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

<table>
<thead>
<tr>
<th>Schedule Title:</th>
<th>Multiple Award Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Supply Group:</td>
<td>Professional Services</td>
</tr>
<tr>
<td>Contract Number:</td>
<td>GS-00F-0034P</td>
</tr>
<tr>
<td>Modification Number:</td>
<td>PA-0053, effective September 14, 2020</td>
</tr>
<tr>
<td>Contract Period:</td>
<td>July 1, 2004 through June 30, 2024</td>
</tr>
<tr>
<td>Business Size:</td>
<td>Other than small</td>
</tr>
</tbody>
</table>

For more information on ordering from Federal Supply Schedules click on the FSS Schedules button at http://www.fss.gsa.gov.

TCG, Inc.
7348 Georgia Ave. NW
Washington, DC 20012
Phone: (202) 986-5533
Fax: (202) 986-5532
www.tcg.com

Contract Administration: Daniel Turner
Email: GSAContracts@tcg.com
Table of Contents

Customer Information ................................................................. 3
Corporate Overview of TCG ......................................................... 5
Integrated Consulting Services ..................................................... 7
  Integrated Consulting Services ..................................................... 7
  Consulting Services ........................................................................ 7
  Program Integration and Project Management Services ...................... 8
Integrated Consulting Services Prices – Labor Rates .......................... 9
Integrated Consulting Services Labor Category Descriptions .............. 10
Information Technology Professional Services ............................... 12
  IT Professional Services Prices – Labor Rates .................................. 12
  IT Professional Labor Category Descriptions .................................... 14
Customer Information

1a. Special Item Numbers:  
   Integrated Consulting Services  
   SIN 541611: see page 10 - 11 for description and page 9 for pricing.

   Information Technology Professional Services  
   SIN 54151S: see page 14 – 24 for description and page 12 for pricing

   SIN OLM

1b. Lowest priced model and lowest unit prices: Prices shown in pricelist are net. See pages 9 and 12 for lowest unit prices per SIN.


2. Maximum Order: $1,000,000


5. Points of Production: Washington, DC

6. Statement on Net Price: Prices shown in pricelist are net.

7. Quantity Discounts: None. However, discounts for orders placed that exceed the maximum order threshold shall be negotiated on an order by order basis.

8. Prompt Payment Terms: None. Information for Ordering Offices: Prompt payment terms cannot be negotiated out of the contractual agreement in exchange for other concessions.


10. Foreign Items: N/A

11a. Time of Delivery: To be negotiated per each delivery order.

11b. Expedited Delivery: Contact TCG, Inc. for expedited delivery.
11c. **Overnight and Two-day Delivery:** Contact TCG, Inc. for overnight and two-day delivery.

11d. **Urgent Requirements:** Contact TCG, Inc. for urgent requirements.

12. **F.O.B Points:** Destination

13. **Ordering Address:**

   TCG, INC.
   7348 Georgia Ave. NW
   Washington DC 20012
   Attn: Daniel Turner, President
   Phone: (202) 986-5533
   Fax: (202) 986-5532
   E-mail: GSAContracts@tcg.com

13b. **Ordering Procedures:** For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA’s) are found in Federal Acquisition Regulation (FAR) 8.405-3.

14. **Payment Address:**

   TCG, INC.
   7348 Georgia Ave. NW
   Washington DC 20012
   Attn: Daniel Turner, President

15. **Warranty Provision:** N/A

16. **Export Packing Charges:** N/A

17. **Terms and conditions of Government commercial credit card acceptance:** Contact Contractor

18. **Terms and conditions of Government rental, maintenance, and repair:** N/A

19. **Terms and conditions of installation:** N/A

20. **Terms and conditions of repair parts indicating date of parts price lists and any discount from list prices:** N/A

21. **List of service and distribution points:** N/A

22. **List of participating dealers:** N/A

23. **Preventive Maintenance:** N/A

24a. **Environmental Attributes:** N/A

24b. **Section 508 Compliance:** No

25. **Data Universal Number (DUNS):** 94-213-4602

26. **Notification regarding registration in System for Award Management (SAM) database:** TCG, Inc. is registered in the SAM database.
Corporate Overview of TCG

About TCG
TCG, Inc. provides information technology and management consulting services to the federal government, commercial enterprises, and not-for-profit organizations. Founded in 1994 by president, Daniel A. Turner, the company has achieved its success despite—or perhaps because of—its "virtual" character. While Mr. Turner retains an office in Washington, D.C., his staff is located across America, and uses the latest technologies and tools to telecommute every day. By making the work experience ideal for his employees, Mr. Turner has been able to hire the best people and still offer competitive rates to clients.

TCG’s primary focus had been the development and implementation of Web-based technology solutions and consulting services. In response to client demands, the company has diversified into the delivery of security assurance services and telecommuting best practices consulting, based on TCG’s extensive experience in both areas. TCG continues to deliver solutions and services for clients such as the National Institutes of Health, the National Cancer Institute, Sprint, the American Geophysical Union, the Department of Justice, and the American Association of Pharmaceutical Scientists.

TCG, Inc. was named one of America’s entrepreneurial growth leaders by Inc magazine in October 2001, in the annual ranking of the Inc 500, the nation’s fastest-growing private companies.

TCG – Management Consulting Process
TCG prides itself on its collaborative consulting process, one based on the carpenter's rule of measure twice, cut once. We rely on the expertise our clients bring to their project, and we spend more time in planning than most, and thus less time in fixing problems. The result is a well-conceived, open-ended solution designed to meet the business objectives of our clients.
TCG has its own consulting process, honed through years of experience with clients. When working with TCG, a client can expect a commitment to meeting their needs, no matter what it takes, and a process that includes the client at every point. We have experience, but we don't have our client’s experience, and we need their insight to inform our work. TCG believes that every step of the process needs the same attention to detail we give from the beginning.

**TCG ~ Leading-Edge Consulting and IT Services**

TCG understands that agencies are facing increasing pressure from the public and Congress to reduce costs, cut bureaucracy, and increase service quality. To deliver these results, agencies are re-evaluating their missions, visions, strategies, and programs in light of future funding projections.

TCG offers a full spectrum of consultation and program integration and project management services designed to support Federal agencies’ management, organizational and business improvement efforts.

Combining this expertise with our IT related professionals services, TCG offers best practice solutions to clients in today’s highly complex and technological business environment.
 Consulting Services

TCG’s approach to client engagements is always to transfer knowledge, a guiding principle throughout our firm and a guiding principle that is particularly relevant to our consulting services. Our consultants provide expert advice, assistance, guidance, and counseling to support a wide range of management, organizational and business improvement efforts. A few examples of the consultation services available include strategic, business, and action planning; systems alignment; cycle time; high performance work; performance measures and indicators; process and productivity improvement; and program evaluations.

- **Strategic Business and Action Planning**: TCG’s consultants meet one-on-one with ordering agency customers to take a fresh look at the agency’s vision, missions and strategies for the future. We combine pre-planned presentations, discussions with customers, strategic planning exercises, and group discussions to foster innovation and creative thinking. By focusing on both the needs of the agency and their customers, the ordering agency’s leadership can target key improvements and develop meaningful plans to concentrate resources on critical areas.

- **Systems Alignment**: Systems alignment begins with consistent communication of vision, mission and strategies. TCG’s experts work with ordering agency executives to develop a plan to communicate the vision, mission and strategies to their employees, customers and other stakeholders. This shared understanding of the organization’s future is then used to drive systems alignment.

- **Cycle Time**: Cycle time is the elapsed time required to produce a product or service, from start to finish. As such, it is an important part of most business improvement initiatives. Our consultants help agency staff visualize the full set of activities in a business process and analyze the cycle times for completing activity sequences under various process configurations.

- **High Performance Work**: TCG offers innovative solutions to support ordering agencies as they implement high performance work strategies. These strategies often apply innovative concepts and collaborative information tools to transform agency worker interactions with their management colleagues, suppliers and customers.

- **Performance Measures and Indicators**: TCG works with ordering agencies to establish key measures of mission performance, productivity, and efficiency. We help agencies prepare for the phased implementation of performance-based management by developing meaningful metrics and then benchmarking their performance against other organizations that produce similar products or services.

- **Process and Productivity Improvement**: Process and productivity improvement continues to be a top priority for our agency customers. TCG’s experts understand that each ordering agency has unique requirements. Based on these requirements, improvement services are tailored to our client’s special needs, from quality management programs to business process reengineering. Our proven methodology combines our world-class business process improvement experience with highly
effective decision support technology to produce superior results for our agency customers.

- **Assessments, Program Audits, and Evaluations:** TCG’s consultants perform assessments, program audits, and evaluations to help ordering agencies improve their performance.

**Program Integration and Project Management Services**
High-quality program/project management and integration services are a key to the success of all products and services provide to our clients. TCG exercises great diligence in understanding and focusing on the customer’s concerns, requirements and expectations throughout the life cycle of the Program/Project. TCG employs a cohesive, systematic and integrated approach to a program/project management structure designed to reduce administrative burdens and facilitate uninterrupted progress. We bridge the gap between visionary process management and technology services to optimize organizational performance.

TCG has a proven record of success and innovation in the most difficult area of program management – program integration. Beyond the essential management elements of cost, schedule and performance metrics and analysis, effective program integration requires the deliberate consideration of the interrelationships among all the many program elements to optimize cost, schedule and performance.

TCG is experienced in applying the most current approaches to business process re-engineering and in tailoring effective enterprise management systems to support programmatic decision-making. Our experts coordinate, share information on, and compare schedules for goals, objectives, fiscal data, management vision and ongoing results, and actions to capitalize on and to maximize the synergistic effects of program elements.

Effective integration requires forward vision and the skilled ability to draw meaningful conclusions upon which actions and plans can be taken to ensure continuity as well as collective participation by all members of the program manager’s team. Years of experience with a wide array of customers has resulted in comprehensive development of an exceptional set of personnel and programmatic skills that currently reside in TCG’s professional staff.
### Integrated Consulting Services Prices – Labor Rates

**SIN 541611 Integrated Consulting Services**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant I</td>
<td>$138.40</td>
</tr>
<tr>
<td>Consultant II</td>
<td>$172.97</td>
</tr>
<tr>
<td>Consultant III</td>
<td>$207.57</td>
</tr>
<tr>
<td>Consultant IV</td>
<td>$242.17</td>
</tr>
<tr>
<td>Program Manager</td>
<td>$290.60</td>
</tr>
<tr>
<td>Project Manager I</td>
<td>$242.17</td>
</tr>
<tr>
<td>Project Manager II</td>
<td>$269.85</td>
</tr>
</tbody>
</table>

**Note 1:** Hourly Rates do not include OT Premium

**Note 2:** TCG, Inc. offers the following MAS Services under this schedule which correlate back to the MAS Schedule SINS identified below:

- 541611 Consulting Services
Integrated Consulting Services Labor Category Descriptions

**PROGRAM MANAGER**

*Functional Responsibility:*
Manages the contractual relationship with clients and oversees several projects at a program level. Meets and confers with client regarding the status of specific program and management activities and problems, issues or conflicts regarding resolution. Conducts quality assurance over key project deliverables. Resolves issues with staff, tools and methods. Conducts and or participates in project staff meetings and client meetings to resolve issues through application of company resources or experiences gained on other projects. Capable of negotiating and making binding decisions for the company.

*Position Qualifications:*
B.S. or B.A. Degree with 10 years experience in management, business consulting and/or organizational development environment with demonstrated ability in the management of large-scale projects.

**PROJECT MANAGER II**

*Functional Responsibility:*
Manages the day-to-day operations of the project. Prepares project estimates and work plans using company experience on prior projects and the proprietary company methods and tools for planning and estimating projects. Prepares and presents project status reports to company and client management. Resolves project staffing and planning issues. Manages the company staff assigned to the project. Conducts preliminary quality assurance over project deliverables and project activities. May manage the contractual relationship with the client.

*Position Qualifications:*
B.S. or B.A. Degree with 8 years experience in management, business consulting and/or organizational development environment.

**PROJECT MANAGER I**

*Functional Responsibility:*
Manages the day-to-day operations of the project. Prepares project estimates and work plans using company experience on prior projects and the proprietary company methods and tools for planning and estimating projects. Prepares and presents project status reports to company and client management. Resolves project staffing and planning issues. Manages the company staff assigned to the project. Conducts preliminary quality assurance over project deliverables and project activities.

*Position Qualifications:*
B.S. or B.A. Degree with 6 years experience in management, business consulting and/or organizational development environment.

**CONSULTANT IV**

*Functional Responsibility:*
Specialized knowledge of business issues related to implementing systems or specialized experience in business best practices and/or the management of complex business change. Applies knowledge of industry best practices, business process transformation, or change management methods. Provides subject matter knowledge to project managers and analysts. Works with the program manager to allocate staffing and resolve business issues.

*Position Qualifications:*
B.S. or B.A. Degree with 12 years experience in management, business and/or consulting environment.

**CONSULTANT III**

*Functional Responsibility:*
Specialized knowledge of business issues related to implementing systems or specialized experience in business best practices and/or the management of complex business change. Applies knowledge of industry best practices, business process transformation, or change management methods. Provides subject
matter knowledge to project managers and analysts. Works with the program manager to allocate staffing and resolve business issues.

**Position Qualifications:**
B.S. or B.A. Degree with 8 years experience in management, business and/or consulting environment.

**Consultant II**
**Functional Responsibility:**

**Position Qualifications:**
B.S. or B.A. Degree with 6 years experience in management, business and/or consulting environment.

**Consultant I**
**Functional Responsibility:**
Experience in current business or functional issues and performs successfully in a team environment. Supports business and management process teams across a variety of issues. Performs surveys, conducts research, prepares deliverables related to business and functional support tasks.

**Position Qualifications:**
B.S. or B.A. Degree with 4 years experience in management, business and/or consulting environment.
## IT Professional Services Prices – Labor Rates

**SIN 54151S Information Technology Professional Services**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application System Analyst IV</td>
<td>$92.41</td>
</tr>
<tr>
<td>Application System Analyst III</td>
<td>$106.77</td>
</tr>
<tr>
<td>Application System Analyst II</td>
<td>$128.13</td>
</tr>
<tr>
<td>Application System Analyst I</td>
<td>$162.61</td>
</tr>
<tr>
<td>Chief Senior Scientist</td>
<td>$220.12</td>
</tr>
<tr>
<td>Clerk IV**</td>
<td>$32.86</td>
</tr>
<tr>
<td>Clerk III***</td>
<td>$41.06</td>
</tr>
<tr>
<td>Configuration Manager</td>
<td>$106.77</td>
</tr>
<tr>
<td>Contract Administrator</td>
<td>$106.77</td>
</tr>
<tr>
<td>Course of Instruction Developer</td>
<td>$93.63</td>
</tr>
<tr>
<td>Database Administrator I</td>
<td>$73.91</td>
</tr>
<tr>
<td>Database Administrator II</td>
<td>$134.87</td>
</tr>
<tr>
<td>Database Specialist</td>
<td>$163.49</td>
</tr>
<tr>
<td>Desktop Publishing Specialist</td>
<td>$85.43</td>
</tr>
<tr>
<td>Documentation Specialist/Manager</td>
<td>$159.32</td>
</tr>
<tr>
<td>Graphic Artist/Illustrator</td>
<td>$77.20</td>
</tr>
<tr>
<td>Information Security Service Manager</td>
<td>$154.39</td>
</tr>
<tr>
<td>Programmer IV</td>
<td>$62.41</td>
</tr>
<tr>
<td>Programmer III</td>
<td>$81.33</td>
</tr>
<tr>
<td>Programmer II</td>
<td>$101.64</td>
</tr>
<tr>
<td>Programmer I</td>
<td>$147.84</td>
</tr>
<tr>
<td>Project Control Specialist</td>
<td>$87.81</td>
</tr>
<tr>
<td>Senior Project Control Specialist</td>
<td>$119.89</td>
</tr>
<tr>
<td>Project Manager</td>
<td>$243.92</td>
</tr>
<tr>
<td>Senior Project Manager</td>
<td>$282.54</td>
</tr>
<tr>
<td>Quality Assurance Specialist</td>
<td>$118.26</td>
</tr>
<tr>
<td>Quality Assurance Manager</td>
<td>$165.90</td>
</tr>
<tr>
<td>Security Analyst</td>
<td>$101.83</td>
</tr>
<tr>
<td>Software Developer IV</td>
<td>$87.81</td>
</tr>
<tr>
<td>Software Developer III</td>
<td>$109.78</td>
</tr>
<tr>
<td>Software Developer II</td>
<td>$134.69</td>
</tr>
<tr>
<td>Software Developer I</td>
<td>$175.62</td>
</tr>
<tr>
<td>Subject Matter Expert IV</td>
<td>$154.39</td>
</tr>
<tr>
<td>Subject Matter Expert III</td>
<td>$203.69</td>
</tr>
<tr>
<td>Subject Matter Expert II</td>
<td>$263.44</td>
</tr>
<tr>
<td>Subject Matter Expert I</td>
<td>$390.20</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Technical Writer</td>
<td>$78.84</td>
</tr>
<tr>
<td>Video Production Specialist</td>
<td>$110.04</td>
</tr>
<tr>
<td>Visual Information Designer</td>
<td>$137.98</td>
</tr>
<tr>
<td>Web Content Administrator</td>
<td>$102.67</td>
</tr>
<tr>
<td>Web Designer</td>
<td>$131.40</td>
</tr>
<tr>
<td>Web Marketing Manager</td>
<td>$126.48</td>
</tr>
<tr>
<td>Web Operations Manager</td>
<td>$221.75</td>
</tr>
<tr>
<td>Web Software Developer</td>
<td>$205.32</td>
</tr>
<tr>
<td>Web Technical Administrator</td>
<td>$134.69</td>
</tr>
</tbody>
</table>

**Service Contract Labor Standards**

The Service Contract Labor Standards, formerly the Service Contract Act (SCA), apply to this contract and it includes SCLS applicable labor categories. Labor categories and fixed price services marked with a (**) in this pricelist are based on the U.S. Department of Labor Wage Determination Number(s) identified in the SCLS/SCA matrix. The prices awarded are in line with the geographic scope of the contract (i.e., nationwide).

The wage determination number is 2015-4281

<table>
<thead>
<tr>
<th>SCLS Eligible Contract Labor Category</th>
<th>SCLS Equivalent Code Title</th>
<th>WD Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerk III</td>
<td>01112 – General Clerk II</td>
<td>2015-4281</td>
</tr>
<tr>
<td>Clerk IV</td>
<td>01113 – General Clerk III</td>
<td>2015-4281</td>
</tr>
</tbody>
</table>

Note 1: Hourly Rates do not include OT Premium

Note 2: All non-professional labor categories must be incidental to and used solely to support hardware, software and/or professional services, and cannot be purchased separately.

Note 3: TCG, Inc. offers the following IT Services under this schedule which correlate back to the IT Multiple Award Schedule SINS identified below:

- 54151S Information Technology Services
IT Professional Labor Category Descriptions

SENIOR PROJECT MANAGER  
Minimum/General Experience: Minimum of ten years of experience is required, of which eight years must be specialized. Specialized experience includes complete project development from inception to deployment, demonstrated ability to provide guidance and direction in multiple tasks across several functional areas; proven expertise in the management and control of funds and resources; and demonstrated capability in managing multitask contracts.

Functional Responsibility: Leads the project or multiple tasks and retains overall responsibility for performance including cost, schedule, deliverables, and contractual compliance. Provides the interface to the customer and other project leaders. May work under a Program Manager for multiple projects. Identifies, acquires, and utilizes company resources to achieve project technical objectives. Establishes priorities, task assignments, and completion. Ensures that quality and productivity standards are maintained while meeting project/client deadlines and budget constraints. Ensures quality assurance and timely delivery of all specified deliverables. Identifies all task responsibilities and reports any changes or suggestions accordingly to a Senior Program Manager or Program Manager. Supervises the training of new personnel under the project to ensure compliance with government regulations, codes, and company policy and procedures. Participates in contract negotiations.

Minimum Education: B.S. or B.A. Degree

PROJECT MANAGER  
Minimum/General Experience: Minimum of eight years of experience is required, of which six years must be specialized. Specialized experience includes complete project development from inception to deployment; proven expertise in the management and control of funds and resources, demonstrated capability in managing multitask contracts.

Functional Responsibility: Leads the project or multiple tasks and retains overall responsibility for performance including cost, schedule, deliverables, and contractual compliance. Provides the interface to the customer and other project leaders. May work under a Program Manager for multiple projects. Identifies, acquires, and utilizes company resources to achieve project technical objectives. Establishes priorities, task assignments, and completion. Ensures that quality and productivity standards are maintained while meeting project/client deadlines and budget constraints. Ensures quality assurance and timely delivery of all specified deliverables. Identifies all task responsibilities and reports any changes or suggestions accordingly to a Senior Program Manager or Program Manager. Supervises the training of new personnel under the project to ensure compliance with government regulations, codes, and company policy and procedures. Participates in contract negotiations.

Minimum Education: B.S. or B.A. Degree

CHIEF SENIOR SCIENTIST  
Minimum/General Experience: Minimum of ten years of experience is required, of which six must be specialized. Specialized experience required includes demonstrated ability to complete engineering project development from inception to deployment; demonstrated ability to provide technical guidance and direction in multiple tasks across several functional areas and including the use of different technologies; proven expertise in applying information, telecommunications, or related engineering technologies. Is widely recognized as an expert in the selected field as a result of certification, authoring, or holding either appointed or elected position of one or more influential organizations.

Functional Responsibility: Is responsible for technical aspects of a program or project. Operates within client guidance, contractual limitations, and company business and policy directives. Serves as technical focal point of contact with client on program activities. In the absence of a program manager, performs those duties and ensures that all required resources including manpower, production standards, computer time, and facilities are available for program implementation. Acting as the program manager, manages program consisting of multiple project tasks including project identification, design, development and delivery. Provides expert guidance and direction at the highest possible expert and intellectual levels for
very difficult areas requiring innovation and research for tasks involving information technology related policy at a high level affecting large organizations or population. Confers with project manager to provide technical advice and to assist with problem resolution. May participate in contract negotiations.

Minimum Education: Ph.D., LL.D., or M.D. Degree

SOFTWARE DEVELOPER I
Minimum/General Experience: Under general direction, has full technical knowledge and thorough understanding of business application of the project.

Functional Responsibility: Provides technical consulting on complex projects. Formulates/defines system scope and objectives. Often acts as business expert and assists users in defining needs. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Prepares detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary.

Minimum Education: B.S. or B.A. Degree

SOFTWARE DEVELOPER II
Minimum/General Experience: Under general direction, participates as high level technical expert in design, development, coding, testing, and debugging new software or significant enhancements to existing software.

Functional Responsibility: Works with technical staff to understand problems with software and develops specifications to resolve them. Resolves customer complaints and responds to suggestions for improvements and enhancements. Participates in the development of software user manuals. May act as team leader on less complex projects. Assists in training less experienced software development staff.

Minimum Education: B.S. or B.A. Degree

SOFTWARE DEVELOPER III
Minimum/General Experience: Under general supervision, develops, codes, test, and debugs new software of enhancements to existing software. Has good understanding of business application.

Functional Responsibility: Works with technical staff to understand problems with software and resolve them. Resolves customer complaints with software and responds to suggestions for improvements and enhancements. May assist in development of software user manuals. Demonstrates software.

Minimum Education: B.S. or B.A. Degree

SOFTWARE DEVELOPER IV
Minimum/General Experience: Under direct supervision, performs maintenance on existing software products; assists in coding, testing, and debugging new software or making enhancement to existing software.

Functional Responsibility: Writes programs according to specifications from higher level staff or business analysts. Make suggestions for problem solutions or software enhancements. May assist in development of user manuals. Works with technical staff to learn and understand problems with software.

Minimum Education: B.S. or B.A. Degree

APPLICATION SYSTEM ANALYST I
Minimum/General Experience: Top level technical expert in one or more highly specialized phases of applications systems analysis. Acts independently under general direction. Has full technical knowledge of all phases of applications systems analysis. May use CASE tools. May have duties instructing, directing and checking the work of other applications systems analysis personnel. May have quality assurance review responsibilities.
**Functional Responsibility:** Provides technical consulting on complex projects. Formulates/defines system scope and objectives. Often acts as business expert and assists users in defining needs. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Prepares detailed specifications from which programs will be written. Analyses and revises existing system logic difficulties and documentation as necessary.

**Minimum Education:** B.S. or B.A. Degree

**APPLICATION SYSTEM ANALYST II**

**Minimum/General Experience:** Under general direction formulates/defines system scope and objectives based on user needs. Competent to work at the highest technical level of all phases of applications systems analysis activities. May use CASE tools.

**Functional Responsibility:** Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Prepares detailed specifications from which programs will be written. Analyses and revises existing system logic difficulties and documentation as necessary.

**Minimum Education:** B.S. or B.A. Degree

**APPLICATION SYSTEM ANALYST III**

**Minimum/General Experience:** Competent to work on most phases of applications systems analysis activities, but requires instruction and guidance in other phases.

**Functional Responsibility:** Under general supervision, formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Prepares detailed specifications from which programs will be written. Analyses and revises existing system logic difficulties and documentation as necessary.

**Minimum Education:** B.S. or B.A. Degree

**APPLICATION SYSTEM ANALYST IV**

**Minimum/General Experience:** This level is staffed by beginners who have had sufficient educational background and/or experience to qualify them to start in applications systems analysis.

**Functional Responsibility:** Under immediate supervision, assists in research and fact-finding to develop or modify information systems. Assists in preparing detailed specifications from which programs will be written. Analyses and revises existing system logic difficulties and documentation as necessary.

**Minimum Education:** B.S. or B.A. Degree

**PROGRAMMER I**

**Minimum/General Experience:** Top level technical expert in one or more highly specialized phases of applications programming. Acts independently under general direction.

**Functional Responsibility:** Provides technical consulting on complex projects. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Responsible for program design, coding, testing, debugging and documentation. Has full technical knowledge of all phases of applications programming. May have duties instructing, directing and checking the work of other programming personnel. May have quality assurance review responsibilities.

**Minimum Education:** B.S. or B.A. Degree
PROGRAMMER II

Minimum/General Experience: Competent to work at the highest level of all phases of applications programming activities.

Functional Responsibility: Under general direction, devises or modifies procedures to solve complex problems considering computer equipment capacity and limitation, operating time and form of desire results. Designs, codes, tests, debugs and documents programs.

Minimum Education: B.S. or B.A. Degree

PROGRAMMER III

Minimum/General Experience: Competent to work on most phases of applications programming activities, but requires instruction and guidance in phases.

Functional Responsibility: Under general supervision, modifies moderately complex applications programs from detailed specifications. Codes, debugs, documents and maintains those programs.

Minimum Education: B.S. or B.A. Degree

PROGRAMMER IV

Minimum/General Experience: This level is staffed by beginners who have had sufficient educational background and/or experience to qualify them to start in applications programming.

Functional Responsibility: Under immediate supervision, modifies applications programs from detailed specifications. Codes, debugs, documents and maintains those programs.

Minimum Education: B.S. or B.A. Degree

WEB OPERATIONS MANAGER

Minimum/General Experience: Requires extensive experience with web technologies and web page design.

Functional Responsibility: Responsible for ongoing oversight of web strategy and operations. Develops business plan and annual budget for website function. Accountable for budget, staff planning, management, and product/service delivery. Oversees operational activities of the website(s) with specific attention aimed at content creation and website maintenance.

Minimum Education: B.S. or B.A. Degree

WEB MARKETING MANAGER

Minimum/General Experience: Requires an understanding of web technologies.

Functional Responsibility: Responsible for developing and implementing the organization’s web strategies for promoting products/services through strategic marketing on the website. Responsible for assisting in the creation and implementation of the web marketing plan. Works closely with design and content management teams to ensure site meets marketing objectives. Monitors site access patterns to adjust strategies and plans.

Minimum Education: B.S. or B.A. Degree

WEB DESIGNER

Minimum/General Experience: Requires an understanding of web-based technologies and knowledge of HTML, PhotoShop, Illustrator, and/or other design-related applications.

Functional Responsibility: Designs and builds web pages using a variety of graphics software applications, techniques, and tools. Designs and develops user interface features, site animation, and special-effect elements. Contributes to the design group’s efforts to enhance the look and feel or the organization’s online offerings. Designs the website to support the organization’s strategies and goals relative to external communications.
Minimum Education: B.S. or B.A. Degree

**WEB SOFTWARE DEVELOPER**
**Minimum/General Experience:** Requires developmental experience in web-based languages.

**Functional Responsibility:** Designs, develops, troubleshoots, debugs, and implements software code (such as HTML, CGI, and Javascript) for a component of the website. Works with graphic designers and other members of a project team to develop the site concept, interface design, and architect of the website. Responsible for interface implementation. Requires navigation and site-design instincts.

Minimum Education: B.S. or B.A. Degree

**WEB TECHNICAL ADMINISTRATOR**
**Minimum/General Experience:** Requires experience in systems technologies.

**Functional Responsibility:** In role of onsite administrator, responsible for achieving overall technical integrity of organization’s website. Maintains and upgrades hardware and telecommunication connectivity. Administers e-mail, chat, and FTP services. Communicates router configuration changes and troubleshoots system errors and bugs. Maintains servers, creates monitoring reports and logs, and ensures functionality of links. Monitors site for acceptable performance and user accessibility. Establishes backups and monitors site security.

Minimum Education: B.S. or B.A. Degree

**WEB CONTENT ADMINISTRATOR**
**Minimum/General Experience:** Requires experience in production management, web page design, HTML, and web graphics types and standards.

**Functional Responsibility:** Responsible for developing and providing content that will motivate and entertain users so that they regularly access the website and utilize it as a major source for information and decision making. Responsible for managing/performing website editorial activities including gathering and researching information that enhances the value of the site. Locates, negotiates, and pursues content. Seeks out customers to gather feedback for website improvement and enhancements.

Minimum Education: B.S. or B.A. Degree

**INFORMATION SECURITY SERVICE MANAGER**
**Minimum/General Experience:** Minimum of five years of experience is required including defining computer security requirements for high-level applications, evaluation of approved security product capabilities, and developing solutions to problems.

**Functional Responsibility:** Analyzes and defines security requirements. Designs, develops, engineers, and implements solutions to requirements. Gathers and organizes technical information about goals and needs, existing security products, and ongoing programs. Performs risk analyses that also include risk assessment.

Minimum Education: B.S. or B.A. Degree

**SECURITY ANALYST**
**Minimum/General Experience:** Must have six years of experience with security engineering responsibility for large-scale secure data communications networks.

**Functional Responsibility:** Ensures that prototype and pilot services are safe from security threats. Responsibilities include the installation, operation, and management of approved security devices to provide a variety of security services.

Minimum Education: B.S. or B.A. Degree
**CONFIGURATION MANAGER**  
*Minimum/General Experience:* Two years of configuration management experience in hardware and software components for a large-scale network system is required.

*Functional Responsibility:* Analyzes proposed changes of product design to determine effect on overall system and coordinates recording of modifications for management control. Confers with manufacturer or customer representatives to establish change-reporting procedure and prepares directives for change authorization and documentation by company and subcontractor personnel. Analyzes proposed part-design changes and exhibits to prepare report of effect on overall product for management action, using knowledge of engineering, manufacturing, and procurement activities.

*Minimum Education:* B.S. or B.A. Degree

**QUALITY ASSURANCE MANAGER**  
*Minimum/General Experience:* Minimum of six years of experience is required in quality assurance and quality control. At least three years of experience in verification and validation, software testing and integration, software metrics, and their applications to software quality assessment is required.

*Functional Responsibility:* Establishes and maintains a process for evaluating software and associated documentation. Determines the resources required for quality control. Maintains the level of quality throughout the software life cycle. Reviews and verifies the preparation of quality assurance documentation and procedures. Conducts formal and informal reviews at predetermined points throughout the development life cycle. Interfaces with clients for quality assurance audits, resolution of discrepancies, and other quality assurance matters.

*Minimum Education:* B.S. or B.A. Degree

**QUALITY ASSURANCE SPECIALIST**  
*Minimum/General Experience:* Performs work flow analysis and recommends quality improvements. Typically reports to Quality Assurance Manager.

*Functional Responsibility:* Under limited supervision, carries out procedures to ensure that all system product and services meet minimum company standards and end-user requirements. Thoroughly tests products to ensure proper operation and freedom from defects. Documents all problems and work to resolve them; reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations.

*Minimum Education:* B.S. or B.A. Degree

**CONTRACT ADMINISTRATOR**  
*Minimum/General Experience:* Experience is required in contract administration, purchasing, cost and price analysis, and negotiations.

*Functional Responsibility:* Directs contract administration activities including cost and business proposal preparation. Performs cost and price analysis, and conducts negotiations. Originates and executes complex custom service contracts for equipment hardware, software, and services. Determines appropriate contract form and develops supplementary contract language for software licenses and stand-alone service contracts. Ensures company is in full compliance with all contract terms and conditions. Provides all necessary auditing and financial information to client. Maintains contract file and serves as a company liaison.

*Minimum Education:* B.S. or B.A. Degree
**SENIOR PROJECT CONTROL SPECIALIST**
*Minimum/General Experience:* Minimum of ten years experience, of which three years must be specialized in the preparation and analysis of financial statements and the development and tracking of complex project schedules/tasks.

*Functional Responsibilities:* Develops and implements a tracking system to track program tasks/requirements in accordance with the contract requirements. The SPCS utilizes Microsoft Project linked to an automated cost tracking tool to track program requirements and cost. Validates contract cost from financial management system. Coordinates with Program Management Organization (PMO) providing trends and insight concerning contract cost and status of program requirements. Responsible for the execution of Contract Data Requirements Lists (CDRL’s) within a contract, including coordinating activities within PMO to develop all CDRL’s. Responsible for developing program schedules, management and financial CDRL requirements.

*Minimum Education:* B.S. or B.A. Degree

**PROJECT CONTROL SPECIALIST**
*Minimum/General Experience:* Minimum of four years of experience, assisting in the preparation and analysis of financial reports and the development of complex project schedules.

*Functional Requirements:* Tracks program tasks/requirements specified in the contract in accordance with the specified schedule and cost constraints. Utilizes Project software linked to an automated cost-tracking tool, to track program requirements and cost. Validates contract cost from financial management system. Conducts trend analysis of program cost and provides resultant information and insight to the Program Management Organization (PMO). Responsible for the execution of CDRLs within a contract, including coordinating activities within the PMO to develop all CDRLs. Responsible for developing program schedules, management, and financial CDRL requirements.

*Minimum Education:* B.S. or B.A. Degree

**COURSE OF INSTRUCTION DEVELOPER**
*Minimum/General Experience:* Must have three to four years of experience in information systems development, training or related fields.

*Functional Responsibility:* Develops and conducts training programs for employees of industrial, commercial, service, or government establishment. Confers with management to gain knowledge of work situation requiring training for employees to better understand changes in policies, procedures, regulations, and technologies. Selects or develops teaching aids, such as training handbooks, demonstration models, multimedia visual aids, computer tutorials, and reference works. Tests trainees to measure progress and to evaluate effectiveness of training.

*Minimum Education:* B.S. or B.A. Degree

**SUBJECT MATTER EXPERT**
*Minimum/General Experience:* A minimum of eighteen years of experience is required, of which eight years must be specialized. The continual evolution of new technologies and specialized skills is critical to maintain current knowledge in focused areas of expertise.

*Functional Responsibility:* Provides expert consultative support to a project, program or client. Provides extremely high-level functional, technical or business expertise and analysis. The position requires the design, integration, documentation, implementation and analysis of exceptionally complex problems requiring extensive knowledge of a subject. This position provides specialized support that may be technical, functional, managerial or business oriented.

*Minimum Education:* Bachelor’s Degree and specific skills and education that pertain to specialized subject matter requirements.
**SUBJECT MATTER EXPERT II**

*Minimum/General Experience:* The continual evolution of new technologies and specialized skills minimize the emphasis placed upon the relevant experience the person may possess.

*Functional Responsibility:* Provides expert consultative support to a functional area of the project. Provide extremely high level functional system development or analysis. Position incorporates the design, integration, documentation, implementation and analysis on exceptionally complex problems requiring extensive knowledge of the subject matter. This positions provides specialized support to the contract which may, or may not, be technical in nature.

*Minimum Education:* Specific skills and education that pertain to specialized requirements of the project.

**SUBJECT MATTER EXPERT III**

*Minimum/General Experience:* The continual evolution of new technologies and specialized skills minimize the emphasis placed upon the relevant experience the person may possess.

*Functional Responsibility:* Provides expert consultative support to a functional area of the project. Develops solutions to complex problems. Works closely with the information technologists to identify the best technological solution to technical issues. This positions provides specialized support to the contract which may, or may not, be technical in nature.

*Minimum Education:* B.S. or B.A. Degree

**SUBJECT MATTER EXPERT IV**

*Minimum/General Experience:* Three years of experience in a functional area of expertise is required.

*Functional Responsibility:* Provides expert consultative support to a functional technical area of the project. Develops solutions to complex problems. Works closely with the information technologists to identify the best technological solution to technical issues.

*Minimum Education:* B.S. or B.A. Degree

**DOCUMENTATION SPECIALIST/MANAGER**

*Minimum/General Experience:* Experienced in preparing and maintaining technical documentation. Must be competent to work at a high level of all phases of documentation.

*Functional Responsibility:* Prepares and or maintains systems, programming, and operations documentation, procedures, and methods (e.g., user and reference manuals). Maintains an up-to-date internal documentation library. Provides or coordinates special documentation services as required. May act as project leader for large documentation jobs.

*Minimum Education:* B.S. or B.A. Degree

**GRAPHIC ARTIST/ILLUSTRATOR**

*Minimum/General Experience:* Must have four year experience in developing computer graphics art for electronic publications and training material.

*Functional Responsibility:* Under general direction, designs, implements, and maintains semi-detailed electronic art. Is capable of producing engineering drawings and 2D/3D graphics with animation for training programs and simulators.

*Minimum Education:* H.S. Diploma and technical training in computer graphics art.

**VISUAL INFORMATION DESIGNER**

*Minimum/General Experience:* Must have five years of experience in visual communications or related fields.
Functional Responsibility: Responsible for the planning, designing, producing, and editing of visual material used in printed material, exhibits, briefings, television, motion pictures, etc. to include photographs and illustrations.

Minimum Education: B.S. or B.A. Degree

VIDEO PRODUCTION SPECIALIST
Minimum/General Experience: Must have four years of experience in video, studio, and post-production, computerized editing equipment, and production of interactive video discs.

Functional Responsibility: Under general direction, implement media production via videotape recorder/player, digital special effects equipment, and digital still frame storage equipment. Develops tapes for videodisc, single frame editing, and production techniques. Utilizes authoring and production automation systems to produce interactive videodiscs.

Minimum Education: B.S. or B.A. Degree

DESKTOP PUBLISHING SPECIALIST
Minimum/General Experience: Must have one year of desktop publishing experience

Functional Responsibility: Uses a microcomputer and associated software to design and produce high-quality documents, which simulate typeset quality. Imports text from word processing software and reformats to enhance design characteristics. Imports graphic software images and integrates with text. May operate digital scanner and edit graphic images.

Minimum Education: B.S. or B.A. Degree

TECHNICAL WRITER
Minimum/General Experience: Must have two years of experience in writing and editing technical documents.

Functional Responsibility: Assists in the collecting and organizing of information for preparation of user manuals, training materials, installation guides, and reports. Edits functional descriptions, system specifications, user manuals, reports, or other client deliverables.

Minimum Education: B.S., B.A., or A.A. Degree

DATABASE SPECIALIST
Minimum/General Experience. At least 8 years of specialized experience including data design, data architecture, metadata and repository creation.

Functional Responsibility: Provides senior technical support to translate business needs into long-term architecture solutions. Defines, designs, and builds data bases and is responsible for developing data architecture blueprints, evaluating hardware and software platforms, and integrating systems. Responsible for developing enterprise level data strategy, data architecture, and data management policies, processes, and procedures. Advises application developers on technology, methodology, and best practices to reach enterprise goals such as data sharing, data integration, data quality, and data security.

Minimum Education: Bachelor’s Degree or equivalent.

DATABASE ADMINISTRATOR II
Minimum/General Experience: Must have seven years of progressive experience in database management systems (DBMS) analysis and programming with three years of experience managing, designing, and modeling databases.

Functional Responsibility: Plans, organizes, and controls overall activities of database systems. Responsibilities include monitoring standards, systems, and procedures as they relate to database design and integration; defining the scope of the database function; organizing the database function; documenting activities, procedures, and results; and managing database security.
Minimum Education: B.S. or B.A. Degree

DATABASE ADMINISTRATOR I

Minimum/General Experience: Must have five years of progressive experience in database management systems (DBMS) analysis and programming with two years of experience managing, designing, and modeling databases.

Functional Responsibility: Plans, organizes, and controls overall activities of database systems. Responsibilities include monitoring standards, systems, and procedures as they relate to database design and integration; defining the scope of the database function; organizing the database function; documenting activities, procedures, and results; and managing database security.

Minimum Education: B.S. or B.A. Degree

CLERK III

Minimum/General Experience: Must have four years of experience in data entry.

Functional Responsibility: Operates keyboard or other data entry device to enter data into computer or onto magnetic tape or disk for subsequent entry. Enters alphabetic, numeric, or symbolic data from source documents into computer using data entry device, such as keyboard or optical scanner, and follows format displayed on screen. Compares data entered with source documents. Deletes incorrectly entered data, and re-enters correct data. May compile, sort, and verify accuracy of data to be entered.

Minimum Education: H.S. Diploma

CLERK IV

Minimum/General Experience: Must have two years of experience in data entry.

Functional Responsibility: Operates keyboard or other data entry device to enter data into computer or onto magnetic tape or disk for subsequent entry. Enters alphabetic, numeric, or symbolic data from source documents into computer using data entry device, such as keyboard or optical scanner, and follows format displayed on screen. Compares data entered with source documents. Deletes incorrectly entered data, and re-enters correct data. May compile, sort, and verify accuracy of data to be entered.

Minimum Education: H.S. Diploma

Allowable Substitution of Education and Experience

The minimum education and experience will be met when the equivalencies in the tables below are considered. Additional educational achievements in excess of requirements can be substituted for experience requirements:

<table>
<thead>
<tr>
<th>REQUIRED EDUCATION</th>
<th>ACTUAL EDUCATION OBTAINED</th>
<th>ADDITIONAL YEARS OF EXPERIENCE CREDITED THE TCG EMPLOYEE</th>
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<tr>
<td>M.A./M.S.</td>
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<tr>
<td>B.A./B.S.</td>
<td>Ph.D.</td>
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<td>B.A./B.S.</td>
<td>M.A./M.S.</td>
<td>2</td>
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<tr>
<td>H.S./G.E.D.</td>
<td>B.A./B.S.</td>
<td>4</td>
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Additional experience in excess of requirements can be substituted for educational requirements:

<table>
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<tr>
<th>ACTUAL EDUCATION</th>
<th>REQUIRED EDUCATION</th>
<th>ADDITIONAL YEARS OF EXPERIENCE NEEDED FOR EDUCATIONAL REQUIREMENTS</th>
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<td>EQUVALENCY</td>
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