GENERAL SERVICES ADMINISTRATION

Federal Acquisition Service
Authorized Federal Supply Schedule Price List

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.**

Schedule for 00CORP - Professional Services Schedule (PSS)
Federal Supply Group: PSS **Class:**
Contract Number: 47QRAA18D0090
For more information on ordering from Federal Supply Schedules
click on the FSS Schedules button at http://www.gsa.gov/schedules-ordering
Contract Period: 05/04/2018 – 05/03/2023

Contractor:	OST, INC.
	2101 L Street NW Suite 800
	Washington, DC, DC 20037 1657
Business Size:	Large Business
Telephone:	703-663-8554
Extension:	
FAX Number:	
Web Site:	www.ostglobal.com
E-mail:	contracts@ostglobal.com
Contract Administration:	Henry M. Watkins

CUSTOMER INFORMATION:

1a. Table of Awarded Special Item Number(s) with appropriate cross-reference to page numbers:

SIN	Recovery	SIN Description
520-13	520-13RC	Complementary Financial Management Services
871-3	871-3RC	System Design, Engineering and Integration
874-4	874-4RC	Training Services: Instructor Led Training, Web Based Training and Education Courses, Course Development and Test Administration
C132-51	C132-51RC	Information Technology Professional Services
C595-21	C595-21RC	Human Resource Services

1b. Identification of the lowest priced model number and lowest unit price for that model for each special item number awarded in the contract. This price is the Government price based on a unit of one, exclusive of any quantity/dollar volume, prompt payment, or any other concession affecting price. Those contracts that have unit prices based on the geographic location of the customer, should show the range of the lowest price, and cite the areas to which the prices apply.

1c. **If the Contractor is proposing hourly rates a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided. If hourly rates are not applicable, indicate "Not applicable" for this item.**

2. **Maximum Order:** $1,000,000.00

3. **Minimum Order:** $100.00

4. **Geographic Coverage (delivery Area):** Domestic Only

5. **Point(s) of production (city, county, and state or foreign country):** Same as company address

6. **Discount from list prices or statement of net price:** Government net prices (discounts already deducted). See Attachment.

7. **Quantity discounts:** None

8. **Prompt payment terms:** Net 30 days

9a. **Notification that Government purchase cards are accepted up to the micro-purchase threshold:** Yes

9b. **Notification whether Government purchase cards are accepted or not accepted above the micro-purchase threshold:** will accept over $10,000

10. **Foreign items (list items by country of origin):** None

11a. **Time of Delivery (Contractor insert number of days):** Specified on the Task Order

11b. **Expedited Delivery. The Contractor will insert the sentence "Items available for expedited delivery are noted in this price list." under this heading. The Contractor may use a symbol of its choosing to highlight items in its price list that have expedited delivery:** Contact Contractor

11c. **Overnight and 2-day delivery. The Contractor will indicate whether overnight and 2-day delivery are available. Also, the Contractor will indicate that the schedule customer may contact the Contractor for rates for overnight and 2-day delivery:** Contact Contractor

11d. **Urgent Requirements. The Contractor will note in its price list the "Urgent Requirements" clause of its contract and advise agencies that they can also contact the Contractor's representative to effect a faster delivery:** Contact Contractor

12. **F.O.B Points(s):** Destination

13a. **Ordering Address(es):** Same as Contractor

13b. **Ordering procedures: For supplies and 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(es):** Same as company address

15. **Warranty provision.:** Contractor's standard commercial warranty.

16. **Export Packing Charges (if applicable):** N/A

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

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 applicable):** 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. **Environmental attributes, e.g., recycled content, energy efficiency, and/or reduced pollutants:** N/A

24b. **If applicable, indicate that Section 508 compliance information is available on Electronic and Information Technology (EIT) supplies and services and show where full details can be found (e.g. contactor's website or other location.) The EIT standards can be found at:** www.Section508.gov/.

25. **Data Universal Numbering System (DUNS) number:** 073877297

26. **Notification regarding registration in Central Contractor Registration (CCR) database:** Registered

27. **Final Pricing:**
The rates shown below include the Industrial Funding Fee (IFF) of 0.75%.

SIN(s) Awarded	Labor Categories	Minimum Education	Minimum Experience	Contractor or Customer Facility or Both	Domestic or Overseas	GSA Rate Including IFF
C132-51 520 874	Accountant, Cost (Senior)	Bachelors	8	Both	Domestic Only	$105.66
C132-51 874 871	Analyst, Computer Software/Integration (Senior)	Bachelors	8	Both	Domestic Only	$125.83
C132-51 874 871	Analyst, Computer Systems (Junior)	Bachelors	3	Both	Domestic Only	$103.95
C132-51 874 871	Analyst, Computer Systems (Senior)	Bachelors	8	Both	Domestic Only	$117.86

C132-51 874 871	Analyst, Financial	Bachelors	5	Both	Domestic Only	$104.95
C132-51 874 871	Analyst, Financial (Senior)	Bachelors	8	Both	Domestic Only	$114.68
C132-51 874	Analyst, Research	High School	1	Both	Domestic Only	$66.76
C132-51 874 871	Application Developer, Advanced Technology	Bachelors	2	Both	Domestic Only	$118.96
C132-51 874 871	Application Developer, Advanced Technology (Senior)	Bachelors	3	Both	Domestic Only	$124.71
C132-51 874 871	Applications Development Expert	Bachelors	7	Both	Domestic Only	$155.48
C132-51 874 871	Architect, Internet/Web	Bachelors	5	Both	Domestic Only	$117.84
C132-51 520 874	Audit Manager	Bachelors	4	Both	Domestic Only	$79.34
C132-51 520 874	Audit Supervisor	Bachelors	2	Both	Domestic Only	$94.50
C132-51 520 874	Auditor (Senior)	Bachelors	10	Both	Domestic Only	$122.14
C132-51 520 874	Auditor, IT (Senior)	Bachelors	10	Both	Domestic Only	$128.95
C132-51 520 874	Auditor, Lead	Bachelors	2	Both	Domestic Only	$67.94
C132-51 520 874	Auditor, Staff	Bachelors	1	Both	Domestic Only	$52.99
C132-51 520 874	Business Process Consultant (Senior)	Bachelors	8	Both	Domestic Only	$148.21
C132-51 874	Computer Graphics Illustrator	High School	3	Both	Domestic Only	$42.93
C132-51 874	Computer Operations Center Specialist	Bachelors	5	Both	Domestic Only	$110.22
C132-51 874	Computer Operations Research Analyst	Bachelors	1	Both	Domestic Only	$86.79
C132-51 874	Computer Operator	High School	5	Both	Domestic Only	$53.40

C132-51 874	Computer Operator (Senior)	High School	7	Both	Domestic Only	$57.79
C132-51 874	Computer Specialist	Bachelors	5	Both	Domestic Only	$126.07
C132-51 874	Computer Specialist (Senior)	Bachelors	8	Both	Domestic Only	$142.06
C132-51 874	Database Management Specialist (Junior)	Bachelors	3	Both	Domestic Only	$126.96
C132-51 874	Database Management Specialist (Senior)	Bachelors	6	Both	Domestic Only	$144.92
C132-51 874	Database Manager	Bachelors	7	Both	Domestic Only	$150.27
C132-51 874 871	Engineer, Facility Operations	Bachelors	8	Both	Domestic Only	$100.01
C132-51 874 871	Engineer, Information	Bachelors	5	Both	Domestic Only	$126.07
C132-51 874 871	Engineer, Information (Senior)	Bachelors	8	Both	Domestic Only	$142.06
C132-51 874 871	Engineer, Information Security	Bachelors	8	Both	Domestic Only	$124.31
C132-51 874 871	Engineer, Interdisciplinary	Bachelors	5	Both	Domestic Only	$126.07
C132-51 874 871	Engineer, Interdisciplinary (Senior)	Bachelors	8	Both	Domestic Only	$142.06
C132-51 874 871	Engineer, Network (Junior)	Bachelors	5	Both	Domestic Only	$112.97
C132-51 874 871	Engineer, Network (Senior)	Bachelors	9	Both	Domestic Only	$130.73
C132-51 874 871	Engineer, Network Security	Bachelors	8	Both	Domestic Only	$124.31
C132-51 874 871	Engineer, Radio Frequency	Bachelors	1	Both	Domestic Only	$51.17
C132-51 874 871	Engineer, Software	Bachelors	3	Both	Domestic Only	$117.96
C132-51 874 871	Engineer, Stationary	Bachelors	8	Both	Domestic Only	$66.58

C132-51 874 871	Engineer, Systems	Bachelors	3	Both	Domestic Only	$115.86
C132-51 874 871	Engineer, Systems (Senior)	Bachelors	6	Both	Domestic Only	$131.06
C132-51 874 871	Engineer, Systems Design	Bachelors	6	Both	Domestic Only	$137.60
C132-51 874 871	Facilities Engineering Manager	Bachelors	10	Both	Domestic Only	$105.59
C132-51 874	Facilities Specialist Level I	High School	1	Both	Domestic Only	$37.53
C132-51 874	Facilities Specialist Level II	High School	2	Both	Domestic Only	$38.47
C132-51 874	Facilities Specialist Level III	High School	5	Both	Domestic Only	$42.34
C132-51 874	Facilities Specialist, Lead	High School	8	Both	Domestic Only	$49.27
C132-51 874	Facility Operations Supervisor	Associates	8	Both	Domestic Only	$83.70
C132-51 874	Geographic Information Systems (GIS) Analyst	Bachelors	2	Both	Domestic Only	$67.05
C132-51 874	Geographic Information Systems Specialist	Bachelors	2	Both	Domestic Only	$61.44
C132-51 874	Geographic Information Systems Technician I	Bachelors	2	Both	Domestic Only	$50.48
C132-51 874	Geographic Information Systems Technician II	Bachelors	3	Both	Domestic Only	$52.52
C132-51 874	Geographic Information Systems Technician Trainee	High School	1	Both	Domestic Only	$40.33
C132-51 874	GeoSpatial Web Developer (Mid-level)	Bachelors	3	Both	Domestic Only	$83.24
C132-51 874	GeoSpatial Web Developer (Senior)	Bachelors	4	Both	Domestic Only	$86.99
C132-51 874	Group Facilitator (Senior)	Bachelors	5	Both	Domestic Only	$100.45
C132-51 874	Help Desk Manager	Bachelors	7	Both	Domestic Only	$139.79
C132-51 874	Help Desk Specialist (Junior)	Bachelors	5	Both	Domestic Only	$81.60
C132-51 874	Help Desk Specialist (Senior)	Bachelors	7	Both	Domestic Only	$87.04
C132-51 874	Internet/Intranet Site Developer (Junior)	Bachelors	1	Both	Domestic Only	$51.64

C132-51874	Internet/Intranet Site Developer (Senior)	Bachelors	5	Both	Domestic Only	$83.10
C132-51874	IT Professional (Senior)	Bachelors	8	Both	Domestic Only	$131.49
C132-51874	Network Administrator	Associates	2	Both	Domestic Only	$98.98
C132-51874	Network Manager	Bachelors	12	Both	Domestic Only	$147.10
C132-51874	Network Technician (Junior)	Associates	3	Both	Domestic Only	$63.31
C132-51874	Network Technician (Senior)	Associates	7	Both	Domestic Only	$76.47
C132-51874	Operations Research Analyst (Senior)	Bachelors	8	Both	Domestic Only	$115.79
C132-51874	Planner, Information Technology (Senior)	Bachelors	10	Both	Domestic Only	$120.16
C132-51874	Program Administration Specialist	High School	3	Both	Domestic Only	$75.78
C132-51874	Program Manager	Bachelors	12	Both	Domestic Only	$199.67
C132-51874	Project Control Specialist	High School	3	Both	Domestic Only	$50.40
C132-51874	Project Manager	Bachelors	5	Both	Domestic Only	$127.36
C132-51874	Quality Assurance Consultant (Senior)	Bachelors	8	Both	Domestic Only	$167.59
C132-51874	Quality Assurance Manager	Bachelors	6	Both	Domestic Only	$134.43
C132-51874	Quality Assurance Specialist	Bachelors	5	Both	Domestic Only	$118.62
C132-51874	Risk Assessment Consultant (Senior)	Bachelors	10	Both	Domestic Only	$172.30
C132-51874	Security, Computer Systems Specialist	Bachelors	6	Both	Domestic Only	$104.13
C132-51874	Security, Data Specialist	Bachelors	4	Both	Domestic Only	$107.66
C132-51874	Subject Matter Expert	Bachelors	7	Both	Domestic Only	$186.57
C132-51874	Subject Matter Expert (Senior)	Bachelors	12	Both	Domestic Only	$207.29
C132-51874	System Security Research Analyst	Bachelors	0	Both	Domestic Only	$66.76
C132-51874	Systems Analyst, Wireless	Bachelors	4	Both	Domestic Only	$112.42
C132-51874	Systems Security Specialist	Bachelors	12	Both	Domestic Only	$123.04
C132-51874	Systems Security Specialist (Senior)	Bachelors	8	Both	Domestic Only	$111.01
C132-51874	Telecommunications Consultant (Senior)	Bachelors	10	Both	Domestic Only	$155.48

C132-51 874	Telecommunications Engineer	Bachelors	3	Both	Domestic Only	$117.48
C132-51 874	Telecommunications Engineer (Senior)	Bachelors	10	Both	Domestic Only	$142.99
C132-51 874	Telecommunications, System Analyst	Bachelors	5	Both	Domestic Only	$117.57
C132-51 874	Testing Specialist	Bachelors	4	Both	Domestic Only	$115.00
C132 51 C595 21 520 874 871	Administrative I	High School	3	Both	Domestic Only	$45.29
C132 51 C595 21 520 874 871	Administrative II	Associates	5	Both	Domestic Only	$61.66
C132 51 C595 21 520 874 871	Administrative III	Associates	10	Both	Domestic Only	$77.63
C132 51 C595 21 520 874 871	Analyst II	Bachelors	3	Both	Domestic Only	$104.71
C132 51 C595 21 520 874 871	Analyst III	Bachelors	5	Both	Domestic Only	$127.47
C132 51 C595 21 520 874 871	Analyst IV	Bachelors	7	Both	Domestic Only	$146.60
C132 51 874 871	Programmer I	Associates	0	Both	Domestic Only	$98.00
C132 51 874 871	Programmer II	Bachelors	3	Both	Domestic Only	$104.70
C132 51 874 871	Programmer III	Bachelors	5	Both	Domestic Only	$117.86

C132 51 874 871	Programmer IV	Bachelors	8	Both	Domestic Only	$127.47
C132 51 874 871	Programmer V	Bachelors	8	Both	Domestic Only	$159.69
C132 51 C595 21 520 874 871	Project Manager III	Bachelors	2	Both	Domestic Only	$177.29
C132 51 C595 21 520 874 871	Senior Consultant II	Bachelors	6	Both	Domestic Only	$193.46
C132 51 C595 21 520 874 871	Senior Consultant III	Bachelors	8	Both	Domestic Only	$221.13
C132 51 C595 21 520 874 871	Senior Consultant IV	Masters	12	Both	Domestic Only	$259.24
C132 51 C595 21 520 874 871	Senior Consultant V	Masters	14	Both	Domestic Only	$300.01
C132 51 C595 21 520 874 871	Senior Consultant VI	Masters	16	Both	Domestic Only	$360.01
C132 51 C595 21 520 874 871	Senior Consultant VII	Masters	20	Both	Domestic Only	$405.40
C132 51 874 871	System Architect I	Bachelors	3	Both	Domestic Only	$160.58
C132 51 874 871	System Architect II	Bachelors	5	Both	Domestic Only	$187.40

C132 51 874 871	System Engineer I	Bachelors	0	Both	Domestic Only	$94.85
C132 51 874 871	System Engineer II	Bachelors	2	Both	Domestic Only	$104.70
C132 51 874 871	System Engineer III	Bachelors	5	Both	Domestic Only	$127.47
C132 51 874 871	System Engineer IV	Bachelors	8	Both	Domestic Only	$142.13
C132 51 874 871	System Engineer V	Bachelors	8	Both	Domestic Only	$159.45
C132 51 520 874 871	Business Subject Matter Specialist	Bachelors	5	Customer Facility	Domestic Only	$156.95
C132 51 520 874 871	Business Systems Analyst - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$100.18
C132 51 520 874 871	Business Systems Analyst - Senior	Bachelors	5	Customer Facility	Domestic Only	$121.21
C132 51 520 874 871	Business Systems Specialist	Bachelors	5	Customer Facility	Domestic Only	$123.99
C132 51 874 871	Chief Information Security Officer	Bachelors	6	Customer Facility	Domestic Only	$163.12
C132 51 874 871	Client/Server Database Manager	Bachelors	6	Customer Facility	Domestic Only	$116.95
C132 51 874 871	Client/Server Network Architect	Bachelors	6	Customer Facility	Domestic Only	$124.17
C132 51 874 871	Client/Server Support Analyst	Bachelors	2	Customer Facility	Domestic Only	$83.49
C132 51 874 871	Communications Analyst - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$61.65

C132 51 874 871	Communications Analyst - Senior	Bachelors	5	Customer Facility	Domestic Only	$88.29
C132 51 874 871	Communications Facility Engineer	Bachelors	2	Customer Facility	Domestic Only	$101.90
C132 51 874 871	Communications Installer	Bachelors	2	Customer Facility	Domestic Only	$63.16
C132 51 874 871	Communications Transmission Engineer	Bachelors	2	Customer Facility	Domestic Only	$100.55
C132 51 874 871	Computer Operations Manager	Bachelors	6	Customer Facility	Domestic Only	$103.24
C132 51 874 871	Consultant	Bachelors	6	Customer Facility	Domestic Only	$169.76
C132 51 874 871	Data Architect	Bachelors	6	Customer Facility	Domestic Only	$138.24
C132 51 874 871	Data Communications Manager - Planning & Implementation	Bachelors	8	Customer Facility	Domestic Only	$116.90
C132 51 874 871	Data Entry Supervisor	Bachelors	2	Customer Facility	Domestic Only	$70.17
C132 51 874 871	Data Security Administration Manager	Bachelors	6	Customer Facility	Domestic Only	$134.73
C132 51 874 871	Data Security Analyst - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$104.70
C132 51 874 871	Data Security Analyst - Senior	Bachelors	5	Customer Facility	Domestic Only	$117.94
C132 51 874 871	Data Warehousing Administrator	Bachelors	3	Customer Facility	Domestic Only	$101.72
C132 51 874 871	Data Warehousing Analyst	Bachelors	2	Customer Facility	Domestic Only	$91.45
C132 51 874 871	Data Warehousing Programmer	Bachelors	2	Customer Facility	Domestic Only	$91.45
C132 51 874 871	Data Warehousing Project Manager	Bachelors	5	Customer Facility	Domestic Only	$132.99
C132 51 874 871	Data/Configuration Management Specialist	Bachelors	5	Customer Facility	Domestic Only	$109.20

C132 51 874 871	Database Administrator	Bachelors	2	Customer Facility	Domestic Only	$99.21
C132 51 874 871	Database Analyst/ Programmer - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$101.44
C132 51 874 871	Database Analyst/ Programmer – Senior	Bachelors	3	Customer Facility	Domestic Only	$120.87
C132 51 874 871	Disaster Recovery Administrator	Bachelors	5	Customer Facility	Domestic Only	$118.75
C132 51 874 871	Disaster Recovery Analyst	Bachelors	5	Customer Facility	Domestic Only	$106.97
C132 51 874 871	Documentation Specialist - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$72.35
C132 51 874 871	Documentation Specialist - Senior	Bachelors	5	Customer Facility	Domestic Only	$87.04
C132 51 520 874 871	E-Business Manager	Bachelors	6	Customer Facility	Domestic Only	$119.77
C132 51 874 871	Electronic Data Interchange (EDI) Manager	Bachelors	6	Customer Facility	Domestic Only	$112.56
C132 51 874 871	Electronic Data Interchange (EDI) Specialist	Bachelors	5	Customer Facility	Domestic Only	$88.25
C132 51 874 871	Electronic Mail Coordinator	Bachelors	2	Customer Facility	Domestic Only	$74.22
C132 51 874 871	Engineering Subject Matter Specialist	Bachelors	5	Customer Facility	Domestic Only	$158.41
C132 51 874 871	ERP Business/Architectural Specialist	Bachelors	5	Customer Facility	Domestic Only	$147.12
C132 51 874 871	ERP Business Analyst - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$113.53
C132 51 874 871	ERP Business Analyst - Senior	Bachelors	5	Customer Facility	Domestic Only	$136.13
C132 51 874 871	ERP Programmer	Bachelors	2	Customer Facility	Domestic Only	$116.41
C132 51 874 871	Groupware Specialist	Bachelors	2	Customer Facility	Domestic Only	$92.50

C132 51 874 871	Help Desk Coordinator - Mid-Level	High School	2	Customer Facility	Domestic Only	$53.61
C132 51 874 871	Help Desk Coordinator - Senior	Bachelors	5	Customer Facility	Domestic Only	$62.88
C132 51 874 871	Help Desk Specialist	High School	2	Customer Facility	Domestic Only	$67.96
C132 51 874 871	Help Desk Support Services Specialist - Mid-Level	High School	2	Customer Facility	Domestic Only	$69.57
C132 51 874 871	Help Desk Support Services Specialist - Senior	Bachelors	5	Customer Facility	Domestic Only	$81.89
C132 51 874 871	Information Assurance Development Engineer	Bachelors	5	Customer Facility	Domestic Only	$125.22
C132 51 874 871	Information Assurance Engineer	Bachelors	5	Customer Facility	Domestic Only	$127.73
C132 51 874 871	Information Assurance Network Specialist	Bachelors	5	Customer Facility	Domestic Only	$113.20
C132 51 874 871	Information Assurance Systems/Network Specialist	Bachelors	5	Customer Facility	Domestic Only	$114.01
C132 51 874 871	Information Center Consultant	Bachelors	6	Customer Facility	Domestic Only	$117.48
C132 51 874 871	Information Center Specialist	Bachelors	5	Customer Facility	Domestic Only	$91.68
C132 51 874 871	Information Security Business Analyst	Bachelors	2	Customer Facility	Domestic Only	$119.36
C132 51 874 871	Information Services Consultant	Bachelors	6	Customer Facility	Domestic Only	$144.26
C132 51 874 871	Information Systems Auditor - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$106.97
C132 51 874 871	Information Systems Auditor - Senior	Bachelors	5	Customer Facility	Domestic Only	$121.82
C132 51 874 871	Information Systems Training Specialist - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$85.73
C132 51 874 871	Information Systems Training Specialist - Senior	Bachelors	5	Customer Facility	Domestic Only	$105.66

C132 51 874 871	Internal Communications Systems Consultant	Bachelors	8	Customer Facility	Domestic Only	$111.63
C132 51 874 871	IT Subject Matter Specialist	Bachelors	5	Customer Facility	Domestic Only	$195.61
C132 51 874 871	LAN Administrator - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$80.38
C132 51 874 871	LAN Administrator - Senior	Bachelors	5	Customer Facility	Domestic Only	$96.12
C132 51 874 871	LAN/WAN Administrator	Bachelors	2	Customer Facility	Domestic Only	$88.04
C132 51 874 871	LAN/WAN Integrator	Bachelors	2	Customer Facility	Domestic Only	$101.19
C132 51 874 871	LAN/WAN/MAN Administrator	Bachelors	2	Customer Facility	Domestic Only	$93.17
C132 51 874 871	Operations Manager - Data Communications	Bachelors	6	Customer Facility	Domestic Only	$109.26
C132 51 874 871	Operations Manager - Voice Communications	Bachelors	6	Customer Facility	Domestic Only	$108.23
C132 51 874 871	Operations Systems Manager	Bachelors	6	Customer Facility	Domestic Only	$115.43
C132 51 874 871	Operations/ Technical Support Manager	Bachelors	6	Customer Facility	Domestic Only	$102.28
C132 51 874 871	Operations/Network LAN Administrator	Bachelors	2	Customer Facility	Domestic Only	$87.43
C132 51 874 871	Operations/Technical Support Analyst	Bachelors	2	Customer Facility	Domestic Only	$86.72
C132 51 874 871	PC Products Analyst	Bachelors	2	Customer Facility	Domestic Only	$71.89
C132 51 874 871	PC Systems Specialist	Bachelors	5	Customer Facility	Domestic Only	$74.63
C132 51 874 871	PC/LAN Mgmt Analyst - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$79.78
C132 51 874 871	PC/LAN Mgmt Analyst – Senior	Bachelors	5	Customer Facility	Domestic Only	$94.11

C132 51 874 871	Project Engineer	Bachelors	4	Customer Facility	Domestic Only	$128.33
C132 51 874 871	Quality Assurance Analyst - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$90.57
C132 51 874 871	Quality Assurance Analyst - Senior	Bachelors	5	Customer Facility	Domestic Only	$109.64
C132 51 874 871	Security Coordinator	Bachelors	2	Customer Facility	Domestic Only	$101.10
C132 51 874 871	Site Manager	Bachelors	6	Customer Facility	Domestic Only	$114.38
C132 51 874 871	Software Architect	Bachelors	6	Customer Facility	Domestic Only	$147.49
C132 51 874 871	Software Developer – Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$100.35
C132 51 874 871	Software Developer – Senior	Bachelors	5	Customer Facility	Domestic Only	$123.08
C132 51 874 871	Strategic Planner	Bachelors	2	Customer Facility	Domestic Only	$130.17
C132 51 874 871	Systems Administrator - Mid-Level	Bachelors	2	Customer Facility	Domestic Only	$86.06
C132 51 874 871	Systems Administrator - Senior	Bachelors	5	Customer Facility	Domestic Only	$97.17
C132 51 874 871	Systems Analysis and Programming Director	Bachelors	8	Customer Facility	Domestic Only	$144.01
C132 51 874 871	Systems Management Technologist	Bachelors	2	Customer Facility	Domestic Only	$63.16
C132 51 874 871	Technical Editor	Bachelors	2	Customer Facility	Domestic Only	$82.34
C132 51 874 871	Technical Writer	Bachelors	2	Customer Facility	Domestic Only	$80.16
C132 51 874 871	UNIX Systems Administrator	Bachelors	2	Customer Facility	Domestic Only	$117.10
C132 51 874 871	Voice Communications Administrator	Bachelors	2	Customer Facility	Domestic Only	$83.56

C132 51 874 871	Voice Communications Manager - Planning & Implementation	Bachelors	8	Customer Facility	Domestic Only	$107.96
C132 51 874 871	Voice Communications Technician	Associates	2	Customer Facility	Domestic Only	$63.16
C132 51 874 871	Web Content Administrator	Bachelors	2	Customer Facility	Domestic Only	$86.47
C132 51 874 871	Web Content Analyst	Bachelors	2	Customer Facility	Domestic Only	$85.96
C132 51 874 871	Web Designer	Bachelors	1	Customer Facility	Domestic Only	$85.53
C132 51 874 871	Web Marketing Manager	Bachelors	6	Customer Facility	Domestic Only	$98.05
C132 51 874 871	Web Operations Manager	Bachelors	6	Customer Facility	Domestic Only	$114.10
C132 51 874 871	Web Project Manager	Bachelors	6	Customer Facility	Domestic Only	$125.83
C132 51 874 871	Web Security Administrator	Bachelors	2	Customer Facility	Domestic Only	$103.71
C132 51 874 871	Web Security Analyst	Bachelors	2	Customer Facility	Domestic Only	$102.21
C132 51 874 871	Web Software Developer	Bachelors	2	Customer Facility	Domestic Only	$105.18
C132 51 874 871	Web Technical Administrator	Bachelors	2	Customer Facility	Domestic Only	$88.96
C132 51 520 874 871	Business Subject Matter Specialist	Bachelors	5	Contractor Facility	Domestic Only	$171.20
C132 51 520 874 871	Business Systems Analyst - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$109.28
C132 51 520 874 871	Business Systems Analyst - Senior	Bachelors	5	Contractor Facility	Domestic Only	$132.23
C132 51 520 874 871	Business Systems Specialist	Bachelors	5	Contractor Facility	Domestic Only	$135.25

C132 51 874 871	Chief Information Security Officer	Bachelors	6	Contractor Facility	Domestic Only	$177.93
C132 51 874 871	Client/Server Database Manager	Bachelors	6	Contractor Facility	Domestic Only	$127.57
C132 51 874 871	Client/Server Network Architect	Bachelors	6	Contractor Facility	Domestic Only	$135.44
C132 51 874 871	Client/Server Support Analyst	Bachelors	2	Contractor Facility	Domestic Only	$91.08
C132 51 874 871	Communications Analyst - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$67.24
C132 51 874 871	Communications Analyst - Senior	Bachelors	5	Contractor Facility	Domestic Only	$96.32
C132 51 874 871	Communications Facility Engineer	Bachelors	2	Contractor Facility	Domestic Only	$111.16
C132 51 874 871	Communications Installer	Bachelors	2	Contractor Facility	Domestic Only	$68.90
C132 51 874 871	Communications Transmission Engineer	Bachelors	2	Contractor Facility	Domestic Only	$109.67
C132 51 874 871	Computer Operations Manager	Bachelors	6	Contractor Facility	Domestic Only	$112.61
C132 51 874 871	Consultant	Bachelors	6	Contractor Facility	Domestic Only	$185.18
C132 51 874 871	Data Architect	Bachelors	6	Contractor Facility	Domestic Only	$150.80
C132 51 874 871	Data Communications Manager - Planning & Implementation	Bachelors	8	Contractor Facility	Domestic Only	$127.52
C132 51 874 871	Data Entry Supervisor	Bachelors	2	Contractor Facility	Domestic Only	$76.54
C132 51 874 871	Data Security Administration Manager	Bachelors	6	Contractor Facility	Domestic Only	$146.97
C132 51 874 871	Data Security Analyst - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$114.20
C132 51 874 871	Data Security Analyst - Senior	Bachelors	5	Contractor Facility	Domestic Only	$128.65

C132 51 874 871	Data Warehousing Administrator	Bachelors	3	Contractor Facility	Domestic Only	$110.96
C132 51 874 871	Data Warehousing Analyst	Bachelors	2	Contractor Facility	Domestic Only	$99.75
C132 51 874 871	Data Warehousing Programmer	Bachelors	2	Contractor Facility	Domestic Only	$99.75
C132 51 874 871	Data Warehousing Project Manager	Bachelors	5	Contractor Facility	Domestic Only	$145.06
C132 51 874 871	Data/Configuration Management Specialist	Bachelors	5	Contractor Facility	Domestic Only	$119.11
C132 51 874 871	Database Administrator	Bachelors	2	Contractor Facility	Domestic Only	$108.22
C132 51 874 871	Database Analyst/ Programmer - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$110.65
C132 51 874 871	Database Analyst/ Programmer – Senior	Bachelors	3	Contractor Facility	Domestic Only	$131.85
C132 51 874 871	Disaster Recovery Administrator	Bachelors	5	Contractor Facility	Domestic Only	$129.53
C132 51 874 871	Disaster Recovery Analyst	Bachelors	5	Contractor Facility	Domestic Only	$116.68
C132 51 874 871	Documentation Specialist - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$78.92
C132 51 874 871	Documentation Specialist - Senior	Bachelors	5	Contractor Facility	Domestic Only	$94.94
C132 51 520 874 871	E-Business Manager	Bachelors	6	Contractor Facility	Domestic Only	$130.65
C132 51 874 871	Electronic Data Interchange (EDI) Manager	Bachelors	6	Contractor Facility	Domestic Only	$122.78
C132 51 874 871	Electronic Data Interchange (EDI) Specialist	Bachelors	5	Contractor Facility	Domestic Only	$96.26
C132 51 874 871	Electronic Mail Coordinator	Bachelors	2	Contractor Facility	Domestic Only	$80.96
C132 51 874 871	Engineering Subject Matter Specialist	Bachelors	5	Contractor Facility	Domestic Only	$172.79

C132 51 874 871	ERP Business/Architectural Specialist	Bachelors	5	Contractor Facility	Domestic Only	$160.48
C132 51 874 871	ERP Business Analyst - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$123.85
C132 51 874 871	ERP Business Analyst - Senior	Bachelors	5	Contractor Facility	Domestic Only	$148.50
C132 51 874 871	ERP Programmer	Bachelors	2	Contractor Facility	Domestic Only	$126.98
C132 51 874 871	Groupware Specialist	Bachelors	2	Contractor Facility	Domestic Only	$100.90
C132 51 874 871	Help Desk Coordinator - Mid-Level	High School	2	Contractor Facility	Domestic Only	$58.48
C132 51 874 871	Help Desk Coordinator - Senior	Bachelors	5	Contractor Facility	Domestic Only	$68.59
C132 51 874 871	Help Desk Specialist	High School	2	Contractor Facility	Domestic Only	$74.14
C132 51 874 871	Help Desk Support Services Specialist - Mid-Level	High School	2	Contractor Facility	Domestic Only	$75.89
C132 51 874 871	Help Desk Support Services Specialist - Senior	Bachelors	5	Contractor Facility	Domestic Only	$89.33
C132 51 874 871	Information Assurance Development Engineer	Bachelors	5	Contractor Facility	Domestic Only	$136.59
C132 51 874 871	Information Assurance Engineer	Bachelors	5	Contractor Facility	Domestic Only	$139.33
C132 51 874 871	Information Assurance Network Specialist	Bachelors	5	Contractor Facility	Domestic Only	$123.47
C132 51 874 871	Information Assurance Systems/Network Specialist	Bachelors	5	Contractor Facility	Domestic Only	$124.37
C132 51 874 871	Information Center Consultant	Bachelors	6	Contractor Facility	Domestic Only	$128.15
C132 51 874 871	Information Center Specialist	Bachelors	5	Contractor Facility	Domestic Only	$100.01
C132 51 874 871	Information Security Business Analyst	Bachelors	2	Contractor Facility	Domestic Only	$130.19

C132 51 874 871	Information Services Consultant	Bachelors	6	Contractor Facility	Domestic Only	$157.36
C132 51 874 871	Information Systems Auditor - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$116.68
C132 51 874 871	Information Systems Auditor - Senior	Bachelors	5	Contractor Facility	Domestic Only	$132.88
C132 51 874 871	Information Systems Training Specialist - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$93.52
C132 51 874 871	Information Systems Training Specialist - Senior	Bachelors	5	Contractor Facility	Domestic Only	$115.25
C132 51 874 871	Internal Communications Systems Consultant	Bachelors	8	Contractor Facility	Domestic Only	$121.76
C132 51 874 871	IT Subject Matter Specialist	Bachelors	5	Contractor Facility	Domestic Only	$213.38
C132 51 874 871	LAN Administrator - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$87.68
C132 51 874 871	LAN Administrator - Senior	Bachelors	5	Contractor Facility	Domestic Only	$104.85
C132 51 874 871	LAN/WAN Administrator	Bachelors	2	Contractor Facility	Domestic Only	$96.03
C132 51 874 871	LAN/WAN Integrator	Bachelors	2	Contractor Facility	Domestic Only	$110.38
C132 51 874 871	LAN/WAN/MAN Administrator	Bachelors	2	Contractor Facility	Domestic Only	$101.64
C132 51 874 871	Operations Manager - Data Communications	Bachelors	6	Contractor Facility	Domestic Only	$119.18
C132 51 874 871	Operations Manager - Voice Communications	Bachelors	6	Contractor Facility	Domestic Only	$118.06
C132 51 874 871	Operations Systems Manager	Bachelors	6	Contractor Facility	Domestic Only	$125.91
C132 51 874 871	Operations/ Technical Support Manager	Bachelors	6	Contractor Facility	Domestic Only	$111.57
C132 51 874 871	Operations/Network LAN Administrator	Bachelors	2	Contractor Facility	Domestic Only	$95.37

C132 51 874 871	Operations/Technical Support Analyst	Bachelors	2	Contractor Facility	Domestic Only	$94.59
C132 51 874 871	PC Products Analyst	Bachelors	2	Contractor Facility	Domestic Only	$78.41
C132 51 874 871	PC Systems Specialist	Bachelors	5	Contractor Facility	Domestic Only	$81.41
C132 51 874 871	PC/LAN Mgmt Analyst - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$87.02
C132 51 874 871	PC/LAN Mgmt Analyst – Senior	Bachelors	5	Contractor Facility	Domestic Only	$102.65
C132 51 874 871	Project Engineer	Bachelors	4	Contractor Facility	Domestic Only	$139.99
C132 51 874 871	Quality Assurance Analyst - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$98.80
C132 51 874 871	Quality Assurance Analyst - Senior	Bachelors	5	Contractor Facility	Domestic Only	$119.60
C132 51 874 871	Security Coordinator	Bachelors	2	Contractor Facility	Domestic Only	$110.28
C132 51 874 871	Site Manager	Bachelors	6	Contractor Facility	Domestic Only	$124.78
C132 51 874 871	Software Architect	Bachelors	6	Contractor Facility	Domestic Only	$160.89
C132 51 874 871	Software Developer – Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$109.47
C132 51 874 871	Software Developer – Senior	Bachelors	5	Contractor Facility	Domestic Only	$134.26
C132 51 874 871	Strategic Planner	Bachelors	2	Contractor Facility	Domestic Only	$141.99
C132 51 874 871	Systems Administrator - Mid-Level	Bachelors	2	Contractor Facility	Domestic Only	$93.88
C132 51 874 871	Systems Administrator - Senior	Bachelors	5	Contractor Facility	Domestic Only	$105.99
C132 51 874 871	Systems Analysis and Programming Director	Bachelors	8	Contractor Facility	Domestic Only	$157.09

C132 51 874 871	Systems Management Technologist	Bachelors	2	Contractor Facility	Domestic Only	$68.90
C132 51 874 871	Technical Editor	Bachelors	2	Contractor Facility	Domestic Only	$89.83
C132 51 874 871	Technical Writer	Bachelors	2	Contractor Facility	Domestic Only	$87.44
C132 51 874 871	UNIX Systems Administrator	Bachelors	2	Contractor Facility	Domestic Only	$127.74
C132 51 874 871	Voice Communications Administrator	Bachelors	2	Contractor Facility	Domestic Only	$91.14
C132 51 874 871	Voice Communications Manager - Planning & Implementation	Bachelors	8	Contractor Facility	Domestic Only	$117.77
C132 51 874 871	Voice Communications Technician	Associates	2	Contractor Facility	Domestic Only	$68.90
C132 51 874 871	Web Content Administrator	Bachelors	2	Contractor Facility	Domestic Only	$94.32
C132 51 874 871	Web Content Analyst	Bachelors	2	Contractor Facility	Domestic Only	$93.77
C132 51 874 871	Web Designer	Bachelors	1	Contractor Facility	Domestic Only	$93.31
C132 51 874 871	Web Marketing Manager	Bachelors	6	Contractor Facility	Domestic Only	$106.96
C132 51 874 871	Web Operations Manager	Bachelors	6	Contractor Facility	Domestic Only	$124.47
C132 51 874 871	Web Project Manager	Bachelors	6	Contractor Facility	Domestic Only	$137.26
C132 51 874 871	Web Security Administrator	Bachelors	2	Contractor Facility	Domestic Only	$113.13
C132 51 874 871	Web Security Analyst	Bachelors	2	Contractor Facility	Domestic Only	$111.50
C132 51 874 871	Web Software Developer	Bachelors	2	Contractor Facility	Domestic Only	$114.74
C132 51 874 871	Web Technical Administrator	Bachelors	2	Contractor Facility	Domestic Only	$97.04

Service Contract Act: The Service Contract Act (SCA) is applicable to this contract as it applies to the entire Professional Services Schedule (PSS) Schedule and all services provided. While no specific labor categories have been identified as being subject to SCA due to exemptions for professional employees (FAR 22.1101, 22.1102 and 29 CRF 541.300), this contract still maintains the provisions and protections for SCA eligible labor categories. If and / or when the contractor adds SCA labor categories / employees to the contract through the modification process, the contractor must inform the Contracting Officer and establish a SCA matrix identifying the GSA labor category titles, the occupational code, SCA labor category titles and the applicable WD number. Failure to do so may result in cancellation of the contract.

Labor Category Descriptions

1. Accountant, Cost (Senior)

Functional Responsibility: Provides cost estimating and financial management support, including all activities, which occur during the life cycle of an information technology application or system. Conducts investment analyses or investment analyses activities, including market surveys, cost analyses, benefits analyses, risk analyses, economic analyses, requirements definitions, schedule development, and tradeoff studies. Supports architecture efforts including economic analyses of architecture alternatives, architecture issues resolutions, and affordability analyses. Conducts analytical studies involving complex technical analyses, schedule constraints, and system benefits and system cost factors. Identifies cost accounting or financial problems and recommends solutions. Presents plans, analyses, and other advice within functional areas.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Economics, Business, Accounting, Finance, or related discipline. A Master's degree and CPA are preferred. A minimum of eight (8) years relevant experience as a cost analyst or involved in analysis in business-related subject areas such as accounting, finance or economics.

2. Analyst, Computer Software/Integration (Senior)

Functional Responsibility: Must be knowledgeable in implementing computer systems in a phased approach of requirements analysis and conceptual design, site survey, system design review, critical design review, installation, integration, and testing. Must be knowledgeable in performing requirements analysis for a wide range of users in areas such as office automation, and finance and accounting. Must be able to present system designs for user approval at formal reviews. Must be capable of performing configuration management, software integration, interpreting software test results, and recommending solutions for unsatisfactory test results. Must be knowledgeable in life-cycle support, including maintenance, administration, and management. Must be able to provide solutions to identified software problem reports.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have eight (8) years of progressive working experience as a computer specialist or a computer systems analyst.

3. Analyst, Computer Systems (Junior)

Functional Responsibility: Develops requirements for information systems from a project's inception to conclusion. Develops required specifications for simple to moderately complex systems. Assists senior computer systems analyst in preparing input and test data for the proposed system.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have three (3) years of computer experience in assignments of a technical nature working under close supervision and direction.

4. Analyst, Computer Systems (Senior)

Functional Responsibility: Provides technical and administrative direction for personnel performing software development tasks, including the review of work products for correctness, adherence to the design concept and to user standards and for progress in accordance with schedules. Must be able to coordinate with the Program Manager to ensure problem solution and user satisfaction. Makes recommendations, if needed, for approval of major systems installations. Prepares milestone status reports and deliveries/presentations on the system concept to colleagues, subordinates, and end user representatives. Provides daily supervision and direction to support staff.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have eight (8) years of computer experience working independently or under general direction on complex application problems involving all phases of systems analysis.

5. Analyst, Financial

Functional Responsibility: Must be able to clearly define government financial business practices and Electronic Commerce/Electronic Data Interchange (EC/EDI) opportunities, and incorporate the defined processes into an automated solution that includes relational databases and distributed systems for integration into the government financial business system. Identifies potential problems and solutions through analysis identifying recommended solutions. Must be able to work with functional specialists, automation specialists, Master Contractors, vendors, and customers to effectively automate the customer's requirements into an automated application. Acts as a focal point to coordinate all disciplines in the recommended solution. Must be able to communicate with both IT and financial oriented individuals to document the flow, recommend opportunities, impact recommendations, and serve as the liaison between the financial specialist and automation specialist that do not have both disciplines. Must be able to apply state-of-the-art applications that will effectively automate financial applications in the most effective manner while adhering to the established Accounting Principles and Practices.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Finance, Business, or other related technical discipline. A Master's

Degree is preferred. Must have five (5) years of financial management experience.

6. Analyst, Financial (Senior)

Functional Responsibility: Provides financial management planning and execution support. Has knowledge of theories, principles and practices of financial management, including time value analyses, cash flow analyses and cost/benefit and return on investment analyses. Conducts investment analyses or other complex operational analyses. Provides expertise and support in conducting a full range of investment analyses activities, including market surveys, cost analyses, benefits analyses, risk analyses, economic analyses, requirements definitions, schedule development, and tradeoff studies. Supports architecture efforts including economic analyses of architecture alternatives, architecture issues resolutions, and affordability analyses. Classifies and summarizes financial data for the preparation and submission of reports on a recurring basis. Must to able to apply financial analysis to information systems issues.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Economics, Business, Accounting, Finance, or related discipline. A Master's degree and CPA are preferred. At least eight (8) years progressive experience as an analyst or involved in analyst type functions in a business related subject area such as accounting, finance or economics.

7. Analyst, Research

Functional Responsibility: Analyzes existing and potential product and service information, prospective customers and markets. Collates information into meaningful reports and presentation material. Maintains any technical information in a systems library.

Minimum Education/Experience: High School Diploma or Associate's Degree in Business, or related field. A Bachelor's degree is preferred. A minimum of one (1) year of work experience in a business environment.

8. Application Developer, Advanced Technology

Functional Responsibility: Must be able to translate applications requirements into web-based solutions using available technology. Must be able to apply new and emerging technologies to the software development process.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have two (2) years of computer experience in at least two of the following disciplines: systems analysis, systems programming, application programming, and equipment analysis.

9. Application Developer, Advanced Technology (Senior)

Functional Responsibility: Must be able to translate applications requirements into web-based solutions using available technology. Must be able to apply new and emerging technologies to the software development process.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or

other related scientific or technical discipline. Five (5) additional years of specialized experience may be substituted for the required education. A Master's Degree is preferred. Must have three (3) years of computer experience in at least two of the following disciplines: system analysis, system programming, application programming, and equipment analysis.

10. Applications Development Expert

Functional Responsibility: Provides design recommendations based on long-term IT organization strategy. Develops enterprise level application and custom integration solutions including major enhancements and interfaces, functions and features. Uses a variety of platforms to provide automated systems applications to customers. Provides expertise regarding the integration of applications across the business. Determines specifications, then plans, designs, and develops the most complex and business critical software solutions, utilizing appropriate software engineering processes – either individually or in concert with a project team. Will assist in the most difficult support problems.

Develops programming and development standards and procedures as well as programming architectures for code reuse. Has in-depth knowledge of state-of-the art programming languages and object-oriented approach in designing, coding, testing and debugging programs. Understands and consistently applies the attributes and processes of current application development methodologies. Researches and maintains knowledge in emerging technologies and possible application to the business. Viewed both internally and externally as a technical expert and critical technical resource across multiple disciplines. Acts as an internal consultant, advocate, mentor and change agent.

Minimum Education/Experience: Preference for a Bachelor's or Master's Degree in Computer Science, Information Systems, or other related field or equivalent work experience. least seven (7) years of IT and business/industry work experience.

11. Architect, Internet/Web

Functional Responsibility: Responsible for analyzing assigned specifications, planning, designing and developing solutions, utilizing appropriate Internet/Intranet/Extranet architecture processes supporting a wide range of business process. Provides appropriate documentation for object design decisions, estimating assumptions, applets and performance metrics – as required by organization architecture process standards, or as assigned. Responsible for minimizing the issues between the client and the server applications and for the overall setup and design of the Internet and web server architecture. Impact and complexity of this job increases if organization is utilizing Internet solutions (vs. only Intranet), especially those with significant business impact (e.g., e-business).

Minimum Education/Experience: Preference for a Bachelor's Degree in Computer Science, Information Systems, or other related field or equivalent work experience. At least five (5) years of IT work experience.

12. Audit Manager

Functional Responsibility: Performs day-to-day management of overall contract support operations, possibly involving multiple audits and groups of personnel at multiple locations.

Responsible for the overall direction and guidance of all ongoing audits for the State; responsible for audit report(s) and all findings contained therein; in coordination with the State's designated representative, assists with the collection of any amounts due to the State as a result of audits. Organizes, directs, and coordinates the planning and production of all contract support activities, including subcontractors. Develops work breakdown structures and prepares charts, tables, graphs, major milestone calendars and diagrams to assist in analyzing problems and making recommendations.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Economics, Business, Accounting, Finance, or related discipline. A Master's degree and CPA are preferred. At least four (4) years of telecommunications billing audit experience. Such experience must have included the supervision of other auditors engaged in the telecommunications billing audit process.

13. Audit Supervisor

Functional Responsibility: Performs day-to-day management of assigned projects that involve teams of Lead Auditors and Staff Auditors. Primarily responsible for developing and overseeing the execution of the audit plan; regularly communicates with and reviews the work of on-site Lead and Staff Auditors and gives directions as appropriate; attends meetings with State representatives and is otherwise available to the State's representatives, as required. Organizes, directs, and coordinates the planning and production of all activities associated with assigned projects. Prepares and presents program level management products such as, work breakdown structures, charts, tables, graphs, major milestone calendars and diagrams to assist in analyzing problems and making recommendations.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Economics, Business, Accounting, Finance, or related discipline. A Master's degree and CPA are preferred. At least two (2) years of telecommunications billing audit experience. Such experience must have included the supervision of other auditors engaged in the telecommunications billing audit process.

14. Auditor, IT (Senior)

Functional Responsibility: Identifies information processing and technology risks. Evaluates controls and makes recommendations. Identifies problems and recommends solutions. Reviews the installation and security related controls for a wide variety of computing platforms, including operating systems, sub-systems, databases and software products used to support the processing environment. Prepares and performs audit tests and evaluates results. Provides documentation of audit tests to facilitate efficient and effective reviews.

Minimum Education/Experience: CPA required. Bachelor's Degree from an accredited college or university in Accounting, Finance, Business, Computer Science, Information Systems, or related field.

At least 10 years auditing experience.

15. Auditor, Lead

Functional Responsibility: Assists in developing the telecommunications billing audit plan; primarily responsible for the routine performance of the audit plan and in providing direction of assigned Staff Auditors; communicates on a regular basis with the State's designated representative on status and audit issues.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Accounting, Finance, Business, Computer Science, Information Systems, or related field. At least two (2) years of telecommunications billing audit experience.

16. Auditor, Senior

Functional Responsibility: Provides third party reviews, ratings and evaluations of IT vendors. Researches corporate philosophy, goals, objectives, and code of ethics and business practices. Provides financial status including, but not limited to: assets, liabilities, operating capital, cash flow, and insurance coverage. Provides financial reports and annual reports. Provides ranking among peers in the IT industry and reputation in the IT industry. Researches customer satisfaction levels and strengths and weaknesses. Provides costing estimations and personnel qualifications and performance ratings. Researches project management results and performance records. Provides legal history and overall performance.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Accounting, Finance, Business or a related field. A CPA is preferred.

At least 10 years of auditing experience.

17. Auditor, Staff

Functional Responsibility: Assists in the performance of telecommunications billing audits under the guidance and direction of a lead auditor and/or audit supervisor.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Accounting, Finance, Business or a related field. At least one (1) year of telecommunications billing audit experience.

18. Business Process Consultant (Senior)

Functional Responsibility: Develops business requirements and business processes re-engineering methodologies. Solves application and process related problems by creating detail process and system design specifications; and works with other areas across the business units to support a total solution approach. Communicates business requirements for reports and applications development. Facilitates collaboration within and across business units and across IT functions. Resolves problems and improves business units' technical environments.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Business, Human Resources Management or a related field. An MBA or MPA is preferred.

At least eight (8) years of experience in business process re-engineering.

19. Computer Graphics Illustrator

Functional Responsibility: Duties will include recommending various methods of portraying

ideas and the design, layout, and generation of a variety of graphical presentation products from rough drafts or outlines. Must possess skill in the preparation of graphs, charts and text data for visual presentations. Duties will be performed using complex automated color graphic equipment and PC software packages. A basic knowledge of graphic equipment, graphic software, file formats and graphic terms is required.

Minimum Education/Experience: High school diploma or equivalent. An additional year of specialized experience may be substituted for the required education. Three (3) years of experience in creating and generating graphics using computer graphics software.

20. Computer Operations Center Specialist

Functional Responsibility: Establishes detailed schedules for utilization of all equipment in the computer operations center to obtain maximum usage. Consults with personnel in other data processing sections to coordinate activities, and prepare activity and progress reports regarding the computer operations center. Evaluates production, equipment and personnel costs. Analyzes and interprets technical data processing data. Communicates technical data processing information effectively both orally and in writing. Applies applicable rules, regulations, policies and procedures of the computer operations center.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. A Master's Degree is preferred. This position requires a minimum of five (5) years of experience.

21. Computer Operations Research Analyst

Functional Responsibility: Performs technical work in the operation of electronic computers and auxiliary peripheral equipment. Collates information into meaningful reports and presentation material. Maintains any technical information in a systems library. Applies principles and methods to obtain maximum utilization of computer equipment. Operates and cares for electronic computer and peripheral equipment.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education.. A minimum of one (1) year of work experience in a business environment.

22. Computer Operator

Minimum Education/Experience: A high school diploma or equivalent. An Associate's Degree from an accredited college or university in Computer Science, Information Systems, Business or other related technical discipline is preferred. An Associate's Degree in one of the above disciplines equals one-year specialized and two years general experience. An additional year of specialized experience may be substituted for the required education. Five (5) years of experience in a computer-related field.

23. Computer Operator (Senior)
Minimum Education/Experience: A high school diploma or equivalent. An Associate's Degree from an accredited college or university in Computer Science, Information Systems, Business or other related technical discipline is preferred. An Associate's Degree in one of the above disciplines equals one-year specialized and two years general experience. An additional year of specialized experience may be substituted for the required education. Seven (7) years of experience in a computer-related field.

24. Computer Specialist
Functional Responsibility: Must be able to determine costs for converting computer systems from one language or machine to another by utilizing compilers, simulators, emulators, and/or language translators and recommend better utilization of operating systems capabilities to improve system efficiency. Must be able to develop, manage, maintain, and evaluate state-of-the-art computer hardware, software, and software development tools; evaluate their ability to support specific requirements and interface with other equipment and systems; determine potential and actual bottlenecks; propose recommendations for their elimination; and make recommendations for systems improvements that will result in optimal hardware and software usage.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have five (5) years of computer experience in at least two (2) of the following disciplines: systems analysis, systems programming, application programming, or equipment analysis.

25. Computer Specialist (Senior)
Functional Responsibility: Must be able to determine costs for converting computer systems from one language or machine to another by using compilers, simulators, emulators, and/or language translators and to recommend better utilization of operating systems capabilities for improving system efficiency. Develops, manages, maintains, and evaluates current state-of-the-art computer hardware, software, and software development tools; evaluates their ability to support specific requirements and interface with other equipment and systems; determines potential and actual bottlenecks and proposes recommendations for their elimination; and makes recommendations for system improvements that will result in optimal hardware and software use.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. A Master's Degree is preferred. Must have eight (8) years of computer experience in at least two of the following disciplines: system analysis, system programming, application programming, and equipment analysis.

26. Database Management Specialist (Junior)
Functional Responsibility: Must be capable of providing highly technical expertise and support

in the use of DBMS. Must be able to evaluate and recommend available DBMS products to support validated user requirements. Defines file organization, indexing methods, and security procedures for specific user applications. Develops, implements, and maintains database back-up and recovery procedures for the processing environments, and ensures that data integrity, security, and recoverability are built into the DBMS applications.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have three (3) years of experience in DBMS systems analysis and programming.

27. Database Management Specialist (Senior)

Functional Responsibility: Must be capable of providing highly technical expertise and support in the use of DBMS. Must be able to evaluate and recommend available DBMS products to support validated user requirements. Defines file organization, indexing methods, and security procedures for specific user applications. Develops, implements, and maintains database back-up and recovery procedures for the processing environments, and ensures that data integrity, security, and recoverability are built into the DBMS applications.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have six (6) years of experience in DBMS systems analysis and programming.

28. Database Manager

Functional Responsibility: Must be capable of managing the development of database projects. Must be able to plan and budget staff and data resources. Supports application developers in planning preparation, load analysis, and backup and recovery of data. When necessary, reallocates resources to maximize benefits. Must be able to prepare and deliver presentations on DBMS concepts. Provides daily supervision and direction to support staff. Monitors performance and evaluates areas to improve efficiency.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. A Master's Degree is preferred. Must have seven (7) years of experience in the development and maintenance of database systems.

29. Engineer, Facility Operations

Functional Responsibility: Provides engineering support for facility and infrastructure projects. Support includes project development, design, bid proposal, schedule development, and technical support. May also manage and direct personnel in the operation, maintenance and repair of facilities, systems and institutional equipment. Includes building, heating, ventilation and air conditioning (HVAC) systems, boiler systems, generator systems and electrical systems.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university in civil, mechanical, electrical, industrial or facilities management engineering or other related field. This position typically requires eight (8) years of experience in facilities management or related field.

30. Engineer, Information

Functional Responsibility: Must be capable of applying a business wide set of disciplines for planning, analysis, design, construction, and maintenance of information systems on a business-wide basis or across a major sector of the business. Must be capable of performing business strategic systems planning, information planning, and analysis. Performs process and data modeling in support of the planning and analysis efforts using both manual and automated tools, such as I-CASE tools. Must be able to apply reverse engineering and reengineering disciplines to develop migration strategic and planning documents. Provides technical guidance in software engineering techniques and automated support tools.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Must have five (5) years of experience in engineering, systems analysis, design, and programming.

31. Engineer, Information (Senior)

Functional Responsibility: Develops analytical and computational techniques and methodology for problem solutions. Performs process and data modeling in support of the planning and analysis efforts using manual and automated tools; such as Integrated Computer-Aided Software Engineering (I-CASE) tools. Must be able to apply reverse engineering and reengineering disciplines to develop migration strategic and planning documents. Provides technical guidance in software engineering techniques and automated support tools. Must be capable of applying business process improvement practices to modernization projects. Applies, as appropriate, activity and data modeling transaction flow analysis; internal control and risk analysis; modern business methods; and performance measurement techniques. Assists in establishing standards for information systems procedures. Develops and applies organization wide information models for use in designing and building integrated, shared software and DBMS.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have eight (8) years of experience in managing the implementation of information engineering projects and experience in systems analysis, design and programming using CASE and IE tools and methods.

32. Engineer, Information Security

Functional Responsibility: Analyzes and defines security requirements for information protection. Defines and develops security policies. Analyzes the sensitivity of information, performs vulnerability and risk assessments on the basis of defined sensitivity and information flow.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or

university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. This position requires a minimum of eight (8) years of experience in information protection.

33. Engineer, Interdisciplinary

Functional Responsibility: Must be capable of translating mission requirements and information problems into solutions employing current state-of-the-art information system equipment and software. Must be able to define interaction and interface among different categories of requirements, and develop appropriate design to support the requirements while employing IT methodologies. Must be able to serve as a liaison to interpret and translate various disciplines represented on the task team, and serve as a point of contact for evaluation of problems arising from the interdisciplinary nature of the task.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Must have five (5) years of experience in technical work in the areas of system management and system integration.

34. Engineer, Interdisciplinary (Senior)

Functional Responsibility: Must have demonstrated ability to perform senior level engineering and/or IT tasks in the disparate areas of software, electronics telecommunications, or networking. Must be capable of translating mission requirements and information problems into solutions employing current state-of-the-art information system equipment and software. Must be able to define interaction with and/or interface between these different categories of requirements and to develop the appropriate design to support these requirements while employing methodologies from any of the above disciplines as required. Must be able to serve as a liaison to interpret and translate among the various disciplines represented on the task team, and serve as a point of contact for evaluation of problems arising from the interdisciplinary nature of the task.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have eight (8) years of experience in technical work in the major areas of system management and system integration.

35. Engineer, Network (Junior)

Functional Responsibility: Perform similar duties as directed or instructed by the senior network engineer. Conduct studies pertaining to network configuration and monitor traffic patterns such as protocols and peak usage. Stays current with technological changes.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline. Five (5) years of experience in a computer-related field.

36. Engineer, Network (Senior)

Functional Responsibility: Responsible for the design and implementation of large data

communications or telecommunications networks. Plans and monitors the installation of communications circuits. Manage and monitor local area networks and associated equipment (e.g., bridges, routers, modem pools, and gateways) Conducts short and long-term plan to meet c communications requirements. Responsible for the design and implementation of LANs/WANs using hub switching and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Prepares tradeoff studies and evaluations for vendor equipment. Generates network monitoring/performance report, for LAN/WAN utilization studies. Recommends network design changes/enhancements for improved system availability and performance.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline. If applicable, shall be certified as network engineer for the specific network operating system as defined in the State task request. The certification criteria are determined by the network operating system vendor. Nine (9) years of experience in a computer-related field.

   37. Engineer, Network Security

Functional Responsibility: Designs, develops, engineers, and implements solutions for projects such as biometrics, smart cards, Secure remote access, VPN, Intrusion detection, port scanning, web security and vulnerability assessments and remediation.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree in one of the above disciplines equals one-year specialized and two years general experience. An additional year of specialized experience may be substituted for the required education. This position requires a minimum of eight (8) years of computer-related experience.

   38. Engineer, Radio Frequency

Functional Responsibility: The RF Engineer position is responsible for several components of the new site construction process as well as monitoring and maintaining the performance of existing sites. The components of the new construction process include: creating a search area, selecting a site candidate, filing forms with the FAA and FCC, ordering the necessary site hardware, filing extension agreements with neighboring carriers and frequency / PN planning. This position is also responsible for RF coverage, radio talk-path capacity, and organizing the logistics of cell site additions. The position also assists with budget preparations and performance troubleshooting.

Minimum Education/Experience: This position requires a 4-year college program with a Bachelor's Degree in Radio Engineering or Electrical Engineering or related field or equivalent vocational education, training, and experience with formal training in use of relevant administrative & industry specific tools (i.e. computer software and Internet). This position requires a minimum of one (1) year of related experience. Point-to-point microwave systems and path analysis is mandatory. The following skills are desirable: 1) effective communication skills, 2) willingness to work in a team environment, 3) planning/organizational skills, 4) goal

orientation, and 5) experience in radio communications.

39. Engineer, Software
Functional Responsibility: Reviews and analyzes system specifications. Prepares programming specifications. Analyzes existing systems/subsystems for reusability benefits and needed changes. Prepares design plans and written analyses. Prepares unit and test scripts. Prepares documentation.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have three (3) years of experience as a software engineer.

40. Engineer, Stationary
Functional Responsibility: Operates and maintains one or more engineering systems which provides a facility the services to function in a variety of service areas, such as: Heating and Air Conditioning Refrigeration, Emergency Power Generation, Uninterrupted Power Supply (UPS) systems, Electrical Switchboard systems, Fuel Distribution and Treatment systems, and Water Treatment and Boiler Heating systems. Observes system's gauges, meters, charts for proper system's operations. Performs preventive and corrective maintenance on system's components.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university in Electrical, Mechanical, or Industrial Engineering or other related field. This position typically requires eight (8) years of experience in industrial engineering or related field.

41. Engineer, Systems
Functional Responsibility: Must be capable of analyzing information requirements. Evaluates system problems of workflow, organization, and planning. Develops appropriate corrective action.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have three (3) years of experience in systems engineering.

42. Engineer, Systems (Senior)
Functional Responsibility: Must be able to analyze information requirements. Must be able to evaluate problems in workflow, organization, and planning. Develops appropriate corrective action. Provides daily supervision and direction to staff.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have six (6) years of experience in systems engineering.

43. Engineer Systems Design

Functional Responsibility: Must be able to perform design of information systems, including the design of the application architecture, database, and interfaces. Responsible for gathering and analyzing user requirements and translating them into system designs.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have six (6) years of experience planning, designing, building, and implementing IT systems. Familiar with Capability Maturity Model compliant structured methodology.

44. Facilities Engineering Manager

Functional Responsibility: Provides management and technical direction for facility, systems, and equipment repair, operation and maintenance. Provides oversight, strategic direction and technical support for the engineering, operation and maintenance of systems and subsystems.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university in civil, mechanical, industrial or facilities management engineering or other related field. This position typically requires 10 years of experience in facilities management or related field.

45. Facilities Specialist Level I

Functional Responsibility: Performs installation, operation, maintenance, and repair of facilities, institutional equipment and systems. This may include, but is not limited to high and low pressure steam plant boilers; security and fire systems; portable and installed generator sets, automatic transfer sets, and uninterruptable power supplies, batteries and associated electrical wiring/components; air handling units, pumps, exchangers and cooling towers; and, carpentry, painting, plumbing, electrical and mechanical activities. May performs various mechanical functions associated with diagnostics, dismantling, and repair of machines and mechanical equipment.

Minimum Education/Experience: High School diploma or equivalent required. This position typically requires one (1) year of experience in facilities work or related field.

46. Facilities Specialist Level II

Functional Responsibility: Performs installation, operation, maintenance, and repair of facilities, institutional equipment and systems. This may include, but is not limited to high and low pressure steam plant boilers; security and fire systems; portable and installed generator sets, automatic transfer sets, ancillary power distribution systems, and uninterruptable power supplies, batteries and associated electrical wiring/components; air handling units, pumps, exchangers and cooling towers; and, carpentry, painting, plumbing, electrical and mechanical activities. May perform various mechanical functions associated with diagnostics, dismantling, and repair of machines and mechanical equipment.

Minimum Education/Experience: High School diploma or equivalent required. This position typically requires two (2) years of related experience in facilities work or related field.

47. Facilities Specialist Level III
Functional Responsibility: Performs installation, operation, maintenance, and repair of facilities, institutional equipment and systems. This may include, but is not limited to high and low pressure steam plant boilers; security and fire systems; portable and installed generator sets, automatic transfer sets, ancillary power distribution systems and uninterruptable power supplies, batteries and associated electrical wiring/components; air handling units, pumps, exchangers and cooling towers; and, carpentry, painting, plumbing, electrical and mechanical activities. May perform various mechanical functions associated with diagnostics, dismantling, and repair of machines and mechanical equipment.

Minimum Education/Experience: High School diploma or equivalent required. This position typically requires five (5) years of experience in facilities work or related field.

48. Facilities Specialist - Lead
Functional Responsibility: Oversees and directs daily activities involving the installation, operation, maintenance, and repair of facilities, institutional equipment and systems. This may include, but is not limited to high and low pressure steam plant boilers; security and fire systems; portable and installed generator sets, automatic transfer sets, and uninterruptable power supplies, batteries and associated electrical wiring/components; air handling units, pumps, exchangers and cooling towers; and, carpentry, painting, plumbing, electrical and mechanical activities. May perform various mechanical functions associated with diagnostics, dismantling, and repair of machines and mechanical equipment.

Minimum Education/Experience: High School diploma or equivalent, and knowledge of OSHA general safety standards related to work involving electrical and mechanical tasks in an industrial environment. This position typically requires eight (8) years of experience in facilities work or related field.

49. Facility Operations Supervisor
Functional Responsibility: Supervises personnel engaged in the operation, maintenance and repair of facilities, systems, and equipment.

Minimum Education/Experience: Associate's degree (ASCE, ASEE, ASET, ASME or other related field) or equivalent. This position typically requires eight (8) years of related experience in facility operations or related field.

50. Geographic Information Systems Analyst
Functional Responsibility: Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems which may link parcel maps or orhtophotos with environmental data, historic data, transportation data and health data to produce maps or quantify information about the impacts of features on parcel ownership. Conducts geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Creates, adjusts, corrects, converts and distributes base maps and thematic data. Digitize and maintain spatial

databases of Maryland information; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Provide geographic location coordinates from the GIS to facilitate spatial analysis and data manipulation, calculate distances and area of features and interpret legal descriptions and certify changes in boundary lines. Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least nine (9) credit hours in courses specifically related to GIS operation/management. A Master's Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least nine (9) undergraduate credit hours in courses specifically related to GIS operation/management is preferred. A minimum of two (2) years of professional experience is required in GIS, cartography, CADD, or a related field without an appropriate college degree.

51. Geographic Information Systems Specialist
Functional Responsibility: Conducts geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Creates, adjusts, corrects, converts and distributes base maps and thematic data. Digitize and maintain spatial databases of Maryland information; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Provide geographic location coordinates from the GIS to facilitate spatial analysis and data manipulation, calculate distances and area of features and interpret legal descriptions and certify changes in boundary lines. Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

Minimum Education/Experience: 1) A Bachelor's Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least nine (9) credit hours in courses specifically related to GIS operation/management. Two (2) years of professional experience is required in GIS, cartography, CADD, or a related field without the appropriate college degree.

52. Geographic Information Systems Technician I
Functional Responsibility: Conducts geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Creates, adjusts, corrects, converts and distributes base maps and thematic data. Digitize and maintain spatial databases of Maryland information; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Provide geographic location coordinates from the GIS to facilitate spatial analysis and data manipulation, calculate distances and area of features and interpret legal descriptions and certifies changes in boundary lines.

Minimum Education/Experience: Bachelor's degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, Library Science or related field with at least nine (9) credit hours in courses specifically related to GIS operation/management. Experience: A minimum of two (2) years of successful experience at the equivalent of the GIS Trainee level.

53. Geographic Information Systems Technician II

Functional Responsibility: Performs systems analysis, design, programming, documentation, and implementation of complex GIS applications. Develops logical and physical geo-database designs; implements geo-databases, establishes recovery plans, and monitors geo-database performance. Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems which may link parcel maps or orhtophotos with environmental data, historic data, transportation data and health data to produce maps or quantify information about the impacts of features on parcel ownership. Conducts geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Creates, adjusts, corrects, converts and distributes base maps and thematic data. Digitize and maintain spatial databases of Maryland information; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Provide geographic location coordinates from the GIS to facilitate spatial analysis and data manipulation, calculate distances and area of features and interpret legal descriptions and certify changes in boundary lines. Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least nine (9) credit hours in courses specifically related to GIS operation/management. A Master's Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least nine (9) undergraduate credit hours in courses specifically related to GIS operation/management is preferred. A minimum of three (3) years of professional experience in GIS, cartography, CADD, or a related field.

54. Geographic Information Systems Technician Trainee

Functional Responsibility: Conducts geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Creates, adjusts, corrects, converts and distributes base maps and thematic data. Digitize and maintain spatial databases of Maryland information; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Provide geographic location coordinates from the GIS to facilitate spatial analysis and data manipulation, calculate distances and area of features and interpret legal descriptions and certifies changes in boundary lines.

Minimum Education/Experience: A high school diploma or equivalent. One (1) year of professional experience related to GIS, cartography, CADD, or a related field.

  55. GeoSpatial Web Developer (Mid-level)

Functional Responsibility: install and configure ArcGIS Server; develop mapping applications and web services using ArcGIS Server for Flex and JavaScript/HTML5, build and publish maps via ArcGIS and ArcGIS Online resources, ArcSDE databases, and geo-processing tools as services in ArcGIS Server to streamline existing geospatial procedures; develop mobile GIS applications, assume responsibility of full project lifecycle on simple projects; act proactively to avoid agency customer issues and meet their business needs. The ideal candidate will also have experience developing for HTML 5, using open source geospatial software development tools, and developing for multiple PC, iOS, Android platforms. This role also requires an understanding of project management, including all software development life cycle phases. A firm understanding of database architecture is also needed.

Minimum Education/Experience: Bachelor's or Master's degrees from an accredited college or university in computer science, GIS, engineering, or related field. Three (3) additional years of specialized experience may be substituted for the required education.

Experience: At least three (3) years of experience working on GIS development projects related to the following skills:

- ESRI ArcGIS desktop, ArcGIS Server and REST APIs, and ArcSDE
- At least one (1) year of experience with Oracle or other RDBMS, SQL, and/or PL/SQL
- At least one (1) year of experience with other industry-standard technologies such as XML, Web services, application servers, and Web servers
- At least one (1) year developing web mapping applications using Flex and JavaScript/HTML5

  56. GeoSpatial Web Developer (Senior)

Functional Responsibility: This is Senior GIS Software Developer position. Responsibilities include: install and configure ArcGIS Server; develop mapping applications and web services using ArcGIS Server for Flex and JavaScript/HTML5, build and publish maps via ArcGIS and ArcGIS Online resources, ArcSDE databases, and geo-processing tools as services in ArcGIS Server to streamline existing geospatial procedures; develop mobile GIS applications, assume responsibility of full project lifecycle on simple projects; act proactively to avoid agency customer issues and meet their business needs. The ideal candidate will also have experience developing for HTML 5, using open source geospatial software development tools, and developing for multiple PC, iOS, and Android platforms. This role also requires an understanding of project management, including all software development life cycle phases. A firm understanding of database architecture is also needed.

Minimum Education/Experience: Bachelor's or Master's degrees from an accredited college or university in computer science, GIS, engineering, or related field. Four (4) additional years of specialized experience may be substituted for the required education.

Experience: At least four (4) years of experience working on GIS development projects using the

following skills:

- ESRI ArcGIS desktop, ArcGIS Server and REST APIs, and ArcSDE
- At least three (3) years of experience with Oracle or other RDBMS, SQL, and/or PL/SQL
- At least three (3) years of experience with other industry-standard technologies such as XML, Web services, application servers, and Web servers
- At least one (1) year of experience developing web mapping applications using Flex
- At least one (1) year of experience developing web mapping applications using JavaScript/HTML5

57. Group Facilitator (Senior)

Functional Responsibility: Provides assistance in the group decision-making process by intervening to help a group improve its effectiveness and efficiency through enhanced problem identification, problem solutions and decision-making skills. Takes primary responsibility for managing the group process and assists groups to be more effective by improving existing group practices. Guides groups through proven processes and understands basic group dynamics and interrelationships. Intervenes when it is evident that the group process or other factors interfere with a group's ability to accomplish specific goals and objectives.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Education, the Social Sciences, Human Resources, Business or a related field. At least five (5) years of experience as a group facilitator.

58. Help Desk Manager

Functional Responsibility: Provides daily supervision and direction to staff who are responsible for phone and in-person support to users in the areas of e-mail, directories, standard Windows desktop applications, and other network services. Manages personnel who serve as the first point of contact for troubleshooting hardware and software PC and printer problems.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. A Master's Degree is preferred. This position requires a minimum of seven (7) years of experience in the management of a Help Desk. General experience includes information systems development, network and other work in the client/server field, or related fields.

59. Help Desk Specialist (Junior)

Functional Responsibility: Provides telephone and in-person support to users in the areas of directories, standard Windows desktop applications, and applications developed under this Contract or predecessors. Serves as the initial point of contact for troubleshooting hardware/software PC and printer problems.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. This position requires a minimum of

five (5) years of experience in business IT environments with emphasis on PC hardware and applications. General experience includes information systems development, work in the client/server field, or related fields.

60. Help Desk Specialist (Senior)

Functional Responsibility: Provides telephone and in-person support to users in the areas of directories, standard Windows desktop applications, and applications developed under this Contract or predecessors. Serves as the initial point of contact for troubleshooting hardware/software PC and printer problems.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. This position requires a minimum of seven (7) years of experience in a business IT environment with emphasis on PC computer hardware and applications. General experience includes, but is not limited to: information systems development, work in the client/server field, or related fields.

61. Internet/Intranet Site Developer (Junior)

Functional Responsibility: Must be able to translate applications requirements into the design of complex web sites, including integrating web pages and applications. Must be able to apply new and emerging technologies to the development process.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have one (1) year of web development experience using current Web development and graphic tools, as well as, Web server and database administration.

62. Internet/Intranet Site Developer (Senior)

Functional Responsibility: Must be able to translate applications requirements into the design of complex web sites, including integrating web pages and applications. Must be able to apply new and emerging technologies to the site development process.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. Must have five (5) years of web development experience using current Web development and graphic tools, as well as, Web Server and database administration.

63. IT Professional (Senior)

Functional Responsibility: Identifies strategic issues for the Information Management Department and advises IT Senior Management of the risks and/or opportunities created by these issues. Issues will be centered on IT measurements and IT project management. IT

measurements will encompass the refining or creating of measures related to value creation of IT products and services. Project Management will include presenting recommendations on ways of managing projects more effectively (including, but not limited to: appropriate methodology and quality reviews) Accountabilities include coordinating input from various IT departments to develop recommendations, conducting analyses of issues and ensuring adequate communication of the endorsed positions and recommendations to stakeholders.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems, Business, Mathematics or a related technical or business field. A Master's degree is preferred. At least eight (8) years of relevant industry experience in the discipline required.

64. Network Administrator

Functional Responsibility: Performs a variety of network management functions related to the operation, performance or availability of data communications networks. Experience with cable/LAN meters, protocol analyzers, SNMF' and RMON based software products. Knowledge of Ethernet, FDDI and high speed WANs and routers. Analyze client LANs/WANs, isolate source of problems, and recommend reconfiguration and implementation of new network hardware to increase performance. Advanced knowledge of network operating systems. Modifies command language programs, network start up files, assigns/reassigns network device logicals, participates in load balancing efforts throughout the network to achieve optimum device utilization and performance. Establishes new user accounts on the network granting access to required network files and programs. Manages network Email functions. Establishes mailboxes and monitors mail performance on the network. Troubleshoots network/user problems, presents resolutions for implementation. Prepares a variety of network resource reports.

Minimum Education/Experience: An Associate's degree from an accredited college or university in Computer Science, Information Systems, Engineering or a related field, or two (2) years of college or university study in Computer Science, Information Systems, Engineering or a related field. If applicable, should be certified as a network administrator for a specific network operating system as defined in the State task request. Certification criteria is determined by the network operating system vendor. Two (2) additional years of specialized experience may be substituted for the required education. Two (2) years of experience in a computer-related field.

65. Network Manager

Functional Responsibility: Performs a variety of network management functions in support of MIS services related to the operation, performance, or availability of data communications networks. Modifies command language programs, network start up files, assigns/re-assigns network device logical, analyzes network performance and recommends adjustments to wide variety of complex network management functions with responsibility for overall performance and availability of networks. LAN/WAN consultant skilled in network analysis, integration and tuning. Experience with cable/LAN meters, protocol analyzers, Simple Network Management Protocol (SNMP) and Remote Monitoring (RMON) based software products. Knowledge of Ethernet, FDDI and high speed WANs, routers, bridges, and switches. Analyze client LANs/WANs, isolate source of problems, and recommend reconfiguration and implementation of new network hardware to increase performance. Working knowledge of network operating

systems. Conducts load balancing efforts to achieve optimum device utilization and network performance. Manages network Email functions. Establishes mailboxes and monitors mail performance on the network. Coordinates with communications engineering to resolve hardware problems. Works with customer and operations staff in scheduling preventative and emergency maintenance activities.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university with a major in Computer Science, Information Technology, Engineering, or a related discipline. If applicable, shall be certified as network engineer for the specific network operating system as defined in the State task request. The certification criteria are determined by the network operating system vendor. 12 years of experience in a computer-related field.

66. Network Technician (Junior)

Functional Responsibility: Perform similar duties as directed or instructed by the senior network engineer. Adds or exchanges externally connected PC accessories and data communications equipment including cables, boards, batteries, disks drives, and other PC components. Attaches, detaches, or exchanges LAN cabling to workstations, servers, network devices, telecommunications and data communications equipment.

Minimum Education/Experience: An Associate's degree from an accredited college or university in Computer Science, Information Systems, Engineering or a related field; or Technical school certificate of completion in the data communications field including cable installation, or the equivalent military training. An additional year of specialized experience may be substituted for the required education. Three (3) years of experience in a computer-related field.

67. Network Technician (Senior)

Functional Responsibility: Adds or exchanges externally connected PC accessories and data communications equipment. Troubleshoots LANs/WANs and provides problem resolution for PC and data communications hardware. Adds or replaces boards, batteries, disks drives, and other PC components. Installs cabling for networks such as LANs and WANs. Attaches, detaches, or exchanges LAN cabling to workstations, servers, network devices, telecommunications and data communications equipment. Works independently, may provide supervision and guidance to two (2) or more network technicians.

Minimum Education/Experience: An Associate's degree from an accredited college or university in Computer Science, Information Systems, Engineering or a related field; or Technical 'school certificate of completion in the data communications field including cable installation; or the equivalent military training. Two (2) additional years of specialized experience may be substituted for the required education. Seven (7) years of experience in a computer-related field.

68. Operations Research Analyst (Senior)

Functional Responsibility: Conducts investment analyses or other complex operational analyses. Provides expertise and supports evaluations of program results and potential changes to program results related to IT investments along with an analysis and presentations of

alternatives. Provides operational analyses support to all phases of the life cycle of an information system. Conducts operational analyses of existing systems using performance measures, criteria, and standards to determine requirements for needed changes. Evaluates, selects, and uses the tools of modern operations research (such as commercially available decision and analytical support software tools) to conduct analyses of projected changes to system or program performance. Supports architecture efforts including economic analyses of architecture alternatives, architecture issues resolutions, and affordability analyses.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in a related field, with at least 24 semester hours in a combination of mathematics, probability, statistics and logic. Master's degree preferred. Must have eight (8) years of experience in operations research.

69. Planner, Information Technology (Senior)

Functional Responsibility: Provides planning services for a wide range of programs and projects including design, development, implementation, post-implementation and maintenance of the systems. Provides SWOT analyses, critical success factor analyses, strategic business planning, strategic information systems planning, value chain analyses, e-business assessments, and other techniques used to establish strategic plans. Provides expertise in conducting research, evaluations, and studies required to develop both short-term and long-term plans. Provides plans, designs, concepts, and develops both general and specific program and project strategies for linking proposed investments in IT to business results. Provides planning, scheduling, networking and coordination assistance among State organizations involved in implementation and integration efforts. Identifies problems and recommends solutions.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Planning or other related scientific or technical discipline. A Master's degree is preferred. At least 10 years progressive experience as an IT planner - or involved in planning type functions.

70. Program Administration Specialist

Functional Responsibility: Assists in the preparation of management plans and various customer reports. Coordinates schedules to facilitate the completion of TO and change proposals, Contract deliverables, TO reviews, briefings and presentations. Performs analysis, development, and review of program administrative operating plans and procedures.

Minimum Education/Experience: High school diploma or equivalent. A Bachelor's degree is preferred. Must have three (3) years of experience working with project management tools and reporting systems. Familiar with government contracts, work breakdown structures, management/business plans, and program reporting.

71. Program Manager

Functional Responsibility: The Program Manager is the contractor's manager for the Contract, and serves as the single point of contact for the Master Contractor with the State regarding the Contract. Performs overall management for Contract support operations. Organizes, directs, and coordinates the planning and production of all Contract activities, projects and support activities,

including those of subcontractors. Oversees the development of or develops work breakdown structures, charts, tables, graphs, major milestone calendars and diagrams to assist in analyzing problems and making recommendations. Demonstrates excellent written and verbal communications skills. Establishes and alters corporate management structure to direct effective and efficient Contract support activities. Must be capable of negotiating and making binding decisions for the Master Contractor.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems, Business or other related discipline. Master's degree and/or project management certification is preferred. At least 12 years of experience in program or project management.

72. Project Control Specialist

Functional Responsibility: Monitors financial and/or administrative aspects of assigned Contracts and deliverables. Tracks and validates all client financial information, establishes and maintains master Contract files, prepares and monitors status of all deliverables and tracks the value of Contracts. Uses automated systems to track deliverables, financial transactions, and management information.

Minimum Education/Experience: High School Diploma or equivalent. A Bachelor's degree is preferred. Must have three (3) years of experience working with monitoring systems. Familiar with manpower and resource planning, preparing financial reports and presentations, and cost reporting Contract guidelines.

73. Project Manager

Functional Responsibility: The Project Manager is assigned the management of a specific project and the work performed under assigned Task Orders. Performs day-to-day management of the project, identifies issues and risks and recommends possible issue and risk mitigation strategies associated with the project. Acts as a facilitator between a State agency and IT contractor. Is responsible for ensuring that work performed under TOs is within scope, consistent with requirements, and delivered on time and on budget. Identifies critical paths, tasks, dates, testing, and acceptance criteria. Provides solutions to improve efficiency (e.g., reduce costs while maintaining or improving performance levels). Monitors issues and provides resolutions for up-to-date status reports. Demonstrates excellent writing and oral communications skills.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems, Business or other related discipline. Master's degree or project management certification is preferred. At least five (5) years of experience in project management.

74. Quality Assurance Consultant (Senior)

Functional Responsibility: Provides quality management for information systems using the standard methodologies, techniques, and metrics for assuring product quality and key activities in quality management. Establish capable processes, monitoring and control of critical processes and product mechanisms for feedback of performance, implementation of an effective root cause analysis and corrective action system, and continuous process improvement. Provides strategic

quality plans in targeted areas of the organization. Provides QA strategies to ensure continuous production of products consistent with established industry standards, government regulations and customer requirements. Develops and implements life cycle and QA methodologies and educates, and implements QA metrics.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems or other related discipline. A Master's degree preferred. At least eight (8) years information systems quality assurance experience.

75. Quality Assurance Manager

Functional Responsibility: Must be capable of maintaining and establishing a process for evaluating software and associated documentation. Must be able to determine the resources required for quality control. Must be able to maintain the level of quality throughout the software life cycle. Develops software quality assurance plans. Conducts formal and informal reviews at predetermined points throughout the development life cycle.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have six (6) years of experience in quality assurance and quality control.

76. Quality Assurance Specialist

Functional Responsibility: Must be able to determine the resources required for quality control. Must be able to maintain the level of quality throughout the software life cycle. Develops software quality assurance plans. Must be capable of maintaining and establishing a process for evaluating software and associated documentation. Participates in formal and informal reviews at predetermined points throughout the development life cycle to determine quality. Examines and evaluates the software quality assurance (SQA) process and recommends enhancements and modifications. Develops quality standards.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Must have five (5) years of experience working with quality control methods and tools.

77. Risk Assessment Consultant (Senior)

Functional Responsibility: Manages the identification and reporting on risk assessments and updates evaluations in order to determine and forecast operational needs and changes. Provides presentations on reporting and operational enhancements and metrics with special focus on variance analysis. Establish risk management policies and procedures, and guidelines on risk limits. Provides fraud expertise on services to internal and external customers. Develops system enhancements and meaningful reporting and operational management reporting tools and web-based tools and programs to manage, prevent, and mitigate risks. Identifies problems and recommends solutions to risk assessments.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university

in a related field. A Master's degree preferred. At least 10 years of risk assessment experience.

78. Security, Computer Systems Specialist

Functional Responsibility: Analyzes and defines security requirements for MLS issues. Designs, develops, engineers, and implements solutions to MLS requirements. Gathers and organizes technical information about an agency's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses, which also include risk assessment. Provides daily direction to staff.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Four (4) additional years of specialized experience may be substituted for the required education. This position requires a minimum of six (6) years of experience in analysis and definition of security requirements.

79. Security, Data Specialist

Functional Responsibility: Responsible for the planning, design, implementation and monitoring of security measures, policies, methods and procedures which safeguard the integrity of and access to enterprise systems, files and data elements. Responsible for acting on security violations. Maintains knowledge of changing technologies, and provides recommendations for adaptation of new technologies or policies. Recognizes and identifies potential areas where existing data security policies and procedures require change, or where new ones need to be developed, especially regarding future business expansion. Provides management with risk assessments and security briefings to advise them of critical issues that may affect customer, or corporate security objectives.

Minimum Education/Experience: Preference for a Bachelor's Degree in Computer Science, Information Systems, or other related field or equivalent work experience. At least four (4) years of IT work experience in data security.

80. Subject Matter Expert

Functional Responsibility: Defines the problems and analyzes and develops plans and requirements in the subject matter area for moderately complex-to-complex systems. Coordinates and manages the preparation of analysis, evaluations, and recommendations for proper implementation of programs and systems specifications including, but not limited to: information technology, health care, education, public safety, social services, human resources, transportation, and environment.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. Must have seven (7) years of experience in the IT field.

81. Subject Matter Expert (Senior)

Functional Responsibility: The area of expertise may be related to a specific discipline required by the State agency including, but not limited to: information technology, health care, education,

public safety, social services, human resources, transportation, and environment. Requires expertise in the formulation of specifications and in the execution of technical initiatives in vertical areas. Defines requirements, performs analyses, and develops plans and requirements for systems.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in the specific discipline required by the State. A Master's Degree or Ph.D. Degree is preferred. At least 12 years of relevant industry experience in the discipline is required.

82. System Security Research Analyst

Functional Responsibility: Gathers, analyzes, and composes technical information. Conducts research in one or more security disciplines and ensures the use of proper technical terminology. Translates technical information into clear, readable documents to be used by technical and non-technical personnel.

Minimum Education/Experience: A Bachelor's degree from an accredited college or university in a related field or high school diploma with additional experience. A Bachelor's degree is preferred. This position requires no experience if a B.A. or B.S. Degree has been obtained. If only a high school diploma has been obtained, a minimum of two (2) years of system security experience is required.

83. Systems Analyst, Wireless

Functional Responsibility: Define and develop Key Performance Indicators to measure Quality of Service of wireless voice & data services and end-to-end applications that run on top of wireless data bearers. Design and develop post-processing engines that extract and transform raw low-level performance data into aggregate metrics; automate and parameterize the process for large scale processing in an efficient and timely manner; build-in QC check-points for end-to-end quality verification. Analyze, trouble-shoot, and investigate normal and abnormal use-cases for voice and data services; trace anomalies to corresponding impact on key metrics.

Minimum Education/Experience: A Bachelor's degree in Electrical Engineering, Computer Science, or related discipline is required. A Master's degree in the same is preferred. Minimum of four (4) years of direct experience in development for wireless devices or wireless network equipment is required.

84. System Security Specialist

Functional Responsibility: Provides expert-level advice, analysis, and functional expertise to tasks. Demonstrates exceptional oral and written communication skills. Reviews requirements and task documentation for accuracy and applicability.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of 12 years of experience in system security.

85. Systems Security Specialist (Senior)

Functional Responsibility: Analyzes and defines security requirements for Multilevel Security

(MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Responsible for the implementation and development of the MLS. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses, which also include risk assessment. Provides daily supervision and direction to staff.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. This position requires a minimum of eight (8) years of experience in analysis and definition of security requirements.

   86. Telecommunications Consultant (Senior)
Functional Responsibility: Identifies problems and recommends solutions for telecommunications organizations. Performs process and data modeling in support of the planning and analyses for using automated tools. Evaluates controls and makes recommendations. Provides planning, analyses, strategic planning, design, development, implementation and post-implementation for telecommunications projects.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university with a major in Telecommunications, Computer Science, Information Systems, Engineering or a related field. Master's degree preferred. At least 10 years telecommunications experience.

   87. Telecommunications Engineer
Functional Responsibility: Responsible for engineering and/or analytical tasks and activities associated with technical areas within the telecom function (e.g., network design, engineering, implementation, diagnostics or operations/user support). Performs complex tasks relating to network monitoring, operations, installation, and/or maintenance for local, off-site, and/or remote locations.

The scope of responsibility for this position includes, but is not limited to, the configuration, deployment, testing, maintenance, monitoring, and trouble-shooting of network components to provide a secure, high performance network. Duties also entail quality assurance and testing of transmission mediums and infrastructure components.

Minimum Education/Experience: Bachelor's Degree in Computer Science, Information Systems, or other related field or equivalent work experience. Three (3) to five (5) years of IT work experience.

   88. Telecommunications Engineer (Senior)
Functional Responsibility: Provides engineering and technical support for Statewide telecommunications projects and services. Provides designs and applications to insure overall technical integrity. Provides high-level planning for the systems used by telecommunications organizations. Performs process and data modeling for the planning and analyses of automated tools. Provides technical expertise and guidance in engineering techniques and automated support tools. Provides assistance with planning, design, cost/benefit analyses, assessment of

configurations and performance measurements, development, implementation and recommendations for staffing levels for telecommunications systems and processes.

Minimum Education/Experience: Bachelor's Degree from an accredited college or university in Engineering, Telecommunications, Computer Science, Information Systems or other related scientific or technical discipline. A Master's degree is preferred. At least 10 years of telecommunications experience.

89. Telecommunications Systems Analyst

Functional Responsibility: Must be capable of planning, analysis, design, development, and maintenance of operations support systems used by telecommunications organizations. Must be capable of performing business systems planning, information planning, and analysis in support of telecommunications support functions, including billing, trouble ticket management, service order entry, and/or configuration management. Performs process and data modeling in support of the planning and analysis efforts using both manual and automated tools. Provides technical guidance in software engineering techniques and automated support tools.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Telecommunications, Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Must have five (5) years of experience in engineering, systems analysis, design and programming.

90. Testing Specialist

Functional Responsibility: Must be capable of designing and executing IT software tests and evaluating results to ensure compliance with applicable regulations. Must be able to prepare test scripts and all required test documentation. Must be able to design and prepare all needed test data. Analyzes internal security within systems. Reviews test results and evaluates for conformance to design.

Minimum Education/Experience: A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. Three (3) additional years of specialized experience may be substituted for the required education. A Master's Degree is preferred. Must have four (4) years of experience in computer software development.

91. Administrative I

Functional Responsibility: Responsible for the effective administration of the business operations for an office or department. Assures that acceptable administrative services are provided to the client within budget, on schedule and with a minimum of disruption. May assign and supervise the work of support personnel. Performs administrative assignments requiring the ability to follow directions and procedures. Proofreads for error and proper format. Other duties include reviewing materials to be typed, answering telephones, taking messages, and making copies. May also perform receptionist duties as required. May also provide conference and meeting support.

Minimum Education/Experience: A High School diploma, GED, or equivalent experience in a

related discipline. A minimum of three (3) years of experience with thorough knowledge of most commonly used word processing packages (i.e. WordPerfect and MS Word). Familiar with database and spreadsheet packages (i.e. Lotus 123 and MS Excel).

92. Administrative II

Functional Responsibility: Responsible for the effective administration of the business operations for an office, department, or division. Assures that acceptable administrative services are provided to the client within budget, on schedule and with a minimum of disruption. Assist in the preparation of budgets. Carries out recurring office procedures independently. Reviews outgoing materials and correspondence for internal consistency and conformance with office procedures; assures that proper clearances have been obtained. Composes correspondence requiring some technical understanding. Assigns and supervises the work of support personnel.

Minimum Education/Experience: An Associate's Degree in a related discipline or four (4) additional years of experience. Minimum of five (5) years of experience with thorough knowledge of most commonly used word processing packages (i.e. WordPerfect and MS Word) and with database and spreadsheet packages (i.e. Lotus 123 and MS Excel).

93. Administrative III

Functional Responsibility: Responsible for the effective administration of the business operations for an office, department, or division. Assures that acceptable administrative services are provided to the client within budget, on schedule and with a minimum of disruption. Assist in the preparation of budgets. Carries out recurring office procedures independently. Reviews outgoing materials and correspondence for internal consistency and conformance with office procedures; assures that proper clearances have been obtained. Composes correspondence requiring some technical understanding. Assigns and supervises the work of support personnel.

Minimum Education/Experience: An Associate's Degree in a related discipline or five (5) additional years of experience. Minimum of ten (10) years of experience with thorough knowledge of most commonly used word processing packages (i.e. WordPerfect and MS Word) and with database and spreadsheet packages (i.e. Lotus 123 and MS Excel).

94. Analyst II

Functional Responsibility: Under little or no supervision, applies systems analysis and design techniques to complex computer systems. Schedules and reviews all life cycle support functions associated with the design of complex information system projects. Designs programs using flowcharts, data flow diagrams, and/or pseudo code. Uses complexity meters to assess programs and recommends improvements, and assess operating systems performance. Uses relational theory to assess normality of databases and recommends improvements. Develops procedures, manuals, and other documentation for complex information systems.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Mathematics, Engineering, Information Systems or other related scientific or technical discipline. Minimum of three (3) years experience in systems analysis and design of large information systems programs,

and at least one (1) years experience in information technology.

95. Analyst III

Functional Responsibility: Under little or no supervision, applies systems analysis and design techniques to complex computer systems. Schedules and reviews all life cycle support functions associated with the design of complex information system projects. Designs programs using flowcharts, data flow diagrams, and/or pseudo code. Uses complexity meters to assess programs and recommends improvements, and assess operating systems performance. Uses relational theory to assess normality of databases and recommends improvements. Develops procedures, manuals, and other documentation for complex information systems.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Mathematics, Engineering, Information Systems or other related scientific or technical discipline. Minimum of five (5) years experience in systems analysis and design of large information systems programs, and at least two (2) years experience in information technology.

96. Analyst IV

Functional Responsibility: Responsible for applying systems analysis and design techniques to complex computer systems. Schedules and reviews all life cycle support functions associated with the design of complex information system projects. Designs programs using flowcharts, data flow diagrams, and/or pseudo code. Uses complexity meters to assess programs and recommends improvements, and assess operating systems performance. Uses relational theory to assess normality of databases and recommends improvements. Develops procedures, manuals, and other documentation for complex information systems. Responsible for the supervision of subordinate systems analysts.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Mathematics, Engineering, Information Systems or other related scientific or technical discipline. Minimum of five (7) years experience in systems analysis and design of large information systems programs, and at least three (3) years experience in information technology. At least two (2) years supervisory experience.

97. Programmer I

Functional Responsibility: Under constant supervision, applies expertise in programming procedures to complex software modules and packages, including operating systems and application software. May assist in developing specifications for software programming applications, or modifying/maintaining existing software modules, including design, code, test, and evaluation. May participate in some or all phases of software development with emphasis on the planning, testing, programming, and acceptance phases.

Minimum Education/Experience: An Associate's Degree, or at least two years work toward a Bachelor's Degree in Computer Science, Information Systems or other related scientific or technical discipline. This is an entry-level position in computer programming and analysis of

complex information systems application and operating system software.

98. Programmer II

Functional Responsibility: Under little or no supervision, applies expertise in programming procedures to complex software modules and packages, including operating systems and application software. Develops, or assists in the development of specifications for software programming applications, or modifies/maintains existing software modules, including design, code, test, and evaluation. Participates in all life cycle phases of software development with emphasis on the planning, testing, programming, and acceptance phases.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Information Systems or other related scientific or technical discipline. Minimum of three (3) years experience in computer programming and analysis of complex information systems application and operating system software.

99. Programmer III

Functional Responsibility: Responsible for and applies expertise in programming procedures to complex software modules and packages, including operating systems and application software. Develops specifications for software programming applications, or modifies/maintains existing software modules, including design, code, test, and evaluation. Participates in all life cycle phases of software development with emphasis on the planning, testing, programming, and acceptance phases. Responsible for the supervision of subordinate software programmers.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Information Systems or other related scientific or technical discipline. Minimum of five (5) years experience in computer programming and analysis of complex information systems application and operating system software.

100.   Programmer IV

Functional Responsibility: Responsible for and applies expertise in programming procedures to complex software modules and packages, including operating systems and application software. Develops specifications for software programming applications, or modifies/maintains existing software modules, including design, code, test, and evaluation. Participates in all life cycle phases of software development with emphasis on the planning, testing, programming, and acceptance phases. Responsible for the supervision of subordinate software programmers.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline. Minimum of eight (8) years experience in computer programming and analysis of complex information systems application and operating system software. At least two years supervisory experience.

101.   Programmer V

Functional Responsibility: Responsible for and applies expertise in programming procedures to

complex software modules and packages, including operating systems and application software. Develops specifications for software programming applications, or modifies/maintains existing software modules, including design, code, test, and evaluation. Participates in all life cycle phases of software development with emphasis on the planning, testing, programming, and acceptance phases. Responsible for the supervision of subordinate software programmers.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline and typically, an advanced degree or specialized certification. Minimum of eight (8) years experience in computer programming and analysis of complex information systems application and operating system software. At least two years supervisory experience.

102.   Project Manager III

Functional Responsibility: Responsible for the management and technical direction of a project, or multi-task projects. Responsible for project performance including cost, schedule, deliverables, and contractual compliance, and is accountable for the quality and timely delivery of all project deliverable items. Serves as a contractor's authorized technical interface with the customer and is responsible for overall project/task performance. Responsible for enforcing work standards, task schedules, reviewing work discrepancies, supervising technical personnel, recommending project hires and terminations, and communicating policies, purposes, and goals of the organization to subordinate personnel. Responsible for the budgeting of all required resources including manpower, funds, production components, computer time, and facilities that are required for project implementation and completion. Responsible for the supervision of subordinate engineers, scientists, analysts, and technicians.

Minimum Education/Experience: A Bachelors Degree in Computer Science, Engineering, Business, Information Systems or other related scientific or technical discipline. Minimum of two (2) years progressive project experience, most of which must have been in a specialized area, in information systems development, project development from inception to deployment; demonstrated ability to manage and provide technical guidance and direction in multiple tasks across several functional areas, and excellent oral and written communications skills. At least three years supervisory experience.

103.   Senior Consultant II

Functional Responsibility: Consultant assists others in developing programs and implementing creative and innovative solutions to the customer's problems. Researches and analyzes customer requirements. Consultant applies knowledge to determine the accuracy and reasonableness of the data, recommendations, and solutions developed. Documents and summarizes the results and develops and recommends creative and innovative solutions to the customer's problems. Usually supports a program or project manager but may support a task manager.

Minimum Education/Experience: Bachelor's Degree in business; business management; financial management; systems management; computer science; engineering; physics; math; behavioral science or related areas. Master's Degree preferred. Consultant must have six (6)

years of experience providing this type of support. Consultant must have substantial expertise in the one of the following areas: financial management; systems management; computer science; engineering; behavioral science or related areas.

104.   Senior Consultant III

Functional Responsibility: Consultant assists others in developing programs and implementing creative and innovative solutions to the customer's problems. Researches and analyzes customer requirements. Consultant applies knowledge to determine the accuracy and reasonableness of the data, recommendations, and solutions developed. Documents and summarizes the results and develops and recommends creative and innovative solutions to the customer's problems. Usually supports a program manager.

Minimum Education/Experience: Bachelor's Degree in business; business management; financial management; systems management; computer science; engineering; physics; math; behavioral science or related areas. Master's Degree preferred. Consultant must have eight (8) years of experience providing this type of support. Consultant must have substantial expertise in the one of the following areas: financial management; systems management; computer science; engineering; behavioral science or related areas.

105.   Senior Consultant IV

Functional Responsibility: Consultant assists in developing programs and implementing creative and innovative solutions to the customer's problems. Consultant researches and analyzes customer requirements. Consultant applies expert knowledge to determine the accuracy and reasonableness of the data, recommendations, and solutions proposed. Documents and summarizes the results and develops and recommends creative and innovative solutions to the customer's problems. May support a technology executive, program or project manager, or a task manager and may supervise others in performing complex tasks.

Minimum Education/Experience: Master's Degree in business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Consultant may substitute four (4) years of experience for a Master's Degree. Consultant will usually have twelve (12) years of experience performing this type of work. Consultant could be an expert in the one of the following areas: business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Consultant may have made presentations at professional conferences.

106.   Senior Consultant V

Functional Responsibility: Consultant assists in developing programs and implementing creative and innovative solutions to the customer's problems. Consultant researches and analyzes customer requirements. Consultant applies expert knowledge to determine the accuracy and reasonableness of the data, recommendations, and solutions proposed. Documents and summarizes the results and develops and recommends creative and innovative solutions to the customer's problems. Usually supports a technology executive or program manager but may also

supervise others in performing complex tasks.

Minimum Education/Experience: Master's Degree in business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Consultant may substitute six (6) years of experience for a Master's Degree. Consultant will usually have 14 years of experience performing this type of work. Consultant must be an expert in the one of the following areas: business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Consultant may have made presentations at professional conferences.

107.	Senior Consultant VI

Functional Responsibility: Consultant assists in developing programs and implementing creative and innovative solutions to the customer's problems. Consultant researches and analyzes customer requirements and may perform considerable independent research without any supervision. Consultant applies expert knowledge to determine the accuracy and reasonableness of the data, recommendations, and solutions proposed. Documents and summarizes the results and develops and recommends creative and innovative solutions to the customer's problems. Usually supports a technology executive or program manager but may also supervise others in performing complex tasks.

Minimum Education/Experience: Master's Degree in business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Doctorate Degree preferred. Consultant may substitute eight (8) years of experience for a Master's Degree. . Consultant will usually have 16 years of experience performing this type of work. Consultant must be an expert in the one of the following areas: business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Consultant may have published articles or books in field of expertise and/or made presentations at professional conferences.

108.	Senior Consultant VII

Functional Responsibility: Consultant assists in developing programs and implementing creative and innovative solutions to the customer's problems. Consultant researches and analyzes customer requirements and may perform considerable independent research without any supervision. Consultant applies expert knowledge to determine the accuracy and reasonableness of the data, recommendations, and solutions proposed. Documents and summarizes the results and develops and recommends creative and innovative solutions to the customer's problems. Usually supports a technology executive or program manager but may also supervise others in performing complex tasks.

Minimum Education/Experience: Master's Degree in business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Doctorate Degree preferred.

Consultant may substitute ten (10) years of experience for a Masters Degree. Consultant will usually have twenty (20) years of experience performing this type of work. Consultant must be an expert in the one of the following areas: business; business management; financial management; systems management; operations research; computer science; engineering; physics; math; behavioral science or related areas. Consultant may have published articles or books in field of expertise and/or made presentations at professional conferences.

109.   System Architect I

Functional Responsibility: Under occasional supervision, applies a wide set of engineering disciplines for planning, design, analysis, specification development, coding, and construction of computer and telecommunications information systems architectures. Assists in designing interface standards, quality assurance standards, performance standards, and cost-benefit analysis of state of the art information systems. Uses Rational, Borland Suite, Erwin and other tools to perform functions.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Information Systems or other related scientific or technical discipline. Minimum of three (3) year experience in design, analysis, and implementation of information systems architecture.

110.   System Architect II

Functional Responsibility: Under little or no supervision, applies a wide set of engineering disciplines for planning, design, analysis, specification development, coding, and construction of computer and telecommunications information systems architectures. Responsible for, or assists in the designing of interface standards, quality assurance standards, performance standards, and cost-benefit analysis of modem state of the art information systems.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Information Systems or other related scientific or technical discipline. Minimum of five (5) years experience in design, analysis, and implementation of information systems architecture.

111.   System Engineer I

Functional Responsibility: Under close supervision, performs all life cycle support functions associated with the systems engineering of large computer and information system projects. Performs research, planning, design, cost¬-benefit trade off analysis, specification development, and all aspects of systems analysis of IT systems. Responsible for standards and interface development; certifications; and test and evaluations of complex systems.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline. Entry-level position in systems engineering design, analysis, integration, and life cycle engineering support of large information systems projects.

112.   System Engineer II

Functional Responsibility: Under close supervision, performs all life cycle support functions associated with the systems engineering of large computer and information system projects. Performs research, planning, design, cost¬-benefit trade off analysis, specification development, and all aspects of systems analysis of IT systems. Responsible for standards and interface development; certifications; and test and evaluations of complex systems.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline. Minimum of two (2) year experience in systems engineering design, analysis, integration, and life cycle engineering support of large information systems projects.

113.   System Engineer III

Functional Responsibility: Under little or no supervision, performs all life cycle support functions associated with the systems engineering of large computer and information system projects. Performs research, planning, design, cost benefit trade off analysis, specification development, and all aspects of systems analysis of IT systems. Responsible for standards and interface development, certifications, and test and evaluations of complex systems.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline. Minimum of five (5) years experience in systems engineering design, analysis, integration, and life cycle engineering support of large information systems projects.

114.   System Engineer IV

Functional Responsibility: Responsible for all life cycle support functions associated with the systems engineering of large computer and information system projects. Oversees and performs research, planning, design, cost-¬benefit trade off analysis, specification development, and all aspects of systems analysis of IT systems. Responsible for standards and interface development, certifications, and test and evaluations of complex systems. Responsible for the supervision of subordinate systems engineers.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline. Minimum of eight (8) years experience in systems engineering design, analysis, integration, and life cycle engineering support of large information systems projects. At least two years supervisory experience.

115.   System Engineer V

Functional Responsibility: Responsible for all life cycle support functions associated with the systems engineering of large computer and information system projects. Oversees and performs research, planning, design, cost-¬benefit trade off analysis, specification development, and all aspects of systems analysis of IT systems. Responsible for standards and interface development, certifications, and test and evaluations of complex systems. Responsible for the supervision of subordinate systems engineers.

Minimum Education/Experience: A Bachelor's Degree in Computer Science, Electrical Engineering, Information Systems or other related scientific or technical discipline and typically, an advanced degree or specialized certification. Minimum of eight (8) years experience in systems engineering design, analysis, integration, and life cycle engineering support of large information systems projects. At least two years supervisory experience.

116.   Business Subject Matter Specialist:

Functional Responsibility: Provides technical knowledge and analysis of highly specialized applications and operational environments, high-level functional systems analysis, design, integration, documentation and implementation advice on exceptionally complex problems that need extensive knowledge of the subject matter for effective implementation. Participates as needed in all phases of software development with emphasis on the planning, analysis, testing, integration, documentation, and presentation phases.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

117.   Business Systems Analyst – Mid - Level:

Functional Responsibility: Under general supervision, formulates and defines systems scope and objectives through research and fact-finding combined with an understanding of applicable business systems and industry requirements. With this knowledge, develops or modifies moderately complex information systems. Includes analysis of business and user needs, documenting requirements, and revising existing system logic difficulties as necessary. Guides and advises less-experienced Business Systems Analysts. Competent to work in some phases of systems analysis and considers the business implications of the application of technology to the current business environment.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

118.   Business Systems Analyst - Senior:

Functional Responsibility: Under general direction, formulates and defines systems scope and objectives based on both user needs and a good understanding of applicable business systems and industry requirements. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Includes analysis of business and user needs, documentation of requirements, and translation into proper system requirement specifications. Guides and advises less-experienced Business Systems Analysts. Competent to work at the highest technical level of most phases of systems analysis while considering the business implications of the application of technology to the current and future business environment.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

119.   Business Systems Specialist :

Functional Responsibility: Top-level technical contributor with expertise in particular business processes responsible for formulating systems scope and objectives relative to the organization's business plan and industry requirements. Acts independently or as a member of a project team responsible for providing technical guidance concerning the business implications of the application of various systems. Provides technical consulting on complex projects. Devises and/or modifies procedures to solve the most complex technical problems related to computer equipment capacity and limitations, operating time, and form of desired results. Creates detailed specifications from which programs will be written. May have quality assurance responsibilities.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

120.   Chief Information Security Officer:

Functional Responsibility: Ensures that all information systems are functional and secure.

Minimum Education/Experience: Bachelor's degree in related job field. Requires six (6) years of experience in the field.

121.   Client/Server Database Manager:

Functional Responsibility: Projects long-range requirements for client/server database administration in conjunction with other managers in the information systems function as well as business function managers. Prepares activity and progress reports regarding the client/server database management section.

Minimum Education/Experience: Bachelor's degree in related job field. Requires six (6) years of experience in the field.

122.   Client/Server Network Architect:

Functional Responsibility: Top-level technical expert responsible for design and development of a client/server environment. Develops strategy of client/server system and the design infrastructure necessary to support that strategy. Advises on selection of technological purchases with regards to processing, data storage, data access, and applications development. Sets standards for the client/server relational database structure for the organization (SQL, ORACLE, SYBASE, etc.). Advises of feasibility of potential future projects to management.

Minimum Education/Experience: Bachelor's degree in related job field. Requires six (6) years of experience in the field.

123.   Client/Server Support Analyst:

Functional Responsibility: Under general supervision, assists with personal computer operating systems software and communication system software. Designs, tests, and maintains personal

computer systems. Responsible for analyzing and solving personal computer-related problems. Responsible for security, integrity, and reliability of personal computer systems. Tests and integrates new hardware, systems and modifications to existing equipment and systems. Performs research/investigations, analysis, design, testing, and installation of supported hardware and software. Schedules installation of new hardware and software and modifications to existing systems. Monitors performance of hardware and its capacity in all assigned locations. Recommends and implements enhancements to existing hardware and systems.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

124.   Communications Analyst – Mid-Level:

Functional Responsibility: Under general supervision, assists Senior Level Communications Analyst or Department Manager in the planning, design, and implementation of communications networks. Responsible for providing assistance and technical support for network design activities. Assists in the review/assessment of user needs. May conduct feasibility studies for projects. May assist in the evaluation and selection of equipment. Typically requires two to four years experience in telecommunications with particular emphasis in traffic engineering and network design. Frequently reports to Data/Voice Communications Management or Internal Communications Systems Consultant.

Minimum Education/Experience: Bachelor's degree in related job field. two (2) years of experience in the field.

125.   Communications Analyst - Senior:

Functional Responsibility: Under general direction, assists in the planning, design, and implementation of communications networks. Responsible primarily for the assessment and optimization of network design through review and assessment of user needs. Conducts feasibility studies for large projects, develops requests for proposal, evaluates vendor products, and makes recommendations on selection. May function as lead position providing guidance and training to less-experienced analysts. Typically requires at least five years of experience in telecommunications with strong emphasis in network design, traffic engineering, equipment vendors, and carriers. Frequently reports to a Data/Voice Communications Manager or Internal Communications Systems Consultant.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

126.   Communications Facility Engineer:

Functional Responsibility: Provides technical direction and engineering knowledge for communications systems infrastructure activities, including planning, designing, and implementing communications infrastructure requirements for buildings and systems. Ensures that adequate and appropriate planning is provided to direct building architects and planners in building communications spaces and media pathways meet industry standards.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

127. Communications Installer:

Functional Responsibility: Assists in the planning, design, and implementation of communications networks. Responsible for providing assistance and technical support for network design activities. Assists in the review/assessment of user needs. Performs feasibility studies for small projects. Assists in the evaluation and selection of equipment.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

128. Communications Transmission Engineer:

Functional Responsibility: Provides technical direction and engineering knowledge for communications activities including planning, designing, installing and maintaining large communications networks. Develops, operates, and maintains voice, wireless, video, and data communications systems. Provides complex engineering or analytical tasks and activities associated with one or more technical areas within the communications function.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

129. Computer Operations Manager:

Functional Responsibility: Responsible for all activities relating to the operation of centralized data processing equipment and peripheral information systems equipment. Establishes detailed schedules for the utilization of all equipment in the computer operations section to obtain maximum utilization. Assigns personnel to various operations and directs their activities. Reviews and evaluates work and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities, and methods. Consults with personnel in other information systems sections to coordinate activities. Prepares activity and progress reports regarding the computer operations section. Frequently reports to a Director of Information Systems Operations.

Minimum Education/Experience: Bachelor's degree in related job field. Requires six (6) years of experience in the field.

130. Consultant:

Functional Responsibility: Works with end user groups to evaluate and solve technical problems. Evaluates existing systems and/or user needs to analyze, design, recommend, and implement system changes.

Minimum Education/Experience: Bachelor's degree in related job field. Requires six (6) years of experience in the field.

131.   Data Architect:

Functional Responsibility: Designs and builds relational databases. Develops strategies for data acquisitions, archive recovery, and implementation of a database. Works in a data warehouse environment, which includes data design, database architecture, metadata and repository creation. Translates business needs into long-term architecture solutions. Defines, designs, and builds dimensional databases. Develops data warehousing blueprints, evaluating hardware and software platforms, and integrating systems. Evaluates reusability of current data for additional analyses. Reviews object and data models and the metadata repository to structure the data for better management and quicker access.

Minimum Education/Experience: Bachelor's degree in related job field. Requires six (6) years of experience in the field.

132.   Data Communications Manager – Planning & Implementation :

Functional Responsibility: Ensures that adequate and appropriate planning is provided for remote hardware and communications facilities to develop and implement methodologies for analysis, installation, and support of distributed processing client/server systems. Provides coordination in the analysis, acquisition, and installation of hardware, software, and facilities. Manages the training and efforts of a staff engaged in system and network planning, analysis and monitoring activities.

Minimum Education/Experience: Bachelor's degree in related job field.Typically requires eight to ten years of experience in software/hardware LAN and WAN network design and analysis. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

133.   Data Entry Supervisor:

Functional Responsibility: Supervises all data entry activities. Assigns work to personnel and directs activities. Reviews and evaluates work and prepares performance reports. Frequently reports to a Computer Operations Manager or Production Control Supervisor.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

134.   Data Security Administration Manager:

Functional Responsibility: Directs and implements the necessary controls and procedures to cost-effectively protect information systems assets from intentional or inadvertent modification, disclosure, or destruction. Provides guidance and direction for the physical protection of information systems assets to other functional units. Provides reports to superiors regarding effectiveness of data security and makes recommendations for the adoption of new procedures. Assigns work to subordinates, monitors performance, and conducts performance appraisals. Interviews and makes recommendations for additional staff.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

   135.   Data Security Analyst – Mid-Level :

Functional Responsibility: Under general supervision, performs all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction. Interfaces with user community to understand their security needs and implements procedures to accommodate them. Ensures that user community understands and adheres to necessary procedures to maintain security. Conducts accurate evaluation of the level of security required. Provides management with status reports. Frequently reports to a Data Security Administration Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

   136.   Data Security Analyst - Senior :

Functional Responsibility: Under general direction, performs all procedures necessary to ensure the safety of information systems and to protect systems from intentional or inadvertent access or destruction. Interfaces with user community to understand their security needs and implements procedures to accommodate them. Ensures that user community understands and adheres to necessary procedures to maintain security. May require familiarity with domain structures, user authentication, and digital signatures. Conducts accurate evaluation of the level of security required. May require understanding of firewall theory and configuration. Must be able to weigh business needs against security concerns and articulate issues to management.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

   137.   Data Warehousing Administrator:

Functional Responsibility: Coordinates the data administration technical function for both data warehouse development and maintenance. Plans and oversees the technical transitions between development, testing, and production phases of the workplace. Facilitates change control, problem management, and communication among data architects, programmers, analysts and engineers. Establishes and enforces processes to ensure a consistent, well-managed and well-integrated data warehouse infrastructure. Expands and improves data warehouse to includes data from all functions of the organization using data manipulation, transformation and cleansing tools.

Minimum Education/Experience: Bachelor's degree in related job field. Requires three (3) years of experience in the field.

   138.   Data Warehousing Analyst:

Functional Responsibility: 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. Responsible for the development, maintenance and support of an enterprise data warehouse system and corresponding data marts. Troubleshoots and tunes existing data warehouse applications. Conducts research into new data warehouse applications and determines viability for adoption. Assists in establishing development standards. Evaluates existing subject areas stored in the data warehouse. Incorporates existing subject areas into an enterprise model. Creates new or enhanced components of the data warehouse.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

139.   Data Warehousing Programmer:

Functional Responsibility: Responsible for product support and maintenance of the data warehouse. Performs data warehouse design and construction. Codes and documents scripts and stored procedures. Designs/implements data strategy methods. Develops appropriate programs and systems documentation. Assists with Meta data repository management. Prepares/implements data verification and testing methods for the data warehouse. Creates index and view scripts.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

140.   Data Warehousing Project Manager:

Functional Responsibility: Works in a data warehouse environment, which includes data design, database architecture, metadata and repository creation. Responsible for leading data warehouse team in development and enhancements of the data warehouse user interface. Establishes user requirements. Creates new standards and procedures related to end user and internal interface development. Works with Data Architect on technical issues and system architecture definition. Translates high-level work plans and converts to detailed assignments for team members. Monitors status of assignments and reviews work for completion and quality.

Minimum Education/Experience: Bachelor's degree in related job field. Requires more than five (5) years of experience in the field.

141.   Data/Configuration Management Specialist:

Functional Responsibility: Provides configuration management planning. Describes provisions for configuration identification, change control, configuration status accounting, and configuration audits. Regulates the change process so that only approved and validated changes are incorporated into product documents and related software.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

142.   Database Administrator:

Functional Responsibility: Participates in the design, creation, and maintenance of computerized databases. Responsible for quality control and auditing of databases to ensure accurate and appropriate use of data. Works with management to develop database strategies to support company needs. Consults with and advises users on access to various databases. Works directly with users to resolve data conflicts and inappropriate data usage. Directs the maintenance and use of the corporate data dictionary.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

143. Database Analyst/Programmer – Mid-Level:

Functional Responsibility: Under general supervision, designs, implements and maintains moderately complex databases. Maintains database dictionaries and integration of systems through database design. Competent to work on most phases of database administration but may require some instruction and guidance in other phases.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

144. Database Analyst/Programmer - Senior:

Functional Responsibility: Under general direction, designs, implements and maintains complex database with respect to JCL, access methods, access time, device allocation, validation checks, organization, protection and security, documentation and statistical methods. Includes maintenance of database dictionaries, overall monitoring of standards and procedures and integration of systems through database design. Competent to work at the highest level of all phases of database management. Requires three years experience in the field.

Minimum Education/Experience: Bachelor's degree in related job field. Requires three (3) years of experience in the field.

145. Disaster Recovery Administrator:

Functional Responsibility: Under general supervision, responsible for the overall security and integrity of organizational electronic data, data systems, and data networks. Designs and administers programs to include policies, standards, guidelines, training programs, and a viable quality assurance process for disaster recovery. Oversees and reviews the testing and implementation of software, data systems, and data networks to ensure that the integrity and security of all electronic data and data systems are adequately protected. Oversees and facilitates the preparation of an organization-wide business resumption plan. Responsible for ensuring the business resumption plan adequately addresses the organization's requirements and established time frames. Responsible for day-to-day security administration of the organization's data systems and data networks including systems access administration.

Minimum Education/Experience: Bachelor's degree in related job field. Typically requires five or more years of experience in disaster recovery/business resumption planning.

146.	Disaster Recovery Analyst:

Functional Responsibility: Responsible for security and integrity of assigned electronic data, data systems, and data networks. Designs and administers programs to include policies, standards, guidelines, training programs and a viable quality assurance process for disaster recovery. Oversees and reviews the testing and implementation of software, data systems and data networks to insure that the integrity and security of all electronic data and data systems are adequately protected. Oversees and facilitates the preparation of an organization-wide business resumption plan. Responsible for insuring the business resumption plan adequately addresses the organization's requirements and established time frames.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five years experience in the field.

147.	Documentation Specialist – Mid-Level:

Functional Responsibility: Under general supervision, prepares and/or maintains systems, programming, and operations documentation, including user manuals. Maintains a current internal documentation library. Competent to work on most phases of documentation.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

148.	Documentation Specialist - Senior:

Functional Responsibility: Under general supervision, is responsible for preparing and/or maintaining systems, programming, and operations documentation, procedures, and methods including user manuals and reference manuals. Maintains a current internal documentation library. Provides or coordinates special documentation services as required. Competent to work at the highest level of all phases of documentation. May act as project leader for large positions.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

149.	E-Business Manager:

Functional Responsibility: Sets direction and guides action plans and priorities of electronic commerce, marketing and communications. Develops and facilitates organizational models and structure changes needed to meet the evolving electronic business strategies. Establishes and implements enterprise-wide business systems.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

150.	Electronic Data Interchange (EDI) Manager:

Functional Responsibility: Responsible for daily electronic data interchange (EDI) operations

of an organization. Develops and executes strategies for Internet-based interchange capabilities. Coordinates and implements new EDI methods and systems and enhances and upgrades the existing systems. Finds EDI solutions for business operations. Establishes and maintains communications and trading partner routings, including online orders and fulfillment systems. Audits the quality of data provided, provides security and backup, and ensures system disaster recovery processes are in place. Resolves trading partner's technical problems involving EDI. Develops technical design documentation. Ensures customer/vendor agreements meet legal requirements. Responsible for internal training of EDI and related staff.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

151.   Electronic Data Interchange (EDI) Specialist:

Functional Responsibility: Provides support for EDI database analysis, design, and operations. Establishes and maintains communications within organization and with partners. Conducts and managers product evaluations. Provides product installation, configuration, and training. Performs systems maintenance to update records, specifications, and operating procedures of partner systems. Maintains EDI account transaction activities. Frequently reports to an Electronic Data Interchange Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

152.   Electronic Mail Coordinator:

Functional Responsibility: Monitors servers, replication, and mail routing. Creates user accounts and maintains security levels on databases. Provides first-level telephone support and troubleshoots. Monitors existing messaging infrastructure and server usage, ensuring proper working order.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

153.   Engineering Subject Matter Specialist:

Functional Responsibility: Provides technical knowledge and analysis of highly specialized applications and operational environment, high-level functional systems analysis, design, integration, documentation, and implementation advice on exceptionally complex problems that necessitate high-level knowledge of the subject matter for effective implementation. Participates as needed in all phases of software development with emphasis on the planning, analysis, modeling, simulation, testing, integration, documentation and presentation phases.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

154.   ERP Business/Architectural Specialist:

Functional Responsibility: Adapts functional business requirements and processes to technical solutions based upon comprehensive enterprise application solution sets. Enterprise resource planning and management processes, including but not limited to: knowledge management, investment analysis, data warehousing, e-commerce, return on investment analysis, human resource analysis, material management and logistics, supply chain management, procurement, ordering, manufacturing, decision support, and information dissemination.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

155.   ERP Business Analyst – Mid-Level:

Functional Responsibility: Under general supervision, serves as subject matter expert associated with content, processes, and procedures associated with enterprise applications. Applies functional knowledge to design and customize workflow systems that provide seamless integration for client/server applications. Writes functional requirements, develops test plans, and works with production issues.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

156.   ERP Business Analyst - Senior:

Functional Responsibility: Under general direction, serves as senior subject matter expert associated with content, processes, and procedures associated with ERP. Defines detailed requirements, analyzes business needs, and validates solutions with the client. Details requirements through product development and other functions to support the project team. Monitors other business analysts in software development methods and processes and implementation of those methods. Evaluates development projects and assists in tailoring the development process to meet the project needs.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

157.   ERP Programmer:

Functional Responsibility: Under general supervision, works primarily in ERP client/server enterprise application. Designs and develops all aspects of data conversion. Builds application tables, panels, and reports. Codes individual modules and complex functions. Develops application tables, panels, and reports for projects. Responsible for software integration and external interface development. Troubleshoots and resolves testing issues. Responsible for technical documentation.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

158.   Groupware Specialist :

Functional Responsibility: Responsible for the implementation, maintenance, and support of organization messaging system. May work closely with first tier support staff to solve system problems. Ensures smooth integration of all groupware systems in a particular environment. Provides technical support on local groupware replication and client dial-up access issues. Prepares documentation that will assist in the maintenance of the groupware system. May serve as an internal consultant to developers, assisting them in the area of server supports, security, ID files, and other development issues that will aid the process. Requires solid working knowledge of WANs, LANs, and telecommunication concepts as they relate to the groupware system and database replication.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

159.   Help Desk Coordinator – Mid-Level:

Functional Responsibility: Under general supervision, 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/Experience: A High School diploma, GED, or equivalent experience in a related discipline, often coupled with training or certification. Requires two (2) years of experience in the field.

160.   Help Desk Coordinator - Senior:

Functional Responsibility: Under general direction, 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/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

161.   Help Desk Specialist:

Functional Responsibility: Provides support to end users on a variety of issues. Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks, and monitors the problem to ensure a timely resolution.

Minimum Education/Experience: A High School diploma, GED, or equivalent experience in a related discipline, often coupled with training or certification. Requires two (2) years of experience in the field.

162. Help Desk Support Services Specialist – Mid-Level:

Functional Responsibility: Under general supervision, provides second-tier support to end users for either PC, server, or mainframe applications and hardware. Handles problems that the first-tier of help desk support is unable to resolve. May interact with network services, software systems engineering, and/or applications development to restore service and/or identify and correct core problem. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Maintains currency and high level of technical skill in field of expertise. Escalates more complex problems to senior level.

Minimum Education/Experience: A High School diploma, GED, or equivalent experience in a related discipline, often coupled with training or certification. Requires two (2) years of experience in the field.

163. Help Desk Support Services Specialist - Senior:

Functional Responsibility: Under general direction, provides second-tier support to end users for either PC, server, or mainframe applications and hardware. Handles problems that the first-tier of help desk support is unable to resolve. May interact with network services, software systems engineering, and/or applications development to restore service and/or identify and correct core problem. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Maintains currency and highest level of technical skill in field of expertise.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

164. Information Assurance Development Engineer:

Functional Responsibility: Analyzes and defines security requirement for computer systems which may include mainframes, workstations, and personal computers. Designs, develops, engineers, and implements solutions that meet security requirements. Provides integration and implementation of the computer system security solution.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

165. Information Assurance Engineer:

Functional Responsibility: Establishes and satisfies complex system-wide information security requirements based upon the analysis of user, policy, regulatory, and resource demands. Supports customers at the highest levels in the development and implementation of doctrine and policies. Applies know-how to government and commercial common user systems, as well as to dedicated special purpose systems requiring specialized security features and procedures.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

166.	Information Assurance Network Specialist:

Functional Responsibility: Analyzes general information assurance-related technical problems and provides basic engineering and technical support in solving these problems. Designs, develops, engineers, and implements solutions that meet network security requirements. Performs vulnerability/risk analyses of computer systems and applications during all phases of the system development life cycle.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

167.	Information Assurance Systems/Network Specialist:

Functional Responsibility: Installs, configures and maintains organization's operating systems. Analyzes and resolves problems associated with server hardware, NT, applications software. Detects, diagnoses, and reports NT related problems on both NT server and NT desktop systems. Performs a wide variety of tasks in software/hardware maintenance and operational support of NT Server systems.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

168.	Information Center Consultant:

Functional Responsibility: Under general supervision of Information Center Manager, may support unlimited end user groups. Works with users to solve problems with available technology including hardware, software and peripherals. Studies and analyzes systems needs, trains users on software and hardware, handles troubleshooting, and provides quality assurance review of user systems. Acts as project manager, typically performs time estimates, and regularly reviews status of projects. May have specialization in particular software that would be utilized in an end user environment. Keeps abreast of technological developments and may install new hardware and software for user groups. Frequently reports to an Information Center Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

169.	Information Center Specialist:

Functional Responsibility: Under general direction, advises and assists users in problem-solving activities using information center tools. Assists in the selection and installation of information center tools. Evaluates new and existing software products. Competent to work at the highest technical level of all phases of information center activities.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

170.	Information Security Business Analyst:

Functional Responsibility: Determines enterprise information security standards. Develops and implements information security standards and procedures. Ensures that all information systems are functional and secure.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

171.	Information Services Consultant:

Functional Responsibility: Top-level technical expert supporting unlimited end user groups. Works with user groups to solve business problems with available technology including hardware, software, databases, and peripherals. Requires high level of diverse technical experience related to studying and analyzing systems needs, systems development, systems process analysis, design, and re-engineering. Has skills and experience related to business management, systems engineering, operations research, and management engineering. Typically requires specialization in particular software or business application utilized in an end user environment. Keeps abreast of technological developments and applications.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

172.	Information Systems Auditor – Mid-Level :

Functional Responsibility: Under general supervision, audits moderately complex new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that systems and procedures are in compliance with corporate standards. Competent to work on most phases of information systems auditing.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

173.	Information Systems Auditor - Senior :

Functional Responsibility: Under general direction, audits the most complex new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that information systems procedures are in compliance with corporate standards. Competent to work at the highest level of all phases of information systems auditing.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

174.	Information Systems Training Specialist – Mid-Level :

Functional Responsibility: Under general supervision, organizes and conducts moderately complex training and educational programs for information systems or user personnel.

Maintains records of training activities, employee progress, and program effectiveness. Competent to work on most phases of information systems training.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

175.   Information Systems Training Specialist - Senior:

Functional Responsibility: Under general direction, organizes, prepares, and conducts complex training and educational programs for information systems or user personnel. May design and develop in-house programs. Maintains records of training activities, employee progress, and program effectiveness. Competent to work at the highest level of all phases of information systems training.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

176.   Internal Communications Systems Consultant :

Functional Responsibility: Provides systems guidance for current and proposed investments in telecommunications and network facilities and/or services from the development of communications software through financial implementation review. Researches present and future communication technologies. Works closely with system users to provide direction/assistance in identification and resolution of user problems. May supervise a group of planning analysts responsible for research/technical assistance for the user group. Typically requires eight to ten years of experience in telecommunications with emphasis on systems analysis, LAN/WAN telecommunications network design, and traffic engineering.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 8 years of experience in the field.

177.   IT Subject Matter Specialist:

Functional Responsibility: Provides extremely high-level subject matter proficiency for work described in the task. Provides advanced technical knowledge and analysis of highly specialized applications and operational environment, high-level functional systems analysis, design, integration, documentation, training, and implementation advice on complex problems that require doctorate level knowledge of the subject matter for effective implementation.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

178.   LAN Administrator – Mid-Level:

Functional Responsibility: Under general supervision, responsible for the acquisition, installation, maintenance, and usage of the organization's local area network. Manages LAN performance and maintains LAN security. Ensures that security procedures are implemented and

enforced. Installs all network software. Evaluates, develops and maintains telecommunications systems. Troubleshoots LAN problems. Establishes and implements LAN policies, procedures, and standards and ensures their conformance with information systems and organization objectives. Trains users on LAN operation. Typically requires two to four years of experience. Frequently reports to a PC support manager or Senior LAN Administrator.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

179.	LAN Administrator - Senior:

Functional Responsibility: Under general direction, responsible for administration and day-to-day operation of organization's local area network (LAN). Provides integrated team support and maintenance of LAN hardware and software. Maintains integrity of the LAN hardware and software. Installs LAN software upgrades, including planning and scheduling, testing and coordination. Studies vendor products to determine those which best meet organization needs; assists in presentation of information to management resulting in purchase, and installation of hardware, software, and telecommunications equipment. Performs LAN security procedures, including implementing login requests. Evaluates new products and technologies to determine impact on existing system configurations. Prepares proposals, cot/benefit analyses, and feasibility studies. Provides liaison support between the PC/LAN team, vendors and internal support group as needed. Typically requires five to seven years of experience. Frequently reports to an information systems executive.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

180.	LAN/WAN Administrator:

Functional Responsibility: Monitors LAN, WAN, and servers. Provides batch monitoring, tape back-up, and restoration. Administers mail system and implements new database architecture. Monitors and conducts performance evaluation of networks. Supports, installs, maintains, and troubleshoots all local area and wide area networking devices and related software for branch offices and internal and external networks.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

181.	LAN/WAN Integrator:

Functional Responsibility: Responsible for the overall integration of the enterprise-wide network including the planning, design, installation, maintenance, management, and coordination of the corporate LAN/WAN (may include local, metropolitan, and wide area networks). Has responsibility for technical architecture and recommendations related to LAN/WAN. Is typically a top-level technical contributor with advanced knowledge and experience in the area of local and wide area networking, communications, and related hardware/software. Maintains high level of technical expertise and studies vendor products to determine those which best meet

organization needs. Presents information to management, which may result in the purchase and installation of hardware, software, and telecommunications equipment. Recommends network security procedures and policies. Knowledgeable in a multi-platform operating environment. May work with Voce and/or Data Communications Analysts.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

182.   LAN/WAN/MAN Administrator:

Functional Responsibility: Monitors LAN, WAN, MAN, and servers. Provides batch monitoring, tape back- up, and restoration. Supports, installs, maintains, and troubleshoots all local area and wide area networking devices and related software for branch offices and internal and external networks.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

183.   Operations Manager - Data Communications:

Functional Responsibility: Manages all aspects of the daily operation for data network(s) in either a stand- alone data network environment in a voice and data separated network environment. Develops project plans for the implementation of new telecommunications technology and systems. Directs technical analysis of complex software, hardware, and transmission systems. Coordinates with vendors involved in providing communication activities.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

184.   Operations Manager - Voice Communications:

Functional Responsibility: Manages all aspects of the daily operation for voice network(s) in either a stand- alone voice network OR in a voice and data separated network environment. Develops project plans for the implementation of new telecommunications technology and systems. Directs technical analysis of complex software, hardware, and transmission systems.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

185.   Operations Systems Manager:

Functional Responsibility: Provides assistance and oversight for all information systems operations activities, including computer and telecommunications/communications operations, data entry, data control, operations support, operating systems programming, system security policy procedures, and/or web strategy and operations. Provides input to policy level discussions regarding standards and budget constraints.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

188. Operations/Technical Support Manager:

Functional Responsibility: Responsible for all activities relating to technical guidance for planning, directing, and monitoring information systems operations. Plans and recommends machine modifications or additional equipment to increase the capacity of the system. Prepares operational cost estimates for current and proposed projects. Evaluates vendor proposals for purchases of hardware. May manage related outsourcing contracts and service levels. Directs compilation of records and reports concerning production, machine malfunctioning, and maintenance. May advise or consult on organizational, procedural, and workflow plans, methods, and procedures analysis. Analyzes the results of workflow plans, monitors the operating system(s) and recommends changes to improve processing and utilization. May have departmental staff responsibility. Frequently reports to an Information Systems Operations Manager or Director of Information Systems Operations.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

187. Operations/Network LAN Administrator:

Functional Responsibility: Supports, monitors, tests, and troubleshoots hardware and software problems pertaining to LAN. Recommends and schedules repairs. Provides end users support for all LAN- based applications. Installs and configures workstations.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

188. Operations/Technical Support Analyst:

Functional Responsibility: Provides technical guidance for directing and monitoring information systems operations. Implements machine modifications to increase the capacity of the system. Directs compilation of records and reports concerning production, machine malfunctioning and maintenance.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

189. PC Products Analyst:

Functional Responsibility: Under general supervision, analyzes and evaluates microcomputer products and systems available in the marketplace. Analyzes such products for compatibility, expandability, and ease of use and support. Recommends to management the support or nonsupport of evaluated products. Participates in the development and customization of products. Designs application options/screens compatible with mainframe applications. Prepares product development documentation regarding use of product. Frequently reports to a

PC Support Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

190.   PC Systems Specialist:

Functional Responsibility: Under general supervision, performs analytical, technical, and administrative work in the planning, design, and installation of new and existing personal computer systems. Works on moderately complex applications. Confers with end users to determine types of hardware and software required. Writes programs to fulfill requirements or selects appropriate off-the-shelf software and modifies to suit. May maintain or utilize telecommunications protocols. Installs new hardware and maintains existing hardware. Trains end users in use of equipment and software. Frequently reports to a PC Support Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

191.   PC/LAN Management Analyst - Mid-Level:

Functional Responsibility: Under general supervision, works closely with business and management and staff on LAN support, network design, and configuration in a multi-server environment. Responsible for the installation/configuration and support of client servers, application support software, and implementation of new business software applications. Participates with client in the installation/configuration of equipment and software. Analyzes and coordinates resolution of network problems. Provides technical support and guidelines to client and systems areas through documentation. Requires experience with Token Ring.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

192.   PC/LAN Management Analyst - Senior:

Functional Responsibility: Under general direction, provides consultation to business area management and staff at the highest technical level for all aspects of PC/LAN design and configuration in a multi-server environment. Plans and coordinates the installation of new or modified Local Area Networks and installs and coordinates the resolution of network problems or malfunctions. Provides technical support and guidelines to client and systems areas through documentation. Requires experience with Token Ring.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

193.   Project Engineer:

Functional Responsibility: Manages long-term IT engineering projects. Performs engineering design evaluations and works to complete projects within budget and scheduling restraints.

Develops, implements, and monitors information systems policies and controls to ensure data accuracy, security, and regulatory compliance. Reviews reports of computer and peripheral equipment production, malfunction, and maintenance to determine and address problems.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 4 years of experience in the field.

194. Quality Assurance Analyst – Mid-Level :

Functional Responsibility: Under general supervision, carries out procedures to ensure that all information systems, products and services meet minimum organization standards and end- user requirements. Thoroughly tests software to ensure proper operation and freedom from defects. Documents and works to resolve all problems. Reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Performs workflow analysis and recommends quality improvements. Frequently reports to a Quality Assurance Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

195. Quality Assurance Analyst - Senior:

Functional Responsibility: Under general direction, carries out procedures to ensure that all information systems, products and services meet organization standards and end-user requirements. Performs and leads tests of software to ensure proper operation and freedom from defects. May create test data for applications. Documents and works to resolve all complex problems. Reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Acts as information resource about assigned areas to technical writers and other Quality Assurance Analysts. Performs complex workflow analysis and recommends quality improvements. Frequently reports to a Quality Assurance Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

196. Security Coordinator:

Functional Responsibility: Coordinates, develops, and evaluates security programs for an organization.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

197. Site Manager:

Functional Responsibility: Provides applications systems analysis and programming activities for a Government site, facility or multiple locations. Prepares long and short-range plans for

application selection, systems development, systems maintenance, and production activities and for necessary support resources.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

      198.   Software Architect:

Functional Responsibility: Works independently designing and developing new software products or major enhancements to existing software. May lead a large development team in the design of highly complex software systems. Acts as highest-level technical expert, addressing problems of systems integration, compatibility, and multiple platforms. Responsible for project completion. Performs feasibility analysis on potential future projects to management.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

      199.   Software Developer – Mid-Level:

Functional Responsibility: Under general supervision, develops codes, tests, and debugs new software or enhancements to existing software. Has good understanding of business applications. 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.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two years experience in the field.

      200.   Software Developer - Senior:

Functional Responsibility: Under general direction, participates as high-level technical expert in design development, coding, testing, and debugging new software or significant enhancements to existing software. 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/Experience: Bachelor's degree in related job field. Requires five years experience in the field.

      201.   Strategic Planner:

Functional Responsibility: Provides strategic planning of large projects or a significant segment of a strategic planning portion of a large complex project. Provides the overall approach to clarify mission statements so they can be used as springboards in statements, subsequent goal delineation, provides guidance for building operational plans and specifying measurable

outcomes to include capital outlay planning efforts in a consolidated strategic planning process and prioritizes those initiatives.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

202. Systems Administrator – Mid-Level:

Functional Responsibility: Under general supervision, responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing requirements. Performs software installations and upgrades to operating systems and layered software packages. Schedules installations and upgrades and maintains them in accordance with established IT policies and procedures. Monitors and tunes the system to achieve optimum performance levels. Ensures workstation/server data integrity by evaluating, implementing, and managing appropriate software and hardware solutions. Ensures data/media recoverability by implementing a schedule of system backups and database archive operations. Supports media management through internal methods and procedures or through offsite storage and retrieval services. Develops and promotes standard operating procedures. Conducts routine hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. Develops and maintains a comprehensive operating system hardware and software configuration database/library of all supporting documentation.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

203. Systems Administrator - Senior:

Functional Responsibility: Under general direction, responsible for activities related to system administration. Assigns personnel to various projects, directs their activities, and evaluates their work. Ensures long-term requirements of systems operations and administration are included in the overall information systems planning of the organization. Responsible for the installation, maintenance, configuration, and integrity of computer software. Implements operating system enhancements that will improve the reliability and performance of the system.

Minimum Education/Experience: Bachelor's degree in related job field. Requires five (5) years of experience in the field.

204. Systems Analysis and Programming Director:

Functional Responsibility: Develops software within an organization. Directs the software engineering function in developing, releasing, and maintaining software applications/operating systems according to business needs.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 8 years of experience in the field.

205.	Systems Management Technologist:

Functional Responsibility: Analyzes, develops, operates, and maintains software libraries and catalogs. Provides support and direction for user groups in the use of the software/hardware systems and programs to support an integrated system.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

206.	Technical Editor:

Functional Responsibility: Responsible for content of technical documentation. Checks author's document for spelling, grammar and content problems (e.g., missing instructions or sections; redundant or unnecessary sections). Accuracy of content may fall under this position or the programmer, depending on the expertise of the editor. Ensures that documents follow the style laid out in the organization's style guide. May also be responsible for maintaining the style guide. Suggests revisions to the style guide as appropriate. Editor is often a technical writer who has moved to this position. Note: This description is for a technical editor in a large software house or an editor in a technical lab, which produces papers for publication. Newsletter, newspaper, or magazine editors should not be matched to this position.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

207.	Technical Writer:

Functional Responsibility: Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. Coordinates the display of graphics and the production of the document.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

208.	UNIX Systems Administrator:

Functional Responsibility: Responsible for the installation, configuration, and maintenance of UNIX operating systems. Recognizes and troubleshoots problems with server hardware and applications software. Establishes and documents standards and procedures for management review.

Minimum Education/Experience: Bachelor's degree in related job field. Requires extensive knowledge of computer operations and familiarity with shell and kernel programming. Typically requires two to four years of experience.

209.	Voice Communications Administrator :

Functional Responsibility: Monitors and responds to facility hardware and software problems.

Assists vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. Makes phone system additions, changes, and installs new station equipment.

Minimum Education/Experience: Bachelor's degree in related job field. Requires knowledge of monitoring equipment. Requires two (2) years of experience in the field.

210.   Voice Communications Manager – Planning & Implementation:

Functional Responsibility: Ensures that adequate and appropriate planning is provided for remote hardware and communications facilities to develop and implement methodologies for analysis, installation, and support of voice communications systems. Provides coordination in the analysis, acquisition, and installation of remote hardware and software. Interfaces with internal and external customers and vendors to determine system needs. Manages the training and efforts of a staff responsible for system and network planning and analysis activities. May include billing/chargeback responsibilities.

of experience in software/hardware voice network design and analysis usually in a telephone operating organization. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

Minimum Education/Experience: Bachelor's degree in related job field. Typically requires at least eight to ten years.

211.   Voice Communications Technician:

Functional Responsibility: Monitors and responds to complex technical control facility hardware and software problems. Interfaces with vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. Maintains PBX/systems and associated hardware.

Minimum Education/Experience: Associate's degree in related job field. Requires two (2) years of experience in the field.

212.   Web Content Administrator:

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. Requires experience in production management, web page design, HTML and web graphics types and standards. Requires two years of experience in this field.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

213.	Web Content Analyst:

Functional Responsibility: Provides for development and 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. Provides managing/performing website editorial activities including gathering and researching information that enhances the value of the site.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

214.	Web Designer:

Functional Responsibility: Under direct supervision, 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 effects elements. Contributes to the design group's efforts to enhance the appeal of the organization's online offerings. Designs the website to support the organization's strategies and goals relative to external communications. Typically requires one to three years of experience in the area of web design. Requires knowledge of web-based technologies including browsers ASP pages, HTML code, object-oriented technology, and graphics software.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 1 years of experience in the field.

215.	Web Marketing Manager :

Functional Responsibility: Responsible for developing and implementing the organization's web strategies for promoting products and 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 team to ensure site meets marketing objectives. Monitors site access patterns to adjust strategies and plans.

Minimum Education/Experience: Bachelor's degree in related job field. Requires understanding of web technologies. Requires 6 years of experience in the field.

216.	Web Operations Manager :

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 and service delivery. Oversees operational activities of the website(s) with specific attention aimed at content creation and website maintenance.

Minimum Education/Experience: Bachelor's degree in related job field. Requires experience with web technologies and web page design. Requires 6 years of experience in the field.

217.	Web Project Manager :

Functional Responsibility: Serves as project manager of a development team responsible for planning, developing, and deploying websites including preparation of text, graphics, audio, and video for web pages. Works directly with partners and clients to determine project scope and specifications. Coordinates the work of design and development teams to implement online designs. Reviews progress, manages resources, and ensures overall quality of completed website. Typically requires experience in management and understanding of web technologies.

Minimum Education/Experience: Bachelor's degree in related job field. Requires 6 years of experience in the field.

218.   Web Security Administrator :

Functional Responsibility: Under general supervision, performs all procedures necessary to ensure the safety of the organization's website and transactions across the Internet including the protection of confidential order information and external business-to-business connections. Applies Internet firewall and encryption technologies to maintain organizational and customer security. Ensures that the user community understands and adheres to established security procedures. Updates and deletes users, monitors and performs follow-up compliance violations, and develops security policies and practices and guidelines. Requires experience in Firewall/DMZ design and implementation.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

219.   Web Security Analyst:

Functional Responsibility: Performs all procedures necessary to ensure the safety of the organization's website and transactions across the Internet/intranet. Applies Internet firewall technologies to maintain security. Ensures that the user community understands and adheres to necessary procedures to maintain security. Updates and deletes users, monitors and performs follow-up on compliance violations, and develops security policies, practices, and guidelines.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

220.   Web Software Developer:

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 architecture of the website. Responsible for interface implementation. Integrates web applications with backend databases. Deploys large web-based transaction systems using application servers. Researches, tests, builds, and coordinates the integration of new products per production and client requirements. Requires strong navigation and site-design instincts.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.

221.   Web Technical Administrator:

Functional Responsibility: Under general supervision, responsible for achieving overall technical integrity of organization's website. Maintains and upgrades hardware and software including website technical architecture related to hardware and telecommunication connectivity. Administers e-mail, chat and FTP services. Communicates router configuration changes and troubleshoots system errors and bugs. Maintains servers, creates monitoring reports and logs, and ensures functionality of links. Creates tools to ease production process. Automates routine procedures. Works on system-level services to ensure proper patch levels on applications and operating systems. Monitors database integrity. Monitors site for acceptable performance and user accessibility. Establishes backups and monitors site security. Typically requires experience in systems technologies.

Minimum Education/Experience: Bachelor's degree in related job field. Requires two (2) years of experience in the field.