.64	$ 105.21	$ 107.84	$ 110.54	$ 113.30	$ 116.13
13	Cloud Senior Software Developer	$ 238.87	$ 244.84	$ 250.96	$ 257.23	$ 263.66	$ 270.25
14	Cloud Software Developer	$ 224.36	$ 229.97	$ 235.72	$ 241.61	$ 247.65	$ 253.84
15	Cloud Senior Application Developer	$ 157.70	$ 161.64	$ 165.68	$ 169.82	$ 174.07	$ 178.42
16	Cloud Principal Web Developer	$ 198.61	$ 203.58	$ 208.67	$ 213.89	$ 219.24	$ 224.72
17	Cloud Senior Web Developer	$ 183.44	$ 188.03	$ 192.73	$ 197.55	$ 202.49	$ 207.55
18	Cloud Web Developer	$ 168.46	$ 172.67	$ 176.99	$ 181.41	$ 185.95	$ 190.60
19	Cloud Principal Systems Analyst	$ 142.08	$ 145.63	$ 149.27	$ 153.00	$ 156.83	$ 160.75
20	Cloud Senior Systems Analyst	$ 121.13	$ 124.16	$ 127.26	$ 130.44	$ 133.70	$ 137.04
21	Cloud Systems Analyst	$ 102.39	$ 104.95	$ 107.57	$ 110.26	$ 113.02	$ 115.85
22	Cloud Principal Security Specialist	$ 210.25	$ 215.51	$ 220.90	$ 226.42	$ 232.08	$ 237.88
23	Cloud Senior Security Specialist	$ 175.81	$ 180.21	$ 184.72	$ 189.34	$ 194.07	$ 198.92
24	Cloud Security Specialist	$ 140.44	$ 143.95	$ 147.55	$ 151.24	$ 155.02	$ 158.90
25	Cloud Software Engineer	$ 130.62	$ 133.89	$ 137.24	$ 140.67	$ 144.19	$ 147.79
26	Cloud Senior Computer Programmer	$ 127.55	$ 130.74	$ 134.01	$ 137.36	$ 140.79	$ 144.31
27	Cloud Computer Programmer	$ 73.34	$ 75.17	$ 77.05	$ 78.98	$ 80.95	$ 82.97
28	Cloud Technical Data Specialist	$ 123.05	$ 126.13	$ 129.28	$ 132.51	$ 135.82	$ 139.22
29	Cloud Senior Testing Specialist	$ 134.35	$ 137.71	$ 141.15	$ 144.68	$ 148.30	$ 152.01
30	Cloud Testing Specialist	$ 105.26	$ 107.89	$ 110.59	$ 113.35	$ 116.18	$ 119.08
31	Cloud Usability Specialist	$ 105.26	$ 107.89	$ 110.59	$ 113.35	$ 116.18	$ 119.08
32	Cloud Senior Graphic Designer	$ 142.08	$ 145.63	$ 149.27	$ 153.00	$ 156.83	$ 160.75
33	Cloud Graphic Designer	$ 120.13	$ 123.13	$ 126.21	$ 129.37	$ 132.60	$ 135.92
34	Cloud Technical Writer	$ 115.08	$ 117.96	$ 120.91	$ 123.93	$ 127.03	$ 130.21
35	Cloud Executive Research Assistant	$ 76.72	$ 78.64	$ 80.61	$ 82.63	$ 84.70	$ 86.82
36	Cloud Production Specialist	$ 63.65					

SCA Eligible Contract Labor Category	SCA Equivalent Code – Title	WD Number
Administrative Assistant	01020 – Administrative Assistant	2005-2103, Rev. 14
Admin/Clerical Assistant	01113 – General Clerk III	2005-2103, Rev. 14
Production Specialist	01270 – Production Control Clerk	2005-2103, Rev. 14
Word Processor	01613 – Word Processor III	2005-2103, Rev. 14
The Service Contract Act (SCA) is applicable to this contract and includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number(s) identified in the matrix. The prices offered are based on the preponderance of where work is performed and should work be performed in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.		

2. Cloud and Cloud-Related IT Professional Services Description of Services

2.1 Platform-as-a-Service (PaaS) – Content Management Platform

CTAC's Platform-as-a-Service (PaaS) Content Management Platform (CMP) is an innovative solution to support customer's needs in the areas of content and publishing APIs and overall content and taxonomy strategies. The PaaS solution is sufficiently flexible to meet the unique needs of client web properties, as well as establishing infrastructure and building blocks for the future. CTAC's PaaS has a predictable cost model and provides a service-based architecture for internal and external web properties with both isolated and multi-tenant models, and provides a turnkey, on-demand, expandable, cloud-based platform.

The CTAC CMP is a single, integrated platform that has been developed to addresses client's needs using extendable open source offerings that will not limit future capacity to a single Content Management System (CMS) vendor. The CTAC CMP is powered by an automated, container-based hosting infrastructure and a unified set of content services and metadata available to all web properties. This homogenous and scalable architecture enables efficient migration and onboarding of web properties and the reuse of data structures, content, metadata, back-end services, and visualization components, while at the same time providing avenues for innovative content solutions across the full-spectrum of content management technology stacks. The CTAC CMP is a unified platform solution with the ability to support multiple application framework products, as well as providing a forward-looking architecture to support the content engines of tomorrow.

The CTAC CMP provides out-of-the-box API compatibility. All open source and Commercial of the Shelf (COTS) technologies selected for the platform provide API developer- focused

interfaces, and the core CMP has been developed to provide a content API that supports base content types, taxonomies, and a unified base search. The core CMP can be customized and configured to meet client's needs.

The PaaS CMP adheres to the Essential Cloud Characteristics as follows:

Essential Cloud Characteristic	How Essential Characteristic Will be Met
On-demand Self Service	This is a turnkey offering that does not require the human interaction between the consumer and service provider. Our automated API based configuration management tools provide a single bundle of software and infrastructure components.
Broad network access	Our solution utilizes broad network access via the open standard protocols HTTP and HTTPS. Our services may be accessed from mobile phones, tablets, laptops, workstations, and other devices. Proprietary access protocols that restrict thin or thick client access are not used.
Resource pooling	Our resources are pooled together to serve multiple consumers using a multiple-tenant model. Customers do not have to manage resource physical locations. Our resources are maintained in a multi-region shared tenant environment. Our service is abstracted to the end client who will only need to choose / be aware of basic regions such as "United States East" or "GovCloud."
Rapid elasticity	Rapid elasticity is provided through both client managed pool allocation settings as well as auto scaling. Elasticity triggers include CPU utilization, network traffic, disk activity, and instance health.
Measured service	CTAC provides "pay-per-use" cloud services to adjust to the fluctuating needs of clients. This approach eliminates the traditional large up-front investment costs and wasted resources that are often associated with large infrastructures, and provides an on-demand service-oriented pricing that is fully transparent and flexible for future needs.

This PaaS provides the consumer the ability to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by CTAC. The consumer will not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

This PaaS is a Hybrid Deployment Model. The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability. At the lower infrastructure level, we utilize either a public cloud "East/West" (public) or "GovCloud" (community) based on our clients' preference. At the public facing content delivery network layer (CDN) we utilize a public model. At the network level we provide a private cloud via automatically provisioned client-specific logically isolated components of our IaaS backbone including IP address ranges, subnets, and configuration of route tables and network gateways. We provide customized network configurations with multiple layers of security with, security groups, and network access control lists, to control access within Virtual Private Clouds (VPCs).

2.2 Software-as-a-Service (SaaS) - Syndicus

CTAC's Software-as-a-Service (SaaS) - **Syndicus** – is a solution for ensuring up-to-date information is shared on websites using the same information. The Syndication SaaS is a multi-faceted system designed to solve fundamental issues that arise when trying to publish and ingest content on the web. Its primary

function is to provide a "storefront" for information consumers to browse and search for public content. By providing a simple embed mechanism for users, the system eliminates the era of copy-and-paste content reuse (syndication); it provides automatic delivery, updates, display, and aggregation of digital media through embeddable widgets, media viewers, and microsites. A robust Application Program Interface (API) that simultaneously allows publishers to make their content available as well as providing developers with tools to build unique endpoint products powers the SaaS solution.

The Syndication platform makes it possible to reach audiences unlike any other system in the Federal Government. Syndication empowers the state, local, non-profit and private sectors through access to quality content, real time updates, and tools to build complete content-driven websites and mobile apps - all with little or no development resources required. Detailed metrics collection allows adopters to see exactly where their content is being used, and microsite services can be used to build entire websites with just a few clicks. The Syndication system is a collection of micro services running on containerized app servers (such as tomcat). Individual components are implemented with the Grails framework utilizing the Groovy programming language. The API services provided are JavaScript Object Notation (JSON) based RESTful services that adhere to the Whitehouse API standards (https://github.com/WhiteHouse/api-standards) and REST best practices.

The Syndication platform is a collection of applications that combined provide the full suite of Syndication Services as follows:

Storefront	The front end of the application stack that end users use to browse for content, get embed code for content items, and to build media viewers and microsites.
API	The RESTful services that allow both publishing and consuming syndicated media
Admin	The administrative back end used by publishers and system administrators to manage content and get metrics reports.
CMS Manager	The security gateway for publishers who wish to push content into the system, and the primary notification engine for managing and pushing content updates to subscribers (and [Content Management System] CMS Consumers).
Tag Cloud	A full featured tagging system that provides numerous tagging features, including tag associations, tag types, tag languages, related tags and content, and listing services.
TinyURL	Every content item that is published to Syndication is automatically assigned a TinyURL - a permanent URL mapping that can be used to shorten and abstract URLs for the end user.
CMS Plugins	There are plugins for various CMSs including Drupal, WordPress, and Percussion Rhythmyx that add direct publishing and ingestion capabilities to partner CMSs.

This SaaS adheres to Essential Cloud Characteristics as follows:

Essential Cloud Characteristic	How Essential Characteristic Will be Met
On-demand Self Service	This is a turnkey offering that does not require the human interaction between the consumer and service provider. Our automated API based configuration management tools provide a single bundle of software and infrastructure components.
Broad network access	Our solution utilizes broad network access via the open standard protocols HTTP and HTTPS. Our services may be accessed from mobile phones, tablets, laptops, workstations, and other devices. Proprietary access protocols that restrict thin or thick client access are not used.
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	end client who will only need to choose / be aware of basic regions such as "United States East" or "GovCloud."
Rapid elasticity	Rapid elasticity is provided through both client managed pool allocation settings as well as auto scaling. Elasticity triggers include CPU utilization, network traffic, disk activity, and instance health.
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This SaaS provides the consumer the ability to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by CTAC. The consumer will not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

This SaaS is a Hybrid Deployment Model. The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability. At the lower infrastructure level, we utilize either a public cloud "East/West" (public) or "GovCloud" (community) based on our clients' preference. At the public facing content delivery network layer (CDN) we utilize a public model. At the network level we provide a private cloud via automatically provisioned client-specific logically isolated components of our IaaS backbone including IP address ranges, subnets, and configuration of route tables and network gateways. We provide customized network configurations with multiple layers of security with, security groups, and network access control lists, to control access within Virtual Private Clouds (VPCs).

2.3 Cloud and Cloud-Related IT Professional Services Pricing

Platform-as-a-Service (PaaS) – Content Management Platform (CMP)

Item	Description	Initial Annual Cost	Out-Year Annual Cost
CMP-SM	Content Management Platform for a Small Application	$92,088.62	$46,257.79
CMP-MD	Content Management Platform for a Medium Application	$136,335.70	$76,459.79
CMP-LG	Content Management Platform for a Large Application	$185,470.80	$107,149.66

Software-as-a-Service (SaaS) – Syndicus Syndication Software

Item	Offering	Annual Cost
SYN-LT	Syndicus - Lightweight Storefront	$405,400.93
SYN-CON	Syndicus - Configurable Application	$457,039.30

2.4 Amazon Web Services (AWS)

CTAC is an Amazon Web Services (AWS) Letter of Supply holder and sells the full complement of AWS cloud computing solutions. The AWS Customer Access Terms – U.S. Federal Agencies is included in Appendix A. Pricing is published on GSA Advantage!: *https://www.gsaadvantage.gov/advantage/s/search.do?q=19:5GS-35F-256CA&searchType=1&db=0*

BEST VALUE

BLANKET PURCHASE AGREEMENT
FEDERAL SUPPLY SCHEDULE

(Insert Customer Name)

In the spirit of the Federal Acquisition Streamlining Act (Agency) and (Contractor) enter into a cooperative agreement to further reduce the administrative costs of acquiring commercial items from the General Services Administration (GSA) Federal Supply Schedule Contract(s) _____.

Federal Supply Schedule contract BPAs eliminate contracting and open market costs such as: search for sources; the development of technical documents, solicitations and the evaluation of offers. Teaming Arrangements are permitted with Federal Supply Schedule Contractors in accordance with Federal Acquisition Regulation (FAR) 9.6.

This BPA will further decrease costs, reduce paperwork, and save time by eliminating the need for repetitive, individual purchases from the schedule contract. The end result is to create a purchasing mechanism for the Government that works better and costs less.

Signatures

_____		_____	
Ordering Activity	Date	Contractor	Date

BPA NUMBER_____

(CUSTOMER NAME)

BLANKET PURCHASE AGREEMENT

Pursuant to GSA Federal Supply Schedule Contract Number(s)_____, Blanket Purchase Agreements, the Contractor agrees to the following terms of a Blanket Purchase Agreement (BPA) EXCLUSIVELY WITH (Ordering Agency):

(1) The following contract items can be ordered under this BPA. All orders placed against this BPA are subject to the terms and conditions of the contract, except as noted below:

MODEL NUMBER/PART NUMBER	*SPECIAL BPA DISCOUNT/PRICE
_____	_____
_____	_____
_____	_____

(2) Delivery:

DESTINATION	DELIVERY SCHEDULES / DATES
_____	_____
_____	_____
_____	_____

(3) The ordering activity estimates, but does not guarantee, that the volume of purchases through this agreement will be _____.

(4) This BPA does not obligate any funds.

(5) This BPA expires on _____ or at the end of the contract period, whichever is earlier.

(6) The following office(s) is hereby authorized to place orders under this BPA:

OFFICE	POINT OF CONTACT
_____	_____
_____	_____
_____	_____

(7) Orders will be placed against this BPA via Electronic Data Interchange (EDI), FAX, or paper.

(8) Unless otherwise agreed to, all deliveries under this BPA must be accompanied by delivery tickets or sales slips that must contain the following information as a minimum:

(a) Name of Contractor;
(b) Contract Number;
(c) BPA Number;
(d) Model Number or National Stock Number (NSN);
(e) Purchase Order Number;
(f) Date of Purchase;

(g) Quantity, Unit Price, and Extension of Each Item (unit prices and extensions need not be shown when incompatible with the use of automated systems; provided, that the invoice is itemized to show the information); and

(h) Date of Shipment.

(9) The requirements of a proper invoice are specified in the Federal Supply Schedule contract. Invoices will be submitted to the address specified within the purchase order transmission issued against this BPA.

(10) The terms and conditions included in this BPA apply to all purchases made pursuant to it. In the event of an inconsistency between the provisions of this BPA and the Contractor's invoice, the provisions of this BPA will take precedence.

BASIC GUIDELINES FOR USING "CONTRACTOR TEAM ARRANGEMENTS"

Federal Supply Schedule Contractors may use "Contractor Team Arrangements" (see FAR 9.6) to provide solutions when responding to a customer agency requirements.

These Team Arrangements can be included under a Blanket Purchase Agreement (BPA). BPAs are permitted under all Federal Supply Schedule contracts.

Orders under a Team Arrangement are subject to terms and conditions or the Federal Supply Schedule Contract.

Participation in a Team Arrangement is limited to Federal Supply Schedule Contractors.

Customers should refer to FAR 9.6 for specific details on Team Arrangements.

Here is a general outline on how it works:

- The customer identifies their requirements.
- Federal Supply Schedule Contractors may individually meet the customers needs, or -
- Federal Supply Schedule Contractors may individually submit a Schedules "Team Solution" to meet the customer's requirement.
- Customers make a best value selection.

Appendix A – AWS Customer Access Terms

Appendix A includes the AWS Customer Access Terms – U.S. Federal Agencies.