

Request for Proposals

**CONSULTING AND TECHNICAL SERVICES (CATS)**

PROJECT NO. 050R5800338



DEPARTMENT OF  
BUDGET & MANAGEMENT

**Issue Date: August 9, 2005**

**NOTICE**

Prospective Offerors who have received this document from the Department of Budget and Management's web site or eMarylandMarketplace.com, or who have received this document from a source other than the Procurement Officer, and who wish to assure receipt of any changes or additional materials related to this RFP, should immediately contact the Procurement Officer and provide their name and mailing address so that amendments to the RFP or other communications can be sent to them.

**Minority Business Enterprises are Encouraged to Respond to this Solicitation**

**STATE OF MARYLAND  
NOTICE TO OFFERORS/CONTRACTORS**

In order to help us improve the quality of State proposals solicitations, and to make our procurement process more responsive and business friendly, we ask that you take a few minutes and provide comments and suggestions regarding the enclosed solicitation. Please return your comments with your proposals. If you have chosen not to bid on this Contract, please fax this completed form to: 410-974-5615 to the attention of Sue Woomer.

**Title:           CONSULTING AND TECHNICAL SERVICES (CATS)**  
**Project No:   050R5800338**

1.     If you have responded with a "no bid", please indicate the reason(s) below:

- Other commitments preclude our participation at this time.
- The subject of the solicitation is not something we ordinarily provide.
- We are inexperienced in the work/commodities required.
- Specifications are unclear, too restrictive, etc. (Explain in REMARKS section.)
- The scope of work is beyond our present capacity.
- Doing business with Maryland Government is simply too complicated. (Explain in REMARKS section.)
- We cannot be competitive. (Explain in REMARKS section.)
- Time allotted for completion of the bid/proposals is insufficient.
- Start-up time is insufficient.
- Bonding/Insurance requirements are restrictive. (Explain in REMARKS section.)
- Bid/Proposals requirements (other than specifications) are unreasonable or too risky. (Explain in REMARKS section.)
- MBE requirements. (Explain in REMARKS section.)
- Prior State of Maryland Contract experience was unprofitable or otherwise unsatisfactory. (Explain in REMARKS section.)
- Payment schedule too slow.
- Other: \_\_\_\_\_

2.     If you have submitted a bid or proposal, but wish to offer suggestions or express concerns, please use the Remarks section below. (Use reverse or attach additional pages as needed.)

REMARKS:

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Offeror Name: \_\_\_\_\_ Date: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Address: \_\_\_\_\_

**STATE OF MARYLAND**

**Request For Proposals**

**CONSULTING AND TECHNICAL SERVICES**

**PROJECT NUMBER 050R5800338**

**RFP Issue Date:** August 9, 2005

**RFP Issuing Office:** Maryland Department of Budget and Management  
Office of Information Technology

**Procurement Officer:** Susan S. Woomer  
Phone #: (410) 260-6135  
Fax: (410) 974-5615  
e-mail: [CATSprocurement@dbm.state.md.us](mailto:CATSprocurement@dbm.state.md.us)

**Proposals are to be sent to:** Maryland Department of Budget and Management  
45 Calvert Street, Room 446  
Annapolis, MD 21401  
Attention: Sue Woomer

**Pre-Proposal Conference:** August 24, 2005 10:00 AM  
2301 Argonne Drive  
Auditorium  
Baltimore, MD 21218  
For directions, see Attachment E.

**Closing Date and Time:** September 14, 2005 - 2:00PM Local Time

**NOTE**

Prospective Offerors who have received this document from the Department of Budget and Management's web site or eMarylandMarketplace.com, or who have received this document from a source other than the Procurement Officer, and who wish to assure receipt of any changes or additional materials related to this RFP, should immediately contact the Procurement Officer and provide their name and mailing address so that amendments to the RFP or other communications can be sent to them.

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## SECTION 1 - GENERAL INFORMATION

### 1.1 Summary Statement

- 1.1.1 The Department of Budget and Management (DBM) is issuing this Request for Proposals (RFP) to procure IT consulting and technical services for the State of Maryland. The objective of this solicitation is to enable State government to procure IT consulting and technical services in a timely and economical manner. Through the Master Contracts as a result of this RFP, the State will have a flexible means of obtaining information technology (IT) resources quickly, efficiently and cost effectively by issuing Task Orders (TO) specific to its needs.
- 1.1.2 The scope of this solicitation encompasses fifteen (15) primary functional areas. The functional areas are as follows:
- 1) Enterprise Service Provider
  - 2) Web and Internet Services
  - 3) Electronic Document Management
  - 4) Geographical Information Systems
  - 5) Software Engineering
  - 6) Systems/Facilities Management and Maintenance
  - 7) Information System Security
  - 8) Application Service Provider
  - 9) IT and Telecommunications Financial and Auditing Consulting Services
  - 10) IT Management Consulting Services
  - 11) Business Process Consulting Services
  - 12) Preparations for Proposed Tower Sites
  - 13) Electronic Benefits Transfer
  - 14) Media and Training Center Support
  - 15) Documentation/Technical Writing
- 1.1.3 DBM intends to award a Master Contract to an unlimited number of Offerors that are determined by the State to be qualified. Offerors may propose to one, some or all functional areas.
- Each required service will be summarized in a Task Order Request for Proposals (TORFP). TORFPs will be issued, as needed, throughout the term of the Master Contract. All vendors awarded a Master Contract for a functional area will be invited to compete for the TORFP that will be solicited in order to perform each specific TO under that functional area. Based upon an evaluation of these responses, a single vendor will be selected to conduct each TO. A specific Task Order Agreement (TOA) will then be entered into between the State and the selected vendor, which will bind the vendor to the contents of its Task Order Proposal (TOP), including its price. Neither a TORFP, a TOP, nor a TOA, may in any way conflict with or supercede the Consulting and Technical Services (CATS) Master Contract.

## 1.2 Background

- 1.2.1 There are currently two contracts in place, the Technical Services Procurement (TSP), Project Number DBM-2027-TSP dated February 29, 2000, and Consulting Services Procurement (CSP), Project Number 050R280066 dated September 12, 2001. TSP is scheduled to expire April 30, 2006 and CSP is scheduled to expire July 23, 2007.
- 1.2.2 One hundred twenty-one (121) TOs were executed under TSP totaling \$ 129,055,430. The following is a break-down by functional area of TOs and the TO amounts (Information as of March 2005):

No.	Functional Area	Number of TOs	Total TO Amount
1	Enterprise Service Provider (ESP)	40	\$46,077,800
2	Electronic Commerce (EC)/Electronic Data Interchange (EDI) Support	15	\$10,221,020
3	Electronic Document Management (EDM)	3	\$4,840,017
4	Geographical Information Systems (GIS)	6	\$1,422,148
5	Software Engineering (SE)	28	\$37,955,631
6	Systems/Facilities Management and Maintenance (SFMM)	24	\$22,510,050
7	Information System Security Support Services (ISSS)	2	\$3,643,065
8	Application Service Provider (ASP)	3	\$2,385,699
<b>Total</b>		121	\$129,055,430

- 1.2.3 Seventeen (17) TOs were executed under CSP totaling \$ 4,266,272. The following is a break-down by functional area of TOs and the amounts (Information as of March 2005):

No.	Functional Area	Number of TOs	Total TO Amount
1	IT and Telecommunications Financial and Auditing Consulting Services	3	\$ 404,507
2	IT Management Consulting Services	5	\$ 1,188,936
3	Business Process Consulting Services	9	\$ 2,672,829
<b>Total</b>		17	\$ 4,266,272

## 1.3 Abbreviations and Definitions

For purposes of this RFP, the following abbreviations or terms have the meanings indicated below:

- a. **Agency** – A unit of the Executive Branch of Maryland State government.
- b. **Business Beneficial** – TOs that provide for a designated portion of the monies saved by the State as a direct result of the service provided to be given to the Contractor.
- c. **CASE** – Computer Aided Software Engineering.
- d. **CGI** – Common Gateway Interface.
- e. **COMAR** – Code of Maryland Regulations, available on-line at [www.dsd.state.md.us](http://www.dsd.state.md.us).
- f. **Consulting and Technical Services (CATS)** – This Request for Proposals (RFP) for the Maryland Department of Budget and Management, Project Number 050R5800338, dated August 2, 2005, including any amendments.
- g. **Contract or Master Contract** – The Consulting and Technical Services (CATS) Master Contract between each of the Offeror determined technically capable of performing the requirements of this RFP.
- h. **Contract Manager (State CM)** – The State representative who serves as the manager for the resulting Master Contract. The State CM monitors the daily activities of the Master Contract and provides guidance to the respective Contractors.
- i. **Contractor** – An Offeror who is awarded a Master Contract under this RFP.
- j. **COTS** – Commercial Off The Shelf Software.
- k. **DBM** – Maryland Department of Budget and Management.
- l. **EC** – Electronic Commerce.
- m. **EDI** – Electronic Data Interchange.
- n. **ESP** – Enterprise Service Provider.
- o. **FP** – Fixed Price.
- p. **Fixed Hourly Labor Category Rates** - Fully loaded hourly rates established in the Master Contract that include all direct and indirect costs and profit for the Contractor to perform a TOA.
- q. **Fully Loaded** - The inclusion in labor category billing rates of all profit, direct and indirect costs associated with performing a TOA. The indirect costs shall include all costs that would normally be considered general and administrative costs and/or routine travel costs, or which in any way are allocated by the Contractor against direct labor hours as a means of calculating profit or recouping costs which cannot be directly attributable to an TOA. Non-routine travel costs will be identified in a TORFP, when appropriate.
- r. **GIS** – Geographical Information Systems.
- s. **HTML** – Hypertext Markup Language.



- t. **IT** – Information Technology.
- u. **Labor Hours Not-to-Exceed Ceiling** - A type of payment for performing a TOA whereby the Contractor will be paid for services performed based on direct labor hours billed at specific hourly rates, fixed by labor category in the Master Contract, up to a specified cost ceiling. The Contractor will be required to provide time records and/or other documentation that all direct hours billed have actually been expended by its employees, or those of subcontractors, totally and productively, in the performance of a TOA. Documentation of time of employees, or sub-contractors shall be provided to the TOM. The documentation shall be certified employee time sheets or electronic time keeping records certified by the Contractor's Program Manager to be the actual time worked by the Contractor's employees, or those of its subcontractors.
- v. **LAN** – Local Area Network.
- w. **Master Contract** – Has the same meaning as Consulting and Technical Services for Maryland State Agencies Master Contract.
- x. **MBE** – A Minority Business Enterprise certified by the Maryland Department of Transportation under COMAR 21.11.03.
- y. **Normal State Business Hours** - Normal State business hours are 8:00 a.m. – 5:00 p.m. Monday through Friday except State Holidays. For State Holidays see: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) (Keyword State Holidays).
- z. **Not-to-Exceed Ceiling (NTE)** - This pertains to all Time and Materials and Labor Hours types of TOAs awarded under this RFP. This means a discrete dollar amount, listed in the TOA that may not be exceeded. If a Contractor reaches this NTE Ceiling while performing a TOA it shall stop performing any services for which it would seek payment beyond the NTE Ceiling amount, unless the Procurement Officer authorizes an increase to allow the continuation of services.
- aa. **Notice To Proceed (NTP)** - A formal combined notification from the State CM that a specific Master Contractor has been selected to perform a TOA and should immediately, or as of a date contained in the notice, begin performance of the TOA.
- bb. **OCR** – Optical Character Reading/Recognition.
- cc. **Offeror** – An entity that submits a proposal in response to this RFP.
- dd. **PERL** – Practical Extraction and Report Language.
- ee. **Procurement Officer** – The State representative, as identified in section 1.6, responsible for this RFP, for the determination of Contract scope issues, and the only State representative who can authorize changes to the Contract.
- ff. **Program Manager** – The Contractor's manager for the Contract awarded under this RFP.
- gg. **QA** – Quality Assurance.
- hh. **Request for Proposals (RFP)** – This RFP for the Maryland Department of Budget and Management, Project Number 050R5800338, dated August 9, 2005, including any amendments.

**ii. Revenue Neutral** – A TO that provides for the procurement of services without charge to the State regardless of the actual costs incurred; and the costs are paid by a third party (or parties).

**jj. SDLC**– System Development Life Cycle.

**kk. SQL** – Structured Query Language.

**ll. Small Business Reserve** – A procurement in accordance with Title 14, Subtitle 5 of the State Finance and Procurement Article of the Annotated Code of Maryland, as amended by Chapter 75, Laws of Maryland 2004.

**mm. Software Source Code Documentation** – All design tools, documents and diagrams used in the development of the source code including but not limited to data flow diagrams, entity relationship diagrams, work flow diagrams, window layouts, report layouts, process flows, interface designs, logical and physical database design diagram, technical and user manuals, data dictionary, and a copy of the development software used to write and compile the source code.

**nn. State** – State of Maryland.

**oo. T&M** – Time and Materials.

**Task Order (TO)** – The description by the State of the individual project for which proposals will be solicited.

**pp. Task Manager (TOM)**– The State’s representative who is identified in a TORFP or a TOA, who will supervise the Contractor rendering services for that respective TO.

**qq. Task Order Agreement (TOA)** – A signed contract between DBM and the Contractor selected via a TORFP to perform a TO. A TOA will deal only with the specific aspects of performing a TO under this RFP. All general terms and conditions are contained in the CATS Master Contract and shall apply to all TOAs. A TOA may not in any way amend, conflict with or supersede the CATS Master Contract.

**rr. Task Order Proposal (TOP)** – The technical and financial response by a Contractor to a TORFP.

**ss. Task Order Request for Proposals (TORFP)** – A solicitation document which describes all specific circumstances regarding the performance of IT services and consulting involving agencies of the State. A TORFP will not amend, or conflict with any provision of the CATS Master Contract.

**tt. Time and Materials (T & M)** - A type of payment for performing a TOA whereby the Contractor will be paid for services performed based on direct labor hours billed at specific hourly rates, plus non-routine travel costs as may be identified in a TOA, plus the actual cost of any materials used or other direct expenses incurred in the performance of a TOA, up to a specified cost ceiling. The labor category hourly rates for a TOA may not exceed the hourly rates specified in the Master Contract. The Contractor will be required to provide time records and/or other documentation that all direct hours billed have actually been expended by its principals or employees, or those of subcontractors, totally and productively in the performance of a TOA. In addition, the Contractor must also provide documentation of the actual cost of materials or other activities directly used in

- g. the performance of a TOA. The fixed hourly labor category rates plus the actual cost of materials, non-routine travel or other direct expenses will be the only payment made for this type of TOA.
- h. **XML** – Extensible Markup Language.

#### **1.4 Master Contract Type**

The Master Contract shall be an Indefinite Quantity Contract as defined in COMAR 21.06.03.05 and 06. Fixed Price (FP) and Time and Material (TM) TOAs as described in each respective TORFP will be issued under the Master Contract, as appropriate to the type of services being requested. In addition, business beneficial and revenue neutral concepts may be applied to TOs under the Contracts.

#### **1.5 Master Contract Duration**

The term of this Contract shall be for a period of five (5) years, beginning on or about January 20, 2006 and terminating on January 31, 2011.

#### **1.6 Procurement Officer**

The sole point of contact in the State for purposes of this RFP prior to the award of any Contract is the Procurement Officer at the address listed below:

Susan S. Woomer  
Maryland Department of Budget and Management  
Office of Information Technology  
45 Calvert Street, Room 446  
Annapolis, Maryland 21401  
Phone Number: 410-260-6135  
Fax Number: 410-974-5615  
E-mail: [CATSProcurement@dbm.state.md.us](mailto:CATSProcurement@dbm.state.md.us)

DBM may change the Procurement Officer at any time by written notice to the Contractor.

#### **1.7 Contract Manager**

The State CM monitors the daily activities of the Contract and provides technical guidance to the Contractor. The State CM will be determined prior to award of the Master Contract.

DBM may change the State CM at any time by written notice to the Contractor.

#### **1.8 Pre-Proposal Conference**

A Pre-Proposal Conference will be held on August 24, 2005, beginning at 10:00 AM, in the Auditorium at 2301 Argonne Drive, Baltimore, MD 21218. Attendance at the Pre-Proposal Conference is not mandatory, but all interested Offerors are encouraged to attend in order to facilitate better preparation of their proposals. In addition, attendance may facilitate the Offeror's understanding and ability to meet the State's MBE goals.

Due to the anticipated interested in this RFP, seating at the Pre-Proposal Conference will be limited to two (2) attendees per company. It is recommended that Attendees bring a copy of the RFP and bring a business card to help facilitate the sign-in process.

The Pre-Proposal Conference will be summarized. As promptly as is feasible subsequent to the Pre-Proposal Conference, a summary of the Pre-Proposal Conference and all questions and answers known at that time will be distributed to all prospective Offerors known to have received a copy of this RFP.

In order to assure adequate seating and other accommodations at the Pre-Proposal Conference, please fax the Pre-Proposal Conference Response Form to the attention of Susan Woomer at (410) 974-5615 with such notice no later than 4:00 PM on August 22, 2005. The Pre-Proposal Conference Response Form is included as Attachment E to this RFP. In addition, if there is a need for sign language interpretation and/or other special accommodations due to a disability, please call no later than August 17, 2005. DBM will make reasonable efforts to provide such special accommodation.

### **1.9 eMarylandMarketplace Fee**

eMarylandMarketplace is an electronic commerce system administered by the Maryland Department of General Services. In addition to using the DBM web site ([www.dbm.maryland.gov](http://www.dbm.maryland.gov)) and other means for transmitting the RFP and associated materials, the solicitation and summary of the pre-bid/proposal conference, Offeror questions and the Procurement Officer's responses, addenda, and other solicitation related information will be provided via e-Maryland Marketplace.

COMAR 21.02.03.06 requires that each Master Contractor that wins a TOA under this RFP pay a fee to support the operation of eMaryland Marketplace. The fee will be due on each TOA that exceeds \$25,000. The applicable fee will be based on TO value, including any options. A total TO value that is other than an even dollar amount will be rounded to determine the appropriate fee level. For example, a total TO value of \$50,000.49 will be rounded to \$50,000 and a Level 1 fee will apply. A total TO value of \$50,000.50 will be rounded to \$50,001 and a Level 2 fee will apply. A copy of COMAR 21.02.03.06 can be found on the eMM website at [www.eMarylandMarketplace.com](http://www.eMarylandMarketplace.com).

The fee amount for a TO may not be charged to the State as a separate add-on price or in addition to the accepted TOP.

In order to receive a Contract award, a vendor must be registered on eMaryland Marketplace. Contractors shall pay the fee as provided by COMAR 21.02.03.06 and in accordance with guidelines issued by the Maryland Department of General Services. These guidelines can be found on the eMaryland Marketplace website at [www.eMarylandMarketplace.com](http://www.eMarylandMarketplace.com).

### **1.10 Questions**

Written questions from prospective Offerors will be accepted by the Procurement Officer prior to the pre-proposal conference. If possible and appropriate, such questions will be answered at the pre-proposal conference. (No substantive question will be answered prior to the pre-proposal conference.) Questions may be submitted by mail, facsimile, or, preferably, by e-mail to the Procurement Officer. Questions, both oral and written, will also be accepted from prospective Offerors attending the Pre-Proposal Conference. If possible and appropriate, these questions will be answered at the Pre-Proposal Conference.

Questions will also be accepted subsequent to the Pre-Proposal Conference and should be submitted in a timely manner prior to the proposal due date to the Procurement Officer. Time permitting, answers to all

substantive questions that have not previously been answered, and are not clearly specific only to the requestor, will be distributed to all vendors who are known to have received a copy of the RFP.

### **1.11 Proposals Due (Closing) Date**

An unbound original and three (3) bound copies of each proposal (technical and financial) must be received by the Procurement Officer, at the address listed in Section 1.6, no later than 2:00 PM (local time) on September 14, 2005 in order to be considered. An electronic version (diskette or CD) of the Technical Proposal in MS Word format must be enclosed with the original technical proposal. An electronic version (diskette or CD) of the Financial Proposal in MS Word format must be enclosed with the original financial proposal. Insure that the diskettes are labeled with the RFP title, RFP number, and Offeror name and packaged with the original copy of the appropriate proposal (technical or financial).

Requests for extension of this date or time will not be granted. Offerors mailing proposals should allow sufficient mail delivery time to ensure timely receipt by the Procurement Officer. Except as provided in COMAR 21.05.03.02, proposals received by the Procurement Officer after the due date, September 14, 2005 at 2:00 PM (local time) will not be considered.

**Proposals may not be submitted by e-mail or facsimile.**

### **1.12 Duration of Offer**

Proposals submitted in response to this RFP are irrevocable for 120 days following the closing date of proposals or of Best and Final Offers (BAFOs), if requested. This period may be extended at the Procurement Officer's request only with the Offeror's written agreement.

### **1.13 Revisions to the RFP**

If it becomes necessary to revise this RFP before the due date for proposals, amendments will be provided to all prospective Offerors who were sent this RFP or otherwise are known by the Procurement Officer to have obtained this RFP. In addition, amendments to the RFP will be posted on the DBM Procurement web page and through eMarylandMarketplace. Amendments made after the due date for proposals will be sent only to those Offerors who submitted a timely proposal.

Acknowledgment of the receipt of all amendments to this RFP issued before the proposal due date must accompany the Offeror's proposal in the Transmittal Letter accompanying the Technical Proposal submittal. Acknowledgement of the receipt of amendments to the RFP issued after the proposal due date shall be in the manner specified in the amendment notice. Failure to acknowledge receipt of amendments does not relieve the Offeror from complying with all terms of any such amendment.

### **1.14 Cancellations; Discussions**

The State reserves the right to cancel this RFP, accept or reject any and all proposals, in whole or in part, received in response to this RFP, to waive or permit cure of minor irregularities, and to conduct discussions with all qualified or potentially qualified Offerors in any manner necessary to serve the best interests of the State. The State also reserves the right, in its sole discretion, to award a Contract based upon the written proposals received without prior discussions or negotiations.

### **1.15 Incurred Expenses**

The State will not be responsible for any costs incurred by an Offeror in preparing and submitting a proposal, in making an oral presentation, in providing a demonstration, or in performing any other activities relative to this solicitation.

### **1.16 Economy of Preparation**

Proposals should be prepared simply and economically, providing a straightforward, concise description of the Offeror's proposal to meet the requirements of this RFP.

### **1.17 Protests/Disputes**

Any protest or dispute related respectively to this solicitation or the resulting Contract shall be subject to the provisions of COMAR 21.10 (Administrative and Civil Remedies).

### **1.18 Multiple or Alternative Proposals**

Neither multiple nor alternate proposals will be accepted. Submitting proposals for more than one functional area is not considered a multiple or alternate proposal.

### **1.19 Access to Public Information Act Notice**

An Offeror shall give specific attention to the clear identification of those portions of its proposal that it considers confidential, proprietary commercial information or trade secrets, and provide justification why such materials, upon request, should not be disclosed by the State under the Public Information Act, Title 10, Subtitle 6, Part III of the State Government Article of the Annotated Code of Maryland.

Offerors are advised that, upon request for this information from a third party, the Procurement Officer is required to make an independent determination whether the information can be disclosed (see COMAR 21.05.08.01).

### **1.20 Offeror Responsibilities**

Any selected Offeror shall be responsible for all products and services required by this RFP. Additional information regarding MBE subcontractors is provided under paragraph 1.24 below. If an Offeror that seeks to perform or provide the services required by this RFP is a subsidiary of another entity, all information submitted by the Offeror, such as, but not limited to, references, shall pertain exclusively to the Offeror, unless the parent organization will guarantee the performance of the subsidiary. If applicable, the Offeror's proposal must contain an explicit statement that the parent organization will guarantee the performance of the subsidiary.

### **1.21 Mandatory Contractual Terms**

By submitting an offer in response to this RFP, an Offeror, if selected for award, shall be deemed to have accepted the terms of this RFP and the Contract, attached as Attachment A. Any exceptions to this RFP or the Contract shall be clearly identified in the Executive Summary of the technical proposal. A proposal that takes exception to these terms may be rejected.

## 1.22 Proposal Affidavit

A proposal submitted by an Offeror shall be accompanied by a completed Bid/Proposal Affidavit. A copy of this Affidavit is included as Attachment B of this RFP.

## 1.23 Contract Affidavit

All Offerors are advised that if a Contract is awarded as a result of this solicitation, the successful Offeror will be required to complete a Contract Affidavit. A copy of this Affidavit is included for informational purposes as Attachment C of this RFP. This Affidavit shall be provided within five (5) business days notification of proposed Contract award.

## 1.24 Minority Business Enterprises

**NOTICE: The procedure for submitting MBE information and forms has been revised effective October 1, 2004. See Attachment D for an explanation of the revised requirements. Questions or concerns regarding the MBE requirements must be raised before the receipt of initial proposals.**

A minimum overall MBE subcontractor participation goal of 30% has been established for the aggregate of all Master Contracts awarded pursuant to this RFP. The State shall assess the potential for an MBE subcontractor participation goal, including subgoals, if applicable, for each TO issued under the RFP (including any TO that is designated Small Business Reserve and shall set a goal, if appropriate. Each Contractor shall structure its TOP MBE participation plan in a manner that demonstrates a good faith effort to achieve the MBE goal established by each TORFP. All subcontractors named by a Contractor as part of its TOP MBE participation plan must be MBE certified.

Contractor shall complete, sign and submit the MBE utilization affidavit contained in Attachment D-1-Master Contract of this RFP at the time it submits its response to this RFP. **Failure of the Contractor to complete, sign, and submit the MBE utilization affidavit (Attachment D-1-Master Contract) at the time it submits its Response to the RFP will result in the State's rejection of the Contractor's Proposal to the RFP.**

A Contractor that responds to a TORFP that contains an MBE goal shall complete, sign, and submit all required MBE documentation (Attachments D-1-Task Order and D-2) at the time it submits its TOP. **Failure of the Contractor to complete, sign, and submit all required MBE documentation (Attachments D-1-Task Order and D-2) at the time it submits its TOP will result in the State's rejection of the Contractor's TOP.**

A Contractor that is notified that it is the apparent successful awardee of a TO shall complete, sign, and submit all additional MBE documentation required by the TORFP (Attachments D-3 and D-4) within 10 working days from notification that it is the apparent successful awardee, or from the date of the award, whichever is earlier. The State will monitor MBE participation in work performed under a TORFP issued pursuant to this RFP. See Attachment D for details.

A current directory of MBEs is available through the Maryland State Department of Transportation, Office of Minority Business Enterprise, P. O. Box 8755, B.W.I. Airport, Maryland 21240-0755. The phone number is 410-865-1269. The directory is also available at <http://www.mdot.state.md.us>. The most current and up-to-date information on MBEs is available via this web site.

### **1.25 Small Business Reserve**

The State reserves the right to designate any TO issued pursuant to this RFP a Small Business Reserve TO. In the event a TO is designated a Small Business Reserve TO, the TOA awarded thereunder may only be awarded to a Contractor that is a certified small business, that meets the statutory qualifications of a Small Business as defined in §14-501(c), Annotated Code of Maryland, and is registered with the Department of General Services Small Business Reserve Program. The State shall assess the potential for an MBE subcontractor participation goal including subgoals, if applicable, for each Small Business Reserve TO.

Throughout the term of the Master Contract, Contractors qualified under the Small Business Reserve, shall notify the State CM of any change in status. Should a Contractor become certified through the Small Business Reserve after award of a Master Contract, that Contractor shall notify the State CM and provide the State CM with its DGS-assigned Small Business Qualification number.

### **1.26 Arrearages**

By submitting a response to this solicitation, each Offeror represents that it is not in arrears in the payment of any obligations due and owing the State, including the payment of taxes and employee benefits, and that it shall not become so in arrears during the term of the Contract if selected for Contract award.

### **1.27 Procurement Method**

This Contract will be awarded in accordance with the competitive sealed proposals process under COMAR 21.05.03.

### **1.28 Verification of Registration and Tax Payment**

Before a corporation can do business in the State, it must be registered with the Department of Assessments and Taxation, State Office Building, Room 803, 301 West Preston Street, Baltimore, Maryland 21201. Any potential Offeror should complete registration prior to the due date for receipt of proposals. An Offeror's failure to complete registration with the Department of Assessments and Taxation may disqualify an otherwise successful Offeror from final consideration and recommendation for Contract award.

### **1.29 False Statements**

Offerors are advised that section 11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland provides as follows:

- (a) In connection with a procurement contract a person may not willfully:
- Falsify, conceal, or suppress a material fact by any scheme or device;
  - Make a false or fraudulent statement or representation of a material fact; or
  - Use a false writing or document that contains a false or fraudulent statement or entry of a material fact.
- (b) A person may not aid or conspire with another person to commit an act under subsection (a) of this section.



- (c) A person who violates any provision of this section is guilty of a felony and on conviction is subject to a fine not exceeding \$20,000 or imprisonment not exceeding five (5) years or both.

### **1.30 Non-Visual Access**

Where applicable the following will apply to TOs:

By submitting a TOP, the Offeror warrants that the information technology offered under the TOP (1) provides equivalent access for effective use by both visual and non-visual means; (2) will present information, including prompts used for interactive communications, in formats intended for both visual and non-visual use; (3) if intended for use in a network, can be integrated into networks for obtaining, retrieving, and disseminating information used by individuals who are not blind or visually impaired; and (4) is available, whenever possible, without modification for compatibility with software and hardware for non-visual access. The Offeror further warrants that the cost, if any, of modifying the information technology for compatibility with software and hardware used for non-visual access will not increase the cost of the information technology by more than five percent. For purposes of this Master Contract, the phrase "equivalent access" means the ability to receive, use and manipulate information and operate controls necessary to access and use information technology by non-visual means. Examples of equivalent access include keyboard controls used for input and synthesized speech, Braille, or other audible or tactile means used for output.

The Non-visual Access Clause noted in COMAR 21.05.08.05 and referenced in this solicitation is the basis for the standards that have been incorporated into the Maryland regulations, which can be found at: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: non-visual access.

### **1.31 Payments by Electronic Funds Transfer**

By submitting a response to this solicitation, the Offeror agrees to accept payments by electronic funds transfer unless the State Comptroller's Office grants an exemption. The selected Offeror shall register using the COT/GAD X-10 Vendor Electronic Funds (EFT) Registration Request Form. Any request for exemption shall be submitted to the State Comptroller's Office for approval at the address specified on the COT/GAD X-10 form and shall include the business identification information as stated on the form and include the reason for the exemption. The COT/GAC X-10 form can be downloaded at: <http://compnet.comp.state.md.us/gad/pdf/GADX-10.pdf>

### **1.32 Contract Extended to Include Other Non-State Governments or Agencies**

For the purposes of information technology or telecommunications procurements, pursuant to §3-702(b) of the State Finance and Procurement Article of the Annotated Code of Maryland, county, municipal, and other non-state governments or agencies may purchase from the Contractor goods or services covered by this Contract at the same prices chargeable to the State. All such purchases by non-State governments or agencies:

- Shall constitute contracts between the Contractor and that government or agency;
- Shall not constitute purchases by the State or State agencies under this RFP;
- Shall not be binding or enforceable against the State, and

- May be subject to other terms and conditions agreed to by the Contractor and the purchaser. Contractor bears the risk of determining whether or not a government or agency with which the Contractor is dealing is a State agency.

### **1.33 Conflict of Interest**

- 1.33.1 Under State Government Article 15-508 of the State ethics laws, a person and their employer who assist or are involved in the drafting of specifications for a procurement are prohibited from submitting a proposal for that procurement, from assisting or representing another person, directly or indirectly, who is submitting a proposal for that procurement, and from participating in the implementation of those specifications, whether as a prime or subcontractor. The State Ethics Law may apply to TOs issued to Contractors under the CATS procurement.
- 1.33.2 The successful Offeror(s) will provide IT consulting and technical services for State agencies, or component programs with those agencies and must do so impartially and without any conflicts of interest. Contractors will be required to complete a Conflict of Interest Affidavit with each TOP submitted in response to a TORFP. A copy of this Affidavit is included as Attachment G of this RFP. If the Procurement Officer makes a determination before award of a TOA pursuant to a respective TORFP that facts or circumstances exist that give rise to or could in the future give rise to a conflict of interest within the meaning of COMAR 21.05.08.08A, the Procurement Officer may reject a TOP under COMAR 21.06.02.03B.

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## SECTION 2 – SCOPE OF WORK

### 2.1 Scope

2.1.1 The scope of this solicitation encompasses fifteen (15) primary functional areas. The functional areas are as follows:

- 1) Enterprise Service Provider – (Section 2.3.1)
- 2) Web and Internet Systems – (Section 2.3.2)
- 3) Electronic Document Management – (Section 2.3.3)
- 4) Geographical Information Systems – (Section 2.3.4)
- 5) Software Engineering – (Section 2.3.5)
- 6) Systems/Facilities Management and Maintenance – (Section 2.3.6)
- 7) Information System Security – (Section 2.3.7)
- 8) Application Service Provider – (Section 2.3.8)
- 9) IT and Telecommunications Financial and Auditing Consulting Services – (Section 2.3.9)
- 10) IT Management Consulting Services – (Section 2.3.10)
- 11) Business Process Consulting Services – (Section 2.3.11)
- 12) Preparations for Proposed Tower Sites – (Section 2.3.12)
- 13) Electronic Benefits Transfer – (Section 2.3.13)
- 14) Media and Training Center Support – (Section 2.3.14)
- 15) Documentation/Technical Writing – (Section 2.3.15)

2.1.2 The Scope of Services contained herein is intended to outline the general Contractor requirements under this RFP. Specific details of scope, time and budget will be provided in each individual Task Order (TO). The examples of TOs listed in Section 2.3 are not all inclusive of the services that may be required under the Master Contract.

### 2.2 General Requirements

Depending upon the requirements of TOs, the following shall apply:

#### 2.2.1 Hardware, Software and Data

Integral to the service necessary in performing the functional areas, acquisition of hardware, software or data, including spatial data, on a leased, depreciated, or purchased basis may also be required of the Contractor. Under any of the functional areas, a TO may be used to acquire hardware/software up to a minority percentage, i.e., less than 50 percent of the value of the Task Order. The types of hardware/software envisioned would include, but are not limited to, such items as: IT infrastructure hardware/software utilities, CASE tools (e.g., Oracle Case, System Architect, Knowledgeware, Netscape, Web Browser), models database management systems, personal

computers, workstations, servers, printers, application software products, CD-ROM, digital libraries, imaging and optical character recognition equipment, COTS items, adapters, cables, power cords. The types of data envisioned would include, but are not limited to, spatial databases suitable for use in a Geographic Information System (GIS). These data may be in digital form such as digital orthophotographs (digital aerial photographic maps), roads, streams, property boundaries or individual features collected from other sources or through field investigations. These data may also be in the form of paper or digital maps. Technological refreshment/enhancements of hardware/software as well as special access considerations are subject to and included in the limitation on the use of Task Orders for hardware and software required by individual Task Orders, as well as hardware and software warranties. The Contractor may be requested to purchase, lease, maintain, and repair primary and peripheral hardware such as CPUs and tape drives. The State reserves the right to procure hardware and software from other sources when it is in the best interest of the State to do so and without notice to the vendor.

#### 2.2.1.1 Custom Software

- A) The State shall solely own any custom software, including, but not limited to application modules developed to integrate with a COTS, source-codes, maintenance updates, documentation, and configuration files, developed under any TOA.
- B) Upon the Contractor's voluntary or involuntary filing of bankruptcy or any other insolvency proceeding, Contractor's dissolution, Contractor's merger with or acquisition by another company or contractor, discontinuance of support of any software or system, the Contractor shall convey to the State all rights, title, and interests in all custom software that comprises any solutions proposed as a part of the Master Contract or TOAs or licenses, software source codes, and all associated Software Source Code Documentation. These rights include, but are not limited to, the rights to use, and cause others to use on behalf of the State, said software, software documentation, licenses, software source codes, and Software Source Code Documentation.

#### 2.2.1.2 Source Code

- A) For all custom software provided to the State pursuant to the Master Contract or any TOA thereunder, the Contractor shall either provide the source code directly to the State in a form acceptable to the State, or deliver two copies of each software source code and Software Source Code Documentation to a State-approved escrow agent. Contractor shall cause the escrow agent to place the software source code in the escrow agent's vaulted location that is located in the Baltimore/ Washington area of Maryland that is acceptable to the State. Two copies of the source code shall be stored on compact discs or other media designated by the State in a format acceptable to the State, and shall be easily readable and understandable by functional analysts and technical personnel with the skill set for that type of component, subcomponent, or software code.
- B) Contractor shall provide the following:
  - 1. Name, address, and telephone number of third party who acts as escrow agent
  - 2. Source code escrow procedures
  - 3. Name, address, telephone number of party who audits escrow account
  - 4. Frequency of updates and maintenance of source code at escrow agent
  - 5. Description of licensing arrangements and associated costs
- C) The State shall have the right to audit the software source code and corresponding Software source code documentation for each software product that comprises the solution as represented

by the Contractor. This audit shall be scheduled at any time that is convenient for the parties to be present. The State shall be provided with software or other tools required to view all software source codes.

#### 2.2.1.3 Data

Data, databases, and derivative data products, which have been created, collected, manipulated, or purchased are considered property of the State:

- A) Data and derived data products collected, manipulated, or directly purchased as part of a TO shall become the property of the State. The purchasing State agency is considered the custodian of the data and shall determine the use, access, distribution and other conditions based on appropriate State statutes and regulations.
- B) Licensed and/or copyrighted data shall be governed by the terms and conditions identified in the TOA or the license.

#### 2.2.2 Required Project Policies, Guidelines and Methodologies

The Contractor shall be required to comply with all applicable Laws, regulations, policies, standards and guidelines affecting information technology projects, which may be created or changed periodically. It is the responsibility of the Contractor to insure adherence and to remain abreast of new or revised Laws, regulations, policies, standards and guidelines affecting project execution. These may include, but are not limited to:

- A) The State's System Development Life Cycle (SDLC) methodology at: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: SDLC;
- B) The State Information Technology Security Policy and Standards at: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: Security Policy;
- C) The State of Maryland Enterprise Architecture at: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: IT Project Oversight;
- D) The State of Maryland Enterprise Architecture at [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: MTAF Guiding Principles;
- E) The Contractor shall follow the project management methodologies that are consistent with the Project Management Institutes (PMI) Project Management Body of Knowledge (PMBOK) Guide. Contractor's staff and subcontractors are to follow a consistent methodology for all TO activities;
- F) The Contractor shall apply a structured methodology to identify, evaluate, and select hardware, software, and services (e.g., telecommunications services, Internet access services, software maintenance) to meet specific requirements and when warranted, adjusting the methodology, including prototypes and pilots, to mitigate risk. This shall include, but not be limited to providing recommendations and assessments for all systems and technologies in areas such as the following:
  - 1) COTS evaluations and comparisons;
  - 2) COTS integration strategies and feasibility;
  - 3) Technology insertion;
  - 4) Technology upgrades;
  - 5) System concept feasibility; and,
  - 6) Projected return on investment.

- G) Apply proven and new system development methodologies and tools, and defining hardware, software, and firmware requirements.

### **2.2.3 Financial Accounting Solutions**

For solutions where financial accounting is performed by the system, or where the Contractor is responsible for asset management, the Contractor shall ensure that any financial accounting for fixed and capital assets, which may be performed, shall comply with Government Accounting Standards Board Statement No. 34 (GASB 34). See applicable accounting principles at: [www.gasb.org/repmode/index.html](http://www.gasb.org/repmode/index.html)

### **2.2.4 Travel Reimbursement**

2.2.4.1 Routine Travel is travel within a 50-mile radius of agency's base location, as identified in the TORFP, or the Contractor's facility, whichever is closer to the consulting site. There will be no payment for labor hours for travel time or reimbursement for any travel expenses for work performed within these radiuses or at the contractor's facility.

2.2.4.2 Non-routine travel is travel beyond the 50-mile radius of agency's base location, as identified in the TORFP, or the Contractor's facility, whichever is closer to the consulting site. Non-routine travel will be identified within a TOA, if appropriate, and will be reimbursed according to the State's travel regulations and reimbursement rates, which can be found at: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: Fleet Management. If non-routine travel is conducted by automobile, the first 50 miles of such travel will be treated as routine travel and as described in section 2.2.4.1 of this definition, will not be reimbursed. The Contractor may bill for labor hours expended in traveling by automobile beyond the identified 50-mile radius.

### **2.2.5 Material Costs**

Any materials provided by the Contractor can only be approved for cost. No additional fees or markups shall be allowed. The Contractor shall provide all invoices for materials. The procedure is noted in Invoices Section 2.10.

## **2.3 Functional Area Descriptions**

The examples of TOs listed in this section are not all inclusive of the services that may be required under the Master Contract. The State will make a determination of the appropriate functional area at the time the TORFP is released.

### **2.3.1 Functional Area One - Enterprise Service Provider (ESP)**

- A) Description - Services to ensure that information systems are designed to capitalize on agency architectures and State IT standards, provide interoperability with other systems and networks, be reliable and maintainable, and make the most cost-effective use of COTS technology and agency-wide and government-wide resources.
- B) Examples of Potential Task Orders:
  - Deliver stated levels of performance, interoperability, and maintenance support within the known constraints of an agency's IT infrastructure; and
  - Testing the appropriate configurations of two or more hardware or software components of information systems or telecommunications networks.

### 2.3.2 Functional Area Two – Web and Internet Systems

A) Description – A broad range of business solutions and support using the capabilities of the Web and Internet; Design, develop, test, implement and maintain Web sites, Portals, Web applications and Web services and the associated hardware, software, network and security components that comprise these solutions.

B) Examples of Potential Task Orders:

- Design, develop, test, implement and maintain secure and accessible Web and Internet solutions such as Web site Portals, Web applications and Web services for various business processes including requisitions, quotes, purchase orders, notices of award, electronic payments, etc.;
- Provide scalable security solutions for Web and Internet Services at the network and application level such as SSL certificates, user authentication and SSO (single sign on), application firewalls, IDS monitoring, PKI and digital signatures;
- Design, develop, implement and maintain Web graphics and site content, including electronic catalogues of goods and services, to ensure accuracy and timeliness of information published to the Web;
- Create Web-based applications that are a front-end to traditional mainframe system;
- Apply new and emerging technologies to establish current and scalable Web development platforms;
- Assist in the implementation and customization of Web Services and other COTS solutions for the Internet including, but not limited to EC/EDI;
- Provide data transformation solutions between disparate systems;
- Monitor performance of Web based solutions including, but not limited to traffic, usage statistics and surveys; and,
- Provide configuration management control services and solutions.

### 2.3.3 Functional Area Three - Electronic Document Management

A) Description – Service to establish or maintain electronic document imaging, document management, document workflow, and associated technologies.

B) Examples of Potential Task Orders:

- Workflow analysis;
- Document indexing/queuing and workload management;
- System/application/network design;
- Application prototyping;
- Implementation and support services;
- System interface development;
- System migration strategies;
- Document conversion (hardcopy to electronic or electronic to new system/media);
- Performance monitoring/measurement;
- System stress testing/benchmarking; and,
- Document and records retention/archiving.

### 2.3.4 Functional Area Four - Geographical Information Systems

A) Description –Service to integrate, store, edit, analyze, and display geographically-referenced information in a client/server or web-based environment.

B) Examples of Potential Task Orders :

- Cost-benefit analysis of migrating/integrating exiting databases with GIS;
- Systems analysis, design and spatial database development;
- Spatial referencing of spatial and non-spatial data;
- Integration of spatially referenced data with other functional areas in an organization;
- GIS system and data maintenance;
- Data quality assurance (e.g. data accuracy, precision, consistency, completeness) according to data quality standards/guidelines of the State;
- Collect, create or acquire digital spatial data such as orthophotography, elevation data, transportation features, streams, or parcel maps;
- Create maps using spatial data for Web content, publication or other uses;
- Linking data with maps using geocoding;
- Define, develop, configure, implement and maintain GIS solutions, including COTS packages;
- Manipulate geographical data;
- Perform queries, analysis and visualization;
- Leverage existing data sets and data assets of the State, as necessary;
- Interface disparate GIS data sets to GIS solution; and,
- Custom GIS application development to present data in standalone and web based environments.

### **2.3.5 Functional Area Five - Software Engineering**

A) Description – Service to provide full life cycle of a software system development. Process definition; requirements management (project planning, quality assurance, project tracking and oversight, organizational process focus); software metrics; software process assessments; software capability evaluations; software project management; software certification; software validation and verification; open systems; software architecture; software reengineering; software reuse; component based software; software security; supervising software configuration management; and CASE tools.

B) Examples of Potential Task Orders:

- Provide ongoing system, applications maintenance and troubleshooting;
- Analyze and document complex system requirements;
- Design software tools and subsystems to support software reuse and domain analyses and manage their implementation;
- Interpret software requirements, design specifications to code, manage software development and support (using formal specifications, data flow diagrams, and other accepted design techniques and tools), integrate and test software components;
- Estimate software development costs and schedules;
- Review existing programs and assist in making refinements, performance improvements, and improving current techniques; and,
- Estimate and track software quality attributes.



## 2.3.6 Functional Area Six - Systems/Facilities Management and Maintenance

Systems/Facilities Management and Maintenance services include: Data Center Technical Support/Operations, and Help Desk. At the State's discretion, these services may be required to be provided externally to the requesting agency.

### 2.3.6.1 Data Center Technical Support

- A) Description - Planning, analysis, troubleshooting, integration, acquisition, installation, operations, maintenance, training, documentation, and administration services for computer centers.
- B) Examples of Potential Task Orders:
- Develop/provide user manuals, programmer maintenance manuals, system design documentation;
  - Provide operations and maintenance support;
  - Analyze and assess equipment and performance degradation, including determination of hardware, software, and/or other technical changes necessary to meet operational requirements;
  - Perform data entry;
  - Provide support services to maintain operational data storage and retrieval applications resident on diverse computer platforms including, but not limited to, mainframes, and minicomputers;
  - Implement and maintain backup and disaster recovery systems and processes;
  - Develop standard operating procedures for the data center and associated systems/applications;
  - Provide alternative sources of computer operations support and/or data center facilities;
  - Provide assistance and help to users in areas, including, but not limited to, personalized assistance, telephone assistance and limited training;
  - Perform hardware/software testing, installation, and maintenance;
  - Collect and maintain statistics on hardware and software problems, maintenance service calls, and user base;
  - Migrate data from system A to system B, which may require data QA/QC, data cleansing, data conversion and manipulations management;
  - Monitor system performance and coordinate with office system vendors and users on efficient and effective use of the system;
  - Provide technical training on all functions of the system;
  - Develop requirements/specifications for hardware, software, and/or services;
  - Develop special applications as required;
  - Maintain system architecture/schematic on hardware, software, circuits, and codes for each system and user(s);
  - Develop and maintain a configuration management program for all supported applications;
  - Develop and maintain a life-cycle management program for all hardware and software applications;
  - Centrally administer software licenses, including dynamic allocation;
  - Perform network-based detection of viruses and unauthorized software and facilities to counter/eliminate/control;
  - Centrally distribute electronic software;
  - Migrate systems between State-owned and/or commercial facilities

- Manage and administer user identifications; passwords; and security keys; and,
- Provide secure data center facility to host mission critical applications.

#### 2.3.6.2 Facilities Maintenance

A) Description – Cleaning of equipment, fire suppression, HVAC installation and maintenance, and UPS.

B) Examples of Potential Task Orders:

- Installation and maintenance of UPS and HVAC systems;
- Installation and testing of fire suppression system; and
- Provide cleaning of facilities equipment.

#### 2.3.6.3 Help Desk

A) Description - Centralized technical assistance service to supports end user problem resolution, and the distribution of general information concerning the effective use of IT.

B) Examples of Potential Task Orders:

- Troubleshoot problems encountered using microcomputer software;
- Develop/provide user manuals, programmer maintenance manuals, and system design documentation;
- Provide user training in a variety of areas (e.g., desktop publishing, end-user security awareness training, telecommunications, operating systems, software packages);
- Analyze and assess equipment and performance degradation, including determination of hardware, software, and/or other technical changes necessary;
- Provide assistance in maintaining inventory control and location records of State-owned information technology equipment/software and disposal of property as required;
- Collect statistics on hardware/software/system problems, security incidents, maintenance service calls, and user base;
- Analyze new applications, perform software maintenance, and make appropriate enhancements to existing systems;
- Assist customer personnel in identifying their requirements and/or problems;
- Review implementation plans for applications to ensure that the system resources are available to support applications in both the long and short-term;
- Perform configuration management of software and hardware, including computers and network equipment across the enterprise; and,
- Centralized administration of software licenses, including dynamic allocation.

### **2.3.7 Functional Area Seven - Information System Security**

The security of information and computing resources at all organizational levels; including software/application and data security support, as well as, disaster recovery planning and risk assessment.

#### 2.3.7.1 Hardware/Software/Application Security Support

A) Description –Strategies and solutions to defend hardware and software IT and telecommunications resources against adversaries such as viruses, worms and hackers for operating systems and applications in a mainframe, client/server, or networked environment.

B) Examples of Potential Task Orders:

- Provide operational and analytical support related to security for computing platforms (i.e. PC, servers, mainframe) and networks;
- Analyze and evaluate new and emerging security technologies as well as vendor security products for their applicability and feasibility of use in securing hardware/software IT and telecommunications resources;
- Support customer security operations, including assisting customers with analyzing, developing and implementing security methodologies and safeguards to protect their IT and telecommunications assets;
- Provide technical training for all aspects of information security relative to personal computers, file servers, and networks;
- Design, test, install and support wireless network security systems; and,
- Provide virus detection, elimination, and prevention support.

#### 2.3.7.2 Disaster Recovery and Risk Assessment.

A) Description - Disaster recovery planning and risk assessment in support of the mitigation of risks to information technology and telecommunications systems and infrastructure. Through quantitative risk analyses establish recovery time and recovery point objectives, effective mitigation strategies, and documented disaster recovery plans. Assess adequacy of existing management, operational, and technical controls in safeguarding assets against waste, loss, unauthorized access/use, misappropriation to establish the consequences/impact of the potential threats on operations and service delivery requirements.

B) Examples of Potential Task Orders:

- Review, develop, update and/or integrate disaster recovery, continuity of operations plans, contingency plans, and risk assessments; and,
- Identify, develop and/or implement mitigation strategies to increase the effectiveness of operations and the continuity of service.

#### **2.3.8 Functional Area Eight - Application Service Provider**

A) Description - Combination of software, hardware and networking technologies to offer hosted service-based applications.

B) Examples of Potential Task Orders - Application and support of that applications such as, but not limited to:

- Finance;
- Human resources;
- E-commerce;
- Procurement;
- Materials management;
- Production;
- Order management and other legacy systems;
- Collaboration and automation tools;

- Web-hosting;
- Knowledge management;
- Back-office solutions;
- e-business and e-commerce applications;
- Data warehousing; and,
- Information services (e.g., financial information, and legal research).

### **2.3.9 Functional Area Nine - IT and Telecommunications Financial and Auditing Consulting Services**

The IT and Telecommunications Financial and Auditing Consulting include the following types of services: cost and financial analyses, information systems auditing and quality assurance and telecommunications systems management.

#### **2.3.9.1 Cost and Financial Analyses**

A) Description – An independent “third-party” review of cost factors associated with the recommended solutions contained in proposals from contractors to develop information technology and telecommunications solutions. Independent third-party reviews may include such analyses as project return on investment, total cost of ownership and IT project portfolio analysis.

B) Examples of Potential Task Orders:

- Perform independent reviews of proposed IT projects, products, and cost for services and benefits to determine cost-effectiveness;
- Perform independent verification and validation (IV&V) analyses of cost proposals and cost benefit analyses for solutions submitted by the Contractors in response to agency solicitations;
- Provide total cost of ownership analysis that includes the entire range of cost categories required for any given project being reviewed. The cost categories subject to analysis will depend on the particular IT project and may include: acquisition, facilities, equipment, operations, maintenance and repairs, and other costs such as, nonrecurring, recurring, direct and indirect, fixed and variable, and research and development;
- Establish baseline cost and benefits for IT projects based on historical data to serve as benchmarks for planning and evaluating proposed IT projects; and,
- Provide financial management IT for projects and recommend procedures and processes for improving project financial management.

#### **2.3.9.2 Information Systems Auditing and Quality Assurance**

A) Description - Quality assurance audits of IT systems to ensure that systems perform to documented specifications in areas such as: data security, customer privacy, data accuracy, business processes, and customer satisfaction. In support of these efforts, auditing expertise to either perform or validate internal quality assurance audits for large- and medium-scale information technology projects in various environments (i.e., mainframe, mini computers, client/server, WAN/LAN).

B) Examples of Potential Task Orders:

- Perform or validate quality assurance audits (including IV&V) of IT systems during the development process and report to a State agency on findings and recommend mechanisms to correct the issues identified in the audits; and,
- Develop an action plan that corrects audit findings and report to a State agency on the results of these corrective actions.

### 2.3.9.3 Telecommunications Systems Management

1. Description - Auditing services for quality control and for recommendations on consolidating activities spread among several contracts to obtain operational and cost efficiencies through consolidation and other means for telecommunication systems.
2. Examples of Potential Task Orders:
  - Evaluate and report on how State telecommunications contracts may be combined, streamlined, or otherwise improved to maximize operational and cost efficiencies in the State;
  - Provide assessments of configuration and performance of telecommunications systems and contract vehicles;
  - Analyze costs and benefits for telecommunications systems and provide recommendations based on maximizing return on investments for alternatives to current and proposed systems; and,
  - Monitor the implementation of accepted recommendations or improvements and provide feedback on level of improvements.

## 2.3.10 **Functional Area Ten - IT Management Consulting Services**

The IT Management Consulting Services include any of the following types of services: IT enterprise architecture, systems review for architectural consistency, strategic planning assistance, project management services, Contractor assessments and risk assessment analysis.

### 2.3.10.1 IT Enterprise Architecture Development

- A) Description – Define, design, develop, implement and maintain enterprise architecture plans, strategies, inventories and recommendations to support enterprise architecture (EA) at the State and agency level.
- B) Examples of Potential Task Orders:
  - Document and assess the current condition of the State/agency’s EA(s). This analysis may require documentation at the system or subsystem level;
  - Recommend an EA strategy for the State/agency with potential interim steps or phases for implementation based on the current condition survey mentioned above;
  - Provide recommendations for the development, implementation, assessment and maintenance of architectural principles, policies, standards and practices;
  - Provide data architecture, applications architecture, technology architecture, enterprise architecture planning, information systems architecture, and architecture trade-off analysis;
  - Conduct analyses and provide architecture impact assessments of proposed changes in information resources as directed;
  - EA tool set development, implementation and management;

- Provide expertise to identify opportunities for integration and economies of scale across systems and/or organizations through the development or creation of enterprise architecture; and,
- Provide consultation on architecture improvement and recommendations on coordinating IT investments and initiatives across the various State agency's business processes.

#### 2.3.10.2 Systems Review for Architectural Consistency

A) Description - Engineering assistance to integrate systems based on architectural standards and common infrastructures. In particular, recommendations for systems development, acquisition, and operations and to leverage common infrastructures effectively among various agency missions and services. Such application reviews may cover a variety of IT system environments from simple personal computer (microprocessor) and workstation applications; to local area networks (LAN) and wide area networks (WAN), to distributed processing systems; to web-based interactive systems; to large and very complex mainframe database and file management systems that utilize remote batch processing and interactive teleprocessing.

B) Examples of Potential Task Orders:

- Assess system design of applications to ensure consistency between systems and enterprise architectures and best integration with common infrastructure before development (i.e., code generation);
- Evaluate and determine the adequacy and appropriateness of the proposed systems architecture and applications for the planned systems; and,
- Assess risks related to systems development plans and change proposals to existing and target architecture at the systems and enterprise levels.

#### 2.3.10.3 Strategic Planning Assistance

A) Description - Assistance in developing long-range information technology plans, IT-enabled business plans, and program effectiveness measures related to proposed IT investments. Assistance with agency-level strategic planning for IT to ensure consistency with State-level (i.e., enterprise) plans and initiatives.

B) Examples of Potential Task Orders:

- Analyze customer and citizen demand for IT-enabled services;
- Evaluate current and emerging technologies and assist agencies with planning the tactical and strategic migration of business services to these technologies;
- Develop IT strategic plans that align agency business and technology plans with State business technology and goals and objectives; and,
- Perform strengths, weaknesses, opportunities, and threats (SWOT) analyses, critical success factor analyses, strategic business planning, strategic information systems planning, electronic government assessments, and other techniques used to establish strategic information technology plans.

#### 2.3.10.4 Project Management Services

- A) Description - Successful IT project management services to ensure that IT project goals and objectives are met and that products are delivered on time, on budget and within scope, as well as, meet the business objectives originally intended.
- B) Examples of Potential Task Orders:
  - Ensure strategic alignment of IT projects by establishing project goals and objectives that are consistent with stated agency business drivers;
  - Provide project planning, task prioritization, budget/cost analysis, scheduling, projections of staffing requirements, and performance measurements; and,
  - Assist State agencies with project management of IT project by assessing and modifying Project Management Plans (PMP), schedules, contracts and manages resources; delegating tasks; receiving, gathering, analyzing and disseminating information; setting goals and objectives; organizing project team and governance structures; understanding technology projects and preparing action and contingency plans.

#### 2.3.10.5 Contractor Assessments

- A) Description - Independent, third party assessment of Contractor products, capabilities and experiences.
- B) Examples of Potential Task Orders – Provide a review, evaluation and rating of IT Contractor performance on topics such as:
  - Code of ethics and business practices;
  - Financial status including assets, liabilities, operating capital, cash flow, insurance coverage, annual reports, legal history;
  - Ranking among peers in the industry;
  - Personnel qualifications;
  - Reputation in the industry;
  - Customer satisfaction levels in performing projects;
  - Strengths and weaknesses in performing projects;
  - Project management methodologies applied to projects and results; and,
  - Projects performed on time, on budget and within scope and meeting the business requirements originally intended.

#### 2.3.10.6 Risk Assessment Analysis

- A) Description – Assess the risks associated with costs, benefits, schedule, technical performance, human factors, safety and security. The analysis may include provisions for identifying risk areas, assessing risk factors, recommending appropriate resources to reduce risk factors, identifying and analyzing alternative actions available, identifying the most promising alternatives, and planning for implementation of risk reduction.
- B) Examples of Potential Task Orders:
  - Assess risks and review technical risk assessments of an IT project including subsystem designs, architectures, and computer systems in terms of their impact on costs, benefits, schedule and technical performance;
  - Perform cost and schedule risk assessments to support various alternatives to meet mission need, recommend alternative courses of action when one or more interdependent

segment(s) or phase(s) experience a delay, and recommend opportunities for new technology insertions;

- Provide fraud detection and prevention expertise on services to internal and external customers;
- Perform technical risk assessments at various points in the system life cycle;
- Identify areas of technical risk when translating operational requirements into system level requirements;
- Develop and/or evaluate potential methods of mitigating technical risks;
- Update evaluations in order to determine and forecast operational needs and changes;
- Provide presentations on reporting and operational enhancements;
- Develop operational management reporting tools and programs to prevent or mitigate risks; and,
- Provide and/or develop risk management policies, procedures and guidelines.

### **2.3.11 Functional Area Eleven - Business Process Consulting Services**

A) Description - Streamlining business processes and the development, implementation and support of process improvements to eliminate redundancy and increase productivity and reduce cost.

B) Examples of Potential Task Orders:

- Collect information sharing and business requirements from State agencies to use in the development of new systems and the reengineering of legacy systems. Analyze existing work flow processes and define business requirements and recommend improvements to or reengineering of business work flow processes in order to meet identified business requirements;
- Coordinate business process improvement initiatives across the lines of business of either a single agency or multiple State agencies;
- Analyze the operational, technical and economic risks of reengineering efforts;
- Assist State agencies with change management planning and the execution of reengineered business processes;
- Document the reengineering methodologies utilized to recommend improvements in business processes and the methods of implementation; and,
- Assist agencies in developing technical solutions for information technology projects for recommended business process improvements.

### **2.3.12 Functional Area Twelve – Preparations for Proposed Tower Sites**

The Preparations for Proposed Tower Sites include the following types of service areas: Determination of Eligibility (DOE) and Photo Simulations.

#### **2.3.12.1 Determination of Eligibility (DOE) of Proposed Tower Sites**

A) Description - Conduct Historic Properties Survey investigations that meet the rules implementing compliance with Section 106 (36 CFR § 800), delimit the undertaking's Area of Potential Effects ("APE"), identify historic properties, evaluate the effects of the undertaking to historic properties, and provide documentation to the State Historic Preservation Officer (SHPO) and the State.

B) Examples of Potential Task Orders:



- Provide historic properties survey reports, National Register of Historic Places Determinations of Eligibility reports, Criteria of Adverse Effect reports, completed State historic properties inventory forms, photographic documentation, line of sight profiles, and photographic simulations;
- Determination of Effects/Adverse Effects shall include a Tower Viewshed Analysis and Impact Determination to include the effects on existing or potentially eligible Rural Historic Landscapes;
- Provide visual impact assessments and expert application of the Criteria of Adverse Effect on historic properties and Rural Historic Landscapes within the Area of Potential Effect; and,
- Provide photographic documentation of existing tower assets.

#### 2.3.12.2 Photo Simulations for Proposed Tower Sites

- A) Description - Provide photographic simulation services and resulting photographic prints of radio tower projects, which will be used during public information hearing presentations.
- B) Example of Task Orders:
- Photograph an erected radio tower of the structural type and height selected for the location identified (typically 330-foot or 180-foot) and the radio tower sites selected for photo simulation;
  - Provide photographic simulation through superimposition of an image of the appropriate height and structural type of the tower projected onto photographs of the selected radio tower site(s) from a minimum of 3 different identified locations; and,
  - For each proposed tower site, provide electronic images of the photo simulations taken from three different identified locations/view points.

#### 2.3.13 **Functional Area Thirteen – Electronic Benefits Transfer**

- A) Description – Deliver information, benefits and payments electronically instead of using checks, warrants or other paper methods. Ensure convenient, rapid and secure transfer of both information and payments.
- B) Examples of Potential Task Orders:
- Allow food stamp benefits to be issued and redeemed using a plastic debit card instead of paper coupons;
  - Allow cash benefits to be issued and redeemed using a plastic debit card or direct deposit into an individuals bank account instead of checks; and,
  - Establish and/or maintain infrastructure for public assistance recipients to receive benefits using a debit card with the option of direct deposit of cash benefits into their individual bank account.

#### 2.3.14 **Functional Area Fourteen – Media and Training Center Support**

- A) Description – Services to support multi-media and education centers including, but not limited to: planning, analysis, troubleshooting, integration, acquisition, installation, operations, maintenance, training, documentation, and administration. Professional training expertise, including instructional systems design capabilities to improve job performance of employees utilizing the learning/media center.

B) Examples of Potential Task Orders:

- Develop technical and non-technical training materials and documentations;
- Analyze and assess equipment and performance degradation, including determination of hardware, software, and/or other technical changes necessary to meet operational requirements;
- Assist in the planning and logistics of conferences (including local, remote, tele-conferences, nationwide, and/or global), presentations, and classes;
- Prepare video tapes of presentations, meetings, and course topics;
- Provide and maintain a training environment conducive to effective training. May include facility, multimedia presentation capabilities and curriculum specific hardware and software;
- Purchase, lease, maintain, and repair primary and peripheral hardware;
- Maintain a centralized technical assistance service that supports problem resolution and distributes general multi-media and learning information;
- Provide qualified SME's to effectively train technical and non-technical staff; and,
- Develop curriculum.

### 2.3.15 Functional Area Fifteen – Documentation/Technical Writing

A) Description –Develop and/or maintain the following types of documentation: system documentation; user manuals; computer operations and program maintenance manuals; plans for training, testing, quality assurance, and contingency operations; and, backup, recovery and restart procedures. Technical writing for proposals, presentations, standard operating procedures (SOP), policies and procedures.

B) Examples of Potential Task Orders:

- Develop system documentation that captures functional, interface, integration, date, security, and internal control requirements, data sensitivity and criticality description, system/subsystem or modules, program, database design, security and internal control specifications;
- Document security specifications;
- Develop system documentation for a new or existing system;
- Develop technical specifications for a proposal;
- Develop standard operating procedures;
- Update SDLC documentation;
- Develop agency security policy and procedures; and,
- Develop SOP for administration of a master contract.

## 2.4 TO Procedures

### 2.4.1 TORFP Content

TORFPs will be initiated by the TOM assigned by the agency requesting the services and shall define the scope and requirements of the specific requirement. At the minimum, each TORFP will contain the following information:

A) Type of TOA with compensation and method of payment;

- B) Project, Technical, and Contractual point of contact;
- C) Due date, time and place for bidding on the TO;
- D) Background information including task objectives;
- E) Nature of the financial submission;
- F) Technical requirements;
- G) Performance objectives and /or deliverables, as applicable;
- H) Personnel skill categories required;
- I) Period of performance;
- J) Place of performance;
- K) Deliverable/delivery schedule;
- L) Security requirements;
- M) State furnished information, work site, and/or access to equipment, facilities, or personnel;
- N) Inspection and acceptance criteria;
- O) Service level agreements;
- P) Set of measurable benefits improvement outcomes;
- Q) Retainage (if applicable);
- R) TO award selection criteria;
- S) Non-Visual Access Clause (if applicable);
- T) Minority Business Enterprise Goal; and,
- U) Hardware and Software Warranties.

#### **2.4.2 TOP Submission Requirements**

All TORFPs will be sent to all Contractors awarded a Contract within the functional area the TORFP applies. Contractors who receive a TORFP, and who would have an existing or potential conflict of interest if awarded the TO, shall immediately provide the TOM with a written notification of the conflict.

All Contractors receiving the TORFP must respond with either a proposal or a written notification to the TOM that they do not intend to submit a proposal and reason(s) why. Upon receipt of a TORFP, the Contractor shall provide a TOP in response to the requirements of the TORFP. At a minimum the TOP shall provide the following:

- A) Proposed approach to satisfying the requirements of the TORFP and development of TO deliverables;
- B) Breakdown of all hardware and software required to successfully execute TO;
- C) Proposed schedule in GANTT chart format;
- D) Proposed hours for each labor category (applicable for T&M TOs);
- E) An estimate of staff time to be required of State employees associated with this project;
- F) Detailed written description of any work to be subcontracted, the name and address of the proposed subcontractor(s);
- G) Explanation of how the Contractor intends to meet the TO MBE requirement and any required submissions;
- H) Proposed cost or price; and,
- I) Proposed key personnel with attached resumes.

#### **2.4.3 Procedure for Awarding a TO**

The criteria for making a TO award determination will be detailed in the TORFP.

#### **2.4.4 Commencement of Work Under a TO**

Work in response to TOs shall be initiated only upon issuance of a fully executed TOA a NTP authorized by the State.

## 2.5 Security Requirements

2.5.1 Contractors shall comply with and adhere to the State IT Security Policy and Standards where applicable to the TOs. These policies may be revised from time to time and the Contractor shall comply with all such revisions. Updated and revised versions of the State IT Policy and Standards are available on-line at: [www.dbm.maryland.gov](http://www.dbm.maryland.gov) - keyword: Security Policy.

### 2.5.2 IT Security

2.5.2.1 Security Regarding Contractor-owned Computer Equipment. The Contractor shall not connect any of its own equipment to a State LAN/WAN without prior written approval by the State.

2.5.2.2 The Contractor shall fill-out any necessary paperwork for security access to sign on at the State's site if access is granted to the State's LAN/WAN, as directed and coordinated with the TOM.

### 2.5.3 Physical Security:

2.5.3.1 Each person who is an employee or agent of the Contractor or subcontractor shall display his or her company ID badge at all times while on State premises. Upon request of State personnel, each such employee or agent shall provide additional photo identification.

2.5.3.2 Security Clearance (**May be required by some State Agencies and will be identified as a requirement per TO**):

- A. The Contractor shall obtain a Criminal Justice Information System (CJIS) State and Federal criminal background check, including fingerprinting, for each individual performing services under a TOA. This check may be performed by a public or private entity. A successful CJIS State criminal background check shall be completed prior to any Contractor employee providing services on-site at any location covered by the TOA. A CJIS Federal background check is necessary for each employee assigned to work on the TOA and shall be completed within four (4) months of TOA award.
- B. The Contractor shall provide certification to the agency that the Contractor has completed the required CJIS criminal background checks and that the Contractor's employees assigned to this TOA have successfully passed this check. The State reserves the right to refuse any individual employee to work on State premises, based upon certain specified criminal convictions, as specified by the State.
- C. The CJIS criminal record check of each employee who will work on State premises shall be reviewed by the Contractor for convictions of any of the following crimes described in the Annotated Code of Maryland, Criminal Law Article:
  - (a) §§ 6-101 through 6-104, 6-201 through 6-205, 6-409 (various crimes against property);
  - (b) any crime within Title 7, Subtitle 1 (various crimes involving theft);
  - (c) §§ 7-301 through 7-303, 7-313 through 7-317 (various crimes involving telecommunications and electronics);

- (d) §§ 8-201 through 8-302, 8-501 through 8-523 (various crimes involving fraud);
- (e) §§9-101 through 9-417, 9-601 through 9-604, 9-701 through 9-706.1 (various crimes against public administration); or
- (f) a crime of violence as defined in CL § 14-101(a).

D. An employee of the Contractor who has been convicted of a felony or of a crime involving telecommunications and electronics from the above list of crimes shall not be permitted to work on State premises pursuant to this Contract; an employee of the Contractor who has been convicted within the past five (5) years of a misdemeanor from the above list of crimes shall not be permitted to work on State premises.

E. An agency may impose more restrictive conditions regarding the nature of prior criminal convictions that would result in an employee of Contractor not being permitted to work on that Agency's premises. Upon receipt of an agency's more restrictive conditions regarding criminal convictions, the Contractor shall provide an updated certification to that agency regarding the personnel working at or assigned to that agency's premises.

2.5.3.3 On-site Security requirement(s) (**Required by some State Agencies and will be identified as a requirement per TO**): For all conditions noted below, the Contractor's personnel may be barred from entrance or leaving any site until such time that the State conditions and queries are satisfied.

A. Any person who is an employee or agent of the Contractor or subcontractor and who enters the premises of a facility under the jurisdiction of the agency may be searched, fingerprinted (for the purpose of a criminal history background check), photographed and required to wear an identification card issued by the agency.

B. Further, the Contractor, its employees and agents and Subcontractor employees and agents shall not violate Md. Code Ann., Criminal Law Art. Section 9-410 through 9-417 and such other security policies of the agency that controls the facility to which access by the Contractor will be necessary. The failure of any of the Contractor's or Subcontractors employees or agents to comply with any provision of the Contract that results from award of this solicitation is sufficient grounds for the State to immediately terminate that Contract for default.

C. Some State sites, especially those premises of the Department of Public Safety and Correctional Services, require each person entering the premises to document an inventory items (such as: tools and equipment) being brought onto the site, and to submit to a physical search of his or her person. Therefore, the Contractor's personnel shall always have available an inventory list of tools being brought onto a site and be prepared to present the inventory list to the State staff or an officer upon arrival for review, as well as present the tools or equipment for inspection. Before leaving the site, the Contractor's personnel will again present the inventory list and the tools or equipment for inspection. Upon both entering the site and leaving the site, State staff or a correctional or police officer may search Contractor personnel.

2.5.3.4 At all times at any facility, the Contractor's personnel shall ensure cooperation with State site requirements which include: being prepared to be escorted at all times, and providing information for badging and wearing the badge in a visual location at all times.

## **2.6 Program Management**

- 2.6.1 The Contractor shall provide the program planning, direction, coordination, and control necessary to accomplish all requirements contained in this solicitation. The Contractor is expected to establish a project organization/office to provide overall management of the Contract work. The Contractor shall manage dedicated personnel, and all subcontractors.
- 2.6.2 The roles, responsibilities, and areas of technical expertise of the Prime Contractor and all subcontractors need to be clearly defined in each TOP. The Prime Contractor shall be the single point contractual interface with the State.
- 2.6.3 A designated primary point of contact, the Program Manager, will be responsible for the development and negotiation of any TOs and overall cost, schedule, and technical performance. This individual will be the principal point of contact and continuity will be provided throughout the duration of the TO.
- 2.6.4 The Program Manager will participate in all program management review meetings and produce documentation, as defined herein, that will keep the TOM informed of the status of the TO.
- 2.6.5 In addition to a Program Manager, a Task Leader may, at the State's discretion, be named for each TO by the Contractor to manage the Contractor's technical efforts. The Task Leader will be a person assigned to a TO who is also performing tasks contained in the TO. A Task Leader shall not be assigned to a TO for the sole purpose of managing personnel.

## **2.7 Reports**

### **2.7.1 MBE Reporting**

The Contractor shall provide the TOM MBE reports as required in Attachment D.

### **2.7.2 Specialized Reports**

Additional reports may requested in the TORFPs.

## **2.8 Retainage**

- 2.8.1 The State reserves the right to establish retainage for any TORFP issued under this Master Contract, provided that no retainage exceeds 20%. Retainage amounts will be defined in the TORFP. Retainage will not be held by the State for any material costs. The Contractor shall note the material costs (estimated if necessary) on their response to the initial TO.

## **2.9 Insurance Requirements**

- 2.9.1 The Contractor shall maintain property and casualty insurance with minimum limits sufficient to cover losses resulting from or arising out of Contractor action or inaction in the performance of the contract by the Contractor, its agents, servants, employees or subcontractors.

- 2.9.2 The Contractor shall maintain a policy of general liability insurance that is of the proper type and of sufficient limits that the State and its officials, employees, agents, servants, guests and subcontractors are reasonably covered in the event of injury or death.
- 2.9.3 The State of Maryland will be named as an additional named insured on the policies of all property, casualty, liability, and other types of insurance evidencing this coverage. Certificates of insurance evidencing this coverage will be provided prior to the commencement of any activities in the Contract. All insurance policies must be with a company licensed to do business in Maryland.

## **2.10 Invoicing**

- 2.10.1 All invoices shall be submitted monthly no later than 15 calendar days after the end of the invoice period, unless specified differently in the Task Order, and include the following information: name and address of the State agency being billed, vendor name, remittance address, federal taxpayer identification or (if owned by an individual) his/her social security number, Invoice Period, Invoice Date, Invoice Number, Amount Due, Retainage (if applicable) and the Purchase Order Number(s) being billed. Additional information may be required in the future. Invoices submitted without the required information will not be processed for payment until the Contractor provides the required information.
- 2.10.2 The Contractor shall submit the invoices for any TO to the agency identified in the Task Order. The State is generally exempt from Federal excise taxes, Maryland sales and use taxes, District of Columbia sales taxes and transportation taxes. The Contractor(s), however, is not exempt from such sales and use taxes and may be liable for the same.
- 2.10.3 Additional invoicing requirements for T&M, Fixed Price, Business Beneficial and Revenue Neutral will be established in each TORFP.
- 2.10.4 Any material invoices, as previously noted, can only be approved for cost. No additional fees or markups shall be allowed. All material invoices must be signed and dated by the Contractor and the original suppliers invoice shall be submitted and attached along with the applicable monthly invoice.

## **2.11 Personnel Qualifications**

- 2.11.1 Contractors shall only propose staff available at the time of the TOP. In response to each TORFP, Contractors shall provide personnel that satisfy the personnel qualifications specified within Section 2.11 for each of the labor categories required under the specific Task Order. In the event that labor categories are not identified in a TORFP, Contractors shall provide the appropriate labor categories for the TORFP from those specified in Section 2.12.
- 2.11.2 Specific areas of required expertise may be further defined in a TORFP. The Contractors shall certify that all candidates meet the required qualifications. At the option of the State, Contractor personnel may be approved for performance in multiple skill categories for which they are qualified. However, personnel cannot perform in multiple labor categories at the same time in a given TO.
- 2.11.3 Managers, seniors, and other lead labor categories may serve as a Task Leader on one or more TOs. Task Leaders shall have supervisory or project leader experience. This experience is not in addition to the experience requirements for the skill category.

- 2.11.4 The TORFP will define specific project requirements. The TOP shall clearly identify applicable experiences related to projects and technologies being used.
- 2.11.5 **Substitution of Education for Experience.** A Bachelor's Degree or higher may be substituted for the general and specialized experience for those labor categories requiring a High School Diploma. A Master's Degree may be substituted for two years of the general and specialized experience for those labor categories requiring a Bachelor's Degree. Substitution shall be reviewed and approved by the State.
- 2.11.6 **Substitution of Experience for Education.** Substitution of experience for education may be permitted at the discretion of the State.
- 2.11.7 **Substitution of Professional Certificates for Experience:** Professional certification (e.g., Certified Novell Engineer, SQL Certified Database Administrator) may be substituted for up to two (2) years for general and specialized experience. The TOM shall approve or disapprove substitutions.

At the State's discretion, a non-qualified Contractor employee may be used to perform a task. The State only for the specific circumstances involved shall approve such employee.

**2.11.8 Substitution of Personnel.**

- A) At the State's discretion, a non-qualified Contractor employee may be used to perform a task. The State only for the specific circumstances involved shall approve such employee.
- B) Individuals proposed and accepted as personnel for TOAs are expected to remain dedicated throughout the TOA commitment. Substitutions will be allowed only when the TOM specifically agrees to the substitution in writing or due to an emergency circumstance as described in Section B) of this Section 2.11.8. All proposed substitutes of personnel must have qualifications at least equal to that of the person initially proposed and evaluated and accepted in the TOA. The burden of illustrating this comparison shall be the Contractor's. The resumes of the initially proposed personnel shall become the minimum requirement for qualifications for successor personnel for the duration of the total TOA term. If one or more of the personnel are unavailable for work under a TOA for a continuous period exceeding 15 calendar days, the Contractor shall immediately notify the TOM and propose to replace personnel with personnel of equal or better qualifications within 15 calendar days of notification to the TOM. All substitutions shall be made in accordance with this provision.
- C) During the performance period for a TOA, no substitutions of personnel will be permitted unless such substitutions are necessitated by an individual's sudden illness, death, or as otherwise approved by the TOM. In any of these events, the Contractor shall promptly notify the TOM and provide the information required by paragraph C). All proposed substitutions of personnel for other than emergency situations must be submitted in writing, at least 15 business days in advance of the proposed substitution, to the TOM, with the information required in paragraph C). The TOM must agree to the substitution in writing before such substitution shall become effective.
- D) All requests for substitutions must provide a detailed explanation of the circumstances necessitating the proposed substitutions, a resume of the proposed substitute (see paragraph D), and any other information requested by the TOM to make a determination as to the appropriateness of the proposed substitution. All proposed substitutes must have educational qualifications and work experience equal to or better than the resume initially proposed for personnel; the burden of illustrating this comparison shall be the Contractor's.



- E) Resumes shall be signed by all substituting individuals and their formal supervisor, and the official resume of the previous employee shall be provided for comparison purposes.

## 2.12 Labor Categories and Qualifications

The following section describes the labor categories to be provided under the RFP.

### 1. Program Manager

**Duties:** The Program Manager is the contractor's manager for the Contract, and serves as the single point of contact for the Contractor with the State regarding the Contract. Performs overall management for Contract support operations. Organizes, directs, and coordinates the planning and production of all Contract activities, projects and support activities, including those of subcontractors. Oversees the development of or develops work breakdown structures, charts, tables, graphs, major milestone calendars and diagrams to assist in analyzing problems and making recommendations. Demonstrates excellent written and verbal communications skills. Establishes and alters corporate management structure to direct effective and efficient Contract support activities. Must be capable of negotiating and making binding decisions for the Contractor.

**Education:** Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems, Business or other related discipline. Master's degree and/or project management certification is preferred.

**General Experience:** At least twelve (12) years of experience in program or project management.

**Specialized Experience:** At least eight (8) years of experience in supervision or oversight of IT related programs or projects.

### 2. Project Manager

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

**Education:** Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems, Business or other related discipline. Master's degree or project management certification is preferred.

**General Experience:** At least ten (10) years of experience in project management.

**Specialized Experience:** At least five (5) years of experience in managing IT related projects and must demonstrate a leadership role in at least three successful projects that were delivered on time and on budget.

### 3. Senior Subject Matter Expert

**Duties:** The area of expertise may be related to a specific discipline required by the State agency including, but not limited to: information technology, health care, education, public safety, social services, human resources, transportation, and environment. Requires expertise in the formulation of specifications and in the execution of technical initiatives in vertical areas. Defines requirements, performs analyses, and develops plans and requirements for systems.

**Education:** Bachelor's Degree from an accredited college or university in the specific discipline required by the State. A Master's Degree or Ph.D. Degree is preferred.

**General Experience:** At least twelve (12) years of relevant industry experience in the discipline is required.

**Specialized Experience:** At least ten (10) years of combined new and related older technical experience in the IT field directly related to the required area of expertise.

#### 4. Subject Matter Expert

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have seven (7) years of experience in the IT field.

**Specialized Experience:** At least five (5) years of combined new and related older technical experience in the IT field directly related to the required area of expertise.

#### 5. Senior Computer Software/Integration Analyst

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have eight (8) years of progressive working experience as a computer specialist or a computer systems analyst.

**Specialized Experience:** At least five (5) years of experience as a Computer Systems Analysts.

## 6. Senior Computer Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have 8 years of computer experience in at least two of the following disciplines: system analysis, system programming, application programming, and equipment analysis.

**Specialized Experience:** At least 5 years of experience either as a computer hardware or systems software specialist or as a systems analyst with duties relating to the evaluation of third and fourth generation of current state-of-the-art computer hardware and software and its ability to support specific requirements for hardware and software evaluation, system management, or large-scale system development and maintenance.

## 7. Computer Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of computer experience in at least two (2) of the following disciplines: systems analysis, systems programming, application programming, or equipment analysis.

**Specialized Experience:** At least three (3) years of experience as either a computer hardware and/or systems software specialist, or as a systems analyst with duties relating to the evaluation of third- and fourth-generation or state-of-the-art computer hardware and software and its ability to support specific requirements for systems management or large-scale system development and maintenance.

## 8. Senior Computer Systems Analyst

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have eight (8) years of computer experience working independently or under general direction on complex application problems involving all phases of systems analysis.

**Specialized Experience:** At least five (5) years of experience in analysis and design of business applications for complex large-scale or mid-tier computer systems, or LAN-based systems, to include experience in Database Management Systems (DBMS), and use of programming languages. Knowledge of current storage and retrieval methods and demonstrated ability to formulate specifications for computer programmers to use in coding, testing, and debugging of computer programs.

## 9. Junior Computer Systems Analyst

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have three (3) years of computer experience in assignments of a technical nature working under close supervision and direction.

**Specialized Experience:** At least one (1) year of experience in analyzing and programming applications on large-scale or mid-tier computers (or LAN-based) with a minimum of one (1) year of design and programming of moderately complex IT systems.

## 10. Applications Programmer

**Duties:** Analyzes functional business applications and design specifications for functional areas such as finance, accounting, personnel, manpower, logistics, and contracts. Develops block diagrams and logic flowcharts. Translates detailed design into computer software. Tests, debugs, and refines the computer software to produce the required product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency. Provides technical direction to programmers as required to ensure program deadlines are met.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of computer experience in information systems design.

**Specialized Experience:** At least three (3) years of experience as an application programmer on large-scale DBMS, knowledge of computer equipment, and ability to develop complex software to satisfy design objectives.

## 11. Applications Development Expert

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

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

**Education:** Preference for a Bachelor's or Master's Degree in Computer Science, Information Systems, or other related field or equivalent work experience.

**General Experience:** At least seven (7) years of IT and business/industry work experience.

**Specialized Experience:** At least three (3) years as Technical expert in IT organization. Coaches and mentors more junior technical staff. Provides technical input into the most complex and high impact IT decisions. Accountable for the most complex enterprise-wide applications and issues, translating highly complex concepts for peers and customers.

## 12. Senior Computer Systems Programmer

**Duties:** Create and/or maintain operating systems, communications software, database packages, compilers, repositories, and utility and assembler programs. Modify existing software and develop special-purpose software to ensure efficiency and integrity between systems and applications.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have twelve (12) years of computer experience in information systems design.

**Specialized Experience:** At least ten (10) years of experience in IT systems analysis and programming.

### 13. Computer Systems Programmer

**Duties:** Create and/or maintain operating systems, communications software, database packages, compilers, repositories, and utility and assembler programs. Modify existing software and develop special-purpose software to ensure efficiency and integrity between systems and applications.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of computer experience in information systems design.

**Specialized Experience:** At least three (3) years of experience in IT systems analysis and programming.

### 14. Senior Computer Programmer

**Duties:** Must be capable of utilizing third- and fourth-generation or current state-of-the-art IT equipment and languages to develop and prepare diagrammatic plans for solution of business, management, communications, and strategic problems. Must be able to design detailed programs, flowcharts, and diagrams showing mathematical computations and sequence of machine operations necessary to copy and process data and print results. Must be able to verify the accuracy and completeness of programs and systems by preparing sample representative data and perform testing by means of cycle and system processing.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have eight (8) years of programming experience in software development or maintenance.

**Specialized Experience:** At least five (5) years of experience in IT systems analysis and programming.

### 15. Junior Computer Programmer

**Duties:** Must be capable of translating detail program flowcharts into program-coded instructions used by third- and fourth-generation, or current state-of-the-art computers.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have three (3) years of computer programming experience.

**Specialized Experience:** None.

#### **16. Advanced Technology Senior Application Developer**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or five (5) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have three (3) years of computer experience in at least two of the following disciplines: system analysis, system programming, application programming, and equipment analysis.

**Specialized Experience:** At least one (1) year of experience developing applications using advanced technologies, including Internet protocols or web-based technology. Technologies include HTML, CGI applications, PERL or Javascript, and Java.

#### **17. Advanced Technology Application Developer**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have two (2) years of computer experience in at least two of the following disciplines: systems analysis, systems programming, application programming, and equipment analysis.

**Specialized Experience:** At least one (1) year of experience developing applications using advanced technologies, such as Internet protocols or web-based technology. Technologies include HTML, CGI applications, PERL or Javascript, and Java.

#### **18. Senior Information Engineer**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A

Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have eight (8) years of experience in managing the implementation of information engineering projects and experience in systems analysis, design and programming using CASE and IE tools and methods.

**Specialized Experience:** At least five (5) years of experience in information systems development, functional and data requirement analysis, systems analysis and design, programming, program design, and documentation preparation.

## 19. Information Engineer

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of experience in engineering, systems analysis, design, and programming.

**Specialized Experience:** At least two (2) years of experience in information systems development, functional and data requirement analysis, systems analysis and design, programming, program design, and documentation preparation.

## 20. Senior IT Professional

**Duties:** Identifies strategic issues for the Information Management Department and advises IT Senior Management of the risks and/or opportunities created by these issues. Issues will be centered on IT measurements and IT project management. IT measurements will encompass the refining or creating of measures related to value creation of IT products and services. Project Management will include presenting recommendations on ways of managing projects more effectively (including, but not limited to: appropriate methodology and quality reviews) Accountabilities include coordinating input from various IT departments to develop recommendations, conducting analyses of issues and ensuring adequate communication of the endorsed positions and recommendations to stakeholders.

**Education:** Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems, Business, Mathematics or a related technical or business field. A Master's degree is preferred.

**General Experience:** At least eight (8) years of relevant industry experience in the discipline required.

## 21. Database Manager



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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have seven (7) years of experience in the development and maintenance of database systems.

**Specialized Experience:** At least five (5) years of experience with database management systems, system design and analysis, operating systems software, and internal and data manipulation languages.

## 22. Senior Database Management Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have six (6) years experience in DBMS systems analysis and programming.

**Specialized Experience:** At least three (3) years of experience in using current DBMS technologies, application design utilizing various database management systems and experience with DBMS internals.

## 23. Junior Database Management Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have three (3) years experience in DBMS systems analysis and programming.

**Specialized Experience:** At least one (1) years of experience in using current DBMS technologies, application design utilizing various database management systems and experience with DBMS internals.

#### 24. Quality Assurance Manager

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have six (6) years of experience in quality assurance and quality control.

**Specialized Experience:** At least three (3) years of experience in verification and validation, software testing and integration, software metrics, and their application to software quality assessment.

#### 25. Senior Quality Assurance Consultant

**Duties:** Provides quality management for information systems using the standard methodologies, techniques, and metrics for assuring product quality and key activities in quality management. Establish capable processes, monitoring and control of critical processes and product mechanisms for feedback of performance, implementation of an effective root cause analysis and corrective action system, and continuous process improvement. Provides strategic quality plans in targeted areas of the organization. Provides QA strategies to ensure continuous production of products consistent with established industry standards, government regulations and customer requirements. Develops and implements life cycle and QA methodologies and educates, and implements QA metrics.

**Education:** Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Information Systems or other related discipline. A Master's degree preferred.

**General Experience:** At least eight (8) years information systems quality assurance experience.

**Specialized Experience:** At least five (5) years experience working with statistical methods and quality standards. Must have good QA/process knowledge and possess superior written and verbal communication skills.

#### 26. Quality Assurance Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A

Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of experience working with quality control methods and tools.

**Specialized Experience:** At least three (3) years of experience in verification and validation, software testing and integration, software metrics, and their application to software quality assessment, and a demonstrated knowledge of system and project life cycles.

## 27. Testing Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have 4 years of experience in computer software development.

**Specialized Experience:** At least 2 years of software testing experience (integration and acceptance).

## 28. Training Specialist/Instructor

**Duties:** Conducts the research necessary to develop and revise training courses and prepares appropriate training catalogs. Prepares all instructor materials (course outline, background material, and training aids). Prepares all student materials (course manuals, workbooks, handouts, completion certificates, and course critique forms). Trains personnel by conducting formal classroom courses, workshops, and seminars.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Education/Training in the areas of Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have 4 years of experience in information systems development, training, or related fields.

**Specialized Experience:** At least 2 years of experience in developing and providing IT and end user training on computer hardware and application software.

## 29. Senior Systems Engineer

**Duties:** Must be able to analyze information requirements. Must be able to evaluate problems in workflow, organization, and planning. Develops appropriate corrective action. Provides daily supervision and direction to staff.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have six (6) years of experience in systems engineering.

**Specialized Experience:** At least three (3) years of experience in the supervision of system engineers, and demonstrated use of interactive, interpretative systems with on-line, real-time acquisition capabilities.

### 30. Systems Engineer

**Duties:** Must be capable of analyzing information requirements. Evaluates system problems of workflow, organization, and planning. Develops appropriate corrective action.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have three (3) years of experience in systems engineering.

**Specialized Experience:** At least one (1) year of experience in analytical problem solving of workflow, organization and planning.

### 31. Software Engineer

**Duties:** Reviews and analyzes system specifications. Prepares programming specifications. Analyzes existing systems/subsystems for reusability benefits and needed changes. Prepares design plans and written analyses. Prepares unit and test scripts. Prepares documentation.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have three (3) years of experience as a software engineer.

**Specialized Experience:** At least two (2) years of experience working with Ada, SQL, or third/fourth generation languages in the design and implementation of systems and one (1) year working with DBMS.

### 32. Senior Interdisciplinary Engineer

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have eight (8) years of experience in technical work in the major areas of system management and system integration.

**Specialized Experience:** At least five (5) years of experience in specialized IT and telecommunications disciplines involving system interfaces, system integration and network development, and/or integration involving a wide range of network, hardware, and software solutions. At least 3 years in operating systems software, electronic communications analysis and design, or networking.

### 33. Interdisciplinary Engineer

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of experience in technical work in the areas of system management and system integration.

**Specialized Experience:** At least three (3) years experience in IT disciplines involving operating systems software, electronics communications analysis and design, system interface, systems integration, and mechanical or civil engineering.

### 34. Computer Operations Center Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of five (5) years of experience.

**Specialized Experience:** At least three (3) years of specialized experience working in a computer operations center. Ability to function in a multi-system and/or multi-application environment. Ability to operate and monitor multiple terminals. Knowledge of data processing operations, equipment, procedures, and workflow. Knowledge of environmental requirements of mainframes, servers and other hardware. Knowledge of emergency security procedures for a computer operations center.

### 35. Computer Operations Research Analyst

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field.

**General Experience:** A minimum of one (1) year of work experience in a business environment.

**Specialized Experience:** At least one (1) year of demonstrated experience working in a computer operations center. Ability to function in a multi-system and/or multi-application environment. Ability to follow complex oral and written instruction. Ability to operate and monitor multiple terminals.

### 36. Senior Operations Research Analyst

**Duties:** Conducts investment analyses or other complex operational analyses. Provides expertise and supports evaluations of program results and potential changes to program results related to IT investments along with an analysis and presentations of alternatives. Provides operational analyses support to all phases of the life cycle of an information system. Conducts operational analyses of existing systems using performance measures, criteria, and standards to determine requirements for needed changes. Evaluates, selects, and uses the tools of modern operations research (such as commercially available decision and analytical support software tools) to conduct analyses of projected changes to system or program performance. Supports architecture efforts including economic analyses of architecture alternatives, architecture issues resolutions, and affordability analyses.

**Education:** Bachelor's Degree from an accredited college or university in a related field, with at least 24 semester hours in a combination of mathematics, probability, statistics and logic. Master's degree preferred.

**General Experience:** Must have eight (8) years experience in operations research.

**Specialized Experience:** At least five (5) years experience in conducting quantitative analysis using operations research tools, econometrics, or other quantitative techniques.

### 37. Senior Systems Analyst

**Duties:** Serves as a computer systems expert on assignments that typically involve establishing automated systems, where concern is with overall life cycle structure; and conducts feasibility studies from design, implementation and post-implementation evaluation from a number of possible approaches. Design criteria must be established to accommodate changes in legislation, mission, or functional program requirements.

**Education:** Bachelor's Degree from an accredited college or university in Computer Science, Systems Analysis, Information Systems or a related field. A Master's Degree in a related field of information technology is preferred.

**General Experience:** A minimum of eight (8) years of experience in information technology systems analysis.

**Specialized Experience:** At least five (5) years of the experience in the design of business applications on complex IT systems. Requires a broad knowledge of data sources, data flow, system interactions, advanced computer equipment and software applications, and advanced systems design techniques to develop solutions to unyielding complex problems and to advise officials on systems design and IT forecasts.

### **38. Senior Information Technology Architect**

**Duties:** Provides expertise in the most current principles and practices of architecture data management systems and experience in large system designs, and with data modeling in the information management arena. Provides expertise in modeling and organizing information to facilitate support of projects or information architectures. Provides guidance on how and what to data and process model. Primarily deals with transition planning from legacy to modern systems by concentrating on information flows, data exchange, and data translation standardization services.

**Education:** Bachelor's Degree from an accredited college or university with a major in Engineering, Computer Science, Mathematics or a related field. Master's degree preferred.

**General Experience:** At least ten (10) years experience planning, designing, building, and implementing IT systems.

**Specialized Experience:** At least five (5) years of the required 10 years of experience must be in the direct supervision and management of major projects that involve providing professional support services and/or the integration, implementation and transition of large complex system and subsystem architectures. Must have led or been chief architect in major IT implementation efforts. Must demonstrate a broad understanding of client IT environmental issues and solutions and be a recognized expert within the IT industry. Must demonstrate advanced abilities to team and mentor and possess demonstrated excellence in written and verbal communication skills.

### **39. Senior Information Technology Planner**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Planning or other related scientific or technical discipline. A Master's degree is preferred.

**General Experience:** At least ten (10) years progressive experience as an IT planner - or involved in planning type functions.

**Specialized Experience:** At least six (6) years of experience in planning, analyses, design, development, implementation and post-implementation of IT projects or systems.

#### 40. Senior Application Architect

**Duties:** Manages major projects that involve providing professional support services and/or the integration, implementation and transition of large, complex systems. Provides design and development of e-government solutions, and is responsible for technical design and implementation of the architecture. Designs, develops and maintains infrastructure and backend applications. Provides expertise on defining the role of broadband and wireless applications. Provides definition of current State architecture blueprints. Provides expertise with web servers, gateways, and application servers and content management systems. Provides experience in web application technologies and middleware solutions. Researches new technologies and products for their applicability to business processes. Must be able to compare various solutions and determine the most suitable. Ensures that development efforts are well planned and in agreement with standards.

**Education:** Bachelor's Degree from an accredited college or university in Engineering, Computer Science, Mathematics or other related scientific or technical discipline. Master's degree preferred.

**General Experience:** At least ten (10) years of experience planning, designing, building, and implementing IT application systems. Must have led or been chief architect in a major IT applications implementation effort. Must have a strong background in software engineering principles and techniques.

**Specialized Experience:** At least six (6) years of experience in designing medium to large-scale sites and management of at least five Internet projects.

#### 41. Senior Computer Operator

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

**General Experience:** Seven years experience in a computer-related field.

**Specialized Experience:** Five years experience administering multi-user, shared processor systems.

#### 42. Computer Operator

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

**General Experience:** Five years experience in a computer-related field.



**Specialized Experience:** Three years experience administering multi-user, shared processor systems.

#### 43. Office Automation Specialist

**Duties:** Specialized data entry work, operating specialized data entry equipment in a high production and closely monitored work environment. Responsible for key entering data from a variety of source documents with specific standards maintained for speed and accuracy.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of five (5) years of experience data entry work and equipment.

**Specialized Experience:** At least three (3) years of specialized experience in the operation of specialized data entry equipment.

#### 44. Help Desk Manager

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of seven (7) years of experience in the management of a Help Desk. General experience includes information systems development, network and other work in the client/server field, or related fields.

**Specialized Experience:** At least five (5) years of specialized experience includes management of help desks in a multiserver environment, comprehensive knowledge of PC operating systems (e.g., DOS, Windows), networking and mail standards, and supervision of help desk employees. Demonstrated ability to effectively communicate orally and in writing and to have a positive customer service attitude.

#### 45. Senior Help Desk Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field.

**General Experience:** This position requires a minimum of seven (7) years of experience in a business IT environment with emphasis on PC computer hardware and applications. General experience includes, but is not limited to: information systems development, work in the client/server field, or related fields.

**Specialized Experience:** At least five (5) years comprehensive knowledge of PC operating systems, e.g., DOS, Windows, as well as work on a help desk. Demonstrated ability to effectively communicate orally and in writing and to have a positive customer service attitude.

#### **46. Junior Help Desk Specialist**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field.

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

**Specialized Experience:** At least two (2) years comprehensive knowledge of PC operating systems, e.g., DOS, Windows, as well as work on a help desk. Demonstrated ability to communicate orally and in writing and to have a positive customer service attitude.

#### **47. Systems Administrator**

**Duties:** Monitor and coordinate all data system operations, including security procedures, and liaison with end users. Ensure that necessary system backups are performed and storage and rotation of backups is accomplished. Monitor and maintain records of system performance and capacity to arrange vendor services or other actions for reconfiguration and anticipate requirements for system expansion. Assist managers to monitor and comply with State data security requirements. Coordinate software development, user training, network management and minor installation and repair of equipment.

**Education:** An Associate's degree from an accredited college or university in Computer Science, Information Systems, Business or other related technical discipline. A Bachelor's Degree in one of the above disciplines equals one-year specialized and two years general experience. An additional year of specialized experience may be substituted for the required education.

**General Experience:** Two years experience in a computer-related field.

**Specialized Experience:** One year experience administering multi-user, shared processor systems and data communications networks.

#### **48. Senior Computer Security Systems Specialist**

**Duties:** Analyzes and defines security requirements for Multilevel Security (MLS) issues. Designs, develops, engineers, and implements solutions to MLS requirements. Responsible for the implementation and development of the MLS. Gathers and organizes technical information about an organization's mission

goals and needs, existing security products, and ongoing programs in the MLS arena. Performs risk analyses, which also include risk assessment. Provides daily supervision and direction to staff.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of eight (8) years of experience in analysis and definition of security requirements.

**Specialized Experience:** At least five (5) years of specialized experience in defining computer security requirements for high-level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

#### 49. Computer Security Systems Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or four (4) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of six (6) years of experience in analysis and definition of security requirements.

**Specialized Experience:** At least four (4) years of specialized experience in defining computer security requirements for high-level applications, evaluation of approved security product capabilities, and developing solutions to MLS problems.

#### 50. Data Security Specialist

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

**Education:** Preference for a Bachelor's Degree in Computer Science, Information Systems, or other related field or equivalent work experience.

**General Experience:** At least four (4) years of IT work experience in data security.

**Specialized Experience:** Has worked independently or as part of a team under general supervision and coached more junior technical staff.

### 51. System Security Specialist

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of twelve (12) years of experience in system security.

**Specialized Experience:** At least seven (7) years of highly specialized experience in one or more information, computer, or network security disciplines. These disciplines could include penetration testing, intrusion detection and audit analysis, public key infrastructure, cryptography, strong authentication, risk analysis, and multilevel security.

### 52. INFOSEC Engineer

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** This position requires a minimum of eight (8) years of experience in information protection.

**Specialized Experience:** At least five (5) years of experience in defining security programs or processes for the protection of sensitive or classified information.

### 53. System Security Research Analyst

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

**Education:** A Bachelor's degree from an accredited college or university in a related field or high school diploma with additional experience. A Bachelor's degree is preferred.

**General Experience:** This position requires no experience if a B.A. or B.S. Degree has been obtained. If only a high school diploma has been obtained, a minimum of two (2) years of system security experience is required.

**Specialized Experience:** If a B.A. or B.S. Degree has been obtained, a minimum of one (1) year of experience is required in researching information using technical documentation, library resources, and the Internet.

#### 54. Research Analyst

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

**Education:** High School Diploma or Associate's Degree in Business, or related field. A Bachelor's degree is preferred.

**General Experience:** A minimum of one (1) year of work experience in a business environment.

**Specialized Experience:** At least one (1) year of demonstrated experience word processing, using electronic spreadsheets and other administrative software products. General knowledge of governmental documents and procedures.

#### 55. Documentation Specialist

**Duties:** Gathers, analyzes, and composes technical information. Conducts research and ensures the use of proper technical terminology. Translates technical information into clear, readable documents to be used by technical and non-technical personnel. For applications built to run in a Windows environment, uses the standard help compiler to prepare all on-line documentation.

**Education:** Associate's Degree in related field. A Bachelor's degree is preferred.

**General Experience:** Must have four (4) years of experience in technical writing and documentation experience pertaining to all aspects of IT.

**Specialized Experience:** A minimum of two (2) years of experience in preparing technical documentation, which is to include researching for applicable standards.

## 56. Technical Writer/Editor

**Duties:** Assists in collecting and organizing information for preparation of user manuals, training materials, installation guides, proposals, and reports. Edits functional descriptions, system specifications, user manuals, special reports, or any other customer deliverables and documents. Conducts research and ensures the use of proper technical terminology. Translates technical information into clear, readable documents to be used by technical and non-technical personnel. For applications built to run in a Windows environment, uses the standard help compiler to prepare all on-line documentation. Assists in performing financial and administrative functions. Must demonstrate the ability to work independently or under only general direction.

**Education:** Associate's Degree in related field. A Bachelor's degree is preferred.

**General Experience:** A minimum of five (5) years of experience in this area.

**Specialized Experience:** At least two (2) years of experience in preparing and editing documents, including technical documents. Also includes researching for applicable standards.

## 57. Project Control Specialist

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

**Education:** High School Diploma or equivalent. A Bachelor's degree is preferred.

**General Experience:** Must have three (3) years of experience working with monitoring systems. Familiar with manpower and resource planning, preparing financial reports and presentations, and cost reporting Contract guidelines.

**Specialized Experience:** Preparation and analysis of financial statements, development of project schedules, using cost-accounting and labor-reporting systems, working knowledge of Contract and subcontract management. Proficient in the use of spreadsheets and project management tools.

## 58. Program Administration Specialist

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

**Education:** High school diploma or equivalent. A Bachelor's degree is preferred.

**General Experience:** Must have three (3) years of experience working with project management tools and reporting systems. Familiar with government contracts, work breakdown structures, management/business plans, and program reporting.

**Specialized Experience:** At least two (2) years of direct program experience in Contract administration and preparing management reports. Has worked in support of a Program Manager on a government Contract.

#### **59. Internet/Intranet Site Developer Senior**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of web development experience using current Web development and graphic tools, as well as, Web Server and database administration.

**Specialized Experience:** At least three (3) years of experience designing, developing and deploying Web sites and/or Web applications, including product selection, configuration, installation, maintenance, and site specific Web development languages and relational databases.

#### **60. Internet/Intranet Site Developer Junior**

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three (3) years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have one (1) year of web development experience using current Web development and graphic tools, as well as, Web server and database administration.

**Specialized Experience:** At least one (1) year of experience designing, developing and deploying Web sites and/or Web applications, including product selection, configuration, installation, maintenance, and site policy development. Experience developing Web pages using HTML, scripting languages, platform specific web development languages and relational databases.

#### **61. Internet/Web Architect**

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

**Education:** Preference for a Bachelor's Degree in Computer Science, Information Systems, or other related field or equivalent work experience.

**General Experience:** At least five (5) years of IT work experience.

**Specialized Experience:** Has worked independently or as a part of a team under general supervision and coached more junior technical staff. Technical expert in IT organization. Provides input into highly complex and high impacting decisions as it relates to area of expertise.

## 62. Computer Graphics Illustrator

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

**Education:** High school diploma or equivalent. An additional year of specialized experience may be substituted for the required education.

**Total Experience:** Three years experience in creating and generating graphics using computer graphics software.

## 63. Senior Systems Architect

**Duties:** Responsible for developing business, data, systems, and infrastructure models to develop enterprise architectures. Develops plans for migrating architectures. Develops technical reference models to include hardware/software standards. Engineer's integrated hardware and software solutions to meet mission requirements.

**Education:** Bachelor's Degree from an accredited college or university in Computer Science, Information Systems or related field or three (3) years of equivalent experience in a related field. A Master's Degree in information technology is a plus.

**General Experience:** Experience performing architecture related work on at least five (5) IT systems.

**Specialized Experience:** Experience performing a significant role in all aspects of architecture related work on at least two (2) large IT systems.

## 64. Systems Design Architect

**Duties:** Must be able to lead team in developing application, development, network, and technical architectures for mid-range client/server and mainframe applications. Responsible for gathering and defining the architecture requirements and for ensuring that the architectures are compatible and in compliance with the appropriate IT organization and project standards.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.



**General Experience:** Must have six (6) years of experience planning, designing, building, and implementing mid-range IT systems.

**Specialized Experience:** At least four (4) years of experience developing application, development, network, and technical architectures for mid-range client/server and mainframe applications. Demonstrated ability to develop and execute architecture strategies and to perform feasibility studies and integration analyses. Experience supervising and providing guidance in implementing various mid-range architectures and supporting implementation of large-scale applications.

## 65. Systems Design Engineer

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have six (6) years of experience planning, designing, building, and implementing IT systems. Familiar with Capability Maturity Model compliant structured methodology.

**Specialized Experience:** At least four (4) years of experience analyzing user requirements and translating them into system designs using various design tools and techniques. Demonstrated ability to develop and execute system designs, ensure implementation of repeatable processes, and ensure compliance with Capability Maturity Model (CMM) methodology.

## 66. Senior Cost Accountant

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

**Education:** Bachelor's Degree from an accredited college or university in Economics, Business, Accounting, Finance, or related discipline. A Master's degree and CPA are preferred.

**General Experience:** A minimum of eight (8) years relevant experience as a cost analyst or involved in analysis in business-related subject areas such as accounting, finance or economics.

**Specialized Experience:** At least five (5) years experience in financial cost accounting with demonstrated success in analyzing information systems.

## 67. Senior Financial Analyst

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

**Education:** Bachelor's Degree from an accredited college or university in Economics, Business, Accounting, Finance, or related discipline. A Master's degree and CPA are preferred.

**General Experience:** At least eight (8) years progressive experience as an analyst or involved in analyst type functions in a business related subject area such as accounting, finance or economics.

**Specialized Experience:** At least five (5) years of financial management experience with demonstrated ability in analyzing information systems.

## 68. Financial Analyst

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Finance, Business, or other related technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of financial management experience.

**Specialized Experience:** At least three (3) years of experience in financial management with demonstrated ability in analyzing, designing, and developing automated applications for unique business practices in a fee-for-service environment.

## 69. Senior IT Auditor

**Duties:** Identifies information processing and technology risks. Evaluates controls and makes recommendations. Identifies problems and recommends solutions. Reviews the installation and security related controls for a wide variety of computing platforms, including operating systems, sub-systems,

databases and software products used to support the processing environment. Prepares and performs audit tests and evaluates results. Provides documentation of audit tests to facilitate efficient and effective reviews.

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

**General Experience:** At least ten (10) years auditing experience.

**Specialized Experience:** At least seven (7) years of experience in IT audits. Proficient in generally accepted IT standards, statements and practices and IT security and control practices.

## 70. Senior Auditor

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

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

**General Experience:** At least ten (10) years of auditing experience.

**Specialized Experience:** At least five (5) years experience as an auditor in auditing IT vendors.

## 71. Senior Risk Assessment Consultant

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

**Education:** Bachelor's Degree from an accredited college or university in a related field. A Master's degree preferred.

**General Experience:** At least ten (10) years of risk assessment experience.

**Specialized Experience:** At least six (6) years of experience in IT risk assessment.

## 72. Senior Business Process Consultant

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

business units and across IT functions. Resolves problems and improves business units' technical environments.

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

**General Experience:** At least eight (8) years experience in business process re-engineering.

**Specialized Experience:** At least five (5) years of experience in reengineering large scale business processes.

### 73. Senior Group Facilitator

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

**Education:** Bachelor's Degree from an accredited college or university in Education, the Social Sciences, Human Resources, Business or a related field.

**General Experience:** At least five (5) years of experience as a group facilitator.

**Specialized Experience:** At least three (3) years of experience as a group facilitator involving technical projects.

### 74. Senior Marketing Consultant

**Duties:** Develops marketing strategies for publications of State agencies' technology results and achievements. Develops marketing plans and recommends marketing strategies and measurements for the success of the marketing strategies. Provides survey results for State agencies on IT topics, completes applications for IT awards and develops periodic reports of IT accomplishments, including annual reports or other marketing-related documents.

**Education:** Bachelor's Degree from an accredited college or university in Marketing, Business, Communications or other related discipline. A Master's degree is preferred.

**General Experience:** At least eight (8) years of marketing or communications experience.

**Specialized Experience:** At least five (5) years of experience in technology marketing or a related field.

### 75. Senior Market Research Consultant

**Duties:** Develops marketing and promotion strategies and tactics. Evaluates concepts for advertising campaigns. Develops and manages qualitative market research studies and develops reports. Analyses web site traffic and develops quantitative reports. Reviews marketing campaigns and their impact on web site audience behavior. Develops online survey questionnaires and launches surveys. Performs statistical analyses of responses to online surveys. Conducts various Internet analyses. Develops methodologies for optimum study results.

**Education:** Bachelor's Degree from an accredited college or university in Marketing, Business, or Statistics. An MBA or Master's Degree in Marketing is preferred.

**General Experience:** At least eight (8) years of marketing research experience.

**Specialized Experience:** At least five (5) years of experience in technology marketing or a related field.

## 76. Senior Telecommunications Engineer

**Duties:** Provides engineering and technical support for Statewide telecommunications projects and services. Provides designs and applications to insure overall technical integrity. Provides high-level planning for the systems used by telecommunications organizations. Performs process and data modeling for the planning and analyses of automated tools. Provides technical expertise and guidance in engineering techniques and automated support tools. Provides assistance with planning, design, cost/benefit analyses, assessment of configurations and performance measurements, development, implementation and recommendations for staffing levels for telecommunications systems and processes.

**Education:** Bachelor's Degree from an accredited college or university in Engineering, Telecommunications, Computer Science, Information Systems or other related scientific or technical discipline. A Master's degree is preferred.

**General Experience:** At least ten years of telecommunications experience.

**Specialized Experience:** At least six (6) of experience in commercial and long distance network architectural design and engineering.

## 77. Telecommunications Engineer

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

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

**Education:** Bachelor's Degree in Computer Science, Information Systems, or other related field or equivalent work experience.

**General Experience:** Three (3) to five (5) years of IT work experience.

**Specialized Experience:** Has worked independently or as a part of a team under general supervision and coached more junior technical staff.

## 78. Senior Telecommunications Consultant

**Duties:** Identifies problems and recommends solutions for telecommunications organizations. Performs process and data modeling in support of the planning and analyses for using automated tools. Evaluates

controls and makes recommendations. Provides planning, analyses, strategic planning, design, development, implementation and post-implementation for telecommunications projects.

**Education:** Bachelor's Degree from an accredited college or university with a major in Telecommunications, Computer Science, Information Systems, Engineering or a related field. Master's degree preferred.

**General Experience:** At least ten (10) years telecommunications experience.

**Specialized Experience:** At least seven (7) years experience as a consultant or engineer in the telecommunications field in the private or public sector.

## 79. Telecommunications Systems Analyst

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

**Education:** A Bachelor's Degree from an accredited college or university with a major in Telecommunications, Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. A Master's Degree is preferred. A Master's Degree in one of the above disciplines equals one year specialized and two years general experience.

**General Experience:** Must have five (5) years of experience in engineering, systems analysis, design and programming.

**Specialized Experience:** At least two (2) years of experience in functional and data requirement analysis, systems analysis and design, programming, program design of billing, trouble ticket management, service order entry, and/or configuration management systems supporting operations of large telecommunications support organizations.

## 80. Network Manager

**Duties:** Performs a variety of network management functions in support of MIS services related to the operation, performance, or availability of data communications networks. Modifies command language programs, network start up files, assigns/re-assigns network device logical, analyzes network performance and recommends adjustments to wide variety of complex network management functions with responsibility for overall performance and availability of networks. LAN/WAN consultant skilled in network analysis, integration and tuning. Experience with cable/LAN meters, protocol analyzers, Simple Network Management Protocol (SNMP) and Remote Monitoring (RMON) based software products. Knowledge of Ethernet, FDDI and high speed WANs, routers, bridges, and switches. Analyze client LANs/WANs, isolate source of problems, and recommend reconfiguration and implementation of new network hardware to increase performance. Working knowledge of network operating systems. Conducts load balancing efforts to achieve optimum device utilization and network performance. Manages network Email functions. Establishes mailboxes and monitors mail performance on the network. Coordinates with communications engineering to resolve hardware problems. Works with customer and operations staff in scheduling preventative and emergency maintenance activities.

**Education and Other Requirements:** A Bachelor's degree from an accredited college or university with a major in Computer Science, Information Technology, Engineering, or a related discipline. If applicable, shall be certified as network engineer for the specific network operating system as defined in the State task request. The certification criteria are determined by the network operating system vendor. An additional year of specialized experience may be substituted for the required education.

**General Experience:** Twelve years experience in a computer-related field.

**Specialized Experience:** Ten years experience in one or more of the following areas: data communications engineering, data communications hardware or software analysis, network administration or management, or have data communication equipment installation and maintenance. Knowledge of cable including FDDI, FOIRL, and 10Base T. Particularly desirable is experience working with IBM's SNA with knowledge of the MVS operating system and SNA protocols.

### 81. Senior Network Engineer

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

**Education:** A Bachelor's degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline. If applicable, shall be certified as network engineer for the specific network operating system as defined in the State task request. The certification criteria are determined by the network operating system vendor. An additional year of specialized experience may be substituted for the required education.

**General Experience:** Nine years experience in a computer-related field.

**Specialized Experience:** Seven years of progressive experience in planning, designing, implementation, and analyzing data or telecommunications networks. Must have experience with network analysis/management tools and techniques and be familiar with Personal Computers (PCs) in a client/server environment. Must be familiar with IT technology and long distance and local carrier management.

### 82. Junior Network Engineer

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

**Education:** A Bachelor's degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline. An additional year of specialized experience may be substituted for the required education.

**General Experience:** Five years experience in a computer-related field.

**Specialized Experience:** Three years of progressive experience in planning, designing, implementation, and analyzing data or telecommunications networks.

### 83. Network Administrator

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

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

**General Experience:** Two years experience in a computer-related field.

**Specialized Experience:** One year of experience in one or more of the following areas: data communications engineering, data communications hardware or software analysis, network administration or management, data communications equipment installation and maintenance, or computer systems administration and management.

### 84. Senior Network Technician

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

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

**General Experience:** Seven years experience in a computer-related field.

**Specialized Experience:** Five years experience in the following areas: Installation, operation, and maintenance of data communication networks and devices.



## 85. Junior Network Technician

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

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

**General Experience:** Three years experience in a computer-related field.

**Specialized Experience:** A minimum of two years of experiences installing and maintaining shared resources for communication networks and devices.

## 86. Network Security Engineer

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

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

**General Experience:** This position requires a minimum of eight years of computer-related experience.

**Specialized Experience:** At least five years of specialized experience in defining computer security requirements for high-level applications, evaluation of approved security product capabilities, and security management.

## 87. Geographic Information Systems (GIS) Technician II

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

data manipulation, calculate distances and area of features and interpret legal descriptions and certify changes in boundary lines. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.

**Education:** A Bachelor’s Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least 9 credit hours in courses specifically related to GIS operation/management. A Masters Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least 9 undergraduate credit hours in courses specifically related to GIS operation/management is preferred.

**Experience:** A minimum of three (3) years of professional experience in GIS, cartography, CADD, or a related field.

### **88. Geographic Information Systems Technician I**

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

**Education:** Bachelor’s degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, Library Science or related field with at least 9 credit hours in courses specifically related to GIS operation/management.

**Experience:** A minimum of two (2) years of successful experience at the equivalent of the GIS Trainee level.

### **89. Geographic Information Systems Technician Trainee**

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

**Education:** A high school diploma or equivalent.

**Experience:** One year of professional experience related to GIS, cartography, CADD, or a related field.

### **90. Geographic Information Systems Analyst**

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

**Education:** A Bachelor’s Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least 9 credit hours in courses specifically related to GIS operation/management. A Masters Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least 9 undergraduate credit hours in courses specifically related to GIS operation/management is preferred.

**Experience:** A minimum of two (2) years of professional experience is required in GIS, cartography, CADD, or a related field without an appropriate college degree.

## 91. Geographic Information Systems Specialist

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

**Education:** 1) A Bachelor’s Degree from an accredited college or university in Geography, GIS Technology, Cartography, Computer Science, or related field with at least 9 credit hours in courses specifically related to GIS operation/management.

**Experience:** Two (2) years of professional experience is required in GIS, cartography, CADD, or a related field without the appropriate college degree.

## 92. Archeologist /Historic Preservation Specialist

**Duties:** Responsible for conducting Historic Properties Survey investigations, identifying historic properties, evaluate the effects of the undertaking to historic properties. Provide visual impact assessment and expert application of the Criteria of Adverse Effect on historic properties and Rural Historic Landscapes within the Area of Potential Effect.

**Education:** Bachelor's Degree from an accredited college or university in Architectural History, Art History, Historic Preservation or related field or 5 (five) years of equivalent experience in a related field. A Master's Degree is preferred.

**General Experience:** Experience performing full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution; or substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.

### 93. Architectural Historian

**Duties:** Responsible for conducting Historic Properties Survey investigations, identifying historic properties, evaluate the effects of the undertaking to historic properties. Provide visual impact assessment and expert application of the Criteria of Adverse Effect on historic properties and Rural Historic Landscapes within the Area of Potential Effect.

**Education:** Bachelor's Degree from an accredited college or university in Architectural History, Art History, Historic Preservation or related field or five (5) years of equivalent experience in a related field. A Master's Degree is preferred.

**General Experience:** Experience performing full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution; or substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.

### 94. Wireless Systems Analyst

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

**Education:** A Bachelor's degree in Electrical Engineering, Computer Science, or related discipline is required. A graduate degree in the same is preferred.

**General Experience:** Minimum of 4 years of direct experience in development for wireless devices or wireless network equipment is required.

**Specialized Experience:** Detailed in-depth understanding of wireless systems architecture, protocols, and standards is required. Detailed knowledge of key wireless applications and services, including Voice, SMS,

MMS, WAP/HTTP, and Push-To-Talk (PTT) is desired. Strong technical ability, communication skills, and ability to quickly learn new technologies are required.

#### **95. Radio Frequency Engineer**

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

**Education:** This position requires a 4-year college program with a Bachelor's Degree in Radio Engineering or Electrical Engineering or related field or equivalent vocational education, training, and experience with formal training in use of relevant administrative & industry specific tools (i.e. computer software and Internet).

**Experience:** Point-to-point microwave systems and path analysis is mandatory. The following skills are desirable: 1) effective communication skills, 2) willingness to work in a team environment, 3) planning/organizational skills, 4) goal orientation, and 5) experience in radio communications.

#### **96. Systems Engineer**

**Duties:** Must be capable of analyzing information requirements. Evaluates system problems of workflow, organization, and planning. Develops appropriate corrective action.

**Education:** A Bachelor's Degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline or three years of equivalent experience in a related field. A Master's Degree in one of the above disciplines equals one-year specialized and two years general experience. An additional year of specialized experience may be substituted for the required education.

**General Experience:** Must have three years of experience in systems engineering.

**Specialized Experience:** At least one year of experience in analytical problem solving of workflow, organization and planning.

#### **97. Licensed Master Electrician**

**Duties:** Identify malfunctions in electrical and electro-mechanical instruments. Repair non-functioning electrical and electro-mechanical instruments. Calibrate scientific and industrial instruments. Use established maintenance procedures for scientific and industrial instruments. Test input/output parameters of electrical/mechanical devices. Assemble electrical and electro-mechanical devices. Identify electrical/electro-mechanical components, devices or systems in accordance with predetermined specifications. Present technical information in oral, written and graphic form, including use of microcomputers to manipulate content and access information.

**Education:** An Associate's degree from an accredited college or university in Electronics Technology or a related field; or Technical school certificate of completion in the electrical field; or the equivalent military

training. An additional year of specialized experience may be substituted for the required education. Must have a master electrician license from the Maryland Board of Master Electricians.

**General Experience:** Seven years experience in the electronics or related field.

**Specialized Experience:** Five years experience in the following areas: design, construction, testing, installation, maintenance and repair of electronic systems.

## 98. Journeyman Electrician

**Duties:** Identify malfunctions in electrical and electro-mechanical instruments. Repair non-functioning electrical and electro-mechanical instruments. Calibrate scientific and industrial instruments. Use established maintenance procedures for scientific and industrial instruments. Test input/output parameters of electrical/mechanical devices. Assemble electrical and electro-mechanical devices. Identify electrical/electro-mechanical components, devices or systems in accordance with predetermined specifications. Present technical information in oral, written and graphic form, including use of microcomputers to manipulate content and access information.

**Education:** An Associate's degree from an accredited college or university in Electronics Technology or a related field; or Technical school certificate of completion in the electrical field; or the equivalent military training. An additional year of specialized experience may be substituted for the required education. Must have a master electrician license from the Maryland Board of Master Electricians.

**General Experience:** Five years experience in the electronics or related field.

**Specialized Experience:** Three years experience in the following areas: design, construction, testing, installation, maintenance and repair of electronic systems.

## 99. Electricians Helper

**Duties:** Performs task assigned by the Foreman or Electrician with a minimum of supervision such as: terminate junction boxes; install required conduit and wiring including branch and feeder, above and below ground; install fixture connections and rough-ins; under supervision of the Foreman or an Electrician, operates a variety of electrical testing equipment in locating and determining types of electrical malfunctions; demonstrates basic knowledge of plans, drawings, specifications and work orders; and, conducts all tasks in a safe and efficient manner.

**Education:** A high school diploma or equivalent. An Associate's degree from an accredited college or university in Electronics Technology or a related field; or Technical school certificate of completion in the electrical field; or the equivalent military training is preferred. An additional year of specialized experience may be substituted for the required education. Must have a master electrician license from the Maryland Board of Master Electricians.

**General Experience:** One years experience in the electronics or related field.

**Specialized Experience:** Six months experience in the following areas: design, construction, testing, installation, maintenance and repair of electronic systems.

## 100. Facilities Engineering Manager

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

**Education:** A Bachelor's degree from an accredited college or university in civil, mechanical, industrial or facilities management engineering or other related field.

**General Experience:** This position typically requires 10 years of experience in facilities management or related field.

### 101. Facility Operations Engineer

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

**Education:** A Bachelor's degree from an accredited college or university in civil, mechanical, electrical, industrial or facilities management engineering or other related field.

**General Experience:** This position typically requires 8 years of experience in facilities management or related field.

### 102. Stationary Engineer

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

**Education:** A Bachelor's degree from an accredited college or university in Electrical, Mechanical, or Industrial Engineering or other related field.

**General Experience:** This position typically requires 8 years of experience in industrial engineering or related field.

### 103. Lead Facilities Specialist

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

**Education:** High School diploma or equivalent, and knowledge of OSHA general safety standards related to work involving electrical and mechanical tasks in an industrial environment.

**General Experience:** This position typically requires 8 years of experience in facilities work or related field.

#### **104. Facilities Specialist Level III**

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

**Education:** High School diploma or equivalent required.

**General Experience:** This position typically requires 5 years of experience in facilities work or related field.

#### **105. Facilities Specialist Level II**

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

**Education:** High School diploma or equivalent required.

**General Experience:** This position typically requires 2 years of related experience in facilities work or related field.

#### **106. Facilities Specialist Level I**

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

**Education:** High School diploma or equivalent required.

**General Experience:** This position typically requires 1 year of experience in facilities work or related field.

#### **107. Facility Operations Supervisor**



**Duties:** Supervises personnel engaged in the operation, maintenance and repair of facilities, systems, and equipment.

**Education:** Associate's degree (ASCE, ASEE, ASET, ASME or other related field) or equivalent.

**General Experience:** This position typically requires 8 years of related experience in facility operations or related field.

#### **108. Operator Level II**

**Duties:** Processes, schedules, coordinates, and tracks maintenance and repair work orders involving, buildings, systems, and infrastructure.

**Education:** High School Diploma or equivalent required.

**General Experience:** This position typically requires 3 years of experience involving civil engineering, and maintenance and repair of facilities, mechanical systems, and equipment or related field.

#### **109. Operator Level I**

**Duties:** Processes, schedules, coordinates, and tracks maintenance and repair work orders involving, buildings, systems, and infrastructure.

**Education:** High School Diploma or equivalent required.

**General Experience:** This position typically requires 6 months of experience involving civil engineering, and maintenance and repair of facilities, mechanical systems, and equipment or related field.

## **SECTION 3 – PROPOSAL FORMAT**

### **3.1 Two Part Submission**

Offerors shall submit proposals in two separate volumes:

- Volume I - TECHNICAL PROPOSAL
- Volume II - FINANCIAL PROPOSAL

Offerors will only be required to submit one Proposal even if proposing multiple functional areas. As described below, the Technical Proposal shall contain a section on Offeror General Information and separate sections for each functional area proposed. Offerors must follow the instructions within this section.

### **3.2 Proposals**

Volume I-Technical Proposal shall be sealed separately from Volume II-Financial Proposal, but submitted simultaneously to the Procurement Officer. An unbound original, so identified, and three (3) copies of each volume are to be submitted. An electronic version of both the Volume I- Technical Proposal in MS Word format and the Volume II- Financial Proposal in MS Excel format shall also be submitted with the unbound originals technical or financial volumes, as appropriate. Electronic media may be 3-1/2” diskette or CD and shall bear a label on the outside containing the RFP number and name, the name of the Offeror, and the volume number.

### **3.3 Submission**

Each Offeror is required to submit a separate sealed package for each Volume, which is to be labeled Volume I-Technical Proposal and Volume II-Financial Proposal respectively. Each sealed package shall bear the RFP title and number, name and address of the Offeror, the Volume number (I or II) and closing date and time for receipt of the proposals on the outside of the package. Offerors shall submit only one Technical Proposal and one Financial Proposal, even if proposing multiple functional areas. Offerors shall include a section in the Technical Proposal providing General Information about the Offeror. Offerors shall include a separate section for each functional area proposed describing what services of that functional area (as described in Section 2) the Offeror has the ability to provide and how the Offeror qualifies to perform those services. All pages of both proposal Volumes shall be consecutively numbered from beginning (Page 1) to end (Page “x”).

### **3.4 Volume I – Technical Proposal**

#### **3.4.1 Transmittal Letter**

A transmittal letter shall accompany the technical proposal. The purpose of this letter is to transmit the proposal and acknowledge the receipt of any addenda. The transmittal letter should be brief and signed by an individual who is authorized to commit the Offeror to the services and requirements as stated in this RFP. See Offeror’s responsibilities in Section 1.21.

#### **3.4.2 Format of Technical Proposal**

Inside a sealed package described in Section 3.3, above, an unbound original, to be so labeled, three (3) copies and the electronic version shall be provided. Section 2 of this RFP provides requirements and

Section 3 provides reply instructions. The paragraphs in these RFP sections are numbered for ease of reference. In addition to the instructions below, the Offeror's Technical Proposal shall be organized and numbered in the same order as this RFP. This proposal organization will allow State officials and the Evaluation Committee to "map" Offeror responses directly to RFP requirements by paragraph number.

The Technical Proposal shall include the following section in this order:

#### **3.4.3.1 Title and Table of Contents**

The Technical Proposal shall begin with a title page bearing the name and address of the Offeror and the name and number of this RFP. A table of contents shall follow the title page for the Technical Proposal.

#### **3.4.3.2 Executive Summary**

The Offeror shall condense and highlight the contents of the Technical Proposal in a separate section titled "Executive Summary". The Summary shall provide a broad overview of the contents of the entire proposal. The summary shall also identify any exceptions the Offeror has taken to the requirements of this RFP, the Contract (Attachment A), or any other attachments. If there are no exceptions taken, the Offeror is to state that they have no exceptions to the requirements of this RFP, the Contract (Attachment A), or any other attachments. In addition, the Offeror shall clearly identify each functional area for which they are proposing services. Exceptions to terms and conditions may result in having the proposal deemed unacceptable or classified as not reasonably susceptible of being selected for award. Offerors certified under the Small Business Reserve are asked to provide the certification number.

#### **3.4.3.3 Offeror General Information**

This section shall include the following:

1. The Offeror's Corporation/organization size, experience, services provided the length of time the organization has been providing the services listed, and key business relationships.
2. Information on annual income for at least one full year.

#### **3.4.3.3 Past Performance – Must be provided for each functional area proposed**

This section shall include the following:

1. The Offeror shall provide a discussion of capabilities of the Offeror to provide the services outlined in Section 2.3 of this RFP for each functional area proposed.
2. The Offeror shall provide an example of a successful project (on time, within budget, within scope). This example shall include the project name, the services provided, and the objectives satisfied.
3. For each example project provided, the Offeror shall include a supporting reference with the following information:
  - a. Name of client organization; and,
  - b. Name, title, and current telephone number of point of contact for client organization.

**Please Note: It is critical that the contact information provided for any reference is accurate. The reference must be knowledgeable of the project and the Offeror's performance and available to discuss the Offeror's performance.**

#### **3.4.3.4 Required Submissions**

1. Completed Bid/Proposal Affidavit
2. A copy of the Offeror's current certificate of insurance required by Section 2.9 (property, casualty and liability), which, at a minimum, should contain the following:
  - o Carrier (name and address)
  - o Type of insurance
  - o Amount of coverage
  - o Period covered by insurance
  - o Exclusions
3. Attachment D-1 - Master Contract

### **3.5 Volume II - Financial Proposal**

Under separate sealed cover from the Technical Proposal and clearly identified in the format requirements identified in Section 3.3, the Contractor shall submit an original unbound copy, three (3) copies, and an electronic version in Excel of the Financial Proposal. The Financial Proposal shall contain all cost information in the format specified in **Attachment F**. Complete the cost sheets only as provided in the Price Proposal Instructions.

**Note: Labor categories may not be added after Master Contract Award.**

## **SECTION 4 – EVALUATION CRITERIA AND SELECTION PROCEDURE**

### **4.1 Evaluation Criteria**

Master Contracts will be awarded to all qualified Offerors in accordance with the Competitive Sealed Proposals procurement process under Code of Maryland Regulations 21.05.03.

### **4.2 Technical Criteria**

The criteria to be applied to each Technical Proposal are listed in descending order of importance:

- Past Performance
- Offeror General Information

### **4.3 Financial Criteria**

Financial Proposals will be evaluated separately. Offerors shall propose prices for labor categories only qualified to provide. Offerors shall provide prices for contract years 1 through 5 for all labor categories proposed. These are the maximum prices the State will pay for all proposed labor categories.

### **4.4 Reciprocal Preference**

Although Maryland law does not authorize procuring agencies to favor resident Offerors in awarding procurement contracts, many other states do grant their resident businesses preferences over Maryland contractors. Therefore, as described in COMAR 21.05.01.04, a resident business preference will be given if: a responsible Offeror whose headquarters, principal base of operations, or principal site that will primarily provide the services required under this RFP that is in another state submits the most advantageous offer; the other state gives a preference to its residents through law, policy, or practice; and, the preference does not conflict with a Federal law or grant affecting the procurement contract. The preference given shall be identical to the preference that the other state, through law, policy or practice gives to its residents.

### **4.5 Selection Procedures**

#### **4.5.1 General Selection Process**

Master Contracts will be awarded in accordance with the Competitive Sealed Proposals process under Code of Maryland Regulations 21.05.03. The Competitive Sealed Proposals method is based on discussions and revision of proposals during these discussions.

Accordingly, the State may hold discussions with all Offerors judged reasonably susceptible of being selected for award, or potentially so. However, the State also reserves the right to make an award without holding discussions. In either case of holding discussions or not doing so, the State may determine an Offeror to be not responsible and/or an Offeror's proposal to be not reasonably susceptible of being selected for award, at any time after the initial closing date for receipt of proposals and the review of those proposals. If the State finds an Offeror to be not responsible and/or an Offeror's Technical Proposal to be

not reasonably susceptible of being selected for award, an Offeror's financial proposal will be returned unopened.

#### **4.5.2 Selection Process Sequence**

- 4.5.2.1 The first step in the process will be an evaluation for technical merit. The purpose of such discussions will be to assure a full understanding of the State's requirements and the Offeror's ability to perform.
- 4.5.2.2 Offerors must confirm in writing any substantive oral clarification of, or change in, their proposals made in the course of discussions. Any such written clarification or change then becomes part of the Offeror's proposal.
- 4.5.2.3 The financial proposal of each qualified Offeror will be evaluated separately from the technical evaluation. After a review of the financial proposals of qualified Offerors, the Procurement Officer may again conduct discussions to further evaluate the Offeror's entire proposal.
- 4.5.2.4 When in the best interest of the State, the Procurement Officer may permit Offerors who have submitted acceptable proposals to revise their initial proposals and submit, in writing, best and final offers.

#### **4.5.3 Award Determination**

Upon completion of all discussions, negotiations, and reference checks, the Procurement Officer will recommend award of a Master Contract to all technically qualified Offeror(s).

## **ATTACHMENTS**

Attachments are located in a separate electronic file.