

PARTICIPATING ADDENDUM
FOR
INFORMATION TECHNOLOGY STAFF AUGMENTATION SERVICES

This Participating Addendum ("Participating Addendum" or "Contract") is made as of the 13th day of December, 2011, by and between Computer Aid, Inc. ("the Contractor"), whose address is 1390 Ridgeview Drive, Allentown, PA 18104 and the State of Ohio, Department of Administrative Services ("DAS") whose address is 4200 Surface Road, Columbus, Ohio 43228, on behalf of the state of Ohio and all eligible public entities and cooperative purchasing members with the state of Ohio, collectively referred to as the "State".

WHEREAS, pursuant to Section 125.022 of the Ohio Revised Code DAS may enter into cooperative purchasing agreements with one or more other states, groups of states, the federal government, other purchasing consortia, institutions of higher education, or any political subdivision of this state described in division (B) of Section 125.04 of the Revised Code for the purpose of purchasing services or supplies;

WHEREAS, the Commonwealth of Pennsylvania awarded a contract to the Contractor for Enterprise Information Technology Staff Augmentation Services, Contract #4400007198, in accordance with its laws and statutes governing competitive procurements, which contract is attached hereto as Exhibit IV and made a part hereof; and

WHEREAS, DAS has determined that it is in the best interest of the State to enter into a Participating Addendum with the Contractor for Information Technology Staff Augmentation Services under Pennsylvania Contract #4400007198; and

WHEREAS, the parties seek to enter into this Participating Addendum to memorialize the terms of their contractual relationship;

WHEREAS, the Exhibits listed below are incorporated into this Participating Addendum, and in the event of a conflict or inconsistency with Pennsylvania Contract #4400007198, the following order of precedence shall apply:

Exhibit I -- Ohio's Standard Terms and Conditions

Exhibit II -- Ohio's Pricing

Exhibit III -- Executive Order 2011-12K Standard Affirmation and Disclosure Form

Exhibit IV -- Pennsylvania Contract #4400007198

NOW THEREFORE, for good and valuable consideration, the parties to this Participating Addendum hereby agree as follows:

1. **Term:**

The term of this Participating Addendum shall be effective from the date first written above (contract commencement date) through June 30, 2012, unless earlier terminated. The State reserves the right, in its sole discretion and by issuing written notice to the Contractor thirty (30) days prior to the expiration of any term, to extend this Contract under the same terms, conditions, and pricing as this Participating Addendum and may choose to do so regardless of the term or status of Pennsylvania Contract #4400007198. The optional extension periods, if exercised, are defined as follows:

Optional Extension Period 1: July 1, 2012 through June 30, 2013;

Optional Extension Period 2: July 1, 2013 through June 30, 2014;

Optional Extension Period 3: July 1, 2014 through June 30, 2015

2. Scope of Services:

- a. The Contractor shall provide to the State the supply and delivery of Information Technology Staff Augmentation Services governed by the terms and conditions set forth under Pennsylvania Contract #4400007198, unless superseded by this Participating Addendum.
- b. DAS reserves the right to add additional job titles and descriptions and update the skill category matrix, as DAS deems appropriate. This may include adding specific requirements to an already existing position, adding a new position that fits into an existing category, or other modifications. DAS and the Contractor agree that any additions and modifications will be set forth in an Amendment, but that the State may begin to use such additional position(s) prior to the Amendment being finalized.
- c. The State of Ohio Standard Terms and Conditions are attached hereto as Exhibit I and made a part hereof;
- d. The Go Live date for Ohio's agencies and vendors to begin utilizing the state contract vehicle is January/February, 2012.
- e. The Contractor agrees that its direct employees will not provide staff augmentation services under this Contract unless authorized by DAS in writing. DAS will make this determination on a case-by-case basis.

3. Compensation and Ordering:

- a. Pricing shall be as set forth in Exhibit II.
- b. All orders and payment will be issued directly to Computer Aid, Inc.
- c. In some cases, at the State's request and with its prior written approval, Contractor personnel may be required to travel and work away from their assigned work station. Any travel expenses can only be reimbursed in accordance with Section 2.7 of Exhibit I.
- d. No overtime premiums will be paid to the Contractor for work which is performed after normal business hours (8:00 a.m. EST – 5:00 p.m. EST) in order to complete a task on time, unless otherwise agreed to in writing in advance by the State. The State and the Contractor will comply with all applicable Federal and State laws and regulations pertaining to overtime in the performance of this Contract.

4. Primary Contacts:

The primary participating entity contact for this Participating Addendum is as follows:

Name: Curtis Brooks
Participating Entity Name: State of Ohio, General Services Division, IT Procurement Services
Address: 4200 Surface Road, Columbus, OH 43228
Telephone: 614-752-9689
Fax: 614-485-1057
E-mail: curtis.brooks@das.state.oh.us

The primary Contractor contact for this Participating Addendum is as follows:

Name: Jim Cooney
CAI: Computer Aid, Inc.
Address: 470 Friendship Road, Suite 300, Harrisburg, PA 17111-2103

Telephone: 717-651-3075
Fax: 717-651-3229
E-mail: jim_cooney@compaid.com

All purchase orders are to be issued directly to:

Name: Linda Leiby
CAI: Computer Aid, Inc.
Address: 470 Friendship Road, Suite 300, Harrisburg, PA 17111-2103
Telephone: 717-651-3080
Fax: 717-651-3182
Email: linda_leiby@compaid.com

And all payments are to be issued to:

Computer Aid, Inc.
Attn: Accounts Receivable
1390 Ridgeview Ave.
Allentown, PA 18104

5. Miscellaneous:

- a. Staff augmentation services provided through the Contract described herein shall be provided, if feasible, by companies who have been certified as a Minority Business Enterprise (MBE) or Encouraging Diversity, Growth, and Equity (EDGE) pursuant to Ohio Revised Code Sections 123.151 and 123.152, and Ohio Administrative Code Sections 123:2-15-01 and 123: 2-16-01 through 2-16-16. The Contractor further agrees to make a good faith effort to meet Ohio's MBE set aside and EDGE goals as required by those Ohio Revised Code Sections. In the event the Contractor engages such businesses to perform services under this Contract, such engagements shall be subject to all of the terms and conditions of this Participating Addendum, including pricing, and the Contractor shall remain responsible for the services.
- b. The Contractor shall not be held to Pennsylvania's disadvantaged business (DBE) goal, as Ohio law does not employ the term "DBE". The Contractor's obligations regarding minority owned businesses is set forth in Section 5.a above.
- c. The Contractor shall provide the following outreach services, initial and ongoing, to Ohio's MBE and EDGE vendors:
 - i. Provide coaching, mentoring, and training on contract and best practices;
 - ii. Provide feedback on candidates and insight into requisitions to help such businesses focus on the content and quality of their responses, i.e., how best to represent the capabilities of their individual staff, matched to the State's requirements;
 - iii. Coach such businesses on how to be most effective in responding to specific requisitions, i.e., by matching skills required/desired by the requisition with matching skills in the candidate;
 - iv. Review the businesses' submission metrics (response ratio, fill ratio, etc.) with them.
- d. The Contractor shall seek to build and maintain an open network of qualified subcontractors which will provide resources for work assignments made under the Contract. In addition to actively pursuing MBE and EDGE companies, the Contractor shall seek to develop a network of providers comprised of a substantial number of companies with a current Ohio State Term Schedule containing IT consulting

services and companies with a significant economic presence in Ohio. Significant Ohio Economic Presence means business organizations that:

- 1) Pay required taxes to the state of Ohio; and
 - 2) Are registered and licensed to do business in the state of Ohio with the office of the Secretary of State; and
 - 3) Have ten or more employees based in Ohio, or seventy-five percent or more of their employees based in Ohio.
- e. The Contractor shall provide all necessary account management resources to support the use of the Contract by the State.
 - f. The Contractor must supply quarterly reports covering purchases under this Agreement in a format mutually agreed to by the parties.
 - g. An addendum specifying the Contractor's key personnel (onsite account managers) will be added to this document within 60 days of the execution date of this document.
 - h. When necessary and agreed upon by the parties, the state of Ohio will provide office space within a state office building in Columbus Ohio for the Contractor's Account Manager(s). For the first month of the program, the state of Ohio will provide access to conference room(s) in which the Contractor's implementation team can be housed. After the first month, office space will be provided, when needed, in the form of cubicle space. The Contractor shall provide its own computers, internet connectivity, and phone capabilities.
 - i. The State must review and approve the content of the Public Portal prior to implementation. Additionally, the website must fit within any Ohio policies or Executive Orders regarding advertising. See http://das.ohio.gov/LinkClick.aspx?fileticket=i9-nf_G9W7E%3d&tabid=107
 - j. All documents, including the Contractor's proposal to Pennsylvania Contract #4400007198 is considered a public record subject to disclosure under Ohio Revised Code Section 149.43.
 - k. The Contractor agrees to furnish the following vendor forms to the State prior to the Commencement Date:
 - i. Declaration of Material Assistance (DMA) Form
 - ii. Unresolved Finding For Recovery certification (Ohio Revised Code Section 9.24)
 - iii. Vendor certification Form
 - iv. W9
 - v. Affirmative Action form (Ohio Revised Code Section 125.111)
 - vi. Executive Order 2011-12K Affirmation and Disclosure Form
 - l. The Contractor will be exempt from Service Level Agreements until one of the following has occurred: i) a period of six months has passed after the start date of this Participating Addendum; or ii) 100 resources have been placed within the state of Ohio as a result of this Participating Addendum and staff augmentation program. Despite this exemption, the Contractor shall continue to collect and report data relating to service level Agreements during this exemption period.
 - m. The Contractor shall not include language in its subcontractor agreements that would prevent providers from participating in a future procurement(s) to replace this Contract for a Managed Services Provider or portions of the work contained in this Contract.
 - n. The Contractor shall include in each solicitation the following Executive Order 2011-12K requirements and require the selected service provider to complete the Affirmation and Disclosure Form prior to performing any work. The completed form shall be provided to the respective agency.

- i. Contractor hereby represents and warrants that Contractor, and any subcontractor will not, as a part of the contract with the State, provide any of its services outside the United States, and that Contractor has truthfully disclosed the following:
 1. The location(s) where all services will be performed by Contractor and any subcontractor;
 2. If applicable, the location(s) where any state data associated with any of the provided services will be accessed, tested, maintained, backed-up or stored; and
 3. The principal location(s) of business for the Contractor and any subcontractors providing the services to the State.

As part of the above disclosure and affirmation requirement, the Contractor must complete the Affirmation and Disclosure Form (Exhibit III). In addition, the Contractor affirms to have read and understands Executive Order 2011-12K and shall abide by those requirements in the performance of this Contract. Notwithstanding any other terms of this Contract, the State reserves the right to recover any funds paid for services the Contractor performs outside of the United States for which it did not receive a waiver. The State does not waive any other rights and remedies provided the State in this Contract.

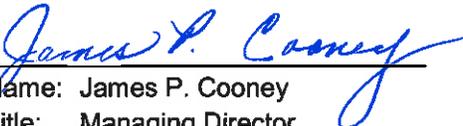
- o. The following sections of and/or attachments to Pennsylvania Contract #440007198 shall not apply to the Contractor's contract with the state of Ohio:
 - i. IT Staff Augmentation User Guide
 - ii. PA RFP Appendix E: Job Titles and Skill Categories
 - iii. PA RFP Contractor Cost Proposal
 - iv. PA RFP Appendix G: Cost Matrix and Area Definitions
 - v. DGS Standard Terms and Conditions
 - vi. PA RFP Contractor Disadvantaged Business Proposal
 - vii. PA RFP Appendix C: COSTARS Program Questionnaire
 - viii. PA RFP Appendix H: Current Contract Utilization
 - ix. PA RFP Appendix J: Trade Secret/Confidential Proprietary Information Notice
 - x. PA RFP Appendix K: Right to Represent Acknowledgement
 - xi. Section 12, Travel Expenses, of the Contractor's proposal
- p. To the extent that the state of Ohio's Standard Terms and Conditions (Exhibit I) conflict with any of the provisions of Pennsylvania Contract #440007198 (Exhibit IV), the Ohio Standard Terms and Conditions shall take precedence. To the extent that the provisions of Pennsylvania Contract #440007198 do apply to the contract between the State and Contractor, the words "the state of Ohio" shall be deemed to be substituted for the words "the Commonwealth of Pennsylvania".
- q. This Participating Addendum and Pennsylvania Contract #440007198 set forth the entire agreement between the parties and supersede all previous communications, representations or agreements, whether oral or written with respect to the subject matter hereof. As noted above, the state of Ohio's terms and conditions contained within this Participating Addendum and its Exhibits, shall take precedence in the event of a conflict or inconsistency with the terms and conditions of Pennsylvania Contract #440007198 and its Exhibits, appendices, changes, and attachments. Terms and conditions inconsistent with, contrary or in addition to the terms and conditions of this Participating Addendum and Pennsylvania Contract #440007198 shall not be added to or incorporated into this Participating Addendum or Pennsylvania Contract #440007198 by any subsequent purchase order or otherwise and any such attempts to add or incorporate such terms and conditions are hereby rejected.
- r. Although this Contract is intended to be the State of Ohio's main IT Staff Augmentation Services procurement vehicle, it is not an exclusive contract. Throughout the term of the Contract, the state of

Ohio retains full control and flexibility with regard to the types, quantities, and timing of contractor personnel usage. The state of Ohio is not required to end current contract agreements and reserves the right to enter into new agreements with vendors for similar services throughout the term of the Contract.

IN WITNESS WHEREOF, authorized representatives of the Contractor and the State have executed this Participating Addendum to be effective the day and year first written above.

Computer Aid, Inc.

State of Ohio Department of Administrative
Services


Name: James P. Cooney
Title: Managing Director
Date: December 8, 2011


Name: Robert Blair
Title: Director
Date: 12-13-11

EXHIBIT I

STATE TERM CONTRACT

TERMS AND CONDITIONS

1 - PRICING AND PAYMENT

1.1 PRICELIST. The Contractor's pricelist for the products and services that the Contractor may provide to the State under this Contract is attached as Exhibit II. For convenience, those products and services are called "Deliverables" in this Contract. Any custom materials resulting from the Contractor's services also are called "Deliverables" in this Contract. The Contractor may not provide any other Deliverables under this Contract without a prior written amendment to this Contract that both the State and the Contractor have signed. Furthermore, the Contractor may not charge the State greater prices for these Deliverables than the prices on the Exhibit II.

1.2 Payment Due Date. Payments will be due on the 30th day after the later of:

- (a) The date the State actually receives a proper invoice at the office designated in the applicable purchase order to receive it; or
- (b) The date the State accepts the Deliverable.

The date the State issues a warrant (the State's equivalent to a check) in payment of an invoice will be considered the date payment is made. Without diminishing the Contractor's right to timely payment, the payment will be overdue only if it is not received by the 30th day after the payment's due date. If the State has not issued payment by then, interest will begin to accrue under Ohio Revised Code (the "Code") § 126.30.

1.3 Invoice Requirements. The Contractor must submit an original invoice with three copies to the office designated in the purchase order as the "bill to" address. To be a proper invoice, the invoice must include the following information:

- (a) Name and address of the Contractor as designated in this Contract;
- (b) The Contractor's federal tax identification number as designated in this Contract;
- (c) The Contractor's invoice remittance address as designated in this Contract;
- (d) The purchase order number authorizing the delivery of the Deliverables;
- (e) A description of the Deliverables, including, as applicable, the time period, serial number, unit price, quantity, and total price of the Deliverables; and

If an invoice does not meet this section's requirements, or if the Contractor fails to give proper notice of a price increase (see the next section), the State will send the Contractor written notice. The State will send the notice, along with the improper invoice, to the Contractor's address designated for receipt of purchase orders within 15 days. The notice will contain a description of the defect or impropriety and any additional information the Contractor needs to correct the invoice. If such notification has been sent, the payment due date will be 30 days after the State receives a proper invoice and has accepted the Contractor's Deliverable.

- 1.4 NON-APPROPRIATION OF FUNDS.** The State's funds are contingent on the availability of lawful appropriations by the Ohio General Assembly. If the Ohio General Assembly fails to continue funding for any payments due hereunder, the order or orders under this Contract that are affected by the lack of funding will terminate as of the date that the funding expires, and the State will have no further obligation to make any payments with respect to the affected order or orders.
- 1.5 OBM CERTIFICATION.** This Contract is subject to Code § 126.07. Any orders under this Contract are void until the Director of the OBM certifies that there is a balance in the appropriation available to pay for the order.
- 1.6 TRAVEL EXPENSES.** Any travel that the Contractor requires to perform its obligations under this Contract will be at the Contractor's expense. The State will pay for any additional travel that it requests only with prior written approval. The State will pay for all additional travel expenses that it requests in accordance with OBM's travel policy in Rule126-1-02 of the Ohio Administrative Code (the "Administrative Code").
- 1.7 TAXES.** The State is exempt from all sales, use, excise, and property taxes and will not pay any such taxes. To the extent sales, use, excise, or any similar taxes are imposed on the Contractor in connection with any Deliverable, the Contractor must pay those taxes together with any interest and penalties not successfully disputed with the taxing authority.
- 1.8 OFFSET.** The State may set off any amounts the Contractor owes to the State under this or other contracts against any payments due from the State to the Contractor under this or any other contracts with the State.

2 - CONTRACT ADMINISTRATION

- 2.1 AUDITS.** During the term of this Contract and for three years after termination, on reasonable notice and during customary business hours, the State may audit the Contractor's records and other materials that relate to the Deliverables and to the pricing representations that the Contractor has made to acquire this Contract. This audit right also will apply to the State's duly authorized representatives and any organization providing funding for any Deliverable.

Unless it is impracticable to do so, all records related to this Contract must be kept in a single location, either at the Contractor's principle place of business or the facilities where the Contractor substantially performed under this Contract. If this is not practical, the Contractor must assume the cost of collecting, organizing, and relocating the records, along with any technology needed for accessing the records, to its office nearest Columbus, Ohio whenever the State or any entity with audit rights requests access to the records. The Contractor must do so within 15 days of receiving the State's written notice of its intent to audit the Contractor's records and must notify the State as soon as the records are ready for audit.

If any audit reveals any material misrepresentation or overcharge to the State, the State will be entitled to recover its damages, including the cost of the audit.

- 2.2 INSURANCE.** The Contractor must provide the following insurance coverage at its own expense throughout the term of this Contract:
- a. Workers' compensation insurance, as required by Ohio law, and if some work will be done outside Ohio, the laws of the appropriate states where work will be done. The Contractor also must maintain employer's liability insurance with at least a \$1,000,000.00 limit.
 - b. Commercial General Liability insurance coverage for bodily injury, personal injury, wrongful death, and property damage. The defense cost must be outside of the policy limits. Such policy must

designate the State of Ohio as an additional insured, as its interest may appear. The policy also must be endorsed to include a blanket waiver of subrogation. At a minimum, the limits of the insurance must be:

- \$ 2,000,000 General Aggregate
- \$ 2,000,000 Products/Completed Operations Aggregate
- \$ 1,000,000 Per Occurrence Limit
- \$ 1,000,000 Personal and Advertising Injury Limit
- \$ 100,000 Fire Legal Liability
- \$ 10,000 Medical Payments

The Contractor must provide the State with 30-days prior written notice of cancellation or material change to the policy. And the Contractor's Commercial General Liability must be primary over any other insurance coverage.

- a. Commercial Automobile Liability insurance with a combined single limit of \$500,000.
- b. Professional Liability insurance covering all staff with a minimum limit of \$1,000,000 per incident and \$3,000,000 aggregate. If the Contractor's policy is written on a "claims made" basis, the Contractor must provide the State with proof of continuous coverage at the time the policy is renewed. If for any reason the policy expires, or coverage is terminated, the Contractor must purchase and maintain "tail" coverage through the applicable statute of limitations.

All certificates must be in a form that is reasonably satisfactory to the State as to the contents of the policies and the quality of the insurance carriers. All carriers must have at least an "A-" rating by A.M. Best.

- 2.3 **CONTRACT COMPLIANCE.** Any State agency that uses this Contract will be responsible for the administration of this Contract with respect to the orders that it places and may monitor the Contractor's performance and compliance with this Contract. If an agency becomes aware of any noncompliance with the terms of this Contract or the specifications of an order, the agency may document the noncompliance and give the Contractor written notice of the noncompliance for immediate correction. If the Contractor fails to cure the noncompliance, the agency may notify the State through the Department of Administrative Services, Office of State Purchasing, by executing a Complaint to Vendor form to help resolve the issue. Should the State determine that the form identifies an uncured breach of this Contract, the State may terminate this Contract and seek such other remedies as may be available to it.
- 2.4 **POLITICAL SUBDIVISIONS.** Ohio political subdivisions, such as Ohio cities, counties, and townships ("Political Subdivisions"), may rely on this Contract. Whenever a Political Subdivision relies on this Contract to issue a purchase order, the Political Subdivision will step into the shoes of the State under this Contract for purposes of its order, and, as to the Political Subdivision's order, this Contract will be between the Contractor and the Political Subdivision. The Contractor must look solely to the Political Subdivision for performance, including but not limited to payment, and must hold the State harmless with regard to such orders and the Political Subdivision's performance. But the State will have the right to terminate this Contract and seek such remedies on termination as this Contract provides should the Contractor fail to honor its obligations under an order from a Political Subdivision. Nothing in this Contract requires the Contractor to accept an order from a Political Subdivision, if the Contractor reasonably believes that the Political Subdivision is or will be unable to perform its obligations in relation to that order.

2.5 TERMINATION. The State may terminate this Contract or any order under this Contract if the Contractor defaults in meeting its obligations and fails to timely cure its default. The State also may terminate this Contract or any order under it if a petition in bankruptcy is filed by or against the Contractor and not dismissed within 60 days. And the State may terminate this Contract or any order under it if the Contractor violates any law or regulation while performing under this Contract or if it appears to the State that the Contractor's performance is substantially endangered through no fault of the State. In all of the foregoing cases, the termination will be for cause.

On written notice, the Contractor will have 30 days to cure any breach of its obligations under this Contract, provided the breach is curable. If the Contractor fails to cure the breach within 30 days after written notice or if the breach is not one that is curable, the State will have the right to terminate this Contract, the applicable orders, or both immediately upon written notice to the Contractor. Some provisions of this Contract may provide for a shorter cure period than 30 days or for no cure period at all. Those provisions will prevail over this one. If a particular section does not state what the cure period will be, this provision will govern.

The State also may terminate this Contract in the case of breaches that are cured within 30 days but are persistent. "Persistent" in this context means that the State has notified the Contractor in writing of the Contractor's failure to meet any of its obligations two times. After the second such notice, the State may terminate this Contract without a cure period if the Contractor again fails to meet any obligation. The three defaults do not have to relate to the same obligation or type of failure.

The State also may terminate this Contract or any order under this Contract for its convenience and without cause. And the State may terminate this Contract or any order under it if the Ohio General Assembly fails to appropriate funds for any order under this Contract. Further, if a third party is providing funding for an order, the State also may terminate this Contract or any order under it should that third party fail to release any funds related to this Contract or an order under it.

Any notice of termination will be effective as soon as the Contractor receives it. On receipt of the notice of termination, the Contractor will immediately cease all work on any Deliverables affected by the termination and take all steps necessary to minimize any costs the Contractor will incur related to the affected orders. The Contractor also must immediately prepare a report and deliver it to the State. The report must detail all open orders at the time of termination.

If the State terminates this Contract or any order for cause, it will be entitled to cover for the affected orders by using another vendor or vendors on such commercially reasonable terms and conditions as it and the covering vendors may agree. The Contractor will be liable to the State for all costs related to covering for the affected orders to the extent that such costs exceed the costs that the State would have incurred under this Contract for those orders. The Contractor also will be liable for any other direct damages resulting from its breach of this Contract or other event leading to termination for cause.

If the termination is for the convenience of the State, the Contractor will be entitled to compensation for any Deliverable that the Contractor has delivered before the termination. Such compensation will be the Contractor's exclusive remedy in the case of termination for convenience and will be available to the Contractor only once the Contractor has submitted a proper invoice for such, with the invoice reflecting the amount the State determines that it owes the Contractor.

2.6 EXCUSABLE DELAY. Neither party will be liable for any delay in its performance under this Contract that arises from causes beyond its reasonable control and without its negligence or fault. The delayed party must notify the other promptly of any material delay in performance and must specify in writing the proposed revised performance date as soon as practicable after notice of delay. For any such excusable delay, the date of performance or delivery will be extended for a period equal to the time

lost by reason of the excusable delay. The delayed party also must describe the cause of the delay and what steps it then is taking or will take to remove the cause. The delayed party may not rely on a claim of excusable delay to avoid liability for a delay if the party has not taken commercially reasonable steps to mitigate or avoid the delay.

- 2.7 INDEPENDENT STATUS.** The parties will be acting as independent entities. The partners, employees, officers, directors, and agents of one party may only act in the capacity of representatives of that party and not as employees, officers, directors, or agents of the other party and will not be deemed as such for any purpose. Each party assumes full responsibility for the actions of its partners, employees, officers, directors, and agents while performing under this Contract and will be solely responsible for paying those people. Additionally, each party will be solely responsible for withholding and paying social security and income taxes, making workers' compensation contributions, paying disability benefits, and providing fringe benefits, if any, for its partners, employees, officers, directors, and agents, and neither party may legally bind the other party in any manner.
- 2.8 SUBCONTRACTING.** The Contractor will be solely responsible for payment of its subcontractor and any claims of subcontractors for any failure of the Contractor or any of its other subcontractors to meet the performance schedule or performance specifications for the Work in a timely and professional manner. The Contractor must hold the State harmless for and must indemnify the State against any such claims. The Contractor will be the sole point of contact with regard to contractual matters, including payment of all charges resulting from the Contract. And the Contractor will be fully responsible for any default by a subcontractor, just as if the Contractor itself had defaulted.

3 - DELIVERY AND ACCEPTANCE

- 3.1 ACCEPTANCE.** The acceptance procedure for Deliverables will be an informal review by the agency acquiring the Deliverables to ensure that each Deliverable meets the warranties in this Contract. The State will have up to 30 days after installation to do this. The State will not issue a formal letter of acceptance, and passage of 30 days will imply acceptance, though the State will issue a notice of noncompliance if a Deliverables does not meet the warranties in this Contract.

If the State issues a noncompliance letter, the Contractor will have 30 days to correct the problems listed in the letter. If the Contractor fails to do so, the Contractor will be in default without a cure period. If the State has issued a noncompliance letter, the Deliverable will not be accepted until the State issues a letter of acceptance indicating that each problem noted in the noncompliance letter has been cured. If the problems have been fixed during the 30-day period, the State will issue the acceptance letter within 15 days after all defects have been fixed.

- 3.2 TITLE.** Title to any Deliverable will pass to the State only on acceptance of the Deliverable, and all risk of loss will remain with the Contractor until title to the Deliverable passes to the State.
- 3.3 DELIVERIES.** The Contractor must make all deliveries F.O.B. destination.

4 - INTELLECTUAL PROPERTY

- 4.1 CUSTOM DELIVERABLES.** All custom work done by the Contractor and covered by this Contract will belong to the State, with all rights, title, and interest in all intellectual property that comes into existence through the Contractor's work under this Contract being assigned to the State. Additionally, the Contractor waives any shop rights, author rights, and similar retained interests in any such custom developed materials. The Contractor must provide the State with all assistance reasonably needed to vest such rights of ownership in the State. However, the Contractor will retain ownership of all tools, methods, techniques, standards, and other development procedures, as well as generic and

preexisting shells, subroutines, and similar material incorporated in any custom Deliverable ("Pre-existing Materials").

The Contractor grants the State a worldwide, non-exclusive, royalty-free, perpetual license to use, modify, sell, and otherwise distribute all Pre-existing Materials that are incorporated in any custom-developed Deliverable. The Contractor may not include in any custom Deliverable any intellectual property unless such has been created under this Contract or qualifies as Pre-existing Material. If the Contractor wants to incorporate any Pre-existing materials in a custom Deliverable, the Contractor must disclose that desire to the State and obtain written approval from the State for doing so in advance. On the request of the Contractor, the State will incorporate any proprietary notice that Contractor may reasonably want for any Pre-existing Materials included in a custom Deliverable in all copies the State makes of that Deliverable.

Subject to the limitations and obligations of the State with respect to Pre-existing Materials, the State may make all custom Deliverables available to the general public without any proprietary notices of any kind.

4.2 CONFIDENTIALITY. The State may disclose to the Contractor written material or oral or other information that the State treats as confidential ("Confidential Information"). Title to the Confidential Information and all related materials and documentation the State delivers to the Contractor will remain with the State. The Contractor must treat such Confidential Information as secret if it is so marked, otherwise identified as such, or when, by its very nature, it deals with matters that, if generally known, would be damaging to the best interests of the public, other contractors or potential contractors with the State, or individuals or organizations about whom the State keeps information. The Contractor may not disclose any Confidential Information to third parties and must use it solely to perform under this Contract.

If any Deliverables contain data, documentation, or other written information that is confidential in nature and properly labeled as such, then it also will be Confidential Information for purposes of this section. The State will keep all such Confidential Information in confidence and will not use it other than as authorized under this Contract. Nor will the State disclose any such Confidential Information to any third party without first obligating the third party to maintain the secrecy of the Confidential Information.

If one party discloses Confidential Information ("Disclosing Party") to the other party to this Contract ("Receiving Party"), the Receiving Party's obligation to maintain the confidentiality of the Confidential Information will not apply where such:

- (1) Was already in the possession of the Receiving Party without an obligation of confidence;
- (2) Is independently developed by the Receiving Party, provided documentary evidence exists to support the independent development;
- (3) Except as provided in the next paragraph, is or becomes publicly available without a breach of this Contract;
- (4) Is rightfully received by the Receiving Party from a third party without an obligation of confidence;
- (5) Is disclosed by the Receiving Party with the written consent of the Disclosing Party; or
- (6) Is released under a valid order of a court or governmental agency, provided that the Receiving Party:
 - (a) Notifies the Disclosing Party of the order immediately upon receipt of it; and
 - (b) Makes a reasonable effort to obtain a protective order from the issuing court or agency limiting the disclosure and use of the Confidential Information solely for the purposes intended to be served by the original order of production.

Information that may be available publicly through other sources about people that is personal in nature, such as medical records, addresses, phone numbers, social security numbers, and similar things are nevertheless sensitive in nature and may not be disclosed or used in any

manner **except** as expressly authorized in this Contract. Therefore, item (3) in the preceding paragraph does not apply, and the Contractor must treat such information as Confidential Information whether it is available elsewhere or not.

Except for Confidential Information that the Contractor delivers to the State and that is part of a Deliverable or necessary for the proper use or maintenance of a Deliverable, the Receiving Party must return all originals of any Confidential Information and destroy any copies it has made on termination or expiration of this Contract.

The disclosure of the Confidential Information of the Disclosing Party in a manner inconsistent with the terms of this provision may cause the Disclosing Party irreparable damage for which remedies other than injunctive relief may be inadequate, and each Receiving Party agrees that in the event of a breach of the Receiving Party's obligations hereunder, the Disclosing Party will be entitled to temporary and permanent injunctive relief to enforce the provisions of this Contract without the necessity of proving actual damages. However, provision does not diminish or alter any right to claim and recover damages.

- 4.3 USE OF NAME.** The Contractor may not publicize that it is doing business with the State or use this Contract or the Contractor's relationship with the State as a marketing or sales tool, unless the State agrees otherwise in writing. The State has no obligation to agree to any such advertising, publicity, sales, or marketing activities.

5 – TRANSACTION REPORTING

- 5.1 Contractor's SALES REPORT.** The Contractor must report the quarterly dollar value (in US currency rounded to the nearest whole dollar) of the sales under this Contract each calendar quarter (i.e., January-March, April-June, July-September and October-December). The dollar value of the sales reported must equal the price paid by all State agencies and Political Subdivisions for Deliverables under this Contract during the reporting period.

The Contractor must report the quarterly dollar value of sales to the State via the Internet using the Web form at the Department of Administrative Services, OIT vendor portal, <https://cm.ohio.gov>. If no sales occur, the Contractor must show zero sales on the report. The report must be submitted 30 days after the completion of the reporting period.

The Contractor also must submit a closeout report within 120 days after the expiration of this Contract. The Contract expires on the physical completion of the last, outstanding task or delivery order of the Contract. The closeout report must cover all sales not shown in the final quarterly report and reconcile all errors and credits. If the Contractor reported all Contract sales and reconciled all errors and credits on the final quarterly report, then the Contractor should show zero sales in the closeout report.

If the Contractor fails to submit any sales report in a timely manner or falsifies any sales report, the State may terminate this Contract for cause.

5.2 Contractor's REVENUE SHARE. The Contractor must pay the State a share of the sales transacted under this Contract. The Contractor must remit the revenue share in US dollars within 30 days after the end of the quarterly reporting period. The revenue share that the Contractor must pay equals .0075 of the total quarterly sales reported. The revenue share is included in the prices reflected on Exhibit II and reflected in the total amount charged to ordering activities, and the Contractor may not add a surcharge to orders under this Contract to cover the cost of the revenue share.

The Contractor must remit any amount due as the result of a quarterly or closeout report at the time the quarterly or closeout report is submitted to the Department of Administrative Services, Office of State Purchasing. The Contractor also must pay the revenue share by check. To ensure the payment

is credited properly, the Contractor must identify the check as a "Revenue Share" and include the applicable Contract Number, total report amount, and reporting period covered.

The Contractor must make each check payable to "Treasurer, State of Ohio", and forward it to the following address:

Department of Administrative Services
GSD Business Office
4200 Surface Road
Columbus, OH 43228

If the full amount of the revenue share is not paid within 30 days after the end of the applicable reporting period, the non-payment will constitute a contract debt to the State. The State may setoff any unpaid revenue share from any amount owed to the Contractor under this Contract and employ all other remedies available to it under Ohio law for the non-payment of the revenue share. Additionally, if the Contractor fails to pay the revenue share in a timely manner, the failure will be a breach of this Contract, and the State may terminate this Contract for cause and seek damages for the breach.

6 - WARRANTIES AND LIABILITIES

6.1 WARRANTIES. The Contractor warrants that the recommendations, guidance, and performance of the Contractor and all Deliverables under this Contract will:

- (a) Be in accordance with the sound professional standards and the requirements of this Contract and without any material defects;
- (b) Not infringe on the intellectual property rights of any third party;
- (c) Be the work solely of the Contractor, unless otherwise provided in this Contract; and
- (d) Be merchantable and fit for the particular purpose for which the Deliverables were acquired.

Additionally, with respect to the Contractor's activities under this Contract, the Contractor warrants that:

- (a) The Contractor has the right to enter into this Contract;
- (b) The Contractor has not entered into any other contracts or employment relationships that restrict the Contractor's ability to perform under this Contract;
- (c) The Contractor will observe and abide by all applicable laws and regulations, including those of the State regarding conduct on any premises under the State's control;
- (d) The Contractor has good and marketable title to any products delivered under this Contract and in which title passes to the State; and
- (e) The Contractor has the right and ability to grant the license provided in any Deliverable in which title does not pass to the State.

If any work of the Contractor or any Deliverable fails to comply with these warranties, and the Contractor is so notified in writing, the Contractor must correct such failure with all due speed, not to exceed 30 days, or refund the amount of the compensation paid for the Deliverable. The Contractor also must indemnify the State for any direct damages and any claims by third parties based on any breach of these warranties.

- 6.2 INDEMNITY.** The Contractor must indemnify the State against all liability or expense resulting from bodily injury to any person (including injury resulting in death) or damage to property arising out of its performance under this Contract, provided such bodily injury or property damage is due to the negligence or other tortious conduct of the Contractor, its employees, agents, or subcontractors.
- 6.3 LIMITATION OF LIABILITY.** The Contractor's liability for damages sustained by the State as the result of the Contractor's default or acts or omissions in the performance of work under this Contract, whether such damages arise out of breach, negligence, misrepresentation, or otherwise, shall be no greater than:
- (a) Damages for violation or infringement of any copyright or trademark;
 - (b) Damages for bodily injury (including death) to persons, and damages for physical injury to tangible personal property or real property; and
 - (c) The amount of any other actual direct damages up to the greater of \$500,000 or three times the value of the Product or Service that is the subject of the claim, up to a maximum of \$25,000,000. For example, if the Product or Service that is the subject of the claim was valued at \$15,000,000, then the Contractor would be liable for no more than \$25,000,000. For purposes of this subsection, the term "Product" would typically include the following, but not be limited to, Materials, Source Code, Machine Code, and Licenses.
 - (d) Neither party will be liable for an indirect, incidental, or consequential loss or damage of any kind, including but not limited to lost profits, even if the parties have been advised, knew, or should have known of the possibility of such damages.

7 – CONSTRUCTION

- 7.1 HEADINGS.** The headings used in this Contract are for convenience only and may not be used in interpreting this Contract.
- 7.2 BINDING EFFECT.** This Contract will be binding on and benefit the respective successors and assigns of the State and the Contractor.
- 7.3 AMENDMENTS – WAIVER.** No amendment or modification of this Contract will be effective unless it is in writing and signed by both parties. The failure of either party at any time to demand strict performance by the other party of any of the terms or conditions of this Contract may not be construed as a waiver of any those terms or conditions, and either party may at any time demand strict and complete performance by the other party.
- 7.4 SEVERABILITY.** If a court of competent jurisdiction finds any provision of this Contract to be unenforceable, the remaining provisions of this Contract will remain in full force and affect.
- 7.5 CONSTRUCTION.** This Contract must be construed in accordance with the plain meaning of its language and neither for nor against the drafting party.
- 7.6 NOTICES.** For any notice under this Contract to be effective, the noticing party must make it in writing and sent it to the address of the other party first appearing above, unless that party has notified the other party, in writing and in accordance with the provisions of this section, of a new mailing address for the receipt of notices. This notice requirement will not apply to any notices that this Contract expressly authorizes to be made orally.
- 7.7 CONTINUING OBLIGATIONS.** Any terms, conditions, representations, or warranties contained in this Contract that must survive termination or expiration of this Contract to be fully effective will survive the termination or expiration of the Contract. Additionally, termination or expiration of this Contract will not affect the State's right to continue to use any Deliverable for which it has paid, including licensed

material. And no termination or expiration of the Contract will affect the State's right to receive maintenance, warranty work, or other services for which the State has paid.

- 7.8 DAYS.** When this Contract refers to days, it means calendar days, unless it expressly provides otherwise.

8 - LAW AND COURTS

- 8.1 EEO.** The Contractor must comply with all Ohio laws regarding equal employment opportunity, including among others Code § 125.111, as well as all related Executive Orders of the Governor of Ohio.
- 8.2 DRUG FREE WORKPLACE.** The Contractor must comply with all Ohio laws regarding maintaining a drug-free workplace and make a good faith effort to ensure that all its employees do not possess and are not under influence of illegal drugs or alcohol or abuse prescription drugs while working on State property.
- 8.3 OHIO ETHICS LAW AND LIMITS ON POLITICAL CONTRIBUTIONS.** The Contractor certifies that it is currently in compliance and will continue to adhere to the requirements of the Ohio ethics laws. The Contractor hereby certifies that all applicable parties listed in Ohio Revised Code Section 3517.13 are in full compliance with Ohio Revised Code Section 3517.13.
- 8.4 SECURITY & SAFETY RULES.** When using or possessing State data or accessing State networks and systems, the Contractor must comply with all applicable State rules, policies, and regulations regarding data security and integrity. And when on any property owned or controlled by the State, the Contractor must comply with all security and safety rules, regulations, and policies applicable to people on those premises.
- 8.5 LAW AND VENUE.** This Contract is governed by and will be construed under Ohio law, and venue for all disputes will lie exclusively with the appropriate court in Franklin County, Ohio.
- 8.6 UNRESOLVED FINDINGS.** The Contractor represents that it is not subject to an unresolved finding for recovery under Code § 9.24. If this warranty proves false when the parties sign this Contract, the Contract will be void. Additionally, if this representation proves false on the date of any renewal or extension of the Contract, the renewal or extension will be void.
- 8.7 DECLARATION OF MATERIAL ASSISTANCE ("DMA").** The Contractor represents and warrants that it has not provided any material assistance, as that term is defined in ORC Section 2909.33(C) to an organization that is identified by, and included on, the United States Department of State Terrorist Exclusion List and that it has truthfully answered "no" to every question on the DMA form. The Contractor further represents and warrants that it has provided or shall provide the DMA form through the Ohio Business Gateway at <http://business.ohio.gov/efiling/> prior to execution of this Contract. If these representations and warranties are found to be false, this Contract shall be void and the Contractor shall immediately repay to the State any funds paid under this Contract.
- 8.8 ANTITRUST.** The State and the Contractor recognize that, in actual economic practice, overcharges resulting from antitrust violations are usually borne by the State. The Contractor therefore assigns to the State all state and federal antitrust claims and causes of action that the Contractor has or acquires relating to the goods and services acquired under this Contract.
- 8.9 ASSIGNMENT.** The Contractor may not assign this Contract without the written consent of the State, which the State will not be obligated to provide.
- 8.10 Executive Order 2011-12K Affirmation and Disclosure Instructions.**

Contractor hereby represents and warrants that Contractor, and any subcontractor will not, as a part of the contract with the State, provide any of its services outside the United States, and that Contractor has truthfully disclosed the following:

4. The location(s) where all services will be performed by Contractor and any subcontractor;
5. If applicable, the location(s) where any state data associated with any of the provided services will be accessed, tested, maintained, backed-up or stored; and
6. The principal location(s) of business for the Contractor and any subcontractors providing the services to the State.

As part of the above disclosure and affirmation requirement, the Contractor must complete the Affirmation and Disclosure Form (Exhibit III). In addition, the Contractor affirms to have read and understands Executive Order 2011-12K and shall abide by those requirements in the performance of this Contract. Notwithstanding any other terms of this Contract, the State reserves the right to recover any funds paid for services the Contractor performs outside of the United States for which it did not receive a waiver. The State does not waive any other rights and remedies provided the State in this Contract.

Exhibit II

Columbus, OH		Legacy			Core			Emerging		
		Wage	Vendor	Bill	Wage	Vendor	Bill	Wage	Vendor	Bill
Architect 1	AR1	\$68.79	\$82.55	\$88.87	\$70.20	\$84.24	\$90.69	\$75.11	\$90.14	\$97.04
Functional Architect 1	FA1	\$33.68	\$40.42	\$43.52	\$34.36	\$41.24	\$44.40	\$36.77	\$44.13	\$47.51
Functional Architect 2	FA2	\$40.06	\$48.08	\$51.76	\$40.88	\$49.06	\$52.82	\$43.74	\$52.49	\$56.51
Functional Architect 3	FA3	\$47.56	\$57.08	\$61.45	\$48.53	\$58.24	\$62.70	\$51.92	\$62.31	\$67.08
Help Desk Analyst 1	HDA1	\$26.09	\$31.31	\$33.71	\$26.62	\$31.95	\$34.40	\$28.48	\$34.18	\$36.80
Help Desk Analyst 2	HDA2	\$28.54	\$34.25	\$36.88	\$29.12	\$34.95	\$37.63	\$31.16	\$37.40	\$40.27
Help Desk Analyst 3	HDA3	\$35.21	\$42.26	\$45.50	\$35.93	\$43.12	\$46.42	\$38.44	\$46.13	\$49.66
Product Specialist 1	PS1	\$35.19	\$42.23	\$45.47	\$35.91	\$43.10	\$46.40	\$38.42	\$46.11	\$49.64
Product Specialist 2	PS2	\$40.21	\$48.26	\$51.96	\$41.03	\$49.24	\$53.01	\$43.91	\$52.70	\$56.74
Product Specialist 3	PS3	\$52.15	\$62.58	\$67.37	\$53.22	\$63.87	\$68.76	\$56.94	\$68.33	\$73.56
Product Specialist 4	PS4	\$59.66	\$71.80	\$77.08	\$60.87	\$73.05	\$78.64	\$65.14	\$78.17	\$84.16
Product Specialist 5	PS5	\$74.26	\$89.12	\$95.94	\$75.77	\$90.93	\$97.89	\$81.08	\$97.30	\$104.75
Programmer 1	PR1	\$30.84	\$37.01	\$39.85	\$31.47	\$37.77	\$40.66	\$33.67	\$40.41	\$43.51
Programmer 2	PR2	\$37.49	\$44.99	\$48.44	\$38.25	\$45.90	\$49.42	\$40.93	\$49.12	\$52.88
Programmer 3	PR3	\$44.59	\$53.51	\$57.61	\$45.50	\$54.60	\$58.78	\$48.68	\$58.42	\$62.89
Programmer 4	PR4	\$52.93	\$63.52	\$68.38	\$54.01	\$64.82	\$69.78	\$57.80	\$69.36	\$74.67
Programmer 5	PR5	\$62.75	\$75.30	\$81.07	\$64.03	\$76.84	\$82.72	\$68.51	\$82.22	\$88.51
Service Desk 1	SD2	\$23.40	\$28.08	\$30.23	\$23.88	\$28.66	\$30.86	\$25.55	\$30.66	\$33.01
Service Desk 2	SD3	\$25.20	\$30.24	\$32.56	\$25.72	\$30.87	\$33.24	\$27.52	\$33.03	\$35.56
Software Process Engineer 1	SPS1	\$33.01	\$39.62	\$42.66	\$33.69	\$40.43	\$43.53	\$36.05	\$43.26	\$46.57
Software Process Engineer 2	SPS2	\$36.66	\$44.00	\$47.37	\$37.40	\$44.88	\$48.32	\$40.02	\$48.03	\$51.71
Software Process Engineer 3	SPS3	\$48.87	\$58.65	\$63.14	\$49.87	\$59.85	\$64.43	\$53.36	\$64.04	\$68.94
System Administrator 1	SA1	\$30.35	\$36.42	\$39.21	\$30.97	\$37.17	\$40.02	\$33.13	\$39.76	\$42.81
System Administrator 2	SA2	\$33.49	\$40.19	\$43.27	\$34.17	\$41.01	\$44.15	\$36.56	\$43.88	\$47.24
System Administrator 3	SA3	\$46.23	\$55.48	\$59.73	\$47.17	\$56.61	\$60.95	\$50.47	\$60.57	\$65.21
System Administrator 4	SA4	\$55.56	\$66.68	\$71.79	\$56.69	\$68.03	\$73.24	\$60.66	\$72.80	\$78.37
System Specialist 1	SS1	\$30.16	\$36.20	\$38.97	\$30.78	\$36.94	\$39.77	\$32.93	\$39.52	\$42.55
System Specialist 2	SS2	\$31.91	\$38.30	\$41.23	\$32.56	\$39.08	\$42.07	\$34.84	\$41.81	\$45.01
System Specialist 3	SS3	\$40.59	\$48.71	\$52.44	\$41.42	\$49.71	\$53.52	\$44.32	\$53.19	\$57.26
Technical Architecture Specialist 1	TAS1	\$39.24	\$47.09	\$50.70	\$40.04	\$48.05	\$51.73	\$42.85	\$51.42	\$55.36
Technical Architecture Specialist 2	TAS2	\$44.25	\$53.10	\$57.17	\$45.16	\$54.20	\$58.35	\$48.32	\$57.99	\$62.43
Technical Architecture Specialist 3	TAS3	\$46.96	\$56.36	\$60.68	\$47.92	\$57.51	\$61.91	\$51.27	\$61.53	\$66.24

Video Conference Specialist 1	VCS1	\$38.16	\$45.80	\$49.31	\$38.94	\$46.73	\$50.31	\$41.67	\$50.01	\$53.84
Video Conference Specialist 2	VCS2	\$43.15	\$51.78	\$55.75	\$44.03	\$52.84	\$56.89	\$47.11	\$56.54	\$60.87
Exception-DAS Approval Only	EXC	To Be Determined								

Non-Affiliated

Job Title		Wage	Vendor	Bill
Business Analyst 1	BA1	\$41.41	\$49.70	\$53.51
Business Analyst 1	BA2	\$51.98	\$62.38	\$67.16
Business Analyst 1	BA3	\$59.27	\$71.13	\$76.53
CADD/GIS Administrator 1	CGA1	\$39.35	\$47.22	\$50.84
CADD/GIS Administrator 2	CGA2	\$45.08	\$54.10	\$58.24
CADD/GIS Administrator 3	CGA3	\$43.27	\$51.93	\$55.91
Data Entry Operator 1	DE1	\$14.07	\$16.89	\$18.19
Data Entry Operator 2	DE2	\$15.30	\$18.36	\$19.77
Database Administrator 1	DBA1	\$40.24	\$48.29	\$51.99
Database Administrator 2	DBA2	\$44.13	\$52.96	\$57.02
Database Administrator 3	DBA3	\$58.17	\$69.81	\$75.16
Database Administrator 4	DBA4	\$62.92	\$75.51	\$81.29
Intern	INT1	\$12.48	\$14.98	\$16.13
Intern	INT2	\$14.56	\$17.48	\$18.82
Intern	INT3	\$18.72	\$22.47	\$24.19
Program Manager 1	PM1	\$46.11	\$55.34	\$59.58
Program Manager 2	PM2	\$55.48	\$66.58	\$71.68
Program Manager 3	PM3	\$65.08	\$78.10	\$84.08
Program Manager 4	PM4	\$82.78	\$99.34	\$106.94
Quality Assurance Specialist 1	QAS1	\$35.62	\$42.75	\$46.03
Quality Assurance Specialist 2	QAS2	\$39.44	\$47.33	\$50.96
Quality Assurance Specialist 3	QAS3	\$51.07	\$61.29	\$65.98
Senior Architect 1	SAR1	\$88.76	\$106.52	\$114.67
Senior Business Subject Matter Expert 1	SME1	\$77.11	\$92.54	\$99.82
Senior Database Architect 1	SDA1	\$69.66	\$83.60	\$90.00
Senior Program Manager 1	SPM1	\$86.76	\$104.12	\$112.09
Team Lead 1	TL1	\$53.90	\$64.68	\$69.63
Team Lead 2	TL2	\$57.99	\$69.59	\$74.92
Technical Writer 1	TW1	\$26.16	\$31.40	\$33.81

Technical Writer 2	TW2	\$30.39	\$36.47	\$39.26
Technical Writer 3	TW3	\$34.09	\$40.91	\$44.04
Technical Writer 4	TW4	\$37.02	\$44.43	\$47.83
Telecom Engineer 1	TE1	\$33.66	\$40.40	\$43.50
Telecom Engineer 2	TE2	\$38.47	\$46.17	\$49.71
Telecom Engineer 3	TE3	\$44.97	\$53.97	\$58.10
Tester 1	Test1	\$31.61	\$37.94	\$40.85
Tester 2	Test2	\$36.51	\$43.82	\$47.18
Tester 3	Test3	\$42.21	\$50.66	\$54.54
Voice/Data Engineer 1	VDE1	\$32.46	\$38.96	\$41.95
Voice/Data Engineer 2	VDE2	\$37.65	\$45.18	\$48.64
Voice/Data Engineer 3	VDE3	\$44.97	\$53.97	\$58.10

Exhibit III

STANDARD AFFIRMATION AND DISCLOSURE FROM

EXECUTIVE ORDER 2011-12K

Governing the Expenditure of Public Funds on Offshore Services

The Contractor shall provide all the name(s) and location(s) where services under this Contract will be performed in the spaces provided below or by attachment. Failure to provide this information may subject the Contractor to sanctions. If the Contractor will not be using subcontractors, indicate "Not Applicable" in the appropriate spaces.

1. Principal location of business of Contractor:

1390 Ridgeview Drive Allentown, PA 18104

(Address)

Anthony Salvaggio CEO and President_

(City, State, Zip) Name/Principal

Location of business of subcontractor(s):

(Name)

(Address, City, State, Zip)

(Name)

(Address, City, State, Zip)

2. Location where services will be performed by Contractor:

(Address)

(City, State, Zip)

Name/Location where services will be performed by subcontractor(s):

(Name)

(Address, City, State, Zip)

(Name)

(Address, City, State, Zip)

3. Location where state data will be stored, accessed, tested, maintained or backed-up, by

Contractor:

SAVVIS

375 Riverside Parkway

Lithia Springs, GA 30122

(Address)

(Address, City, State, Zip)

Name/Location(s) where state data will be stored, accessed, tested, maintained or backed-up by subcontractor(s):

(Name)

(Address, City, State, Zip)

(Name)

(Address, City, State, Zip)

(Name)

(Address, City, State, Zip)

(Name)

(Address, City, State, Zip)

(Name)

(Address, City, State, Zip)

4 .Location where services to be performed will be changed or shifted by Contractor:

(Address)

(Address, City, State, Zip)

Name/Location(s) where services will be changed or shifted to be performed by subcontractor(s):

(Name)

(Address, City, State, Zip)

Exhibit IV

Pennsylvania Contract #4400007198

See Contract File for entire Pennsylvania Contract

PARTICIPATING ADDENDUM AMENDMENT NUMBER 1

This Participating Addendum Amendment 1 (the "Amendment") is between Computer Aid, Inc. ("the Contractor"), whose address is 1390 Ridgeview Drive, Allentown, PA 18104 and the State of Ohio, Department of Administrative Services ("DAS") whose address is 4200 Surface Road, Columbus, Ohio 43228, on behalf of the state of Ohio and all eligible public entities and cooperative purchasing members with the state of Ohio, collectively referred to as the "State". This Amendment changes the terms of the contract issued under the Participating Addendum.

WHEREAS the State and the Contractor entered into the Participating Addendum ("Participating Addendum" or "Contract") on December 13, 2011;

WHEREAS, the State and the Contractor determined that a Participating Addendum Amendment is necessary to address certain revisions to the Contract;

NOW, THEREFORE, the Contract is amended as follows:

The State and the Contractor have agreed to correct an error contained in Exhibit II described below:

Exhibit II - The rates for the CADD/GIS Administrator 3 contained in Exhibit II included in the Participating Addendum dated December 2, 1011 contained incorrect rates for the job title. As part of this Amendment, the Wage Rate for CADD/GIS Administrator 3 is being increased from \$43.27 to \$59.69. The Vendor Rate for this position is being increased from \$51.93 to \$71.63 and the Bill Rate is being increased from \$55.91 to \$77.11.

An updated Exhibit II, dated January 25, 2012, containing the rate corrections is attached. This updated Exhibit II replaces pages 18, 19 and 20 of the Participating Addendum.

Except as expressly modified in this Amendment, all the terms of the Contract remain unaffected and unchanged by this Amendment.

TO SHOW THEIR AGREEMENT, the parties have executed this Amendment as of the dates below.

COMPUTER AID, INC.

James P. Cooney
By: James P. Cooney

Title: Managing Director

Date: 1-26-2012

STATE OF OHIO

Robert Blair
By: Robert Blair

Title: Director, Department of Administrative Services

Date: 1-31-12

Exhibit II

Columbus, OH		Legacy			Core			Emerging		
		Wage	Vendor	Bill	Wage	Vendor	Bill	Wage	Vendor	Bill
Architect 1	AR1	\$68 79	\$82 55	\$88 87	\$70 20	\$84 24	\$90 69	\$75 11	\$90 14	\$97 04
Functional Architect 1	FA1	\$33 68	\$40.42	\$43 52	\$34 36	\$41 24	\$44 40	\$36 77	\$44 13	\$47 51
Functional Architect 2	FA2	\$40 06	\$48 08	\$51 76	\$40 88	\$49 06	\$52 82	\$43 74	\$52 49	\$56 51
Functional Architect 3	FA3	\$47 56	\$57 08	\$61 45	\$48 53	\$58 24	\$62 70	\$51 92	\$62 31	\$67 08
Help Desk Analyst 1	HDA1	\$26 09	\$31 31	\$33 71	\$26 62	\$31 95	\$34 40	\$28 48	\$34 18	\$36 80
Help Desk Analyst 2	HDA2	\$28 54	\$34 25	\$36 88	\$29 12	\$34 95	\$37 63	\$31 16	\$37 40	\$40 27
Help Desk Analyst 3	HDA3	\$35 21	\$42 26	\$45 50	\$35 93	\$43 12	\$46 42	\$38 44	\$46 13	\$49 66
Product Specialist 1	PS1	\$35 19	\$42 23	\$45 47	\$35 91	\$43 10	\$46 40	\$38 42	\$46 11	\$49 64
Product Specialist 2	PS2	\$40 21	\$48 26	\$51 96	\$41 03	\$49 24	\$53 01	\$43 91	\$52 70	\$56 74
Product Specialist 3	PS3	\$52.15	\$62 58	\$67 37	\$53 22	\$63 87	\$68 76	\$56 94	\$68 33	\$73 56
Product Specialist 4	PS4	\$59 66	\$71 60	\$77 08	\$60 87	\$73 05	\$78 64	\$65 14	\$78 17	\$84 16
Product Specialist 5	PS5	\$74 26	\$89 12	\$95 94	\$75 77	\$90 93	\$97 89	\$81 08	\$97 30	\$104 75
Programmer 1	PR1	\$30 84	\$37 01	\$39 85	\$31 47	\$37 77	\$40 66	\$33 67	\$40 41	\$43 51
Programmer 2	PR2	\$37 49	\$44 99	\$48 44	\$38 25	\$45 90	\$49 42	\$40 93	\$49 12	\$52 88
Programmer 3	PR3	\$44 59	\$53 51	\$57 61	\$45 50	\$54 60	\$58 78	\$48 68	\$58 42	\$62 89
Programmer 4	PR4	\$52 93	\$63 52	\$68 38	\$54 01	\$64 82	\$69 78	\$57 80	\$69 36	\$74 67
Programmer 5	PR5	\$62 75	\$75 30	\$81 07	\$64 03	\$76 84	\$82 72	\$68 51	\$82 22	\$88 51
Service Desk 1	SD2	\$23 40	\$28 08	\$30 23	\$23 88	\$28 66	\$30 86	\$25 55	\$30 66	\$33 01
Service Desk 2	SD3	\$25 20	\$30 24	\$32 56	\$25 72	\$30 87	\$33 24	\$27 52	\$33 03	\$35 56
Software Process Engineer 1	SPS1	\$33 01	\$39 62	\$42 66	\$33.69	\$40 43	\$43.53	\$36 05	\$43 26	\$46 57
Software Process Engineer 2	SPS2	\$36 66	\$44 00	\$47 37	\$37 40	\$44 88	\$48 32	\$40 02	\$48 03	\$51 71
Software Process Engineer 3	SPS3	\$48 87	\$58 65	\$63 14	\$49 87	\$59 85	\$64 43	\$53 36	\$64 04	\$68 94
System Administrator 1	SA1	\$30 35	\$36 42	\$39 21	\$30 97	\$37 17	\$40 02	\$33 13	\$39 76	\$42 81
System Administrator 2	SA2	\$33 49	\$40 19	\$43 27	\$34 17	\$41 01	\$44 15	\$36 56	\$43 88	\$47 24
System Administrator 3	SA3	\$46 23	\$55 48	\$59 73	\$47 17	\$56 61	\$60 95	\$50 47	\$60 57	\$65 21
System Administrator 4	SA4	\$55 56	\$66 68	\$71 79	\$56 69	\$68.03	\$73 24	\$60.66	\$72 80	\$78 37
System Specialist 1	SS1	\$30 16	\$36 20	\$38 97	\$30 78	\$36 94	\$39 77	\$32 93	\$39 52	\$42 55
System Specialist 2	SS2	\$31 91	\$38 30	\$41 23	\$32 56	\$39 08	\$42 07	\$34 84	\$41 81	\$45 01
System Specialist 3	SS3	\$40 59	\$48 71	\$52 44	\$41 42	\$49 71	\$53 52	\$44 32	\$53 19	\$57 26
Technical Architecture Specialist 1	TAS1	\$39 24	\$47 09	\$50 70	\$40 04	\$48 05	\$51 73	\$42 85	\$51.42	\$55 36
Technical Architecture Specialist 2	TAS2	\$44 25	\$53 10	\$57 17	\$45 16	\$54 20	\$58 35	\$48 32	\$57 99	\$62 43

Technical Architecture Specialist 3	TAS3	\$46 96	\$56 36	\$60 68	\$47 92	\$57 51	\$61 91	\$51 27	\$61 53	\$66 24
Video Conference Specialist 1	VCS1	\$38 16	\$45 80	\$49 31	\$38 94	\$46 73	\$50 31	\$41 67	\$50 01	\$53 84
Video Conference Specialist 2	VCS2	\$43 15	\$51 78	\$55 75	\$44 03	\$52 84	\$56 89	\$47 11	\$56 54	\$60 87
Exception-DAS Approval Only	EXC	To Be Determined								

Non-Affiliated

Job Title		Wage	Vendor	Bill
Business Analyst 1	BA1	\$41 41	\$49 70	\$53 51
Business Analyst 1	BA2	\$51 98	\$62 38	\$67 16
Business Analyst 1	BA3	\$59 27	\$71 13	\$76 58
CADD/GIS Administrator 1	CGA1	\$39 35	\$47 22	\$50 84
CADD/GIS Administrator 2	CGA2	\$45 08	\$54 10	\$58 24
CADD/GIS Administrator 3	CGA3	\$59 69	\$71 63	\$77 11
Data Entry Operator 1	DE1	\$14 07	\$16 89	\$18 19
Data Entry Operator 2	DE2	\$15 30	\$18 36	\$19 77
Database Administrator 1	DBA1	\$40 24	\$48 29	\$51 99
Database Administrator 2	DBA2	\$44 13	\$52 96	\$57 02
Database Administrator 3	DBA3	\$58 17	\$69 81	\$75 16
Database Administrator 4	DBA4	\$62 92	\$75 51	\$81 29
Intern	INT1	\$12 48	\$14 98	\$16 13
Intern	INT2	\$14 56	\$17 48	\$18 82
Intern	INT3	\$18 72	\$22 47	\$24 19
Program Manager 1	PM1	\$46 11	\$55 34	\$59 58
Program Manager 2	PM2	\$55 48	\$66 58	\$71 68
Program Manager 3	PM3	\$65 08	\$78 10	\$84 08
Program Manager 4	PM4	\$82 78	\$99 34	\$106 94
Quality Assurance Specialist 1	QAS1	\$35 62	\$42 75	\$46 03
Quality Assurance Specialist 2	QAS2	\$39 44	\$47 33	\$50 96
Quality Assurance Specialist 3	QAS3	\$51 07	\$61 29	\$65 98
Senior Architect 1	SAR1	\$88 76	\$106 52	\$114 67
Senior Business Subject Matter Expert 1	SME1	\$77 11	\$92 54	\$99 62
Senior Database Architect 1	SDA1	\$69 66	\$83 60	\$90 00
Senior Program Manager 1	SPM1	\$86 76	\$104 12	\$112 09
Team Lead 1	TL1	\$53 90	\$64 68	\$69 63
Team Lead 2	TL2	\$57 99	\$69 59	\$74 92
Technical Writer 1	TW1	\$26 16	\$31 40	\$33 81

Technical Writer 2	TW2	\$30 39	\$36 47	\$39 26
Technical Writer 3	TW3	\$34 09	\$40 91	\$44 04
Technical Writer 4	TW4	\$37 02	\$44 43	\$47 83
Telecom Engineer 1	TE1	\$33 66	\$40 40	\$43 50
Telecom Engineer 2	TE2	\$38 47	\$46 17	\$49 71
Telecom Engineer 3	TE3	\$44 97	\$53 97	\$58 10
Tester 1	Test1	\$31 61	\$37 94	\$40 85
Tester 2	Test2	\$36 51	\$43 82	\$47 18
Tester 3	Test3	\$42 21	\$50 66	\$54 54
Voice/Data Engineer 1	VDE1	\$32 46	\$38 96	\$41 95
Voice/Data Engineer 2	VDE2	\$37 65	\$45 18	\$48 64
Voice/Data Engineer 3	VDE3	\$44 97	\$53 97	\$58 10

PARTICIPATING ADDENDUM AMENDMENT NUMBER 2

This Participating Addendum Amendment 2 (the "Amendment") is between Computer Aid, Inc. ("the Contractor"), whose address is 1390 Ridgeview Drive, Allentown, PA 18104 and the State of Ohio, Department of Administrative Services ("DAS") whose address is 4200 Surface Road, Columbus, Ohio 43228, on behalf of the state of Ohio and all eligible public entities and cooperative purchasing members with the state of Ohio, collectively referred to as the "State". This Amendment changes the terms of the contract issued under the Participating Addendum.

WHEREAS the State and the Contractor entered into the Participating Addendum ("Participating Addendum" or "Contract") on December 13, 2011;

WHEREAS, the State and the Contractor determined that a Participating Addendum Amendment is necessary to address certain revisions to the Contract;

NOW, THEREFORE, the Contract is amended as follows:

The State and the Contractor have agreed to incorporate two new Job Titles and Descriptions, along with the associated Wage Rates into the Contract as described below:

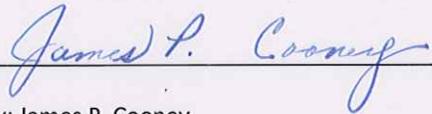
As part of this Amendment, the Job Titles and Descriptions for Mobile Specialist – Levels 1 and 2 and Technical Specialist - Levels 1, 2, 3 and 4, along with associated Wage Rates for each title and level are being incorporated into the Participating Addendum via this Amendment. Updated Job Titles and Descriptions and an updated Rate Card, containing the newly incorporated positions is attached. These updated documents shall take effect July 1, 2013, and shall replace previously dated documents of the same name.

Except as expressly modified in this Amendment, all the terms of the Contract remain unaffected and unchanged by this Amendment.

TO SHOW THEIR AGREEMENT, the parties have executed this Amendment as of the dates below.

COMPUTER AID, INC.

STATE OF OHIO





By: James P. Cooney

By: Robert Blair

Title: Managing Director

Title: Director, Department of Administrative Services

Date: June 11, 2013

Date: 6-13-13

Ohio IT Staff Augmentation Services Contract Rate Card

Affiliated Job Title	Level	Legacy			Core			Emerging		
		Wage	Vendor	Bill	Wage	Vendor	Bill	Wage	Vendor	Bill
Architect 1	AR1	\$68.79	\$82.55	\$88.87	\$70.20	\$84.24	\$90.69	\$75.11	\$90.14	\$97.04
Functional Architect 1	FA1	\$33.68	\$40.42	\$43.52	\$34.36	\$41.24	\$44.40	\$36.77	\$44.13	\$47.51
Functional Architect 2	FA2	\$40.06	\$48.08	\$51.76	\$40.88	\$49.06	\$52.82	\$43.74	\$52.49	\$56.51
Functional Architect 3	FA3	\$47.56	\$57.08	\$61.45	\$48.53	\$58.24	\$62.70	\$51.92	\$62.31	\$67.08
Help Desk Analyst 1	HDA1	\$26.09	\$31.31	\$33.71	\$26.62	\$31.95	\$34.40	\$28.48	\$34.18	\$36.80
Help Desk Analyst 2	HDA2	\$28.54	\$34.25	\$36.88	\$29.12	\$34.95	\$37.63	\$31.16	\$37.40	\$40.27
Help Desk Analyst 3	HDA3	\$35.21	\$42.26	\$45.50	\$35.93	\$43.12	\$46.42	\$38.44	\$46.13	\$49.66
Product Specialist 1	PS1	\$35.19	\$42.23	\$45.47	\$35.91	\$43.10	\$46.40	\$38.42	\$46.11	\$49.64
Product Specialist 2	PS2	\$40.21	\$48.26	\$51.96	\$41.03	\$49.24	\$53.01	\$43.91	\$52.70	\$56.74
Product Specialist 3	PS3	\$52.15	\$62.58	\$67.37	\$53.22	\$63.87	\$68.76	\$56.94	\$68.33	\$73.56
Product Specialist 4	PS4	\$59.66	\$71.60	\$77.08	\$60.87	\$73.05	\$78.64	\$65.14	\$78.17	\$84.16
Product Specialist 5	PS5	\$74.26	\$89.12	\$95.94	\$75.77	\$90.93	\$97.89	\$81.08	\$97.30	\$104.75
Programmer 1	PR1	\$30.84	\$37.01	\$39.85	\$31.47	\$37.77	\$40.66	\$33.67	\$40.41	\$43.51
Programmer 2	PR2	\$37.49	\$44.99	\$48.44	\$38.25	\$45.90	\$49.42	\$40.93	\$49.12	\$52.88
Programmer 3	PR3	\$44.59	\$53.51	\$57.61	\$45.50	\$54.60	\$58.78	\$48.68	\$58.42	\$62.89
Programmer 4	PR4	\$52.93	\$63.52	\$68.38	\$54.01	\$64.82	\$69.78	\$57.80	\$69.36	\$74.67
Programmer 5	PR5	\$62.75	\$75.30	\$81.07	\$64.03	\$76.84	\$82.72	\$68.51	\$82.22	\$88.51
Service Desk 2	SD2	\$23.40	\$28.08	\$30.23	\$23.88	\$28.66	\$30.86	\$25.55	\$30.66	\$33.01
Service Desk 3	SD3	\$25.20	\$30.24	\$32.56	\$25.72	\$30.87	\$33.24	\$27.52	\$33.03	\$35.56
Software Process Engineer 1	SPS1	\$33.01	\$39.62	\$42.66	\$33.69	\$40.43	\$43.53	\$36.05	\$43.26	\$46.57
Software Process Engineer 2	SPS2	\$36.66	\$44.00	\$47.37	\$37.40	\$44.88	\$48.32	\$40.02	\$48.03	\$51.71
Software Process Engineer 3	SPS3	\$48.87	\$58.65	\$63.14	\$49.87	\$59.85	\$64.43	\$53.36	\$64.04	\$68.94
System Administrator 1	SA1	\$30.35	\$36.42	\$39.21	\$30.97	\$37.17	\$40.02	\$33.13	\$39.76	\$42.81
System Administrator 2	SA2	\$33.49	\$40.19	\$43.27	\$34.17	\$41.01	\$44.15	\$36.56	\$43.88	\$47.24
System Administrator 3	SA3	\$46.23	\$55.48	\$59.73	\$47.17	\$56.61	\$60.95	\$50.47	\$60.57	\$65.21
System Administrator 4	SA4	\$55.56	\$66.68	\$71.79	\$56.69	\$68.03	\$73.24	\$60.66	\$72.80	\$78.37
System Specialist 1	SS1	\$30.16	\$36.20	\$38.97	\$30.78	\$36.94	\$39.77	\$32.93	\$39.52	\$42.55
System Specialist 2	SS2	\$31.91	\$38.30	\$41.23	\$32.56	\$39.08	\$42.07	\$34.84	\$41.81	\$45.01
System Specialist 3	SS3	\$40.59	\$48.71	\$52.44	\$41.42	\$49.71	\$53.52	\$44.32	\$53.19	\$57.26
Technical Architecture Specialist 1	TAS1	\$39.24	\$47.09	\$50.70	\$40.04	\$48.05	\$51.73	\$42.85	\$51.42	\$55.36
Technical Architecture Specialist 2	TAS2	\$44.25	\$53.10	\$57.17	\$45.16	\$54.20	\$58.35	\$48.32	\$57.99	\$62.43
Technical Architecture Specialist 3	TAS3	\$46.96	\$56.36	\$60.68	\$47.92	\$57.51	\$61.91	\$51.27	\$61.53	\$66.24
Technical Specialist 1	TS1	\$64.24	\$77.09	\$82.99	\$65.55	\$78.66	\$84.68	\$70.14	\$84.17	\$90.61
Technical Specialist 2	TS2	\$67.55	\$81.06	\$87.27	\$68.93	\$82.72	\$89.05	\$73.76	\$88.52	\$95.30
Technical Specialist 3	TS3	\$73.02	\$87.63	\$94.34	\$74.51	\$89.42	\$96.27	\$79.72	\$95.67	\$102.99
Technical Specialist 4	TS4	\$87.62	\$105.15	\$113.20	\$89.41	\$107.30	\$115.51	\$95.66	\$114.80	\$123.59
Video Conference Specialist 1	VCS1	\$38.16	\$45.80	\$49.31	\$38.94	\$46.73	\$50.31	\$41.67	\$50.01	\$53.84
Video Conference Specialist 2	VCS2	\$43.15	\$51.78	\$55.75	\$44.03	\$52.84	\$56.89	\$47.11	\$56.54	\$60.87
Exception-DAS Approval Only	EXC	To Be Determined								

Non-Affiliated Job Title	Level	Wage	Vendor	Bill
Business Analyst 1	BA1	\$41.41	\$49.70	\$53.51
Business Analyst 2	BA2	\$51.98	\$62.38	\$67.16
Business Analyst 3	BA3	\$59.27	\$71.13	\$76.58
CADD/GIS Administrator 1	CGA1	\$39.35	\$47.22	\$50.84
CADD/GIS Administrator 2	CGA2	\$45.08	\$54.10	\$58.24
CADD/GIS Administrator 3	CGA3	\$59.69	\$71.63	\$77.11
Data Entry Operator 1	DE1	\$14.07	\$16.89	\$18.19
Data Entry Operator 2	DE2	\$15.30	\$18.36	\$19.77
Database Administrator 1	DBA1	\$40.24	\$48.29	\$51.99
Database Administrator 2	DBA2	\$44.13	\$52.96	\$57.02
Database Administrator 3	DBA3	\$58.17	\$69.81	\$75.16
Database Administrator 4	DBA4	\$62.92	\$75.51	\$81.29
Intern 1	INT1	\$12.48	\$14.98	\$16.13
Intern 2	INT2	\$14.56	\$17.48	\$18.82

Ohio IT Staff Augmentation Services Contract Rate Card

Non-Affiliated Job Title	Level	Wage	Vendor	Bill
Intern 3	INT3	\$18.72	\$22.47	\$24.19
Mobile Specialist 1	MS1	\$117.95	\$141.54	\$152.37
Mobile Specialist 2	MS2	\$130.73	\$156.88	\$168.89
Program Manager 1	PM1	\$46.11	\$55.34	\$59.58
Program Manager 2	PM2	\$55.48	\$66.58	\$71.68
Program Manager 3	PM3	\$65.08	\$78.10	\$84.08
Program Manager 4	PM4	\$82.78	\$99.34	\$106.94
Quality Assurance Specialist 1	QAS1	\$35.62	\$42.75	\$46.03
Quality Assurance Specialist 2	QAS2	\$39.44	\$47.33	\$50.96
Quality Assurance Specialist 3	QAS3	\$51.07	\$61.29	\$65.98
Senior Architect 1	SAR1	\$88.76	\$106.52	\$114.67
Senior Business Subject Matter Expert 1	SME1	\$77.11	\$92.54	\$99.62
Senior Database Architect 1	SDA1	\$69.66	\$83.60	\$90.00
Senior Program Manager 1	SPM1	\$86.76	\$104.12	\$112.09
Team Lead 1	TL1	\$53.90	\$64.68	\$69.63
Team Lead 2	TL2	\$57.99	\$69.59	\$74.92
Technical Writer 1	TW1	\$26.16	\$31.40	\$33.81
Technical Writer 2	TW2	\$30.39	\$36.47	\$39.26
Technical Writer 3	TW3	\$34.09	\$40.91	\$44.04
Technical Writer 4	TW4	\$37.02	\$44.43	\$47.83
Telecom Engineer 1	TE1	\$33.66	\$40.40	\$43.50
Telecom Engineer 2	TE2	\$38.47	\$46.17	\$49.71
Telecom Engineer 3	TE3	\$44.97	\$53.97	\$58.10
Tester 1	Test1	\$31.61	\$37.94	\$40.85
Tester 2	Test2	\$36.51	\$43.82	\$47.18
Tester 3	Test3	\$42.21	\$50.66	\$54.54
Voice/Data Engineer 1	VDE1	\$32.46	\$38.96	\$41.95
Voice/Data Engineer 2	VDE2	\$37.65	\$45.18	\$48.64
Voice/Data Engineer 3	VDE3	\$44.97	\$53.97	\$58.10

Ohio IT Staff Augmentation Services Contract

Job Titles and Descriptions

Please note, now included:

- Mobile Specialist – Levels 1 and 2
- Technical Specialist – Levels 1, 2, 3 and 4

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Business Analyst	5
BA1	5
BA2	6
BA3	6
CADD/GIS Administrator	6
CGA1	6
CGA2	6
CGA3	6
Data Entry Operator	7
DE1	7
DE2	7
Database Administrator	8
DBA1	8
DBA2	8
DBA3	9
DBA4	9
Functional Architect	9
FA1	9
FA2	10
FA3	10
Help Desk Analyst	11
HDA1	11
HDA2	12
HDA3	12
Intern	12
INT1	12
INT2	13
INT3	13
Mobile Specialist	13
MS1	13
MS2	13
Product Specialist	14
PS1	14
PS2	14
PS3	15
PS4	15
PS5	15
Program Manager	16
PM1	16
PM2	16
PM3	17
PM4	17
Programmer	17
PR1	18
PR2	18
PR3	19
PR4	19
PR5	19
Quality Assurance Specialist	20
QAS1	20
QAS2	20
QAS3	21
Senior Architect	22
SAR1	22
Senior Business Subject Matter Expert	23
SME1	23
Senior Database Architect	23

SDA1	23
Senior Program Manager	24
SPM1	24
Service Desk	24
SD2	24
SD3	25
Software Process Engineer	25
SPS1	26
SPS2	27
SPS3	27
System Administrator	27
SA1	27
SA2	28
SA3	28
SA4	29
System Specialist	29
SS1	29
SS2	30
SS3	30
Team Lead	31
TL1	31
TL2	32
Technical Architecture Specialist	32
TAS1	32
TAS2	33
TAS3	33
Technical Specialist	34
TS1	34
TS2	34
TS3	35
TS4	35
Technical Writer	35
TW1	35
TW2	35
TW3	36
TW4	37
Telecom Engineer	37
TE1	37
TE2	38
TE3	38
Tester	38
Test1	38
Test2	38
Test3	39
Video Conference Specialist	39
VCS1	39
VCS2	40
Voice/Data Engineer	40
VDE1	40
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Architect

The Architect has the ability to design, develop, and implement application infrastructure to provide reliable and scalable applications and systems to meet the organization's objectives and requirements. The Architect is familiar with a variety of the application technologies, environments, concepts, methodologies, practices, and procedures. The Architect is also able to perform a variety of complicated tasks with minimal or no direct supervision. The Architect is experienced in defining systems and application architecture.

AR1

Years of Relevant Experience:	Up to 5 years software development and testing
Preferred Education:	4 year college degree in computer science or related field with advanced study preferred.
Role Description:	<ul style="list-style-type: none"> • Proven experience with hands-on technical development work. • Ability to coordinate with technical leads, business users and project managers. • Experience participating in development of standards and product recommendations. • Experience designing and architecting systems as a member of a design team. • Experience working through every phase of software development life cycle. • Strong verbal communication.

Business Analyst

The Business Analyst is responsible for the set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and to recommend solutions that enable the organization to achieve its goals.

BA1

Years of Relevant Experience:	Up to 4 years
Preferred Education:	4 year college degree or equivalent.
Role Description:	<ul style="list-style-type: none"> • Experience conducting Facilitated Workshops for requirements analysis. • Experience creating workflows using formal notation such as the Business Process Modeling Notation (BPMN). • Knowledge of formal requirements gathering methodologies. • Experience developing Business Requirements - project initiation document, what the needed achievements will be, and the quality measures. • Experience developing Functional requirements - describe what the system, process, or product/service must do in order to fulfill the business requirements. • Experience developing User (stakeholder) requirements - are a very important part of the deliverables, the needs of the stakeholders will have to be correctly interpreted. This deliverable can also reflect how the product will be designed, developed, and define how test cases must be formulated. • Experience developing Quality-of-service (non-functional) requirements - are requirements that do not perform a specific function for the business requirement but are needed to support the functionality. For example: performance, scalability, quality of service (QoS), security and usability. • Experience developing Report Specifications - define the purpose of a report, its justification, attributes and columns, owners and runtime parameters. • Experience developing Requirements Traceability Matrix - a cross matrix for recording the requirements through each stage of the requirements gathering process. • Strong organization and writing skills. Experienced developing graphic representations of complex business processes.

BA2

Years of Relevant Experience:	4 to 6 years
Preferred Education:	4 year college degree or equivalent.
Role Description:	All roles specified in BA1 plus additional work experience and job knowledge.

BA3

Years of Relevant Experience:	7 plus years
Preferred Education:	4 year college degree or equivalent and IIBA-certified Business Analyst.
Role Description:	All roles specified in BA1 plus additional work experience, job knowledge, and IIBA certification.

CADD/GIS Administrator

The CADD/GIS Administrator (CGA) is responsible for providing direct support of various CADD/GIS software and hardware systems. The CGA will perform hardware and software installations, relocations, testing and routine maintenance.

CGA1

Years of Relevant Experience:	Up to 5 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Assist in troubleshooting CADD/GIS system hardware problems and work with the appropriate service and warranty vendors to make the necessary repairs and fixes. • Track version upgrades and notify proper parties of available updates to CADD/GIS Systems software. • Assist with phone and online problem reporting and maintaining problem report records. • Assist with ordering consumable supplies for the CADD/GIS Systems. • Maintain current inventory of all hardware, software, upgrades and fixes for each site. • Maintain configuration charts of current inventory. • Maintain data backups and data archives and provide data retrieval from backup. • Monitor system status and data integrity.

CGA2

Years of Relevant Experience:	5 to 8 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in CGA1 plus the following:</p> <ul style="list-style-type: none"> • Able to work independently. • Demonstrate proven experience in troubleshooting with little supervision. • Able to communicate status to managers and project sponsors. • Assist in developing standards and direction for systems.

CGA3

Years of Relevant Experience:	8 plus years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in CGA2 plus the following:</p> <ul style="list-style-type: none"> • Lead efforts to troubleshoot CADD/GIS system hardware and software problems. • Lead team of CGAs developing software and hardware plans and solutions. • Expertise in teaching/conveying technical and/or functional courses/concepts.

Data Entry Operator

For data entry projects that require manual key entry and/or data capture through scanning.

DE1

Years of Relevant Experience:	0 to 2 years
Preferred Education:	Associates Degree or equivalent
Role Description:	<ul style="list-style-type: none"> • Comprehensive PC skills. • Able to follow written and spoken instructions. • Minimum of 25 wpm. • Ability to accurately enter information into a computer, accessing information from a computer, and verifying information on a screen. • Duties involve utilizing automated equipment, including electronic keyboard, display screen, and sorted memory to perform. • Ability to operate and understand basic scanning and imaging equipment, including pan, skew, and image correction techniques. • Ability to conduct basic data mining and data capture efforts. • Services may be required to be provided at supplier's site using supplier's equipment. Typically need an end product of electronic data, typically transmitted through FTP. • Key punch and verify records in specified format (ex. ASCII). • The total number of keystrokes is limited to actual characters, numbers and special characters that are keyed. Spaces, function keys, nulls, and zeros are not counted as keystrokes. • The contractor must complete all data forms within an agreed-upon amount of time from receipt or average a minimum of a set number of strokes each week data forms are in possession. • Error rate cannot exceed 1/2%. Error rate is calculated on a character (not field or record) basis. • Pickup and delivery by contractor to be made on a weekly basis. • For key entry, required that a second individual completed 100% key verification to control errors. • Knowledge of imaging and visual display operating practices, procedures, and techniques. • Knowledge of arithmetic and numbering systems. • Ability to operate equipment with speed and accuracy to ensure information is captured.

DE2

Years of Relevant Experience:	2 to 4 years
Preferred Education:	Associates Degree or equivalent
Role Description:	<ul style="list-style-type: none"> • Comprehensive PC skills. • Able to follow written and spoken instructions. • Minimum of 35 wpm. • Ability to accurately enter information into a computer, accessing information from a computer, and verifying information on a screen. • Duties involve utilizing automated equipment, including electronic keyboard, display screen, and sorted memory to perform. • Ability to operate and understand basic scanning and imaging equipment, including pan, skew, and image correction techniques. • Ability to conduct basic data mining and data capture efforts. • Services may be required to be provided at supplier's site using supplier's equipment. Typically need an end product of electronic data, typically transmitted through FTP. • Key punch and verify records in specified format (ex. ASCII).

	<ul style="list-style-type: none"> • The total number of keystrokes is limited to actual characters, numbers and special characters that are keyed. Spaces, function keys, nulls, and zeros are not counted as keystrokes. • The contractor must complete all data forms within an agreed-upon amount of time from receipt or average a minimum of a set number of strokes each week data forms are in possession. • Error rate cannot exceed 1/2%. Error rate is calculated on a character (not field or record) basis. • Pickup and delivery by contractor to be made on a weekly basis. • For key entry, required that a second individual completed 100% key verification to control errors. • Knowledge of imaging and visual display operating practices, procedures, and techniques. • Knowledge of arithmetic and numbering systems. • Ability to operate equipment with speed and accuracy to ensure information is captured.
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Database Administrator

The Database Administrator is responsible for data analysis and database management. Database Administrators typically are involved in maintenance, enhancement, designing of data dictionaries, physical and logical database models, and performance tuning. Database Administrators have a range of skills and knowledge of the utilities and production tools used for data storage management to support the Application Team.

DBA1

Years of Relevant Experience:	Up to 3 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Skilled data dictionary analysis and design and data model analysis design. • Maintains central data repository. • Experience and knowledge in supporting application system development life cycle. • Responsible for data dictionary backup and recovery. • Responsible for definition of standards of data dictionaries. • May program dictionary analysis and maintenance software. • Perform performance tuning. • Monitor database performance and space requirements. • Schedule and monitor end of day data warehousing jobs. • Assist in coordinating software releases. • Communicate accurate and useful status updates. • Manage and report time spent on all work activities. • Follow quality standards. • Ability to work in a team environment. • Complete assigned tasks. • Strong communication skills; both written and spoken.

DBA2

Years of Relevant Experience:	3 to 4 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in DBA1 plus the following:</p> <ul style="list-style-type: none"> • Business systems analysis and design experience. • Logical data modeling techniques. • Production environment Tools/Utilities.

	<ul style="list-style-type: none"> • Knowledgeable in data analysis and database management techniques. • Execution of all responsibilities with little direct supervision of Team Lead. • Administration and scripting experience in relative platform. • Supervise performance tuning. • Author shell scripts to perform back up, restore, and monitoring tasks. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.
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DBA3

Years of Relevant Experience:	5 to 6 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	All roles specified in DBA2 plus the following: <ul style="list-style-type: none"> • Highly skilled at database design, installations, conversions. • Responsible for database backup and recovery procedures, access security and database integrity, physical data storage design and data storage management.

DBA4

Years of Relevant Experience:	7 plus years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	All roles specified in DBA3 plus the following: <ul style="list-style-type: none"> • Participates in Database Management System selection and maintains database performance. • Knowledge of various Database Management System products. • Provide status of work to Project Team Lead. • Engage in ongoing process improvement.

Functional Architect

The Functional Architect is the functional expert for an application, a defined set of applications or a portfolio of related applications. The Functional Architect is also responsible for bringing an understanding of the enterprise, business system and industry to the team(s) supporting or interfacing with the application. The primary responsibility of a Functional Architect is to provide expertise in the business process supported by the application, to prepare and review designs, to recommend improvements, and to provide guidance during the testing process. The Functional Architect helps the Programmers establish a clear understanding of the business functional requirements and either creates the functional designs to meet the requirements or reviews and approves the designs written by the Programmers. The Functional Architect must understand all aspects of their specific application(s), and the underlying business process. The more experienced Functional Architect plans, analyzes, and defines high- level software strategies and solutions. Contained in the experienced role is the task of coordinating with other Functional Architects to define technical requirements and long range plans for meeting customer requirements.

FA1

Years of Relevant Experience:	2 to 4 years in particular application area
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Analyze, determine, and document functional requirements. • Provide definition on how the applications will support business requirements. • Conduct impact analyses of business requirements on the system. • Work with Technical Architecture Specialist in defining software / hardware requirements.

	<ul style="list-style-type: none"> • Gather and interpret user requirements into design specifications. • Participate in design of application. • Participate in design code and test reviews as appropriate. • Provide inputs to test planning. • Complete assigned tasks. • Communicate accurate and useful status updates. • Follow quality standards. • Ability to work in a team environment. • Strong communication skills; both written and spoken • Act as the application(s) functional expert; providing expertise in the business process supported by the application. • Provide detailed definition on how the applications will support business requirements. • Work with Technical Architecture Specialist in planning and delivering technical architecture. • Provide expertise for defining functional architecture and infrastructure for applications. • Plan and develop user interface strategy. • Direct and participate in design of application. • Interpret and understand user requirements/design specifications. • Provide detailed definition on how the applications will support business requirements. • Work with Technical Architecture Specialist in defining software / hardware requirements and in planning and delivering architecture. • Provide expertise for defining architecture and infrastructure for applications. • Review and understand team work plan • Identify and track issues, risks and action items affecting own work and work of team. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner.
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FA2

Years of Relevant Experience:	4 to 5 years in particular application area
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in FA1 plus the following:</p> <ul style="list-style-type: none"> • Provide functional expertise to planning organization as required. • Review tasks prior to migration into production as appropriate. Provide assistance in scheduling design work for Lead Functional Architect. • Coordinate the design and development of work estimates and act as the primary point of contact. Assist in managing and directing application team processes. • Organize and prepare work effectively to facilitate proactive resolution of problems. • Work with client and Lead Functional Architect to identify direction of software. • Ensure business requirements are supported by the software. • Identify and initiate continuous improvement opportunities. • Define user interface strategies. • Understand specific business needs and overall business strategy of the business customer.

FA3

Years of Relevant Experience:	Five plus years in particular application area
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Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in FA2 plus the following:</p> <ul style="list-style-type: none"> • Guide processes for Functional Architects and direct work planning and design activities. • Provide standard, well-structured work planning which defines scope, resources, commitments, quality, risk, tasks, and acceptance criteria. • Ensure that overall application designs remain within project scope. • Work with customer business units to understand their business processes. • Work with customer business units and client to identify direction of software. Ensure business requirements are supported by the software. • Ensure goals for Functional Architects are being met and manage team commitments. • Analyze, define, and document how the applications will support functional and business requirements. Coordinate these efforts with Functional Architects. • Understand supporting/interfaces system applications. • Approve the determined need for new software/hardware. • Understand prioritization work based on business needs request/releases for work affecting an application. • Manage the accomplishment of delivery metrics, Service Level Agreements and other contractual obligations within areas of responsibility. • Sponsor coordination of the required skills, training, methodologies, and processes to ensure the success of team/project/program goals. • Coordinate and conduct project review meetings with Group Lead Functional Architects and Team Leads. • Communicate and resolve application interface issues with other Lead Functional Architects as needed. • Monitor and measure maintenance and development process effectiveness. • Communicate clearly the program/application goals, operational and organizational philosophies, and policies and procedures to the Functional Architects. • Communicate to team members the relationships between their work and assignments and the organizational and/ or program objectives.

Help Desk Analyst

The Help Desk Analyst provides Helpdesk Level 2 Support by performing the skills listed below.

HDA1

Years of Relevant Experience:	1 to 3 years field experience
Preferred Education:	2 year associates degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Provides technical assistance, support, and advice to end users for hardware, software, and systems. • Provides hands-on technical assistance to business and technical users. • Investigates and resolves computer software and hardware problems of users. • Serves as a contact for level 1 support. • Serves as a contact for users having problems using computer software, hardware, and operating systems, and escalates as necessary. • Determines whether problem is caused by hardware, software, or system. • Answers questions, applying knowledge of computer software, hardware, systems, and procedures. • Talks with technical and non-technical co-workers to research problem and find solution. • Asks user with problem to use telephone and participate in diagnostic procedures, using diagnostic software or by listening to and following instructions. • Experienced with a variety of call-tracking software and systems.

	<ul style="list-style-type: none"> • Reads trade magazines and engages in independent study to maintain current industry knowledge. • Follow quality standards, and displays strong customer service skills. • Ability to work in a team environment. • Complete assigned tasks. • Strong communication skills; both written and spoken.
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HDA2

Years of Relevant Experience:	3 to 5 years field experience
Preferred Education:	4 year college degree in field of specialty or equivalent education and experience combined
Role Description:	<p>All roles specified in HDA 1 plus the following:</p> <ul style="list-style-type: none"> • Calls software and hardware vendors to request service regarding defective products. • Acts as a subject matter expert for one or more custom or COTS applications. • Talks to programmers to explain software errors or to recommend changes to programs. • May work as in-house consultant and research alternate approaches to existing software and hardware when standardized approaches cannot be applied. • Tests software and hardware to evaluate ease of use and whether product will aid user in performing work. • Write software and hardware evaluation and recommendations for management review. • Write or revise user-training manuals and procedures. • Develops training materials, such as exercises and visual displays. • Train users on software and hardware on-site or in classroom, or recommend outside contractors to provide training.

HDA3

Years of Relevant Experience:	5 plus years field experience
Preferred Education:	4 year college degree in field of specialty
Role Description:	<p>All roles specified in HDA 1 and 2 plus the following:</p> <ul style="list-style-type: none"> • Manage expectations at all levels: customers/end users, executive sponsors. • Ensure quality standards are followed. • Monitor the team's open backlog of support issues and re-assign issues as necessary to ensure they are closed per agreed upon service levels. • Act as the escalation point for high priority support issues. • Ability to make recommendations on policies on system use and services.

Intern

The Intern will assist team members with daily responsibilities as directed by his or her supervisor.

INT1

Preferred Education:	Enrolled in secondary and post-secondary educational institution.
Role Description:	<ul style="list-style-type: none"> • Ability to perform tasks as assigned by the direct supervisor. • Ability to keep team members and supervisor apprised of work status and attendance. • Basic computer knowledge. • Additional requirements may need to be met, depending on opportunity.

INT2

Preferred Education:	Enrolled in secondary and post-secondary educational institution.
Role Description:	<ul style="list-style-type: none"> • Ability to develop organizational and communication skills. • Ability to keep team members and supervisor apprised of work status and attendance. • Basic computer knowledge including experience with word processing software, and spreadsheet maintenance and development. • Must show willingness and ability to develop IT-related technical skills. • Additional requirements may need to be met, depending on opportunity.

INT3

Preferred Education:	Enrolled in secondary and post-secondary educational institution.
Role Description:	<ul style="list-style-type: none"> • Ability to develop organizational and communication skills. • Ability to keep team members and supervisor apprised of work status and attendance. • Basic computer knowledge including experience with word processing software, and spreadsheet maintenance and development. • Must show willingness and ability to develop IT-related technical skills. • Must show willingness and ability to develop an understanding of IT-related technologies and concepts. • Additional requirements may need to be met, depending on opportunity.

Mobile Specialist

The Mobile Specialist serves in many capacities, including Developer, Engineer, Technical Architect, and Analyst for Mobile Development, Security, and/or Infrastructure Projects. The Mobile Specialist participates in project planning and in the creation and review of technical deliverables. The Mobile Specialist often guides and mentors the technical team in all phases of the SDLC including requirement validation, detail design, development, and implementation.

MS1

Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Serves as the Designer, Developer and/or Engineer on Mobile Projects. • Meets with end users and technical staff of all types to gather business and system requirements • May work with Mobile Specialist 2 to propose comprehensive solutions based on business and technical requirements • Develops and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects. • Develops standards, repeatable processes, and reusable components • Assists in project planning, including developing of timelines, composition of technical teams, and leveling of resources. • Mentors technical team leads and team members on Department processes and standards to promote consistency and improve productivity. • Assists in the development and review of technical deliverables on projects.

MS2

Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Serves as the Lead Architect/Designer/Developer /Engineer on Mobile Projects. • Meets with end users and technical staff of all types to gather business and system requirements. • Proposes comprehensive solutions based on business and technical requirements

	<ul style="list-style-type: none"> • Architects, designs, develops, and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects. • Develops standards, repeatable processes, and reusable components • Leads project planning, including developing of timelines, composition of technical teams, and leveling of resources. • Mentors and manages technical team leads and team members on Department processes and standards to promote consistency and improve productivity. • Leads the development and review of technical deliverables on projects.
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Product Specialist

The Product Specialist is the expert for a technical development or execution environment product or set of products. The primary responsibility of a Product Specialist is to ensure the availability and facilitate the productive use of a product for Application Teams or end users. The Product Specialist may own part of a product, all of one, or several products depending on the nature of the product(s) and their use. The Product Specialist requires significant to expert experience and skills in the product supported. The Product Specialist will usually also have significant experience in the operating environment(s) (e.g., HP/UX, NT, MVS, etc.) on which the product is implemented. If the product is one that was internally developed, the supporting PS should also have most of the skills of a Programmer. The Product Specialist is responsible for collaborating with Technical Architecture Specialist, System Specialists, Programmers and vendors to ensure and enhance the use of the product and effect migration to new versions of a product.

PS1

Years of Relevant Experience:	1 to 2 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Make sound recommendations on functional and technical improvements to the product. • Analyze the functional and technical impact of product planning decisions. • Develop appropriate functional and usability standards for products. • Track and document expected volume and type of use of the product. • Participate in product design reviews to verify that design meets quality standards and functional/technical requirements. • Perform impact analyses on production fixes and enhancements to establish priorities. • Provide basic product support and provide accurate and complete answers to detailed product questions in a timely manner. • Provide effective on-site product support as needed. • Accurately sets severity of identified defects. • Provide input to training and / or documentation materials regarding latest technical and functional design changes. • Document all work for future reference. • Review the system test approach and conditions used as the basis for detailed test scenarios. • Follow quality standards. • Analytical and customer service skills. • Communicate accurate and useful status updates. • Ability to work in a team environment. • Complete assigned tasks. • Strong communication skills; both written and spoken

PS2

Years of Relevant Experience:	3 to 4 years
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Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in PS1 plus the following:</p> <ul style="list-style-type: none"> • Actively contribute as an expert or actual designer. • Coordinate product design reviews to verify that design meets quality standards and functional/technical requirements. • Provide accurate estimates for design and programming efforts for system changes and enhancements. • Coordinate enhancements to business and logical data models with data base administration to make the appropriate changes to the physical data model. • Confirm that technical architecture will support all changes required by product enhancements. • Effectively lead product tests and trials. • Identify appropriate business examples to illustrate key concepts / features. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary. • Apply specific expertise to ensure that products meet defined customer objectives. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.

PS3

Years of Relevant Experience:	5 to 6 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in PS2 plus the following:</p> <ul style="list-style-type: none"> • Demonstrate expertise in teaching / conveying technical and / or functional courses / concepts. • Develop appropriate work programs / budgets and use to effectively schedule tasks / assignments. • Identify improvements to project standards to achieve high quality services / products.

PS4

Years of Relevant Experience:	7 to 8 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in PS3 plus the following:</p> <ul style="list-style-type: none"> • Deliver support and design for industry specific applications that require integration with statewide systems or applications. • Interact with executive level business users or technical experts. • May function as a niche SME.

PS5

Years of Relevant Experience:	9 plus years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in PS4 plus the following:</p> <ul style="list-style-type: none"> • Responsible for functioning as the Technical SME on an enterprise-wide system. • Responsible for implementations of products/services that involve significant

	Commonwealth and federal oversight. <ul style="list-style-type: none"> • Provide direct technical expertise to Executive applications involving national security.
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Program Manager

The Program Manager directs, controls, administers, and regulates an enhancement or development program. The Program Manager is the individual ultimately responsible to the agency. The Program Manager's primary responsibility is to drive the entire effort from start to finish. The Program Manager must ensure that the program is completed on schedule and that the final product meets the business, technical, and established quality requirements. The difference between a PM1, PM2, PM3, and PM4 will depend on the size of the project, and the breadth and scope of the project.

PM1

Years of Relevant Experience:	2 to 4 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Responsible for the development of estimates for the enhancement or development effort in planning, analysis, design, construction, testing, and implementation. • Accountable for delivery of all work tasks identified in the program plan. • Responsible for the capture and reporting of required program management metrics. • Adjust and revise estimates when necessary. • Ensure all changes to scope follow processes and are documented. • Ensure new estimates are approved by the client and agreed upon. • Adjust and revise estimates when necessary. • Manage, and track the program progress against the program plan. • Monitor project milestones and phases to ensure the project is on schedule. Take corrective actions if a project begins to slip its schedule. • Prepares status reports on a periodic basis for program team, team leads, group leads, and program manager and appropriate stakeholders. • Plan, organize, prioritize, and manage multiple work efforts across application teams. • Develop the detailed program plan for the enhancement or development effort • Accountable for the final program management evaluation review with stakeholders for approval upon program completion. • Responsible to tailor and baseline all program templates. • Accountable to schedule or monitor status reviews, peer reviews, program management inspections, and software quality assurance work product and process reviews with the appropriate designated resources. • Notify team leads of project timelines, milestones, phases, work requests target dates, and approved executable work package. • Communicate and work with users and client as necessary. • Coordinate and present proposals to agencies as necessary. • Analyze and distribute reports on program metrics associated with work items related to improvement measures. • Ensure processes and activities are followed.

PM2

Years of Relevant Experience:	5 to 6 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in PM1 plus the following: <ul style="list-style-type: none"> • Accountable for the approval and sign-off of the program plan with customer representatives, such as portfolio managers, and all affected program stakeholders. • Accountable for management of scope for the program and gaining agreement and approval of scope changes with customer representatives and affected stakeholders. • Build and maintain relationships with key stakeholders and customer representatives.

	<ul style="list-style-type: none"> • Direct work planning and scheduling design work. • Manage, and track the program progress against the program plan. • Serve as the primary point of contact for all program-related issues and resolution of issues. • Coordinate and present proposals to agencies as necessary. • Identify and manage program risk and develops risk mitigation strategies, track to closure. • Ensure team leads adjust and revise estimates when necessary. • Anticipate issues and proactively address them. Resolve conflicts with sensitivity and tact. • Coordinate the establishment of program standards and program specific procedures with team leads. • Responsible for project compliance with standards and procedures. • Responsible for the capture and reporting of required program management metrics. • Responsible to tailor and baseline all program templates. • Develop and facilitate achievement of program service commitments and performance metrics. • Ensure that tasks provide value and support the strategic direction of the program and meet service commitments; conduct reviews with agencies. • Accountable for the final program management evaluation review with stakeholders for approval upon program completion. • Communicate effectively with customers and software / hardware suppliers supporting the State as appropriate. • Identify and track issues. • Balance workload with program members' capacity. • Communicate to team members how their work assignments relate to and help achieve program objectives. • Plan program specific training and orientation needs.
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PM3

Years of Relevant Experience:	7 to 8 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in PM2 plus the following: <ul style="list-style-type: none"> • Accountable for activities with excess delivery cycles of 8 to 12 months.

PM4

Years of Relevant Experience:	8 to 9 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in PM3 plus the following: <ul style="list-style-type: none"> • Manages, coordinates, and establishes priorities for complete life-cycle of projects including the planning, design, programming, testing, and implementation of business solutions designed to meet requirements of various departments in the company, such as distribution, finance, and manufacturing. • Designs project plans, which identify needs and define major tasks and milestones, based on scope, resources, budget, and personnel.

Programmer

The Programmer is responsible for analysis, design, coding, component and assembly testing of all application code owned by the Application Team. Programmers typically are involved in maintenance (including production support), enhancement and development work. Programmers have a range of skills and knowledge of the technologies used and applications supported by the Application Team. The

Programmer works with the Functional Architect and Technical Architecture Specialist on an as needed basis to ensure that design and code meets customer requirements.

PR1

Years of Relevant Experience:	Less than 2 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Code enhancement and development programs and/or required fixes to production problems using the functional and technical programming standards. • Test enhancement and development programs. • Participate in structured code reviews / walkthroughs. • Execute all required process steps. • Create and provide content for operational documentation to Technical Writers. • Utilize configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application. • Research problems before approaching the Team Lead or Functional Architect for assistance. • Limited functional knowledge. • Follow quality standards. • Support installation of application releases into production as directed. • Communicate accurate and useful status updates. • Ability to work in a team environment. • Complete assigned tasks. • Strong communication skills; both written and spoken.

PR2

Years of Relevant Experience:	2 to 5 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in PR1 plus the following:</p> <ul style="list-style-type: none"> • Analyze and design enhancements, development programs, and/or required fixes to production problems. • Design applications to functional and technical programming standards. • Work with Functional Architects to gather and interpret user requirements into design specifications. • Develop system specifications and interfaces. • Determine time estimates and schedule for work. • Moderate functional and process knowledge. • Assist in managing and directing Application Team processes. • Coordinate work with other software developers on Application Teams. • Assist Team Lead or Test Team Lead in monitoring estimated-time-to-complete (ETC) and actuals for assigned tasks. • Develop application designs in support of the systems specifications and interfaces, perhaps in conjunction with application or technical architects. • Operating System expertise sufficient to perform performance and tuning diagnostics. • Work with users to ensure that solutions meet business requirements. • Execution of all responsibilities with little direct supervision of Team Lead. • Generally aware of new developments in industry and process and has ability to apply them to work as appropriate. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.

PR3

Years of Relevant Experience:	6 to 7 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in PR2 plus the following:</p> <ul style="list-style-type: none"> • Plan all required process steps. • Review and understand the Application Team's workplan. • Provide status of work to Team Lead. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary. • Engage in ongoing process improvement. • Detailed functional and process knowledge. • Utilize deep modeling, design and coding skills. • Provide expertise in one or more database environments.

PR4

Years of Relevant Experience:	8 to 9 years
Preferred Education:	4 year college degree or equivalent technical study with advanced study preferred.
Role Description:	<p>All roles specified in PR3 plus the following:</p> <ul style="list-style-type: none"> • Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. • Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. • This is a professional level non-supervisory position which may require coordination of programming activities being conducted by the team • Confers with other business and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing. • Works with necessary personnel to determine if modifications are necessary with interested personnel to determine necessity for modifications or enhancements. • Leverages excellent written and verbal communication skills to develop new business process and programming solutions as directed by business and technical stakeholders. • May coordinate activities of computer programmers.

PR5

Years of Relevant Experience:	10 plus years
Preferred Education:	4 year college degree or equivalent technical study with advanced study preferred.
Role Description:	<p>All roles specified in PR4 plus the following:</p> <ul style="list-style-type: none"> • Proven track record of hands-on technical design and code work within large complex systems. • Proven hands-on technical work with a variety of technologies. • Demonstrated technical expertise integrating a variety of diverse technical environments and cross-platform technologies. • Proven experience mentoring and performing supervisory functions for technical teams. • Ability to make best practice recommendations based on past work. • Proven ability to present complex technical constructs to business and non-technical users.

	<ul style="list-style-type: none"> • Proven ability to collaborate with business users, project managers and technical architects.
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Quality Assurance Specialist

The Quality Assurance Specialist (QAS) is responsible for the design, pilot, and implementation of the software quality assurance review processes. The QAS Specialist will work with Application Teams during pre and post assessment periods. The QAS Specialist reports to the Quality Assurance Team Lead. For each phase end review the Quality Assurance Specialist is responsible to plan, schedule, execute, and document findings of the review. Quality Assurance Specialists must have a detailed understanding of processes which support the software development lifecycle. The Quality Assurance Lead is responsible for communicating with the State regarding the progress of the quality approach and a summary of the metrics, as well as managing the Quality Assurance Specialists.

QAS1

Years of Relevant Experience:	3 years software development and testing
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Assist in software activities in defined span of control for the organization. • Track and monitor process and work product improvement opportunities. • Collect, review, and evaluate the project's required work products against standard work product templates. • Verify that established measurement procedures are used and all required metrics are collected. • Respond to requests for information. • Coordinate work with others on team and across teams • Draft report of observations, minor and major non-compliance. • Develop quality standards. • Monitor progress of action item resolution activity and ensure appropriate internal stakeholders are aware of pending deadlines. • Conduct training courses with project teams on software quality review process. • Research problems before approaching Quality Assurance Lead for assistance. • Communicate accurate and useful status updates. • Manage and report time spent on all work activities. • Follow quality standards. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken

QAS2

Years of Relevant Experience:	5 years software development, testing, and project management
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in QAS1 plus the following:</p> <ul style="list-style-type: none"> • Conduct software quality phase end review activities (work product and process) for each software project and produce the required quality assurance reports, as specified in the project's quality assurance plan. • Ensure the software development process followed by the project teams is compliant with approved tailored processes. • Review and check project's software development activities and the associated internal tasks required by the agencies as employed by the project and specified in the project plan. • Prepare preliminary software quality audit package for review before conduct of audit. • Define quality standards.

	<ul style="list-style-type: none"> • Monitor progress of action item resolution activity and ensure appropriate stakeholders are aware of pending deadlines. • Assist in managing and improving quality assurance team processes. • Review and understand project team work plan. • Determine time estimates and schedule for software quality review work. Conduct reviews according to schedule. • Organize and prepare work effectively to facilitate proactive resolution of problems, rather than reactive. • Identify and track issues, risks and action items affecting own work and work of team. • Report on progress of action item resolution and possible risk areas. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner.
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QAS3

Years of Relevant Experience:	7 years software development, testing and project management
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in QAS2 plus the following:</p> <ul style="list-style-type: none"> • Review project's required work products to ensure compliance with approved tailored procedures and standards. • Review and check project's software development activities and the associated internal tasks required as employed by the project and specified in the project plan. • Compare actual project procedures to the specified standards, procedures, and, if required, specific 3rd party contractual requirements. • Perform detailed reviews of interim and final tasks as appropriate. • Ensure process improvement opportunities are reviewed by appropriate contact to identify training needs of the organization. • Perform or manage the required software quality phase end reviews of work product and process for each software project and produce the required software quality reports, as specified in the project's software quality plan. • Develop, and manage short and long-term plans and schedules for organization wide software quality needs. • Balance workload with team's capacity by managing the team's activities according to schedule and budgets. • Coordinate and procure the required skills and techniques required. • Obtain feedback from project teams regarding the overall effectiveness of processes and procedures – Forward to appropriate stakeholders and process owners. • Provide feedback to project teams regarding process/procedure improvement opportunities and other potential areas for improvement discovered during software quality activities. • Report all software quality-revealed non-compliance. • Provide regular reports on the results of compliance reviews to the project team, project team leaders and management. Report on progress on action item resolution and possible risk areas. • Anticipate and resolve issues dealing with software quality. • Develop options and recommendations to assist teams in resolving issues. • Ensure action items are addressed and closed based on agreed dates and activities. • Ensure that defined processes are followed. • Communicate related improvement measures to the project team. • Obtain feedback from project teams regarding the overall effectiveness of software quality processes followed. Review with team and develop continuous improvement action plans. Report status to executive team. • Communicate and work with customers and other personnel as necessary.

	<ul style="list-style-type: none"> • Communicate clearly the team goals, organizational philosophies, and policies and procedures to the team. • Communicate to team members the relationship between their work assignments and the team and project objectives. • Lead efforts in developing and facilitating implementation of team goals and metrics.
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Senior Architect

The Senior Architect is responsible for designing, developing, and implementing application infrastructure to provide highly-complex, reliable, and scalable applications and systems to meet the organization's objectives and requirements. Senior Architects are familiar with a variety of the application technologies, environments, concepts, methodologies, practices, and procedures and rely on experience and judgment to plan and accomplish goals. Senior Architects are able to perform a variety of complicated tasks with minimal or no direct supervision. They have proven experience defining systems and application architecture and provide vision, problem anticipation, and problem solving ability to organization. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

SAR1

Years of Relevant Experience:	5 years software development, testing, and project management
Preferred Education:	4 year college degree in computer science or related field with advanced study preferred.
Role Description:	<ul style="list-style-type: none"> • Manages, organizes, and administers systems analysis and preparation of applications and operating systems programming to process data and solve problems by use of computers. • Establishes priorities and schedules, and oversees and reviews work of systems analysis personnel and programming personnel. • Reviews feasibility studies and time and cost estimates of new or revised systems. • Assists in the development of standards, procedures, and operating systems applications. • A combination of directly-related technical training and hands-on experience. • Works with stakeholders and management to ensure projects are completed on time and according to organization standards. • Consults with personnel in other information systems groups to coordinate activities. • Consults with management to clarify systems and programs intent, identify problems, suggest changes, and determine extent of application systems changes required. • Participates in developing a project plan and schedule with key milestones, contingency plans, workflow charts or diagrams, considering factors, such as resource requirements, computer storage capacity and speed, extent of peripheral equipment, and intended use of output data. • Manages conversion of workflow charts to language that can be processed by computer and entering of program codes and test data into computer. • Analyzes test runs on computer and supervises correction of coded program and input data. • Manages the revision of existing programs to increase operating efficiency or adapt to new requirements. • Compiles documentation of program development and subsequent revisions. • Trains subordinates in systems analysis, feasibility studies, programming, and program coding. • Prescribes standards for terms and symbols used to simplify interpretation of programs. • Collaborates with computer manufacturers and other users to develop new programming methods. • Prepares records and reports.

Senior Business Subject Matter Expert

The Senior Business Subject Matter Expert (SME) brings proven experience from related businesses or organizations as well as system integration and technology experience. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise and make recommendations on business and technical solutions based on hands-on experience solving similar business problems. They are able to utilize knowledge of theory, principles, or technology of specific discipline or field of specialization.

SME1

Years of Relevant Experience:	More than 10 years
Preferred Education	4 year college degree in computer science or a related field with advanced study preferred; certifications specific to the field of project management.
Role Description	<ul style="list-style-type: none"> • Consults with executive-level stakeholders to define business need or problem; conducts research, performs studies and surveys to obtain data; and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. • Requires knowledge in computer programming and other related technical fields as well as extensive experience in a particular business or industry subject matter. • Conducts study or survey on need or problem to obtain data required for solution. • Analyzes data to determine solution, such as installation of alternate methods and procedures, changes in processing methods and practices, modification of machines or equipment, or redesign of products or services. • Advises client or department heads on alternate methods of solving need or problem, or recommends specific solution. • Requires experience providing consulting services to governmental entities. • May be designated according to field of business and technical specialization.

Senior Database Architect

The Senior Database Architect is responsible for designing, developing, and implementing infrastructure to provide highly-complex, reliable, and scalable databases to meet the organization's objectives and requirements. Database Architects are familiar with a variety of the database technologies, concepts, methodologies, practices, and procedures and rely on experience and judgment to plan and accomplish goals. Database Architects are able to perform a variety of complicated tasks with minimal or no direct supervision. They assist in defining system and application architecture and provide vision, problem anticipation, and problem solving ability to organization. They consult with the client to define needs or issues, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

SDA1

Years of Relevant Experience:	8 plus years of database experience
Preferred Education:	4 year college degree in computer science or related field with advanced study preferred.
Role Description:	<ul style="list-style-type: none"> • Possesses extensive knowledge of one or more database systems, and is capable of hands-on work in all phases of database design and management. • Designs, develops, and implements infrastructure to provide highly-complex, reliable, and scalable database to meet the organization's objectives and requirements. • Analyzes organization's business requirements for database design, and implements changes to database as required. • Performs systems analysis on database, and resolves performance, capacity, and replication issues as necessary.

	<ul style="list-style-type: none"> • Provides detailed design and specification documentation, including flowcharts, for all aspects of the database. • Works with database analysts to develop methodologies, report views, queries, and table replications • Ensures that all the data is in the proper format. • Participates in the identification, prioritization, and development of technical initiatives and strategies. • Develops and maintains database standards and naming conventions. • Keeps up-to-date on emerging database architectures, technologies, and methodologies, and attends training classes as necessary.
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Senior Program Manager

The Senior Program Manager is responsible for managing, coordinating, and establishing priorities for the complete life-cycle of projects including the planning, design, programming, testing, and implementation of business solutions designed to meet requirements of various departments in the company, such as distribution, finance, and manufacturing. Senior Program Managers are familiar with a variety of the project management methodologies and rely on experience and judgment to plan and accomplish goals. They have proven experience leading technology projects to successful implementation. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

SPM1

Years of Relevant Experience:	10 plus years
Preferred Education:	4 year college degree in computer science or a related field; certifications specific to the field of project management.
Role Description:	<p>All roles specified in PM4 plus the following:</p> <ul style="list-style-type: none"> • Requires proven success communicating verbally and in writing to multiple project stakeholders internal and external to the organization. • Determines project needs and acquires resources required for the success of the project. • Coordinates the development of new systems and/or applications projects, the modification of existing systems or applications, or changes in current methods or techniques. • Coordinates project performance with the other work of the affected department or departments. • Excludes those who do not have full time responsibilities for project management.

Service Desk

The Service Desk Analyzes and troubleshoots computer support problems and applies his or her understanding of computer software and hardware products and services to resolve user problems.

SD2

Years of Relevant Experience:	0 to 3 years A+ certification preferred
Preferred Education:	Usually prefer two years of postsecondary training in field of specialty; may accept equivalent education and experience combined.
Role Description:	<ul style="list-style-type: none"> • Receive telephone calls and e-mails from users having problems using computer software and hardware or inquiring how to use specific software, programming languages, electronic mail, or operating systems. • Ascertain the nature of problem, determine whether problem is caused by hardware such as modem, printer, cables, or telephone, and log in tracking system. • Escalate problems in accordance with defined procedures.

	<ul style="list-style-type: none"> • Assist users through problem solving steps • Use technical databases to research problems, and talk with co-workers to research problem and find solution. • Test software and hardware for troubleshooting and problem resolution. ▪ Provide service and preventive maintenance activities on element exchange/baseline products (products with element exchange service and traditional maintenance philosophies; i.e., terminals, printers, personal computers, etc.). ▪ Able to diagnose and detect correct equipment errors and repair products by replacing worn or broken parts, and making technical adjustments. ▪ Makes appropriate use of reference publications and diagnostic aids in resolving technical problems. ▪ Assist in coordination of changes, upgrades and new products, ensuring systems will operate correctly in current and future environment. ▪ Provide accurate and complete answers to general use and administrative environment questions in a timely manner. ▪ Support shared software, such as operating systems, configuration management tools, application and development tools, testing tools, compilers, and code editors. ▪ Communicate accurate and useful status updates. ▪ Manage and report time spent on all work activities. ▪ Follow quality standards. ▪ Ability to work in a team environment ▪ Complete assigned tasks. ▪ Strong communication skills; both written and spoken
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SD3

Years of Relevant Experience:	More than 3 years A+ certification preferred; additional certification may be required based on specific technologies.
Preferred Education:	4 year college degree or equivalent technical study; may accept equivalent education and experience combined.
Role Description:	<p>All roles specified in SD2 plus the following:</p> <ul style="list-style-type: none"> • Test software and hardware to evaluate ease of use and whether product will aid user in performing work. • Write or revise training manuals and procedures. • Develop training materials, such as exercises and visual displays. • Train users on software and hardware on-site or in classroom, or recommend outside contractors to provide training. • Write software and hardware evaluation and recommendation for management review. • Implement shared software, such as operating systems, configuration management tools, application and development tools, testing tools, compilers, and code editors.

Software Process Engineer

The Software Process Engineer is responsible for implementing and supporting a set of standard software engineering processes used by agencies. The Software Process Engineer participates in the entire life-cycle of software process improvement initiatives. This includes the planning, analysis, design, construction, testing, and implementation of new processes. The Software Process Engineer is responsible for identifying opportunities for improving existing processes and implementing appropriate solutions.

The Software Process Engineer is also responsible for supporting projects and individual Teams in the use and understanding of processes on an ongoing basis. The Software Process Engineer is responsible for collaborating with the Team Lead(s) and Program Managers to provide guidance to team members and facilitate continual software process improvement. The Software Process engineer must understand all aspects of the specific processes used by the Teams. The Software Process Engineer must also be familiar with industry process models and standards.

SPS1

Years of Relevant Experience:	3 years in Computer Software development
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Facilitate the implementation of standard software engineering processes. • Identify software development process improvement opportunities either independently or through working with projects and teams. • Assist in planning software process improvement initiatives. • Direct and participate in teams working on the analysis, design, construction, testing, and implementation of new processes. • Work with projects and teams to define the need for tailored processes and tools and assist in implementation, as appropriate. • Provide ongoing support to projects and teams in the use and understanding of the software processes. • Provide on-site support for teams on process related issues. • Provide assistance to the Software Process Engineer Lead in planning and scheduling activities. • Provide support in tracking and monitoring the success of process improvement initiatives. • Monitor and solicit feedback on the usability and functionality of implemented processes. • Communicate accurate and useful status updates. • Manage and report time spent on all work activities. • Follow quality standards. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken

SPS2

Years of Relevant Experience:	5 years in software development and testing
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SPS1 plus the following:</p> <ul style="list-style-type: none"> • Facilitate the implementation of standard software engineering processes across agencies. • Determine time estimates and schedule for own work and resolve issues on a timely basis. • Identify and track issues, risks and action items. • Determine process to support various initiatives. • Lead the development of content for process training and deliver process training as appropriate. • Coordinate with various teams about process improvement opportunities. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.

SPS3

Years of Relevant Experience:	7 years total experience; 5 years in software development and testing.
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in SPS2 plus the following:</p> <ul style="list-style-type: none"> • Organize and prepare work effectively to facilitate proactive resolution of problems. • Anticipate and resolve issues on a timely basis. • Communicate accurate and useful status as appropriate. • Demonstrate and promote a focus on client service. • Communicate effectively with suppliers as appropriate. • Work with internal customers and others to identify direction of software process. • Identify knowledge in a form that is reusable.

System Administrator

The System Administrator is responsible for server back up and security, along with performance tuning and capacity planning. System Administrators should possess an understanding of network and distributed computing concepts. This is accomplished by working with the Systems Management Team Lead to understand the scope of services to be provided and assessing the impact they will have on the technical infrastructure.

SA1

Years of Relevant Experience:	Less than 2 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Familiarity with most basic system administrator tools and process; for example, can boot/shutdown a machine, add and remove user accounts, use back up programs, and maintain system database files. • Maintain the project servers. • Maintain the file and print capacity • Ensures that backups are performed as appropriate. • Act as a front-line interface to users. • Accepts trouble reports and dispatch them to appropriate system administrators.

	<ul style="list-style-type: none"> • Ability to write scripts in a particular administrative language. • Programming experience with any applicable language. • Communicate accurate and useful status updates. • Manage and report time spent on all work activities. • Follow quality standards. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken
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SA2

Years of Relevant Experience:	2 to 3 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SA1 plus the following:</p> <ul style="list-style-type: none"> • Responsible for operating and other system software. • Responsible for upgrading the operating and system software and keeping patches current. • Familiarity with fundamental networking/distributed computing environment concepts. • Ability to do minimal debugging and modification of programs. • Execute the disaster recovery/back up procedures and archiving procedures. • Manage security for servers. • Responsible for performance tuning, capacity planning, database administration, and fault management. • Provide tier two support of the technical infrastructure. • Coordinating efforts with vendors if tier three support is required. • Responsible for ensuring high priority issues are resolved in a timely manner. • Responsible for keeping the environment up and running. • In many cases is responsible for identifying and reporting hardware problems. • Capable of writing purchase justifications. • Understands basic routing concepts. • Identify and track issues, risks, and action items. • Resolve and/or assist in resolving issues. • Review, prioritize, and research service requests. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner.

SA3

Years of Relevant Experience:	4 to 5 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SA2 plus the following:</p> <ul style="list-style-type: none"> • Solid understanding of networking/distributed computing environment concepts. • Understands principles of routing client/server programming. • Manage expectations at all levels: customers/end users, executive sponsors. • Ensure quality standards are followed. • Understand the business application of technical support and design in an application development environment. • Work with the various Infrastructure teams and operations provider to identify the strategic direction of systems management activities. • Understands the design of consistent network-wide file system layouts • Maintain strong relationships with employees and various tier two and three support groups.

	<ul style="list-style-type: none"> • Develop plans for disaster recovery/ back up and archiving. • Manage the daily operations of the systems management team to ensure service levels are being met. • Manage the systems management team's support issue and backlog. • Monitor the team's open backlog of support issues and re-assign issues as necessary to ensure they are closed per agreed upon service levels. • Act as the first level of escalation for high priority support issues.
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SA4

Years of Relevant Experience:	6 plus years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SA3 plus the following:</p> <ul style="list-style-type: none"> • Function as the liaison to the various support groups with whom the systems management team interfaces. • Develop the technical infrastructure maintenance strategy. • Manage the system management resources. • Act as a system's management expert. • Analyze, determine, and document requirements in terms of system management needs and implement them. • Identify, approve, and prioritize team projects. • Manages a large site or network. • Recommends policies on system use and services.

System Specialist

The System Specialist is knowledgeable on the usage and support of a collection of development platforms or technical architectures, and products that run on those platforms. The primary responsibility of a System Specialist is to ensure the availability and facilitate the productive use of a development platform or a test environment for Application Teams or end users. The System Specialist may support one or several instances of a platform/environment, applying their skills directly to a platform/environment and/or leveraging their skills across multiple platforms/environment. The System Specialist may, especially for usage and support of a platform, be part of an Application Team using the architecture. The System Specialist requires experience and skills in the environment supported and in the operations and in common usage of products for the environment. The System Specialist are responsible for collaborating with Technical Architecture Specialist, Functional Architects, Programmers and vendors to coordinate and enhance the use of the platform and facilitate migration to new versions of the platform.

SS1

Years of Relevant Experience:	1 to 3 years in desired environment
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Assist in coordination of testing changes, upgrades and new products, ensuring systems will operate correctly in current and future environment. • Make recommendations on functional and technical improvements to the environment. • Participate in performance and volume analysis and design. • Participate in performance improvement activities. Identify and apply potential improvements related to the environment for an application. • Provide accurate and complete answers to general use and environment questions in a timely manner. • Provide effective on-site environment support as needed. • Accurately set severity of identified defects. • Provide input to training and/or documentation materials regarding latest technical and functional design changes.

	<ul style="list-style-type: none"> • Ensure that all work is documented for future reference. • Follow quality standards. • Ensure effective and reliable backups are being performed and distributed properly. • Proactively address customer needs. • Track and anticipate volume and type of use of the environment. • Plan and implement shared software, such as operating systems, configuration management tools, application and development tools, testing tools, compilers, and code editors. • Basic scripting and programming skills, including languages that run on specified platform. • Analytical and customer service skills. • Communicate accurate and useful status updates. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken
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SS2

Years of Relevant Experience:	3 to 5 years in desired environment
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SS1 plus the following:</p> <ul style="list-style-type: none"> • Plan and manage network operating system upgrades. • Actively participate in analyzing and evaluating emerging software and hardware technologies/standards. • Serve as a liaison between teams for network planning and connectivity. • Develop appropriate functional and usability standards for the environments. • Plan or assist in planning network environment, including supporting existing structure and enhancements. • Plan and coordinate testing changes, upgrades and new and standard products, ensuring systems will operate correctly in current and future environment. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application or Environment team. Develop contingency plans as necessary. • Analyze the functional and/or technical impact of new product releases. • Advanced scripting and programming skills, including languages that run on specified platform. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.

SS3

Years of Relevant Experience:	5 plus years in desired environment
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SS2 plus the following:</p> <ul style="list-style-type: none"> • Identify opportunities for new and improved technologies/standards to be used in the organization. • Identify, plan, and implement phase-out strategies for products and technologies. • Plan and coordinate testing changes, upgrades and new products, ensuring systems will operate correctly in current and future environment. • Demonstrate expertise in teaching/conveying technical courses/concepts. • Assist in setting architecture direction and knowledge sharing. • Plan, organize, prioritize, and manage multiple work efforts the Application or

	Environment Teams. <ul style="list-style-type: none"> • Develop appropriate work programs and use to effectively schedule tasks/assignments.
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Team Lead

The Team Lead manages an Application Team to deliver services according to defined service level commitments owned by the Application Team. The Team Lead coordinates resources and work to deliver solutions to customers on time and within budget. The Team Lead is assigned responsibility and accountability for overseeing the successful completion of all work assigned to the Application Team. The Team Lead is a process expert within the Application Team, understanding the software development / maintenance processes and verifying process conformance. The Team Lead will monitor stability of production applications owned by the Application Team. The Team Lead assists Application Team members in development activities and reviews tasks as required. The Team Lead manages and updates progress towards Application Team objectives, assists Application Team members in resolving problems, and engages in personnel management and guidance to Application Team members. The Team Lead fosters a positive work environment by mentoring, supporting, and committing to the professional development of Application Team members. The Team Lead reports to the Group Lead or Program Manager, as appropriate. The difference between a TL1 and a TL2 will depend on the size of the project, and the breadth and scope of the project.

TL1

Years of Relevant Experience:	4 to 5 years, and 1 to 2 years project management experience.
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<ul style="list-style-type: none"> • Monitor stability of production applications owned by Application Team. • Prepare estimates for maintenance and enhancement of existing applications and development of new applications. • Perform detailed reviews of interim and final tasks as appropriate. • Process work requests; review, prioritize, and package. • Manage and review tasks of suppliers and other interfaces to the Application Team. • Conduct structured walk-throughs or inspections; manage issues to closure. • Develop and manage short and long-term plans and schedules. • Direct the development of accurate estimates for Application Team activities as required. • Balance workload with Application Teams capacity by managing the Application Teams activities according to schedule. • Manage the accomplishment of delivery metrics to support contractual obligations in the areas of service delivery and on time performance commitments and productivity improvement. • Ensure work remains within the agreed scope. • Track work plan baseline against results. • Coordinate / communicate with Group Leads and / or Program Manager to ensure initiatives are in accordance with agreed customer commitments as planned. • Proactively identify and manage issues/risks affecting the project. • Communicate accurate and useful status to Group Lead and other management on a timely basis. • Identify and initiate continuous improvements. • Instill commitment to quality, customer service, ownership, and teamwork. • Conduct post project wrap-ups. • Monitor and measure maintenance and development process effectiveness. • Ensure that defined processes are followed. • Manage expectations of the Application Teams internal and external customers. • Facilitate communication and knowledge sharing within the Application Teams. • Maintain awareness of new developments in industry and processes and apply as

	<p>appropriate.</p> <ul style="list-style-type: none"> • Develop and deepen understanding of system business requirements supported by the Application Team. • Communicate clearly the Application Team goals, organizational philosophies, and policies and procedures to the Application Teams. • Conduct structured walk-throughs or inspections; manage issues to closure. • Communicate clearly the Application Team goals, organizational philosophies, and policies and procedures to the Application Teams.
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TL2

Years of Relevant Experience:	5 plus years, and 2 to 3 years project management experience
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in TL1 plus the following:</p> <ul style="list-style-type: none"> • Manage the resolution of high severity production problems. • Manage and direct Application Team activities employing appropriate program management and planning principles. • Coordinate work with other Team Leads as appropriate. • Coordinate and procure the required skills and techniques required by the Application Team.

Technical Architecture Specialist

The Technical Architecture Specialist is the technical expert centered on a technology, technologies or a portfolio of applications. The Technical Architecture Specialist is the technologist who coordinates with other parties in setting the technical approach and direction and implementation for work. The Technical Architecture Specialist provides technical design expertise, defines what technical requirements are needed to support defined business requirements, participates in detailed design and code reviews, reviews system performance issues, reviews test plans, and provides technical guidance to the Application Team and Test Team members. The Technical Architecture Specialist is responsible for collaborating with the Team Lead(s) to coordinate project schedules, budgets, request management, and work authorization. The expert level Technical Architecture Specialist will interface with Executive Sponsors, Group Leads, and Lead Functional Architects to convey infrastructure requirements, plan, and schedule deployment of tasks, and resolve any issues that impact the deployment of the Application Delivery systems.

TAS1

Years of Relevant Experience:	2 to 5 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<ul style="list-style-type: none"> • Define test plans and criteria for acceptance for the technical components of an application. • Ensure business requirements are supported by the technical architecture. • Assist in leading technical direction of software; coordinating and presenting proposals to Group Leads, Leads, and the client. • Define and evaluate logical and physical data models. • Assist in development of overall system technical architecture - including software and hardware. • Define test plans and criteria for acceptance for the technical components of an application. • Analyze, determine, and document technical requirements and change request impact analysis. • Participate in detailed design and product test execution as required. • Develop technical programming standards. • Ensure business requirements are supported by the technical architecture.

	<ul style="list-style-type: none"> • Conduct structured walk-throughs or inspections for technical areas; resolve issues. • Assist in defining technical programming standards. • Communicate accurate and useful status updates. • Manage and report time spent on all work activities. • Follow quality standards. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken • Perform integration of various architectures across multiple enterprises • Develop overall system technical architecture - including software and hardware. • Perform review of technical designs, code, and component test plans. • Resolve and / or assist in resolving cross application technical issues. • Conduct structured walk-throughs or inspections for technical areas; resolve issues. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.
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TAS2

Years of Relevant Experience:	5 plus years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in TAS1 plus the following:</p> <ul style="list-style-type: none"> • Ensure consistency and completeness across data models. • Plan and deliver development architecture environments in coordination with the Environmental Support Specialist. • Assist in managing and directing team's technical architecture processes. • Provide assistance in scheduling design work for Lead Technical Architecture Specialist. • Develop and document expert practices/ standards. • Possesses strong analysis, presentation, documentation and quality assurance skills. • Analyze, determine, and document technical requirements and impact analysis for technical and development architectures. • Explain defect priorities and enhancement classifications to client and customer when needed. • Maintain awareness of new technological developments in industry and processes - implement concepts appropriately. • Lead or participate in setting the service levels for the application. • Define overall system logical architecture. • Provide standard, well-structured work planning which defines scope, resources, milestones, quality, risk, tasks, and acceptance criteria. • Prepare contingencies, scenarios, scenario plans and action items to resolve issues. • Lead efforts in providing technical expertise, guidance, and training to the Application and Test Teams.

TAS3

Years of Relevant Experience:	5 plus years, and 1 to 2 years project management experience
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in TAS2 plus the following:</p> <ul style="list-style-type: none"> • Communicate effectively with IT staff, client organization and software / hardware suppliers. • Lead efforts in designing technical strategy, direction and approach, technical

	<p>architecture, data architecture, development architecture, performance tuning, performance and capacity analysis, technical standards, technical reliability and flexibility.</p> <ul style="list-style-type: none"> • Design and define overall system technical architecture - including software and hardware within the framework and constraints of technical architecture. • Evaluate alternative designs. • Maintain control of specific tools and assets. • Own the technical architecture for a portfolio of applications, including the interpretation and application of the technical architecture. • Plan, design development and/or execution of architectures. Participate in the plan and design of technical architecture. • Assist with the preparation of estimates for new technology applications and maintenance of existing applications as part of Service Management. • Provide experience in utilizing the project architecture. Acknowledged as highly competent in one or more technologies. • Communicate accurate and useful status reports and other management on a timely basis. • Coordinate and conduct project architecture, infrastructure review meetings, and portfolio review meetings with Group Lead, Lead Functional Architects, and Team Leads. Integrate issues and identify impacts. • Communicate and resolve application interface issues. • Communicate to team members the relations between their work assignments and the organizational and/ or program strategy, objectives, business and technology needs of the application / system. • Share knowledge across teams with both similar and non-similar applications, specifically focusing on Technical Architecture • Interpret and communicate technical architecture to the Technology Application Architecture Team (s).
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Technical Specialist

The Technical Specialist is a senior level resource with specialized knowledge and experience in a specific technology such as SharePoint development or an SAP specialist. The Technical Specialist has an overall knowledge and understanding of application development and architecture that serves as a strong base for technical expertise in a specific product or program.

TS1

Years of Relevant Experience:	5 to 6 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Demonstrates expertise in conveying technical and functional concepts for a specific technical specialty. • Identifies improvements to project standards to achieve high quality services/ products. • Able to identify best practices and standards for the use of the product.

TS2

Years of Relevant Experience:	7to 8 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in TS1 plus the following:</p> <ul style="list-style-type: none"> • Delivers support and design for industry specific applications that require integration with statewide systems or applications. • Interacts with executive level business users or technical experts. • May function as a niche technical SME.

TS3

Years of Relevant Experience:	8-10 plus years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in TS2 plus the following: <ul style="list-style-type: none"> • Advanced experience in the required technical subject matter.

TS4

Years of Relevant Experience:	More than 10 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in TS3 plus the following: <ul style="list-style-type: none"> • Proven experience with a technical specialty across large and complex implementations and systems

Technical Writer

The Technical Writer develops and maintains user and technical documentation and project process documentation for Application Teams. Technical Writer understands the user's view of applications and /or technology and is able to put procedures in a logical sequence. The experienced Technical Writer provides expertise on technical concepts of applications and /or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications within their Tower.

TW1

Years of Relevant Experience:	Up to 2 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<ul style="list-style-type: none"> • Develop, enhance, and maintain user documentation for multiple applications including documentation required for the operations provider. • Develop on-line source documentation as appropriate. • Maintain documentation libraries and subscription lists. • Identify, create, revise, and maintain documentation and templates needed by the Application Teams. • Ensure appropriate control access/use of documentation materials. • Maintain application and user documentation. • Ensure messages and terminology is consistent across all written materials. • Research and complete documentation service requests. • Communicate and work with customers and other Client Telecommunications personnel as necessary. • Work with Application Team members to enhance their understanding of end-user and technical documentation. • Communicate accurate and useful status updates. • Manage and report time spent on all work activities. • Follow quality standards. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken

TW2

Years of Relevant Experience:	2 to 4 years
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Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in TW1 plus the following:</p> <ul style="list-style-type: none"> • Review and prioritize documentation service requests. • Determine procedures for use of on-line documentation tools and version control documentation as appropriate. • Assist or guide other Technical Writer as needed to develop and maintain user and technical documentation for their assigned applications. • Educate both business and technical groups on the essential need for developing and using standard documentation for all processes. • Organize and prepare work effectively to facilitate proactive resolution of problems, rather than reactive. • Research problems before approaching Lead Technical Writer or Team Lead for assistance. • Assist the Application Team Lead in monitoring budget by providing estimated-time-to-complete and actuals for assigned tasks. • Identify and make recommendations around documentation and templates needed by the Application Teams. • Work with users and other State personnel to ensure that the solutions meet State business requirements. • Identify and initiate continuous improvement opportunities. • Direct the development of accurate estimates for documentation requests/activities as required • Develop options and recommendations to assist documentation team members in resolving issues. • Lead efforts in developing and facilitating implementation of the Documentation team goals and metrics. • Develop workable, practical, measurable work plans defining activities, schedules and tasks with Team Leads and the Lead Technical Writer • Review and understand the Application Teams workplan. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.

TW3

Years of Relevant Experience:	5 to 6 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in TW2 plus the following:</p> <ul style="list-style-type: none"> • Review and approve procedures for use of on-line documentation tools as appropriate. • Identify business and technical documentation needs not currently addressed. • Manage Technical Writer. • Own documentation libraries and subscription lists. • Promote the need for developing and using standard documentation for all processes within the organization. • Perform detailed reviews of interim and final tasks as appropriate. • Oversee processing of service requests. • Manage, deploy, and schedule Technical Writer activities. • Develop and manage short and long-term documentation plans and schedules. • Understand work requests/needs within Application Teams • Manage the accomplishment of delivery metrics in support of contractual obligations in the areas of service delivery, on time performance. • Work with Team Leads and Group Leads to set documentation goals.

TW4

Years of Relevant Experience:	7 plus years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in TW3 plus the following:</p> <ul style="list-style-type: none"> • Ensure work remains within the agreed project scope. • Coordinate work with other Lead Technical Writers as appropriate. • Coordinate and procure the required skills and techniques required by the Application Teams for documentation needs. • Communicate accurate and useful status reports to Group Lead and other management on a timely basis. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary. • Manage expectations of the Technical Writers' internal and external customers. • Define documentation quality standards as needed. • Conduct post project reviews and quality assessments. • Ensure that defined processes are followed. • Communicate related improvement measures to the team. • Communicate clearly to Technical Writers their goals, organizational philosophies, policies and procedures.

Telecom Engineer

The Telecom Engineer configures and installs hardware, wiring, and specialized equipment according to local building and electrical codes. The Telecom Engineer may also be responsible for the end-to-end installation of cable, wiring, and related equipment. The Telecom Engineer typically works closely with facilities/construction managers and site-based project managers. The Telecom Engineer should be able to accurately estimate the time and materials needed for tasks assigned. It is not uncommon for the Telecom Engineer to supervise a team of people and coordinate activities with other construction teams.

TE1

Years of Relevant Experience	0 to 2 years
Preferred Education	4 year college degree or equivalent technical study
Role Description	<ul style="list-style-type: none"> ▪ Ensure proper connectivity from site-to-site and internal to facility. ▪ Experience with CAT5, Romex, and similar cables/wiring. ▪ Pull cable and ensure adherence to all building codes. ▪ Escalate construction and installation problems to the construction/integration manager, as needed. ▪ Prepare all job-related paperwork. ▪ Close out work authorization when equipment is in service.

TE2

Years of Relevant Experience	2 to 5 years
Preferred Education	4 year college degree or equivalent technical study
Role Description	<p>All roles specified in TE1 plus the following:</p> <ul style="list-style-type: none"> ▪ Inspect customer premises to ascertain available space for equipment installation ▪ Determine the type and quantity of equipment that can be installed to provide requested communication facilities. ▪ Create floor plan of equipment arrangement for customer or architect approval. ▪ Prepare cost estimate for equipment and installation and submit data to management for authorization to proceed. ▪ Order equipment and prepare installation specifications. ▪ Monitor progress of installation to ensure facilities are ready on specified date.

TE3

Years of Relevant Experience	5 plus years
Preferred Education	4 year college degree or equivalent technical study
Role Description	<p>All roles specified in TE2 plus the following:</p> <ul style="list-style-type: none"> ▪ Lead full integration teams and interact with large infrastructure teams. ▪ Act as telecommunications interface to outside vendors and construction manager. ▪ Direct activities related to the selection and installation of telephone facilities and special equipment on premises to meet customer's communication requirements.

Tester

The Tester is a member of a team which plans, constructs, and executes product tests, system tests, unit tests, load tests, volume tests, network tests as well as works with others for release control processes. The more experienced Tester manages, plans, constructs, and executes tests and integrates with release control process.

Test1

Years of Relevant Experience:	Less than 2 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<ul style="list-style-type: none"> • Create test models for product test and release control (plans, data, and scripts). • Conduct structured walk-throughs • Execute assembly or product tests. • Meet time estimates for assigned tasks. • Communicate accurate and useful status updates. • Follow quality standards. • Ability to work in a team environment • Complete assigned tasks. • Strong communication skills; both written and spoken

Test2

Years of Relevant Experience:	2 to 4 years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in Test1 plus the following:</p> <ul style="list-style-type: none"> • Define product test plans and criteria for acceptance. • Develop, update, and maintain testing standards and procedures. • Resolve testing process questions / issues. • Assist in the planning, creation, and control of the test environments.

	<ul style="list-style-type: none"> • Conduct inspections; resolve issues. • Coordinate and execute assembly or product tests with the Test Team, Application Team and the Program Manager. • Assist Team Lead or Test Team Lead in monitoring estimated-time-to-complete (ETC) and actuals for assigned tasks. • Work with Test Team members to enhance their testing skills and build technical and business knowledge. • Update and test release installation procedures. • Generally aware of new developments in industry and processes and ability to apply to work as appropriate. • Determine time estimates and schedule for work efforts. • Define and utilize entry / exit criteria for testing. • Schedule the design of structured walk-throughs or inspections; resolve issues. • Work with users to ensure that solutions meet business requirements. • Anticipate and resolve issues specific to the team. • Determine time estimates and schedule for own work and resolve issues in a timely manner. • Identify and track issues, risks and action items.
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Test3

Years of Relevant Experience:	4 plus years
Preferred Education:	4 year college degree or equivalent technical study
Role Description:	<p>All roles specified in Test2 plus the following:</p> <ul style="list-style-type: none"> • Review and understand the Test Team work plan. • Assist in managing and directing Test Team processes. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Test and/or Application Teams. Develop contingency plans as necessary. • Research problems before approaching the Team Lead or Test Team Lead for assistance. • Assist or guide Testers as needed. • Develop understanding of system business requirements supported by the Test team • Assist Application Teams to plan and execute component and assembly tests. • Participate in assembly or product test execution as required.

Video Conference Specialist

The Video Conference Specialist (VCS) provides video and photograph production support by operating a variety of film, sound-reproducing equipment, slide, and video equipment.

VCS1

Years of Relevant Experience:	Up to 6 years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<ul style="list-style-type: none"> • Maintain equipment in working condition. • Make minor adjustments and repairs to equipment • Notify maintenance personnel when correction of major malfunction is required. • Position, install, connect, and repair equipment. • Familiar with fundamental networking/distributed computing environment concepts. • Troubleshoot network issues, systems, and applications to identify and correct malfunctions and other operational difficulties. • Investigate user problems, identify their source, determine possible solutions, test and implement solutions • Ensure high priority issues are resolved in a timely manner.

	<ul style="list-style-type: none"> • Excellent communication skills.
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VCS2

Years of Relevant Experience:	6 plus years
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in VCS1 plus the following:</p> <ul style="list-style-type: none"> • Coordinate equipment operation with material presented, according to notations in script or instructions of speaker. • Advise speakers and presenters on alternative media. • Meet with department heads, managers, supervisors, vendors, and others, to solicit cooperation and resolve problems. • Actively participate in analyzing and evaluating emerging technologies/standards. • Evaluate and/or recommend purchases of network hardware, software, and peripheral equipment. • Act as the first level of escalation for high priority support issues. • Function as the liaison to the various support groups with whom the systems management team interfaces. • Develop the technical maintenance strategy. • Analyze, determine, and document requirements in terms of system management needs and implement them. • Identify, approve, and prioritize team projects. • Mentor and supervise other team members.

Voice/Data Engineer

The Voice/Data Engineer directs and participates in all activities related to the selection and installation of telephone facilities and special on-premises equipment that will meet the customer's communication requirements. The Voice/Data Engineer is responsible for all technology and connectivity involving telecommunications and data networks. The Voice/Data Engineer will typically specialize in telephony and data interfaces and systems that have proprietary functions within the communications area of a corporation/business. General wiring excluded, the Voice/Data Engineer ensures that any specialized conduit or wiring is properly deployed and installed according to code. The Voice/Data Engineer is also an expert in audio/visual, teleconferencing, and voice mail equipment. Often times, the Voice/Data Engineer is specialized or is certified in a particular piece of equipment.

VDE1

Years of Relevant Experience	0 to 2 years
Preferred Education	4 year college degree or equivalent technical study
Role Description	<ul style="list-style-type: none"> • Ensure proper connectivity of voice and data services and technologies. • Interact and work with Telecom Engineer, Integration Engineer, or Project Manager. • Prepare all job-related paperwork • Close out work authorization when equipment is in service.

VDE2

Years of Relevant Experience	2 to 5 years
Preferred Education	4 year college degree or equivalent technical study
Role Description	<p>All roles specified in VDE1 plus the following:</p> <ul style="list-style-type: none"> • Prepare equipment floor plan for customer or architect approval. • Determine telephone, data services/components, and audio visual equipment placement within facility. • Act as installer of equipment for data/voice or Audio visual use.

	<ul style="list-style-type: none"> • Install, test, configure, and train users on products and equipment. • Support systems and products associated with telecommunications/telephone and data within a facility or department.
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VDE3

Years of Relevant Experience	5 plus years
Preferred Education	4 year college degree or equivalent technical study
Role Description	<p>All roles specified in VDE2 plus the following:</p> <ul style="list-style-type: none"> • Familiar with at least one type of equipment or service that is highly specialized. • Prepare cost estimate for equipment and installation and submit data to management for authorization to proceed with job. • Order equipment and prepare installation specification. • Monitor installation progress to ensure that the facilities are ready on projected date. • Lead a team of installers and junior Voice/Data Engineers.

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