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

**SCHEDULE TITLE:** Federal Supply Schedule MAS – Multiple Award Schedule - Information Technology Professional Services

**CONTRACT NUMBER:** GS-35F-0532R

**CONTRACT PERIOD:** April 29, 2020 to April 28, 2025

Price List is based on Mod #TBD effective 4/29/2020

For more information on ordering from Federal Supply go to this website: [www.gsa.gov/schedules](http://www.gsa.gov/schedules)

**CONTRACTOR:** OBJECT CTALK INC.  
344 ABRAMS MILL ROAD  
KING OF PRUSSIA, PA 19406  
Phone: 610-265-1278  
Fax (610) 992-0780  
E-mail: ATUL@OCTALK.com  
Web Site: WWW.OCTALK.COM

**CONTRACTOR’S ADMINISTRATION:**  
Atul Agrawal, CEO  
Object CTalk Inc.  
1013 West Ninth Avenue  
King of Prussia, PA 19406  
Phone (610) 745-9968  
Fax (610) 992-0780  
E-mail: ATUL@OCTALK.com

**BUSINESS SIZE:** Small Disadvantaged Business, Woman Owned Small Business

**CUSTOMER INFORMATION:**

1a. **TABLE OF AWARDED SPECIAL ITEM NUMBERS (SINs)**

<table>
<thead>
<tr>
<th>SIN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>54151S</td>
<td>Information Technology Professional Services</td>
</tr>
</tbody>
</table>

1b. **LOWEST PRICED MODEL NUMBER AND PRICE FOR EACH SIN:**

(Government net price based on a unit of one)

N/A

1c. **HOURLY RATES (Services only):**

Please see the pricing section below
2. **MAXIMUM ORDER**: $500,000 per SIN and $500,000 per order

   NOTE TO ORDERING ACTIVITIES: *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**: $1000.00

4. **GEOGRAPHIC COVERAGE**: Domestic, 50 states, Washington, DC, Puerto Rico, and US Territories or details as negotiated

5. **POINT OF PRODUCTION**: N/A

6. **DISCOUNT FROM LIST PRICES**: GSA Net Prices are shown on the attached GSA Pricelist. Negotiated discount has been applied and the IFF has been added.

7. **QUANTITY DISCOUNT**: None

8. **PROMPT PAYMENT TERMS**: 1.0% - 10 days from receipt of invoice

9.a Government Purchase Cards must be accepted at or below the micro-purchase threshold.

9.b Government Purchase Cards are accepted above the micro-purchase threshold. Contact contractor for limit.

10. **FOREIGN ITEMS**: N/A

11a. **TIME OF DELIVERY**: As mutually agreed

11b. **EXPEDITED DELIVERY**: Items available for expedited delivery are noted in this price list.

11c. **OVERNIGHT AND 2-DAY DELIVERY**: Overnight and 2-day delivery are available. Contact the Contractor for rates.

11d. **URGENT REQUIREMENTS**: Agencies can contact the Contractor’s representative to affect a faster delivery. Customers are encouraged to contact the contractor for the purpose of requesting accelerated delivery.

12. **FOB POINT**: Destination

13a. **ORDERING ADDRESS**: Same as contractor

13b. **ORDERING PROCEDURES**: Ordering activities shall use the ordering procedures described in Federal Acquisition Regulation 8.405-3 when placing an order or establishing a BPA for supplies or services. The ordering procedures, information on Blanket Purchase Agreements (BPA’s) and a sample BPA can be found at the GSA/FSS Schedule Homepage (fss.gsa.gov/schedules).

14. **PAYMENT ADDRESS**: Same as contractor

15. **WARRANTY PROVISION**: N/A

16. **EXPORT PACKING CHARGES**: N/A
17. TERMS AND CONDITIONS OF GOVERNMENT PURCHASE CARD ACCEPTANCE: (any thresholds above the micropurchase level may be inserted by contractor) None

18. TERMS AND CONDITIONS OF RENTAL, MAINTENANCE, AND REPAIR (IF APPLICABLE): N/A

19. TERMS AND CONDITIONS OF INSTALLATION (IF APPLICABLE): N/A

20. TERMS AND CONDITIONS OF REPAIR PARTS INDICATING DATE OF PARTS PRICE LISTS AND ANY DISCOUNTS FROM LIST PRICES (IF AVAILABLE): N/A

20a. TERMS AND CONDITIONS FOR ANY OTHER SERVICES (IF APPLICABLE): N/A

21. LIST OF SERVICE AND DISTRIBUTION POINTS (IF APPLICABLE): N/A

22. LIST OF PARTICIPATING DEALERS (IF APPLICABLE): N/A

23. PREVENTIVE MAINTENANCE (IF APPLICABLE): N/A

24a. SPECIAL ATTRIBUTES SUCH AS ENVIRONMENTAL ATTRIBUTES (e.g. recycled content, energy efficiency, and/or reduced pollutants): N/A

24b. Section 508 Compliance for Electronic and Information Technology (EIT): As applicable

25. DUNS NUMBER: 00-3433765

26. NOTIFICATION REGARDING REGISTRATION IN SYSTEM FOR AWARD MANAGEMENT (SAM) DATABASE: Contractor has an Active Registration in the SAM database.
**NOTE:** All non-professional labor categories must be incidental to, and used solely to support professional services, and cannot be purchased separately.

1. **SCOPE**
   
a. The prices, terms and conditions stated under Special Item Number 54151S Information Technology Professional Services apply exclusively to IT Professional Services within the scope of this Information Technology Schedule.

b. The Contractor shall provide services at the Contractor's facility and/or at the ordering activity location, as agreed to by the Contractor and the ordering activity.

2. **PERFORMANCE INCENTIVES 1-FSS-60 Performance Incentives (April 2000)**
   
a. Performance incentives may be agreed upon between the Contractor and the ordering activity on individual fixed price orders or Blanket Purchase Agreements under this contract.

b. The ordering activity 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 specified targets. To the maximum extent practicable, ordering activities shall consider establishing incentives where performance is critical to the ordering activity'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 which 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 ordering activity 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**

In accordance with FAR 52.212-4 CONTRACT TERMS AND CONDITIONS--COMMERCIAL ITEMS (MAR 2009) (DEVIATION I - FEB 2007) for Firm-Fixed Price orders and FAR 52.212-4 CONTRACT...
TERMS AND CONDITIONS   COMMERCIAL ITEMS (MAR 2009)   (ALTERNATE I  OCT 2008)  
(DEVIATION I – FEB 2007) applies to Time-and-Materials and Labor-Hour Contracts 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 (Dec 2007) Rights in Data – General, may apply.

8. RESPONSIBILITIES OF THE ORDERING ACTIVITY
Subject to security regulations, the ordering activity shall permit Contractor access to all facilities necessary to perform the requisite IT Professional Services.

9. INDEPENDENT CONTRACTOR
All IT Professional 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 ordering activity.

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 ordering activity contract, without some restriction on ordering 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 ordering activity, ordering activities 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 Professional services. Progress payments may be authorized by the ordering activity 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 52.212-4 (MAR 2009) (ALTERNATE I – OCT 2008) (DEVIATION I – FEB 2007) 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 52.212-4 (MAR 2009) (ALTERNATE I – OCT 2008) (DEVIATION I – FEB 2007) applies to labor-hour orders placed under this contract. 52.216-31(Feb 2007) Time-and-Materials/Labor-Hour Proposal Requirements—Commercial Item Acquisition. As prescribed in 16.601(e)(3), insert the following provision:

(a) The Government contemplates award of a Time-and-Materials or Labor-Hour type of contract resulting from this solicitation.
(b) The offeror must specify fixed hourly rates in its offer that include wages, overhead, general and administrative expenses, and profit. The offeror must specify whether the fixed hourly rate for each labor category applies to labor performed by—
   (1) The offeror;
   (2) Subcontractors; and/or
   (3) Divisions, subsidiaries, or affiliates of the offeror under a common control.

13. RESUMES

Resumes shall be provided to the GSA Contracting Officer or the user ordering activity 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 activity 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 AND PRICING

FPDS Code D301 IT Facility Operation and Maintenance
FPDS Code D302 IT Systems Development Services
FPDS Code D306  IT Systems Analysis Services
FPDS Code D307  Automated Information Systems Design and Integration Services
FPDS Code D308  Programming Services
FPDS Code D310  IT Backup and Security Services
FPDS Code D311  IT Data Conversion Services
FPDS Code D313  Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) Services
FPDS Code D316  IT Network Management Services
FPDS Code D317  Creation/Retrieval of IT Related Automated News Services, Data Services, or Other Information Services (All other information services belong under Schedule 76)
FPDS Code D399  Other Information Technology Services, Not Elsewhere Classified

Object CTalk, Inc.
Information Technology Services Hourly Labor Rates

<table>
<thead>
<tr>
<th>SIN</th>
<th>Labor Category</th>
<th>GSA Price with IFF (04/29/2015 - 04/28/2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>54151S</td>
<td>Project Manager</td>
<td>$168.89</td>
</tr>
<tr>
<td>54151S</td>
<td>Project Task Leader</td>
<td>$119.13</td>
</tr>
<tr>
<td>54151S</td>
<td>System Architect</td>
<td>$168.89</td>
</tr>
<tr>
<td>54151S</td>
<td>Configuration Management Specialist</td>
<td>$118.99</td>
</tr>
<tr>
<td>54151S</td>
<td>Information Security Specialist</td>
<td>$188.36</td>
</tr>
<tr>
<td>54151S</td>
<td>Subject Matter Expert</td>
<td>$246.93</td>
</tr>
<tr>
<td>54151S</td>
<td>Junior Application Developer</td>
<td>$77.06</td>
</tr>
<tr>
<td>54151S</td>
<td>Application Developer</td>
<td>$91.13</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Application Developer</td>
<td>$105.21</td>
</tr>
<tr>
<td>54151S</td>
<td>Application Development Team Lead</td>
<td>$120.26</td>
</tr>
<tr>
<td>54151S</td>
<td>Business/Systems Analyst</td>
<td>$105.21</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Business/Systems Analyst</td>
<td>$133.06</td>
</tr>
<tr>
<td>54151S</td>
<td>Business/Systems Analysis Team Lead</td>
<td>$160.22</td>
</tr>
<tr>
<td>54151S</td>
<td>Junior Application Integration Specialist</td>
<td>$108.75</td>
</tr>
<tr>
<td>54151S</td>
<td>Application Integration Specialist</td>
<td>$147.43</td>
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<tr>
<td>54151S</td>
<td>Senior Application Integration Specialist</td>
<td>$175.58</td>
</tr>
<tr>
<td>54151S</td>
<td>Junior Software Tester</td>
<td>$62.97</td>
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<tr>
<td>54151S</td>
<td>Software Tester</td>
<td>$83.17</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Software Tester</td>
<td>$102.64</td>
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<tr>
<td>54151S</td>
<td>Junior Help Desk Specialist</td>
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</tr>
<tr>
<td>54151S</td>
<td>Help Desk Specialist</td>
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<td>54151S</td>
<td>Junior Systems Engineer</td>
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<tr>
<td>54151S</td>
<td>Systems Engineer</td>
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<tr>
<td>54151S</td>
<td>Senior Systems Engineer</td>
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<tr>
<td>54151S</td>
<td>Junior Internet Developer</td>
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<tr>
<td>SIN</td>
<td>Labor Category</td>
<td>GSA Price with IFF</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------</td>
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</tr>
<tr>
<td>54151S</td>
<td>Internet Developer</td>
<td>$133.06</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Internet Developer</td>
<td>$158.94</td>
</tr>
<tr>
<td>54151S</td>
<td>Data Warehouse Programmer Analyst</td>
<td>$116.72</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Data Warehouse Programmer Analyst</td>
<td>$139.47</td>
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<tr>
<td>54151S</td>
<td>Junior Database Administrator</td>
<td>$91.13</td>
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<tr>
<td>54151S</td>
<td>Database Administrator</td>
<td>$116.72</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Database Administrator</td>
<td>$138.18</td>
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<td>54151S</td>
<td>Junior Systems Administrator</td>
<td>$91.13</td>
</tr>
<tr>
<td>54151S</td>
<td>Systems Administrator</td>
<td>$116.72</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Systems Administrator</td>
<td>$138.18</td>
</tr>
<tr>
<td>54151S</td>
<td>Network Engineer</td>
<td>$91.13</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior Network Engineer</td>
<td>$116.72</td>
</tr>
<tr>
<td>54151S</td>
<td>ERP Specialist</td>
<td>$133.06</td>
</tr>
<tr>
<td>54151S</td>
<td>Senior ERP Specialist</td>
<td>$201.16</td>
</tr>
<tr>
<td>54151S</td>
<td>E-Government Specialist</td>
<td>$138.18</td>
</tr>
<tr>
<td>54151S</td>
<td>Hardware Engineer</td>
<td>$124.10</td>
</tr>
</tbody>
</table>

**Labor Category Descriptions**

**OBJECT CTALK, INC.**

**LABOR CATEGORIES DESCRIPTION**

**Commercial Job Title: Project Manager**

Minimum Technical Qualifications/Experience: Atleast five (5) years experience in managing Information Technology projects. Must have a thorough knowhow of Software Development Lifecycle, project planning, risk management, project reporting, proficiency in Project Management tools like MS Project, tools like Visio, MS Word, Excel and Power Point.

Functional Responsibility: The Project manager is responsible for the timely execution of the project. He/She is responsible for project planning, team composition, task allocation, task monitoring, task facilitation, risk management, disaster recovery, over viewing analysis/designing, programming, testing and technical and user documentation, maintaining project status documentation, giving regular updates to the Account manager, giving technical presentations to the client representatives and periodically attend status meetings with the client representatives.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Master's Degree in Computer Science a big plus. Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast seven years of experience in managing IT projects.

**Commercial Job Title: Project Task Leader**

Minimum Technical Qualifications/Experience: Atleast five (5) years of experience in breaking a IT project down into various tasks and subtasks and assisting the Project Manager in ensuring that the Project team adheres to the deadlines when various tasks have to be completed. Must be proficient in Software Development Lifecycle, MS Project, tools like Visio, MS Word, Excel and Power Point

Functional Responsibility: The Project Task Leader is responsible for breaking a IT project down into various tasks
and subtasks and assisting the Project Manager in ensuring that the Project team adheres to the deadlines when various tasks have to be completed. He/She is also responsible for defining the deliverables associated with each task and subtask, the team that will work on the tasks and the dates by which the various tasks and subtasks need to be completed. He/She updates the Project Manager regularly on the status of each task/subtask and coordinates with the Project Team members inorder to ensure on-time completion of various tasks and subtasks.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast seven years of experience in breaking a IT project down into various tasks and subtasks and assisting the Project Manager in ensuring that the Project team adheres to the deadlines when various tasks have to be completed.

Commercial Job Title: System Architect
Minimum Technical Qualifications/Experience: Eight (8) years of experience in the field of Information Technology out of which at least five years must be devoted to designing various components of Information systems for organizations based on the various business processes and applications. Must be very familiar with design tools like ERWin, Visio and Rational Rose and must have architected atleast 3 systems in the past.

Functional Responsibility: Contribute to the establishment and maintenance of an overall IT architecture relevant to and consistent with the company's business and technology direction and objectives. Develops information technology technical and application architectures and participates insetting technology direction and standards. Provides technical architectural design review for major business applications and technology initiatives. Facilitates linkage with key business areas by understanding enterprise requirements and by communicating architecture frameworks best practices and standards. Develops recommendations and requirements for legacy applications to evolve towards conformance with target architecture. Continually reviews the company's applications, workflow, systems, and network management and network infrastructure, for opportunities to improve effectiveness and efficiency.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast ten years of experience in architecturing IT systems.

Commercial Job Title: Configuration Management Specialist
Minimum Technical Qualifications/Experience: Three to Five years of general IT experience, with three (3) years of specialized experience in Configuration Management, Version Control, Process Improvement, Activity/Process Modeling. Must be familiar with one or more of the Configuration Tools like Clearcase, PVCS, Endevor, CMVC and Visual SourceSafe

Functional Responsibility: Supports the development and maintenance of configuration management plans, and scheduling and documenting configuration management reviews. Shall be capable of monitoring the configuration control process and ensuring that procedures comply with client and/or applicable specifications. Reports to Lead Configuration Management Specialist and requires supervision. Knowledgeable of software development techniques, change control processes, configuration audits and client/government regulations, manuals, technical orders, standards and industry publications related to configuration/data management required to perform the task. Requires supervision.

Educational Requirement: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast five years of experience in performing Configuration Management and Version Control Tasks.

Commercial Job Title: Information Security Specialist
Minimum Technical Qualifications/Experience: Overall five to seven years of experience in defining, implementing and maintaining the Information Security of firms. Must have strong know-how of Encryption, Intrusion Detection, Network Security and Ethical Hacking.
Functional Responsibility: Responsible for defining/ameliorating the IS Policy of an organization. Also responsible for ensuring that the organization networks as well as information is secure at all times, constantly monitoring the intrusion detection, data encryption, and for taking quick and effective corrective measures in the event of a breach. Provides technical knowledge and analysis of information assurance, to include applications; operating systems; Internet and Intranet; physical security; networks; risk assessment; critical infrastructure continuity and contingency planning; emergency preparedness; security awareness and training. Provides analysis of existing system's vulnerability to possible intrusions, resource manipulation, resource denial and destruction of resources. Provides technical support and analysis to document organizational information protection framework, and supports policy and procedures preparation and implementation. Monitors firewall logs. Provides system administration of Network, Web, and/or communications systems, including Local Area Network (LAN), Wide Area Network (WAN). Maintains servers, creates monitoring reports and logs and ensures functionality of links. Establishes backups and monitors site security

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast nine years of experience in defining, implementing and maintaining the Information Security of firms.

Commercial Job Title: Subject Matter Expert

Minimum Technical Qualifications/Experience: Five to seven years of experience in studying, analyzing, evaluating, designing and improving specific programs and business processes (example: expertise in Naval Air Defense Systems, Child Support Programs, Teachers Licensing Programs, CFR validation, Treasury Systems, Driver Licensing Systems, Housing Loan Programs or any other program critical to designing/improving the Information Systems), help define the Software Requirement Specifications and Business Process Documents and assist the System Architect in architecturing the system.

Functional Responsibility: Responsible for serving as facilitator for Integrated Product Team, defining/ameliorating the policies and procedures of an organization, process or program. Utilizing their specialization and subject matter knowhow to assist the business analysts and Project Managers in defining the Software Requirement Specifications and Business Process Documents and assist the System Architect in architecturing the system. Also assist the testing team in Integrated System testing to ensure that the system is working under various conditions/scenarios critical for the program or the application.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast nine years of experience working with the functional and technical aspects of various programs like Naval Air Defense Systems, Child Support Programs, Teachers Licensing Programs, CFR validation, Treasury Systems, Driver Licensing Systems, Housing Loan Programs or any other program critical to designing/improving the Information Systems

Commercial Job Title: Junior Application Developer

Minimum Technical Qualifications/Experience: Overall two (2) years of experience in programming in the relevant programming language/s (Java, XML, C, C++, Perl, COBOL, Oracle PL/SQL, Unix Shell scripting)

Functional Responsibility: Assists the Application Developers in coding in a variety of programming languages like Java, XML, C, C++, Perl, COBOL, Oracle PL/SQL, Unix Shell scripting as per the programming specifications given by the Application Team Lead/Senior Application Developer to develop various applications.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast four years of experience in programming in various languages like Java, XML, C, C++, Perl, COBOL, Oracle PL/SQL, Unix Shell scripting.

Commercial Job Title: Application Developer

Minimum Technical Qualifications/Experience: Overall three to five years of experience in independently developing and testing various mission critical applications and implementation of information processing systems and applications that use current operating systems, programming languages and applications development tools, computer systems, multi-programming technology, database management techniques, and data communications
protocol. Must be skilled in programming in the relevant programming language/s (Java, XML, .Net, Web Methods, C, C++, Perl, COBOL, Oracle PL/SQL, Unix Shell scripting)

Functional Responsibility: Performs the development and/or programming, and implementation of information processing systems and applications that use current operating systems, programming languages and applications development tools, computer systems, multi-programming technology, database management techniques, and data communications protocol. Can work independently in support of a joint applications development effort. Responsible for writing application software, data manipulation, databases programming, testing and implementation, technical and user documentation, software conversions; environments include but are not limited to mainframe, mid range, personal computers, laptops.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have at least six years of experience in independently developing industry applications.

Commercial Job Title: Senior Application Developer
Minimum Technical Qualifications/Experience: Overall six to eight years of experience in supervising and mentoring other Application developers in the performance of detailed analysis, in building software development tools and in producing highly technical programs such as cross-compilers and communications software operating systems. Must be proficient in programming in the relevant programming language/s (Java, XML, .Net, Web Methods, C, C++, Perl, COBOL, Oracle PL/SQL, Unix Shell scripting)

Functional Responsibility: Directs the activities of other programmers and analysts in the performance of detailed analysis, in building software development tools and in producing highly technical programs such as cross-compilers and communications software operating systems. Responsible for measuring software performance through project design, implementation and evaluation of results. Supervises and participates in the development of manuals and user guides for programmers and operating staff. Establishes and supervises the design of software necessary to integrate new hardware and codes programs in applicable languages using detailed flow diagrams and input/output descriptions as guidelines. Supervises software analysis, the development of program specifications and the development of program code. Performs implementation tasks and directs the conduct of application testing to insure results. Directs and participates in the development of manuals and user guides for programmers and operating staff.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have at least ten years of experience in supervising and mentoring other Application developers in the performance of detailed analysis, in building software development tools and in producing highly technical programs such as cross-compilers and communications software operating systems.

Commercial Job Title: Application Development Team Lead
Minimum Technical Qualifications/Experience: Overall 9-12 years of experience in leading Application Development teams in developing, testing and implementing various mission critical applications applications. Must have progressively worked his way up to be a Team Lead and should be proficient with Coding standards several programming in the relevant programming language/s (Java, XML, .Net, Web Methods, C, C++, Perl, COBOL, Oracle PL/SQL, Unix Shell scripting)

Functional Responsibility: Provides technical direction to personnel performing systems analysis and system development tasks. Coordinates and performs logical and physical systems designs. Reviews and prepares system documents or specifications. Prepares reports, studies, and documentation, delivers presentations, and participates in meetings. Leads the Application development team in developing, testing and implementing various mission critical applications applications. Thoroughly understands Application Development Cycle.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical).

Commercial Job Title: Business / System Analyst
Minimum Technical Qualifications/Experience: Overall two (2) years of experience in assisting the Senior Business Analysts in analyzing the business processes and Information Systems of organizations. This includes the analysis of the architecture of the system, what hardware, operating system and software the organization uses, what is the role of each hardware and software element, what databases the organization runs and on what platforms, which processes run on which platform/hardware, in what programming languages have the business logic been written.

Functional Responsibility: Under general direction, supports the development, enhancement, and maintenance of business solutions using information technology based on customer needs. Documents customer specifications and interacts with other support groups to apply understanding of customer's business. Anticipates, researches, identifies, and develops solutions to customer problems. Also responsible for assisting the Senior Analysts in technically analyzing the Information Systems of organizations. This includes the analysis of the architecture of the system, what hardware, operating system and software the organization uses, what is the role of each hardware and software element, what databases the organization runs and on what platforms, which processes run on which platform/hardware, in what programming languages have the business logic been written.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Business, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast four years of experience in analyzing the business processes and Information Systems of organizations.

Commercial Job Title: Senior Business / System Analyst

Minimum Technical Qualifications/Experience: Overall six (6) years of experience in analyzing the business processes and Information Systems of organizations, mentoring other Business/System Analysts, coordinating and supporting the development, enhancement, and maintenance of products and services applicable to multiple lines of a customer's business using information technology.

Functional Responsibility: Under minimal direction, coordinates and supports the development, enhancement, and maintenance of products and services applicable to multiple lines of a customer's business using information technology. Also responsible for mentoring the Business/System Analysts while technically analyzing the business processes and/or Information Systems of organizations. This includes the analysis of the architecture of the system, what hardware, operating system and software the organization uses, what is the role of each hardware and software element, what databases the organization runs and on what platforms, which processes run on which platform/hardware, in what programming languages have the business logic been written. Anticipates and identifies user problems and needs. Recommends business solutions based on customer requirements and industry trends. Leads, plans, schedules, and controls complex projects and activities with customers, support groups, and vendors on concurrent projects. Applies extensive knowledge of the customer's business and industry to develop project specifications. Advises on methods to improve business processes and remove non-value added activities. Coordinates and participates in proposals, feasibility studies, implementations, and new business development. leads the training of customers and peers and builds relationships with multiple customer levels.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Business, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if and only if they have atleast eight years of experience in analyzing the business processes and Information Systems of organizations.

Commercial Job Title: Business / System Analysis Team Lead

Minimum Technical Qualifications/Experience: Overall ten (10) years of experience in leading the team of Analysts on large projects, studies, and implementations, analyzing the business processes and Information Systems of organizations. Ability to apply knowledge of the entire customer organization to recommend and coordinate the development, enhancement, and maintenance of a customer's business systems, processes, and products.

Functional Responsibility: Applies knowledge of the entire customer organization to recommend and coordinate the development, enhancement, and maintenance of a customer's business systems, processes, and products. Develops innovative business solutions using information technology and knowledge of customer business and industry.
trends. Leads teams on large projects, studies, and implementations. Leverages industry knowledge and customer relationships to identify new business opportunities that make the customer successful. Presents the results of business studies to customer senior management. Promotes and directs process improvement activities and training of peers and customers. Responsible for leading the team of the Business/System Analysts in technically analyzing the business processes and/or Information Systems of organizations. This includes the analysis of the architecture of the system, what hardware, operating system and software the organization uses, what is the role of each hardware and software element, what databases the organization runs and on what platforms, which processes run on which platform/hardware, in what programming languages have the business logic been written. Anticipates and identifies user problems and needs

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Business, Mathematics or Engineering (Electrical, Computer, Mechanical).

Commercial Job Title: Junior Application Integration Specialist

Minimum Technical Qualifications/Experience: Overall three to five years of technical experience with the integration of multi-vendor software and hardware components in Client/Server, LAN and WAN environments.

Functional Responsibility: Working under direct supervision of Systems Integration Specialist, performs detailed analysis and works on the development of alternative solutions for computer systems integration. Assists in conducting feasibility studies and in performing project tasks; conducts system testing to ensure results and provides verbal and written feedback and reports as directed. May develop and test data conversion routines.

Minimum Education: Bachelors Degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration. Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least seven years of experience with the integration of multi-vendor software and hardware components in Client/Server, LAN and WAN environments.

Commercial Job Title: Application Integration Specialist

Minimum Technical Qualifications/Experience: Overall 6-8 years of technical experience with the integration of multi-vendor software and hardware components in Client/Server, LAN and WAN environments. Requires competence in software and hardware implementation, analysis techniques, concepts and methods. Proven ability to work well independently and with minimum supervision.

Functional Responsibility: Provides computer systems expertise on projects requiring establishment of a new automated information system where integration with existing systems is required. Performs systems analysis, development of alternative solutions, and design of technical and business solutions. Working with minimal supervision, conducts project feasibility and implementation studies, including the development of plans and testing for evaluation. Develops and implements data conversion routines. Performs system testing to ensure satisfactory results. Duties require knowledge of data sources, data flow, system interactions, and computer equipment and software applications. May perform selected project tasks independently or with minimal direction. Provides technical support to the project team. Establishes and maintains development and testing environments and the configuration management process and structures. Serves as point-of-contact for third-party software and hardware vendors.

Minimum Education: Bachelors Degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration. Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least ten years of experience with the integration of multi-vendor software and hardware components in Client/Server, LAN and WAN environments, software and hardware implementation, analysis techniques, concepts and methods.

Commercial Job Title: Application Integration Team Lead

Minimum Technical Qualifications/Experience: Ten (10) years of technical experience with the integration of multi-vendor software and hardware components in Client/Server, LAN and WAN environments. Requires competence in all phases of software and hardware implementation, analysis techniques, concepts and methods; in addition to knowledge of available features, hardware/software compatibility, network architecture and management practices.
Functional Responsibility: Responsible for ensuring a stable and usable system through the integration of various software and hardware platforms and components. Serves as computer systems expert on assignments involving the establishment of a framework for new automated information systems where integration with existing systems is required. Directs other staff and supervises the performance of detailed analysis, development of alternative solutions, and design of technical and business solutions. Directs and supervises conduct of project feasibility studies through post-implementation evaluation, including the development of implementation plans and testing for evaluation. Performs quality assurance tests and reviews results of system tests. Supervises the development of data conversion plans. Duties require a broad knowledge of data sources, data flow, system interactions, advanced computer equipment and software applications, and advanced systems design techniques to advise policy making officials on systems design and ADP forecasts.

Minimum Education: Bachelors Degree in Computer Sciences

Commercial Job Title: Junior Software Tester
Minimum Technical Qualifications/Experience: Two (2) years of experience in performing unit and integration testing manually as well as using automated tools like Load Runner, WinRunner and Test Director. Must have knowhow of both black box as well as white box testing. Must know how to conduct application, regression and load testing.

Functional Responsibility: Responsible for assisting Software Testers in performing unit and integration testing for the system and/or applications (client server and web applications) to ensure that the system/application software is compliant with the access control exposure. Testing is done both manually as well as using several testing tools like Load runner, WinRunner and Test Director.

Minimum Education: Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration. Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast four years of experience in performing unit and integration testing manually as well as using automated tools like Load Runner, WinRunner and Test Director.

Commercial Job Title: Software Tester
Minimum Technical Qualifications/Experience: Overall five (5) years of experience in independently performing unit and system integration testing (load, functional and regression testing) manually as well as using automated tools like Load Runner, WinRunner and Test Director. Must have expertise in both black box as well as white box testing. Must know how to conduct application, regression and load testing.

Functional Responsibility: Responsible for performing the system and/or application testing (client server and web applications) to ensure that the system/application software is compliant with the access control exposure. Responsible for following the test plan, conducting the unit as well as system testing as per pre-defined test cases, complete test reporting documentation, identify bugs and the root cause.

Minimum Education: Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration. Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast seven years of experience in performing unit and integration testing manually as well as using automated tools like Load Runner, WinRunner and Test Director.

Commercial Job Title: Senior Software Tester
Minimum Technical Qualifications/Experience: Overall Eight (8) years of experience in defining test cases, developing test plans and leading the software testing and validation teams in performing the unit, and integrated system (functional, load, regression)testing of complex software/systems. Must have a thorough understanding of Software Testing and Quality Assurance Methodologies like IEEE.

Functional Responsibility: Responsible for developing the test cases system/application test plan/design, test procedures and leading a team of testers in performing the unit, and integrated system (functional, load, regression)testing of complex software/systems. Responsible for reviewing the test reporting documentation, test
execution and tracking, and release management. Responsible for ensuring that the system/application software is compliant with the access control exposure.

Minimum Education: Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration.

Commercial Job Title: Junior Help Desk Specialist
Minimum Technical Qualifications/Experience: Overall two to four years experience in providing software support functions like assisting users and system developers with issues and problems in system operation.

Functional Responsibility: Responds to and diagnoses problems through discussions with users. Includes problem recognition, research, isolation, and resolution steps. Typically is able to resolve less complex problems immediately, while more complex problems are assigned to senior level support. May involve use of problem management database and help desk systems.

Minimum Education: High School Diploma

Commercial Job Title: Help Desk Specialist
Minimum Technical Qualifications/Experience: Overall five to seven years experience in providing software support functions like assisting users and system developers with issues and problems in system operation.

Functional Responsibility: Responsible for ensuring the timely process through which problems are controlled. Includes problem recognition, research, isolation, resolution, and follow-up steps. Requires experience and understanding of MIS environment. Typically involves use of problem management database and help desk system. May provide guidance/training for less-experienced personnel.

Minimum Education: High School Diploma

Commercial Job Title: Senior Help Desk Specialist
Minimum Technical Qualifications/Experience: Overall 8 -10 years experience in problem management in a help desk support environment. Requires experience in all phases of help desk operation.

Functional Responsibility: Has overall responsibility for help desk staff and the activities associated with the identification, prioritization, and resolution of reported problems. Ensures that all phases of help desk support are coordinated, monitored, logged, tracked, and resolved appropriately. May maintain responsibility for development, maintenance, and integrity of help desk software. Assigns personnel to various operations and directs their activities. Reviews and evaluates work and prepares performance reports.

Minimum Education: Bachelor's degree in Arts, Sciences, Computers, Information Systems, Business or Personal

Commercial Job Title: Junior Systems Engineer
Minimum Technical Qualifications/Experience: Three (3) years of technical experience applicable to systems analysis and design techniques for computer systems. Requires competence in systems analysis techniques, concepts and methods; in addition to knowledge of available hardware, software, devices, and architecture.

Functional Responsibility: Under direct supervision of Systems Engineer, performs detailed information engineering analysis and assists in developing alternative solutions. Assists with conducting feasibility studies and tests implementation plans as necessary. Conducts system testing under supervision.

Minimum Education: Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration. Three years of relevant experience can be substituted for the BA degree

Commercial Job Title: Systems Engineer
Minimum Technical Qualifications/Experience: Five (5) years of technical experience applicable to systems analysis and design techniques for complex computer systems. Requires competence in systems analysis techniques, concepts and methods, in addition to knowledge of available hardware, software, devices, and architecture.

Functional Responsibility: Under supervision of Senior Systems Engineer, performs information engineering
analysis, develops alternative solutions and designs technical and business solutions. Works during the design phase to design an information systems architecture including hardware, operating system and software/relational database management system (DBMS) that best meets customer requirements. Assists with project planning, scheduling and works with other contractors as necessary. Conducts quality assurance reviews and assists Senior Systems Engineer with consulting expertise during the analysis and design phases of an information engineering task. Conducts information engineering feasibility studies, and performs system and product testing to insure satisfactory results. May work independently or with minimal supervision.

Minimum Education: Bachelor’s Degree in Computer Science, Information Systems, Engineering, Business, Economics, Mathematics or Public Administration. Five years of relevant experience can be substituted for the BA degree.

**Commercial Job Title: Senior Systems Engineer**

Minimum Technical Qualifications/Experience: Ten (10) years of technical experience applicable to systems analysis and design techniques for complex computer systems. Requires competence in all phases of systems analysis techniques, concepts and methods; in addition to knowledge of available hardware, software, devices, architecture and management practices.

Functional Responsibility: Directs the overall performance of detailed information engineering analysis, including the development of alternative solutions and the design of technical and business solutions. Plans and manages project schedules, directs the work of other contractors, provides quality assurance reviews, and provides consulting services during the planning, analysis and design phases of an information engineering task. Develops and directs the conduct of information engineering feasibility studies. Performs project management, supervises project task implementation and directs system and product testing to insure satisfactory results.

Minimum Education: Bachelor’s Degree in Computer Science. Ten to fifteen (10-15) years experience can be substituted for a Bachelor’s Degree.

**Commercial Job Title: Junior Internet Developer**

Minimum Technical Qualifications/Experience: Overall two (2) years of experience in developing Internet/Intranet applications in .Net, XML, Java, EJB and Java Script.

Functional Responsibility: Assists the Internet Developers in coding in a variety of programming languages like .Net, XML, Java, EJB and Java Script as per the programming specifications given by the Senior Internet Developer to develop various applications.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least four years of experience in programming in various languages like .Net, XML, Java, EJB and Java Script.

**Commercial Job Title: Internet Developer**

Minimum Technical Qualifications/Experience: Overall four (4) years of experience in independently analyzing web systems and developing Internet/Intranet applications in .Net, XML, Java, EJB and Java Script and deploying the applications on the Application Servers like Weblogic, Websphere and iPlanet. Must be proficient in one or more of .Net, Java, HTML, DHTML, JavaScript, CGI, Cold Fusion, COM/DCOM, CORBA.

Functional Responsibility: Analyzing, understanding the architecture and developing Internet applications using languages like Microsoft .Net, Java, XML, JSP, EJB and Javascript and deploying the applications on the Application Servers like Weblogic, Websphere and iPlanet. Also responsible for writing interfaces, developing stored Procedures, Triggers and Views, Unit testing and code review. Can work independently in support of a joint applications development effort.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least six years of experience in independently developing industry Internet/web applications.
Commercial Job Title: Senior Internet Developer
Minimum Technical Qualifications/Experience: Overall eight (8) years of experience in leading the analyzing systems and developing and Internet/Intranet applications in .Net, XML, Java, EJB and Java Script and deploying the applications on the Application Servers like Weblogic, Websphere and iPlanet. Must be proficient with Web Architecture and Development Methodologies

Functional Responsibility: Lead a team of Internet Developers in Analyzing, designing, developing and testing Internet applications using languages like Microsoft .Net, Java, XML, JSP, EJB and Javascript and deploying the applications on the Application Servers like Weblogic, Websphere and iPlanet. Responsible for unit testing, code review, preparing technical and user documentation.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical).

Commercial Job Title: Data Warehouse Programmer Analyst
Minimum Technical Qualifications/Experience: 3 - 5 years of experience in product support and maintenance of the data warehouse applications


Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical).

Commercial Job Title: Senior Data Warehouse Programmer Analyst
Minimum Technical Qualifications/Experience: 6 - 8 years of experience in product support and maintenance of the data warehouse applications. Works in a Data Warehouse Environment, which includes Data Design, Database Architecture, metadata and repository creation. Reviews data loaded into the data warehouse for accuracy.

Functional Responsibility: Responsible for the development, maintenance and support of Enterprise Data Warehousing system and corresponding data marts. Troubleshoots and tunes existing data warehouse applications. Conducts research into new data warehouse applications and determines viability for adoption. Establishes development standards. Evaluates existing subject areas stored in the data warehouse. Incorporates existing subject areas into an enterprise model. Creates new or enhanced components of the data warehouse. Monitors status of assignments and reviews work for completion / quality.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical).

Commercial Job Title: Junior Database Administrator
Minimum Technical Qualifications/Experience: Two years of general experience in database design, database implementation, and database administration using database management systems (DBMS) in a complex mainframe or network-based environment, similar in size and complexity to the client environment, where skills in problem analysis, testing, and performance tuning were obtained. Of these three years at least one year must include technical expertise in using at least one of the following DBMS products relevant to the specific task: IMS, DB2, ADABAS, ORACLE, SYBASE, SQL Server, INGRES. In addition, work experience must include at least two years of concurrent experience in technical writing in the form of status reports and documentation of problems and problem resolution as well as presenting verbal reports.

Functional Responsibility: Design, develop, implement, and administer databases. Provides technical expertise in the use of DBMS. Evaluates and recommends available DBMS products to support use requirements. Defines database organization and indexing methods for specific user applications. Working closely with security systems specialist, defines security procedures for backup and recovery and to control user access. Monitors and fine tunes database performance. Establishes standards for data definition and access. Specifies and controls implementation of software enhancements and problem solutions to the operational system. Establishes testing requirements for systems under development.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above
will also be considered if they have at least four years of experience in the field of database administration.

**Commercial Job Title: Database Administrator**
Minimum Technical Qualifications/Experience: Five (5) years general experience including two (2) years specialized experience. Requires some supervisory responsibility and management interface. Two of the four years of experience must include providing direction to personnel performing database administration tasks and technical expertise in using at least one of the following DBMS products relevant to the specific task: IMS, DB2, ADABAS, ORACLE, SYBASE, SQL Server, INGRES.

Functional Responsibility: Responsible for
- Installing the database on the server as well as installing the clients.
- Maintaining and creating Users, Nodes, Instances, Databases, Tables Spaces, Containers, Buffer Pools and Logs.
- Migrating data between databases.
- Extracting data from one system into flat files and then loading into the database without constraints.
- Writing Stored procedures, Triggers to populate data from non-constraints tables to normalized tables with constraints.
- Tuning the database manager configuration, database configuration parameters like Bufferpools, Shared Memory variables, I/O variables, Application heap, Database heap size, Logs and Sort area to increase performance of the system.
- Analyzing the execution path of the query to determine the cost, indexing and cardinality.
- Writing scripts to create instances, databases, scheduling online, offline backups and restoring databases.
- Implementing Active- Standby Clustering, database partitioning using utilities.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least seven years of experience in the design, implementation, operation and maintenance of database management systems (DBMS).

**Commercial Job Title: Senior Database Administrator**
Minimum Technical Qualifications/Experience: Eight years of general experience in systems analysis or programming including three (3) years of specialized experience in DBMSs. Two of the six years of experience must include providing direction to personnel performing database administration tasks and technical expertise in using at least one of the following DBMS products relevant to the specific task: IMS, DB2, ADABAS, ORACLE, SYBASE, SQL Server, INGRES.

Provides highly technical expertise and guidance in the design, implementation, operation and maintenance of database management systems (DBMS). Evaluates and recommends available DBMS products after matching requirements with system capabilities. Determines file organization, indexing methods, and security procedures for specific applications. Controls the design and use of databases. Controls the global view of databases, controls the access to the databases, assures the safekeeping of the databases (from accidental or intentional damage or loss), and monitors the use of databases. Must be capable of defining all required database administration policies, procedures, standards, and guidelines. Is an authority on the design of databases and the use of database management systems. Evaluates and recommends available DBMS products after matching requirements with system capabilities. Prepares and delivers presentations on DBMS concepts.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical)

**Commercial Job Title: Junior System Administrator**
Minimum Technical Qualifications/Experience: Two (2) years of experience in managing systems (Windows, HP Unix, Sun Solaris, MVS, VMM Unisys 2200) on different platforms like mainframe, midrange and PCs.

Functional Responsibility: Responsible for assisting the System Administrators in managing the Systems on different platforms run within the Mainframe, Mid-Range, or PC environments with platforms that include but are not limited to:
Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast four years of experience in performing system administration tasks.

**Commercial Job Title: System Administrator**

Minimum Technical Qualifications/Experience: Overall four (4) years of experience in installing, managing, maintaining and troubleshooting hardware and software on systems (Windows, HP Unix, Sun Solaris, MVS, VMM Unisys 2200) on different platforms like mainframe, midrange and PCs. Must also have

Functional Responsibility: Responsible for the installing, managing, maintaining and troubleshooting hardware and software on systems, to maintain the on-going operational performance of programs (software) and the hardware on which the programs run within the Mainframe, Mid-Range, or PC environments with platforms that include but are not limited to:

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<tr>
<th>MF</th>
<th>MR</th>
<th>PC</th>
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<tr>
<td>IBM (MVS, VM)</td>
<td>AS400</td>
<td>WINDOWS/NT</td>
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<tr>
<td>UNISYS (2200, A Series)</td>
<td>UNIX</td>
<td>NETWARE</td>
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<tr>
<td>DEC</td>
<td>OS/2</td>
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<td>SUN</td>
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Under minimal direction, implements and supports local area network (LAN) and campus area network (CAN) hardware and software. Analyzes customer workflow and procedures to recommend operational support tools and technologies to satisfy customer needs. Acts as a liaison between the customer, suppliers, and other technical groups to resolve network and hardware problems. Analyzes performance problems and recommends solutions to enhance functionality, reliability and/or usability. Implements operational support standards and procedures relating to change management, performance management, and security. Recommends changes and improvements to existing standards. Develops site administration manual (SAM) documentation. Provides user orientation on hardware, software and network operations.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast seven years of experience in installing, managing, maintaining and troubleshooting hardware and software on systems (Windows, HP Unix, Sun Solaris, MVS, VMM Unisys 2200) on different platforms like mainframe, midrange and PCs

**Commercial Job Title: Senior System Administrator**

Minimum Technical Qualifications/Experience: Overall six (6) years of experience in planning, programming, management and operation of systems, procedures and guidelines that work to maintain the on-going operational performance of programs (software) and the hardware on which the programs run within the Mainframe, Mid-Range, or PC environments with platforms that include but are not limited to Windows, HP Unix, Sun Solaris, MVS, VMM Unisys 2200

Functional Responsibility: Responsible for the planning, programming, management and operation of systems, procedures and guidelines that work to maintain the on-going operational performance of programs (software) and the hardware on which the programs run within the Mainframe, Mid-Range, or PC environments with platforms that include but are not limited to:
Responsible for coordinates operational designs, develops support plans, coordinates implementations, and provides second level support for local area network (LAN), campus area network (CAN), and wide area network (WAN) solutions encompassing heterogeneous platforms. Develops system support requirements by reviewing and analyzing customer business processes and evaluating available and/or supplier capabilities. Leads project teams in implementing new or upgraded designs and coordinates project efforts with support groups. Provides technical support for marketing initiatives through participation in proposals and marketing studies. Creates plans that support implementation of changes. Participates in system support design and performance evaluation reviews. Advises on distributed network computing issues. Establishes and maintains security and integrity standards and controls. Ensures support plans and services meet customer needs and expectations. Assists in the evaluation, testing and recommendation of hardware, software, and network configurations based on customer need. Coaches others in the application of new operational support technologies. Analyzes user requirements and statistics to identify trends and resolve performance issues. Keeps abreast of emerging operational support technologies and industry trends. Recommends appropriate price/performance improvement opportunities.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical).

**Commercial Job Title: Network Engineer**

Minimum Technical Qualifications/Experience: Overall four (4) years of experience in networking administration. Must be knowledgeable in computer technology, including architecture, operating systems, and hardware components, such as workstations, disks, and graphics input and output devices; must be knowledgeable in distributed computing system concepts, including client/server computing issues, mass storage technology, and computer network technology. Must have experience in configuring UNIX workstations, including SunOS and SPARC products, and associated third party peripherals. Mass storage experience should include optical technology; must thoroughly understand complex network principles related to IEEE802, ISDN, X.25, TI, TCP/IP, and NFS. This should include protocol specifications, performance limitations, network inter-connectivity issues, and network security. Network experience must include configuring one or more networks based on serial communications, MODEMS, Ethernet, TCP/IP, and NFS. It is desirable to have UNIX software development experience; must have ability to effectively communicate technical information to non-technical personnel, both orally and in writing.

Functional Responsibility: Responsible for developing, refining, and troubleshooting a large distributed environment, involving UNIX and MS-DOS platforms. Designs, develops, tests and implements new system software modules and enhancements to current systems; designs, develops, tests, and implements diagnostic utilities to analyze and report system status and performance. Monitors and evaluates overall system performance of operating system facilities, software products, computer services, and communications and networking facilities; specifies, installs and tests system components as required to enable system to meet desired performance objectives.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast seven years of experience in developing, refining, and troubleshooting a large distributed environment, involving UNIX and MS-DOS platforms

**Commercial Job Title: Senior Network Engineer**

Minimum Technical Qualifications/Experience: Overall six (6) years of experience in planning, management, support, and operation of the LAN/WAN environment. Must be knowledgeable in computer technology, including architecture, operating systems, and hardware components, such as workstations, disks, and graphics input and output devices; must be knowledgeable in distributed computing system concepts, including client/server computing issues, mass storage technology, and computer network technology. Must have experience in configuring UNIX
workstations, including SunOS and SPARC products, and associated third party peripherals. Must thoroughly understand complex network principles related to IEE802, ISDN, X.25, TI, TCP/IP, and NFS. This should include protocol specifications, performance limitations, network inter-connectivity issues, and network security. Network experience must include configuring one or more networks based on serial communications, MODEMS, Ethernet, TCP/IP, and NFS. It is desirable to have UNIX software development experience; must have ability to effectively communicate technical information to non-technical personnel, both orally and in writing.

Functional Responsibility: Responsible for planning, management, support, and operation of the LAN/WAN environment. Provides system administration of Network, Web, and/or communications systems, including Local Area Network (LAN), Wide Area Network (WAN). Maintains servers, creates monitoring reports and logs and ensures functionality of links. Establishes backups and monitors site security. Responsible for developing, refining, and troubleshooting a large distributed environment, involving UNIX and MS-DOS platforms. Designs, develops, tests and implements new system software modules and enhancements to current systems; designs, develops, tests, and implements diagnostic utilities to analyze and report system status and performance. Evaluates overall system performance of operating system facilities, software products, computer services, and communications and networking facilities; specifies, system components as required to enable system to meet desired performance objectives.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast ten years of experience in planning, management, support, and operation of the LAN/WAN environment.

Commercial Job Title: ERP (Enterprise Resource Planning) Specialist
Minimum Technical Qualifications/Experience: Overall four (4) years of functional analysis/design as well as technical design experience in implementation of several modules of the Enterprise Resource Planning (ERP) packages like SAP, PeopleSoft and Oracle Financials. Must be very familiar both with the functionalities of various modules of these packages, the technical architecture of the software package and the customization "proprietary" languages like PeopleTools (for Peoplesoft) and ABAP (for SAP)

Functional Responsibility: Responsible for functional analysis/design as well as technical design and implementation of the Enterprise Resource Planning (ERP) packages like SAP, PeopleSoft and Oracle Financials. Also responsible for development of programs to integrate the ERP packages with the existing business and IS systems. Responsible for customizing the solution as per client needs using languages like PeopleTools and ABAP. Responsible for supporting the delivery of technical and business solutions based upon enterprise applications (ERP products based), and working independently to develop enterprise-based programs of medium to high complexity. Activities include the development, integration and deployment of enterprise solutions. Responsible for enterprise applications programming, workshops, documentation, training and user support. Efforts will produce business solution models, technical work products, unit-tested code, instructional courseware, data structures, user interfaces, documentation and enhanced logical processes that will effectively utilize enterprise applications.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have atleast seven years of functional analysis/design as well as technical design experience in implementation of several modules of the Enterprise Resource Planning (ERP) packages like SAP, PeopleSoft and Oracle Financials.

Commercial Job Title: Senior ERP (Enterprise Resource Planning) Specialist
Minimum Technical Qualifications/Experience: Six (6) years of functional/technical experience in implementation of several modules of Enterprise Resource Planning packages like SAP, PeopleSoft, Oracle Financials. Must be very familiar both with the functionalities of various modules of these packages, the technical architecture of the software package, the customization "proprietary" languages like PeopleTools (for Peoplesoft) and ABAP (for SAP). In addition, must have a strong knowhow of performing effective gap analysis for full scale implementation. Must possess business and/or architectural expertise with regard to effectively adapting functional business requirements and processes to technical solutions based upon comprehensive enterprise application solution sets.
Functional Responsibility: Recognized for business and/or architectural expertise with regard to effectively adapting functional business requirements and processes to technical solutions based upon comprehensive enterprise application solution sets. Work with senior managers and executives to provide vision and strategic direction for those functional areas that support the defined business disciplines within the enterprise, and to provide insight into selecting the enterprise applications (such as ERP products) that set the direction and establish an approach for a technical solution. Analyzes ERP gap analysis and architecture for full-scale implementation. Designs ERP application interfaces and the solution infrastructure baseline across the functional areas of interest. Manages ERP development, implementation, integration, testing and follow on support. While considering the needs of specific business areas, as well as those of the enterprise, provide expertise on technology and industry trends that will affect enterprise solution sets, including technical platforms and network architectures. Lead technical design reviews, validate enterprise approaches, define application systems that support redesigned or improved business processes, recommend technical architectures that lead to comprehensive business solutions, and assess work products. Updates and debugs system problems to ensure functionality. Also responsible for developing and educating others with regard to the solution set for business and/or architecture-specific best practices. Provides guidance and direction to other professionals, acts in a consulting and/or advisory capacity; coordinates resolution of highly complex problems and tasks, possesses ability to meet and operate under deadlines.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least eight years of experience in

**Commercial Job Title: E-Government Specialist**

Minimum Technical Qualifications/Experience: Five (5) years of experience in conceptualizing, analyzing, designing and implementing the web modules, web based applications and web sites for State and/or Federal Government.

Functional Responsibility: Responsible for need analysis, conceptualization, analysis, design and implementation of web applications, web modules, e-forms, web sites and portals for the State and Federal Government agencies. Responsible for improvements to the existing Government Web applications.

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Business, Arts, Economics, Mathematics or Engineering (Electrical, Computer, Mechanical).

**Commercial Job Title: Hardware Engineer**

Minimum Technical Qualifications/Experience: Five (5) years of experience in organizing and directing hardware installations on sites as per Engineering Plans, designing and optimizing various network topologies and troubleshooting and maintain the hardware. Also responsible for PCB designing and component level troubleshooting on the PC motherboards.

Functional Responsibility: Organizes and directs hardware installations on site surveys. Assesses and documents current site network configuration and user requirements. Designs and optimizes network topologies. Analyzes and develops new hardware requirements and prepares specifications for hardware acquisitions. Directs and leads preparation of engineering plans and site installation Technical Design Packages. Develops hardware installation schedules. Mobilizes installation team. Directs and leads preparation of drawings documenting configuration changes at each site. Prepares site installation and test reports. Coordinates post installation operations and maintenance support. Design of reference schematics using the company's products and associated analog and digital components, reference design PCB layout, work with video products, debugging, troubleshooting board level noise and jitter issues, Troubleshoot of customer boards, working with chip designers in debugging new silicon, system level validation for new silicon by providing appropriate test cases and investigating problems, Design and programming of FPGA validation boards

Minimum Education: Bachelor's degree in Computer Sciences, Information Systems, Mathematics or Engineering (Electrical, Computer, Mechanical). Candidates having Bachelors Degree in disciplines other than those listed above will also be considered if they have at least seven years of experience in organizing and directing hardware installations on sites as per Engineering Plans, designing and optimizing various network topologies and
troubleshooting and maintain the hardware.