

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30</i>				1. REQUISITION NUMBER		PAGE OF 1 67	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER		5. SOLICITATION NUMBER NNK13470041Q		6. SOLICITATION ISSUE DATE 05/08/2013
7. FOR SOLICITATION INFORMATION CALL:		a. NAME Suzanne Blubaugh			b. TELEPHONE NUMBER (No collect calls) 321-867-1701		8. OFFER DUE DATE/LOCAL TIME 06/07/2013 1630 ET
9. ISSUED BY NASA/John F. Kennedy Space Center Office of Procurement MAIL CODE OP KENNEDY SPACE CENTER FL 32899			CODE KSC	10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input checked="" type="checkbox"/> SET ASIDE: 100.00 % FOR: <input checked="" type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS WOMEN-OWNED SMALL BUSINESS <input type="checkbox"/> (WOSB) ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM <input type="checkbox"/> EDWOSB <input type="checkbox"/> 8(A) NAICS: 541519 SIZE STANDARD: \$25.0			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS		<input type="checkbox"/> 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		13b. RATING	
15. DELIVER TO NASA/Kennedy Space Center KENNEDY SPACE CENTER FL 32899			CODE KSC	16. ADMINISTERED BY NASA/Kennedy Space Center Office of Procurement MAIL CODE OP KENNEDY SPACE CENTER FL 32899			
17a. CONTRACTOR/OFFEROR		CODE	FACILITY CODE	18a. PAYMENT WILL BE MADE BY			
TELEPHONE NO.				18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER							
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
001	INCO TERMS 2: Destination Refer to Statement of Work <i>(Use Reverse and/or Attach Additional Sheets as Necessary)</i>						
25. ACCOUNTING AND APPROPRIATION DATA						26. TOTAL AWARD AMOUNT (For Govt. Use Only)	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA				<input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.			
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA				<input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.			
<input checked="" type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>1</u> COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED.				<input type="checkbox"/> 29. AWARD OF CONTRACT: REF. _____ OFFER DATED _____. YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER (Type or print)			30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER (Type or print)		31c. DATE SIGNED	
				Marco Pochy			

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT

32a. QUANTITY IN COLUMN 21 HAS BEEN

RECEIVED INSPECTED ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE
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32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE
	32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE

33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	37. CHECK NUMBER
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38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY
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41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT	42a. RECEIVED BY (<i>Print</i>)
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE
	42b. RECEIVED AT (<i>Location</i>)
	42c. DATE REC'D (<i>YY/MM/DD</i>)
	42d. TOTAL CONTAINERS

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, FLORIDA 32899
CONTRACT TERMS AND CONDITIONS - COMMERCIAL ITEMS**

Type of Contract:

The contract type is an Blanket Purchase Agreement (BPA) with Fixed Price Task Orders to be issued against it .

Period of Performance:

The Period of Performance of this BPA is from July 1, 2013 through September 30, 2014.

Place of Performance- Services:

The services to be performed under this BPA shall be performed at the following location(s): (**Awardee's Place of Business**) .

Potential BPA Value:

\$600,000.00 consisting of:

Software Maintenance and possible travel

BPA Terms and Conditions of Order:

ADDENDUM TO 52.212-4, CONTRACT TERMS AND CONDITIONS - COMMERCIAL ITEMS

52.252-2 Clauses Incorporated by Reference. (FEB 1998)

This BPA incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): For Federal Acquisition Regulation (FAR) clauses, see <http://www.acqnet.gov/far/>

For NASA FAR Supplement (NFS) clauses, see <http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

(End of clause)

52.247-34 F.o.b. Destination. (NOV 1991)

52.204-7 Central Contractor Registration. (APR 2008)

52.209-6 Protecting the Government's Interest When Subcontracting with Contractors, Debarred, Suspended, or Proposed for Debarment. (SEP 2006)

52.227-14 Rights in Data- - General. (DEC 2007)

FAR 52.216-22 Indefinite Quantity (Oct 1995)

- (a) This is Blanket Purchase Agreement for the supplies or services specified and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.
- (b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the maximum. The Government shall order at least the quantity of supplies or services designated in the Schedule as the minimum.
- (c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- (d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after [insert date].

(End of clause)

Ordering Services

- (a) The Contractor shall provide services only when ordered by a Contracting Officer.
- (b) Orders for services shall be via e-mail, but may be made via phone if time does not permit use of email. Requests shall describe when and where services shall be provided, other required instructions/information, and include the name and phone number of a NASA point of contact. If e-mail notification is issued or a telephone message is left, the contractor shall immediately acknowledge receipt of the notice. If timely acknowledgement is not received from the contractor, then the ordering official will attempt to contact the contractor by alternate means of communication.
- (c) The contractor is cautioned that only the contracting officer can authorize the ordering of services in excess of the price specified in the task order, and that any such increase shall only be made via a written modification to this task order. In the event support is ordered that the contractor believes will require the expenditure of services in excess of the price specified in the task order, the contractor shall immediately notify the contracting officer.

Materials/Travel

In the performance of the task order work the contractor may be required to acquire supplies, reference materials, or outside services. The contracting officer's technical representative may also require contractor personnel to attend/participate in meetings, seminars, symposia, and conferences requiring the payment of registration fees. Any expenditure cited herein shall be treated on a reimbursable basis within the limits set forth on the Standard Form 1449.

In addition, the contractor employee may also be required to travel to the NASA-KSC area and within the Continental United States to other NASA Centers to fulfill the requirements of the SOW. Any expenditure cited herein shall be treated on a reimbursable basis within the limits set forth on the Standard Form 1449, and will be reimbursed in accordance with the Federal Travel Regulations.

Advance notice in writing (email is acceptable) shall be authorized by contracting officer's technical representative prior to the expenditure of any funds for materials or travel.

1852.215-84 OMBUDSMAN. (NOV 2011)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.

(b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, whose name, address, telephone number, facsimile number, and email address may be found at: http://prod.nais.nasa.gov/pub/pub_library/Omb.html. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the Agency ombudsman identified at the above URL. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(End of clause)

1852.223-72 Safety and Health (Short Form). (APR 2002)

(a) Safety is the freedom from those conditions that can cause death, injury, occupational illness; damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including contractor employees working on NASA contracts), and (4) high-value equipment and property.

(b) The Contractor shall take all reasonable safety and occupational health measures consistent with standard industry practice in performing this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and occupational health and with the safety and occupational health standards, specifications, reporting requirements, and any other relevant requirements of this contract.

(c) The Contractor shall take, or cause to be taken, any other safety, and occupational health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the Changes clause of this contract; provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other clause of the contract.

(d) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. In situations where the Contracting Officer becomes aware of noncompliance that may pose a serious or imminent danger to safety and health of the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), or high value mission critical equipment or property, the Contracting Officer shall notify the Contractor orally, with written confirmation. The Contractor shall promptly take and report any necessary corrective action. The Government

may pursue appropriate remedies in the event the Contractor fails to promptly take the necessary corrective action.

(e) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (e) and any applicable Schedule provisions, with appropriate changes of designations of the parties, in subcontracts of every tier that exceed the micro-purchase threshold.

(End of clause)

1852.225-70 Export Licenses. (FEB 2000)

(a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at Kennedy Space Center, where the foreign person will have access to export-controlled technical data or software.

(c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(End of clause)

1852.227-86 Commercial Computer Software - Licensing. (DEC 1987)

1852.237-72 Access to Sensitive Information. (JUN 2005)

(a) As used in this clause, "sensitive information" refers to information that a contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.

(b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.

(c) If performing this contract entails access to sensitive information, as defined above, the Contractor agrees to--

(1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.

(2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.

(3) Allow access to sensitive information only to those employees that need it to perform services under this contract.

(4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.

(5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.

(6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.

(7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.

(d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Avoidance Plan, which this contract incorporates as a compliance document.

(e) The nature of the work on this contract may subject the Contractor and its employees to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a government contractor.

(f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information

(End of clause)

1852.237-73 Release of Sensitive Information. (JUN 2005)

(a) As used in this clause, "Sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.

(b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at 1852.237-72, Access to Sensitive Information.

(c) (1) The Contractor shall identify any sensitive information submitted in support of this proposal or in

performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages *[insert page numbers or other identification of pages]*. Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document.

(2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.

(d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:

(1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Avoidance Plan, which the contract has incorporated as a compliance document.

(2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.

(3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.

(4) Allow access to sensitive information only to those employees that need it to perform services under its contract.

(5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.

(6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.

(7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.

(8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.

(e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.

(f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.

(g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

1852.242-70 Technical Direction. (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that -

(1) Constitutes an assignment of additional work outside the statement of work;

(2) Constitutes a change as defined in the changes clause;

(3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions, or specifications of the contract; or

(5) Interferes with the contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) of this clause, the Contractor shall not proceed but shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is -

(1) Rescinded in its entirety; or

(2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the contractor and contracting officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of clause)

52.212-5 ATTACHMENT

52.212-5 Contract Terms and Conditions Required to Implement Statutes or Executive Orders - Commercial Items. (NOV 2011)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-50, Combating Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

[] Alternate I (Aug 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(2) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Pub. L. 108-77, 108-78).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive

orders applicable to acquisitions of commercial items: Contracting Officer check as appropriate.

(1) 52.203-6, Restrictions on Subcontractor Sales to the Government (SEP 2006), with Alternate I (OCT 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

(2) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010)(Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)

(4) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (JUL 2010) (Pub. L. 109-282)(31 U.S.C. 6101 note).

(5) 52.204-11, American Recovery and Reinvestment Act--Reporting Requirements (JUL 2010) (Pub. L. 111-5).

(6) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (DEC 2010) (31 U.S.C. 6101 note).

(7) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (section 740 of Division C of Public Law 111-117, section 743 of Division D of Public Law 111-8, and section 745 of Division D of Public Law 110-161)

(8) 52.219-3, Notice of HUBZone Set-Aside or Sole-Source Award (NOV 2011) (15 U.S.C. 657a).

(9) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JAN 2011) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

(10) (Reserved)

(11)(i) 52.219-6, Notice of Total Small Business Set-Aside (NOV 2011) (15 U.S.C. 644).

(ii) Alternate I (NOV 2011).

(iii) Alternate II (NOV 2011).

(12)(i) 52.219-7, Notice of Partial Small Business Set-Aside (JUN 2003) (15 U.S.C. 644).

(ii) Alternate I (OCT 1995) of 52.219-7.

(iii) Alternate II (MAR 2004) of 52.219-7.

(13) 52.219-8, Utilization of Small Business Concerns (JAN 2011) (15 U.S.C. 637 (d)(2) and (3)).

(14)(i) 52.219-9, Small Business Subcontracting Plan (JAN 2011) (15 U.S.C. 637(d)(4).

(ii) Alternate I (OCT 2001) of 52.219-9.

- (iii) Alternate II (OCT 2001) of 52.219-9.
- (iv) Alternate III (JUL 2010) of 52.219-9.
- (15) 52.219-13, Notice of Set-Aside of Orders (NOV 2011) (15 U.S.C. 644(r)).
- (16) 52.219-14, Limitations on Subcontracting (NOV 2011) (15 U.S.C. 637(a)(14)).
- (17) 52.219-16, Liquidated Damages--Subcontracting Plan (JAN 1999) (15 U.S.C. 637(d)(4)(F)(i)).
- (18)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (OCT 2008) (10 U.S.C. 2323)(if the offeror elects to waive the adjustment, it shall so indicate in its offer.)
 - (ii) Alternate I (JUN 2003) of 52.219-23.
- (19) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (DEC 2010) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- (20) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (OCT 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- (21) 52.219-27, Notice of Service-Disabled Veteran-Owned Small Business Set-Aside (NOV 2011) (15 U.S.C. 657f).
- (22) 52.219-28, Post Award Small Business Program Rerepresentation (APR 2009) (15 U.S.C. 632(a)(2)).
- (23) 52.219-29, Notice of Set-Aside for Economically Disadvantaged Women-Owned Small Business Concerns (NOV 2011).
- (24) 52.219-30, Notice of Set-Aside for Women-Owned Small Business Concerns Eligible Under the Women-Owned Small Business Program (NOV 2011).
- (25) 52.222-3, Convict Labor (JUN 2003) (E.O. 11755).
- (26) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (JUL 2010) (E.O. 13126).
- (27) 52.222-21, Prohibition of Segregated Facilities (FEB 1999).
- (28) 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246).
- (29) 52.222-35, Equal Opportunity for Veterans (SEP 2010) (38 U.S.C. 4212).
- (30) 52.222-36, Affirmative Action for Workers with Disabilities (OCT 2010) (29 U.S.C. 793).
- (31) 52.222-37, Employment Reports on Veterans (SEP 2010) (38 U.S.C. 4212).

(32) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496).

(33) 52.222-54, Employment Eligibility Verification (JAN 2009). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)

(34)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (MAY 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

(ii) Alternate I (MAY 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

(35) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007) (42 U.S.C. 8259b).

(36)(i) 52.223-16, IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (DEC 2007) (E.O. 13423).

(ii) Alternate I (DEC 2007) of 52.223-16.

(37) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving (AUG 2011). (E.O. 13513).

(38) 52.225-1, Buy American Act - Supplies (FEB 2009) (41 U.S.C. 10a-10d).

(39)(i) 52.225-3, Buy American Act--Free Trade Agreements--Israeli Trade Act (JUN 2009) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, Pub. L. 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, and 110-138).

(ii) Alternate I (JAN 2004) of 52.225-3.

(iii) Alternate II (JAN 2004) of 52.225-3.

(40) 52.225-5, Trade Agreements (NOV 2011) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

(41) 52.225-13, Restrictions on Certain Foreign Purchases (JUN 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

(42) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (NOV 2007) (42 U.S.C. 5150).

(43) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (NOV 2007) (42 U.S.C. 5150).

(44) 52.232-29, Terms for Financing of Purchases of Commercial Items (FEB 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

(45) 52.232-30, Installment Payments for Commercial Items (OCT 1995) (41 U.S.C. 255(f), 10

U.S.C. 2307(f)).

(46) 52.232-33, Payment by Electronic Funds Transfer - Central Contractor Registration (OCT 2003) (31 U.S.C. 3332).

(47) 52.232-34, Payment by Electronic Funds Transfer - Other than Central Contractor Registration (MAY 1999) (31 U.S.C. 3332).

(48) 52.232-36, Payment by Third Party (FEB 2010) (31 U.S.C. 3332).

(49) 52.239-1, Privacy or Security Safeguards (AUG 1996) (5 U.S.C. 552a).

(50)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631).

(ii) Alternate I (APR 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

(1) 52.222-41, Service Contract Act of 1965 (NOV 2007) (41 U.S.C. 351, et seq.).

(2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (SEP 2009) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (SEP 2009) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(5) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (NOV 2007) (41 U.S.C. 351, et seq.).

(6) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements (FEB 2009) (41 U.S.C. 351, et seq.).

(7) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009) (Pub. L. 110-247).

(8) 52.237-11, Accepting and Dispensing of \$1 Coin (SEP 2008) (31 U.S.C. 5112(p)(1)).

(d) *Comptroller General Examination of Record.* The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records - Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(ii) 52.219-8, Utilization of Small Business Concerns (DEC 2010) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$650,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) (Reserved)

(iv) 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246).

(v) 52.222-35, Equal Opportunity for Veterans (SEP 2010) (38 U.S.C. 4212).

(vi) 52.222-36, Affirmative Action for Workers with Disabilities (OCT 2010) (29 U.S.C. 793).

(vii) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.

(viii) 52.222-41, Service Contract Act of 1965 (NOV 2007) (41 U.S.C. 351, et seq.).

(ix) 52.222-50, Combating Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

Alternate I (AUG 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(x) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (NOV 2007) (41 U.S.C. 351, et seq.).

(xi) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (FEB 2009)(41 U.S.C. 351, et seq.).

(xii) 52.222-54, Employment Eligibility Verification (JAN 2009).

(xiii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009) (Pub. L. 110-247). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xiv) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

SPECIFICATION/STATEMENT OF WORK:

Refer to Exhibit "A"

DATA REQUIREMENT DELIVERABLES (DRD):

Refer to Exhibit "B"

Exhibit “A”

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Exhibit “A”

STATEMENT OF WORK

1.0 BACKGROUND

TechDoc is a document management, records management and metrics management software system that provides support to NASA Kennedy Space Center (KSC), NASA Shared Service Center, NASA Stennis Space Center (SSC), and the NASA Agency.

2.0 OBJECTIVE

The contractor shall provide software development, software maintenance and help desk support for NASA’s TechDoc Document Management, Records Management and Metrics Management System.

3.0 SCOPE

TechDoc is a suite of applications listed below and provided in ATTACHMENT 2, TechDoc Application Documents.

PTI-TD-00001 TechDoc Installation Guide
PTI-TD-00002 TechDoc Release Notes
PTI-TD-00003 TechDoc Acceptance Test Plan
PTI-TD-00004 TechDoc VMware Installation Guide
PTI-TD-00005 TechDoc Hyper-V Installation Guide
PTI-TD-00006 TechDoc Mirror for MOSS 2007 Installation Guide
PTI-TD-00007 TechDoc WebParts for MOSS 2007 Installation Guide
PTI-TD-00008 Configuring Outlook 2007 To Connect To TechDoc
PTI-TD-00009 TechDoc Client Guide
PTI-TD-00010 TechDoc Document Manager User Guide
PTI-TD-00011 TechDoc Document Manager Admin Guide
PTI-TD-00012 TechDoc Search Manager Admin Guide
PTI-TD-00013 TechDoc Records Manager Guide
PTI-TD-00014 TechDoc Features and Functionality Matrix

4.0 WORK CONTENT

4.1 Source Code Maintenance

- a. The contractor shall maintain the entire source code base of TechDoc provided in ATTACHMENT 2, TechDoc Application Documents. The following is a broad description

Exhibit “A”

of the source code base of TechDoc at the baseline of Release 8x follows but is applicable for 7x and 9x:

- 1.42 million lines of original Java code under contract maintenance
 - 1.2 million lines of original source maintained by NASA
 - 216 thousand lines that originate as open source but maintained by NASA
 - Up to 8% is comments
 - 2.5 million lines of C/C++ code
 - 250 thousand lines of original source
 - 2.25 million lines that originate as open source, modified compiled into these applications and maintained by NASA.
 - 73 thousand lines of Objective-C code for NFM viewer
 - 69 thousand lines of JavaScript for various web pages
 - 15 Thousand lines original
 - 55 Thousand lines that originate as open source form DOJO
 - 55 thousand lines of HTML various web pages
 - 22 thousand lines of HTML for Selenium regression testing
 - 21 thousand lines of NSIS Installer script code for installers
 - 18 thousand lines of C# for Render Engine, SharePoint Deliverables, SOAP Testing.
 - 100 lines of jFlex for Lucene
- b. The contractor shall provide bug fixes as required by NASA in the form of patches. In an emergency (e.g. security or outage) the contractor shall deliver more than the scheduled two patches for Release 8 at NASA direction.
- c. The contractor shall architect, design and implement patches that fix any incidents and/or problems due to bugs or any other reason and shall work patches in the sprints allotted and scheduled by NASA. Patch work may be scheduled in place of new work. NASA reserves the right to re-schedule and set the content of sprints.

4.2 Software Development

- a. The contractor shall provide software architectural expertise for the development of detailed software designs for directing software developers doing software maintenance, new software development and any other supporting materials (e.g. documentation, help guides, training materials, brochures, PowerPoint slides, etc.). The contractor shall provide software architectural expertise at a level sufficient to implement the technologies used in TechDoc. The contractor shall deliver detailed and documented software designs based on high-level broad NASA requirements. The contractor shall develop the delivered designs into backlog items of 2 to 3 days in length. The contractor shall incorporate backlog items into the scheduled sprints.
- b. The contractor shall provide software development expertise for the development of software that meets NASA’s requirements as represented by backlog items in the sprint. The contractor shall provide software development expertise at a level sufficient to implement the technologies used in TechDoc.

Exhibit “A”

- c. The Contractor shall provide scheduled deliverables for new installable computer applications based on new requirements and requirements embodied in the source code broadly described in paragraph 4.0 per the schedule and backlog in the appendix A. The contractor shall support NASA in generating and maintaining the backlog list in the backlog tracking system.
- d. Release 7: The Contractor shall maintain the source code and provide support for Release 7x throughout the term of the contract or until the last production instance of the version is retired. Note: the last production instance of Release 7x will be the instances at the NASA Shared Services Center (NSSC) and are not expected to retire till after the term of the contract. The Contractor shall release versions Release 7c, 7d, 7e, etc. as needed to support Release 7x systems in production.
- e. Release 8: The contractor shall deliver a new release, Release 8, by the schedule listed in the appendix. The contractor shall assemble completed backlog items from previous contract and deliver two more sprints by the scheduled release date. The Contractor shall maintain the source code and provide support for Release 8 throughout the term of the contract or until the last production instance of the version is retired.
- f. Release 8a: The contractor shall deliver a new release, Release 8a, by the schedule listed in the appendix. The contractor shall assemble completed backlog items into the new release date. The Contractor shall maintain the source code and provide support for Release 8a throughout the term of the contract or until the last production instance of the version is retired.
- g. Release 8b: The contractor shall deliver a new release, Release 8b, by the schedule listed in the appendix. The contractor shall assemble completed backlog items into the new release date. The Contractor shall maintain the source code and provide support for Release 8b throughout the term of the contract or until the last production instance of the version is retired.
- h. Release 9: NASA will request new features and record those as back log items in the Jira system or equivalent. The contractor shall architect solutions that meet NASA’s requirements. The contractor shall break the architected solution into two or three day back log items. The contractor shall then assist NASA in scheduling the backlog items into sprints of two week durations. The contractor shall deliver Release 9 source code branch by the schedule listed in the appendix. The contractor shall successfully regression test Release 9 source code branch with no errors reported.

4.2.1 32bit to 32bit/64bit hybrid to 64bit migration

- a. 32-bit to 64-bit Transition Expertise, Development and Support

The migration from TechDoc 7 on a 32 bit versions of Microsoft OS(s) to TechDoc 7 on a 64 bit OS(s) and the subsequent upgrade to TechDoc 8 is our largest most important and most difficult migration path to date.

Exhibit “A”

- b. The Contractor shall be the technical expert and shall provide satisfactory support KSC migration from 32 bit under Win 2003 migrating to 64 bit under Win 2008R2, to support the Schedule release of version 8 and subsequent support and software maintenance.
- c. Version 7b – The Contractor shall be responsible to support and fix any 32 bit in 64 environment problems that might arise from Microsoft patches to the OS and/or Microsoft DBMS under the following combinations Microsoft Server 2003 and MS SQLServer 2000, Microsoft Server 2008R2, Microsoft Server 2012 bit problems when used in any combination of Microsoft MS SQLServer 2000, MS SQLServer 2005, MS SQLSever 2008R2 and MS SQLSever 2012 and The Contractor shall provide software development maintenance to continue the migration to version Release 8, 8a, 8b, and 9.

4.2.2 Root Cause Analysis and Problem Fix

Contractor shall have provide Root Cause analysis and problems fixes. The contractor shall provide an estimate of time to release a new version or patch, supporting software media and collateral material that fixes the trouble ticket.

4.3 Regression Testing

- a. The contractor shall create regression tests for all knew features and functions developed.
- b. The contractor shall maintain all existing regression tests for effectiveness and coverage of the source code.
- c. The contractor shall regression test and report zero failures and defects for all deliverables prior to delivery.
- d. The contractor shall upon request demonstrate the effectiveness and coverage of the regression tests.
- e. The contractor shall deliver software with no known defects, if a defect is discovered after delivery the contractor shall provide an additional test that tests for the problem and validates the problem no longer exists. The Contractor shall add the regression test corpus and all future regression testing of deliverables shall incorporate the tests.
- f. The contractor shall for every deliverable regression test every applicable configuration listed in the configurations table.

4.4 Project Management

- a. The contractor shall use industry best-practice Scrum configuration management practices or equivalent.
- b. The contractor shall maintain a source code branch for every version supported in development or production.

Exhibit “A”

- c. The contractor shall use the following change tracking system for source control management with current history or equivalent.
 - SourceGear Vault
- d. If the contractor uses an equivalent system, the contractor shall import and maintain the history that was in the originating source gear vault.
- e. The contractor shall deliver to NASA the source code vault at the end of the contract.
- f. The Contractor shall track all work on this contract in an issue management system. The contractor shall use the following issue management system with current history or equivalent.
 - Atlassian Jira
- g. The current issue tracking system maintains past history of past issues. If the contractor uses an equivalent system, the contractor shall import and maintained the history that was in the originating issue management tracking system.
- h. The contractor shall deliver to NASA the issue management data at the end of the contract in a form that is usable.
- i. The contractor shall follow the requirements of any GPL licensed open source used and maintenance in TechDoc and return appropriate code back to the open source community.
- j. The contractor shall use the TechDoc coding standing KSC-TD-000001.

4.5 Knowledgable and Expert Support

- a. The Contractor shall use the following programming languages to actively maintain the source code for Release 7x. The contractor may propose any new programming languages for Release 8 and beyond.
 - ActionScript, ASP.NET, BPMN, C, C++, C#, Java, JavaScript, Objective-C, Unix Shell, VB Script, Windows PowerShell, jFlex
- b. The following protocols are used extensively throughout TechDoc. The Contractor shall use the following protocols in maintenance of Release 7x. The contractor may propose alternatives in Release 8 and beyond.
 - FTP, HTTP, HTTPS IMAP, POP3, REST, SFTP, SMTP, SOAP, SOCKS, SSH,SSL, TCP, TLS, TechDoc-specific (REST, BDL, and SM Update protocols)
- c. The contractor shall continue to support the current following environments for source code for Release 7x. The contractor may propose alternatives in Release 8 and beyond.
 - Windows XP and Windows 7 for Render Server
 - Mac OS X 10.7.x and 10.8.x for NFM viewer

Exhibit “A”

- Windows 7 & Windows 8 for NFM viewer and Drag and Drop client
 - Windows Server 2003 – 2012 for servers
 - Microsoft Internet Information Service
 - Apache Tomcat
 - Microsoft SQL Server 2000 – 2012
 - Microsoft SQL Server JDBC Driver
 - NetBeans Webservices on remote end
 - Visual Studio Webservices on remote end
- d. The contractor shall continue to support the current following APIs, libraries and integrated applications for Release 7x. The contractor may propose alternatives in Release 8 and beyond.
- Java JDK 6 and 7
 - Dojo Toolkit
 - SharePoint Webparts
 - NSIS Installer Framework
 - Kofax & Adobe Capture
 - Microsoft Office 2010 & 2013
 - OpenSSO and OpenAM (SAML)
 - FreeType and ImageMagic
 - Shibboleth
 - Selenium
- e. The contractor shall continue to support and maintain source code using the current following APIs, libraries, frameworks for Release 7x. The contractor may propose alternatives in Release 8 and beyond.
- Java
 - Used throughout TechDoc – JAXB, JAXP, JDBC, JNI, KXML, Lucene, Velocity
 - Used in workflow – Activiti
 - Used in rendering of PDF thumbnails and text extraction - Bouncy Castle, Java 2D, JAI, Jbig2, JJ2000, PDFbox
 - Used in rendering of Office thumbnails and text extraction – POI
 - Used in SOAP API's –JAX-WS, Metro, MTOM, WS-AtomicTransactions, WS-Policy WS-ReliableMessaging, WS-SecurityPolicy
 - Windows
 - Used throughout TechDoc – ImageMagick, WebDAV, WinHTTP, WMI
 - Windows Hooking API
 - Used in authentication – RSA ACE, SSPI
 - Used for NFM– ActiveDocument, ActiveX, COM+, FreeType, GDI+, Gecko Plugin API (NPAPI), MAPI, ODBC, OLE, OLE-DDE, Windows Printer Driver Development, Zlib
 - Open Office XML formats
 - Machintosh OS X v10.7.x & v10.8.x

Exhibit “A”

- Used for NFM – Carbon, Cocoa, Quartz, FreeType, Gecko Plugin API (NPAPI)
- f. The contractor shall maintain TechDoc compatibility with the following browsers: IE, Chrome, Firefox, Firefox Portable, Safari. The contractor shall test the latest version + 9 months and two versions back For Microsoft Internet Explorer and one version back for all others. The contractor shall test compatibility with regression testing and maintain releases with zero reported errors.
- g. The contractor shall meet all NASA’s security requirement in reference NASA NPR 2810.1.
- h. The contractor shall provide knowledgeable and expert support for all technologies used in TechDoc in a timely manner for emergency support, software maintenance and new development.

4.6 On-Call Emergency Break/Fix Support

Keeping NASA’s TechDoc servers secure and operation is of paramount importance. Security features in TechDoc protect export controlled (ITAR & EAR), financially sensitive, and proprietary information. A breakdown in security could have significant security, financial, & legal ramifications. Outages of more than a few days may result in work loss costs tens and hundreds of thousands of dollars.

- a. The Contractor shall maintain for NASA, deliver to NASA break fixes, deliver to NASA bug patches and deliver to NASA functional change requests to the TechDoc source code base consisting of source code in section 4.0. Contractor shall provide any source code changes for source code originating as open source, back to the appropriate open community in a reasonable amount of time no later than end of contract if required by open source license.
- b. The Contractor shall provide 5 days by 10 hours, 8am to 6pm EST/EDT, tier 3 and tier 4 on-call customer support portion of the NASA TechDoc helpdesk. It must be integrated with the NASA Enterprise Service Desk (ESD) and Agency wide help desk. This support shall be available by telephone and e-mail and meet a one hour response time, except during government holidays. Tier 3 support shall be provided by any knowledgeable developer of the TechDoc source or trained with specific knowledge of the TechDoc software implementation, its installation and its operation. Tier 4 support shall be provided by the TechDoc software architect or equivalent who may delegate to the most appropriate member(s) of the software development team or equivalent to resolve the support issue.
- c. Contractor shall provide two levels of break/fix support. Level two support is for all systems. Level one support is an option that can be purchased by the NSSC in support of the NSSC Accounts-payable Work Management System where a break and outage is highly cost sensitive. All outages over 48 hours will likely result in late payment interest penalties and other costs. These penalties can rapidly rise and cost NASA tens and hundreds of thousands of dollars in just a few days or a week. Restoring service is of utmost importance.
- d. Level one: The contractor shall respond with call support within no later than 8 business hours to the NASA customer’s personnel and propose one or more incident fixes or

Exhibit “A”

workarounds and the contractor shall continue to provide continuous call support until a fix is realized.

- e. Level two: The Contractor shall respond no later than 2.5 business days to other support personnel and propose one or more incident fixes and workarounds and the contractor shall provide continuous call support until a fix is realized.

While security incidents are rare, it is very important security incidents are handled very quickly. The following requirements are necessary in the case of unintended release or breach of export control and sensitive or financial data.

- f. The contractor shall provide security analysis support to identify scope of information and characterization of breach through the post processing of history, logs and any other means. The contractor shall provide continuous on-call support during call support hours until security incident is no longer needed.
- g. Throughout the term of the contract the Contractor shall maintain knowledgeable and expert staff at the level of expertise needed to recover all break-fix incidents within the time allowed for the level of service.

Exhibit “B”

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Exhibit “B”

DRDS

- a. The Contractors shall deliver all major versions of software and documentation via DVD.
- b. The Contractors shall deliver all major versions of software, documentation, and latest updates via web access from a Contractor supplied server.

Documentation

The contractor shall keep all TechDoc documentation up-to-date and with acceptable coverage of the features and functions of the system.

The contractor shall maintain and fix/correct all TechDoc documentation listed above as errors are discovered or as directed by a change request NASA. The Contractor shall deliver new and updated versions of all documentation associated with new releases, new patches, and any changes to the source code.

The contractor shall create and deliver a new documentation for all new features (e.g. work flow management).

The contractor shall keep all the help systems up-to-date and in sync with the documentation and the appropriate features and versions of the application.

The contractor shall deliver help systems in sync with the versions delivered.

The contractor shall create and deliver a new training class and training collateral material for the new workflow management portion of TechDoc.

Search Manager Application

The contractor shall deliver Contractor shall deliver the search manager application versions incorporating

Contractor shall deliver new versions of the document search software according to requirements specified and maintained in the sprint backlog list.

The contractor shall upgrade the Search Manager from Lucene 2.x to the Lucene 4.2.1+, <http://lucene.apache.org/>

The contractor shall build into the SM the ability to completely re-index the Lucene index. It shall be a selectable command on the administration console of the Search Manager application.

The contractor shall automate the installer to issue or queue a re-index command as part of the upgrade process.

The contractor shall implement (version 8a) the TechDoc REST protocol on the Search Manager.

Exhibit “B”

The contractor shall implement the DM to SM update protocol with the TechDoc REST commands.

Cache Manager Application

The Contractor shall maintain and upgrade the cash manager application.

Document Manager Server Product Deliverable

TechDoc is has general-purpose document management system but tailored for the needs of security and export control for NASA.

The contractor shall provide software maintenance break fix on all existing software Included in the system it source code is provided

Contractor shall deliver new versions of the document management software according to requirements specified and maintained in the sprint backlog list.

This product incorporates the following technologies:

Security: Security is the most critical piece of the TechDoc system. For many digital assets the TechDoc security infrastructure is the last bastion of control for numerous export controlled items. The contractor shall be responsible to maintain existing safeguards in existing code. Contractor shall be responsible to architect and produce equivalent safeguards in new code.

Single Signon via SAML: SAML is critical for integration with the NASA single sign-on and authentication infrastructure. NASA has recently planned to migrate to a new SSO vendor. The contractor shall upgrade the TechDoc system implementation of SAML to satisfy the latest authentication upgrade at NASA.

The Contractor shall validate the the TechDoc SAML authenticator against any new NASA SAML infrastructure.

The Contractor shall implement any changes to the TechDoc SAML authenticator necessary to communicate with any new NASA SAML infrastructure.

Encryption: Encryption using FIPS 140-2 compliant modules is critical to the security of the document manager module. The contractor shall write all software for maintenance and new functionality using FIPS 140-2 compliant modules. The contractor shall pry provide proof via regression testing that encryption integrity has been maintained.

IMAP Email Service: The IMAP protocol is used to store email records and to load email from Microsoft Outlook. The contractor shall provide maintain the functionality of IMAP protocol programming support. The contractor shall upgrade the current IMAP protocol infrastructure to work with Outlook 2012. The contractor shall upgrade the current IMAP protocol infrastructure to work with Outlook 2011 for the latest Macintosh OS X. The contractor shall identify necessary changes to meet DoD 5015 certification. Contractor shall create associated backlog items.

Exhibit “B”

DOJO JavaScript: This technology is an important part of the TechDoc user interface. The contractor shall provide expertise in using this technology. The contractor shall compress down and used only the parts needed for download into the browser.

Records Management DOD 5015 Chapter 2

Release 9 of the TechDoc system must meet Requirements for DoD 5015 Chapter certification. The contractor shall integrate functionality for DoD 5015 as scheduled in the backlog. The contractor shall assist NASA in preparing a software package for DOD 5015 certification. The contractor shall write the necessary evidentiary documentation to support DoD 5015 certification. The Contractor shall support and assist NASA and DOD personnel as needed to answer questions during the certification process.

Workflow Engine

The contractor shall deliver an integrated workflow engine with the document manager.

The contractor shall deliver full documentation and upgraded document manage help screens with the workflow engine delivery.

The contractor shall deliver training collateral materials with workflow engine.

Document Rendering Engine

The rendering engine converts the native document file types to PDF and NFM. It consists a Microsoft Windows Desktop OS running inside a virtual machine. The Render agent runs on the Microsoft Window Desktop OS inside virtual machine. When the Document Manager need to rend a document from its native format to PDF and NFM it calls the VShere 4, VSphere 5 or MS Hypervisor API to start the render virtual machine. It sends a request to the render engine. In the request is the document to be rendered. Render agent receives request. Agent tries to render documents specified in request to PDF or NFM.

Microsoft office documents are rendered by the agent running scripts inside of the office products to print them to PDF or save them to PDF OLE automation and VB scripts are used within the office products by the tick tock applications.

Non-Office documents are rendered in a variety of methods.

The contractor shall deliver a new version of the document rendering engine for Release 8a.

The Contractor shall upgrade the Render Engine to Windows 7 and Microsoft Office 2013 for Release 8a.

The contractor shall make the render engine compatible with VSphere 4, VSphere 5 and Microsoft Hypervisor in MS Windows 2008R2 and MS Windows 2012 operating systems APIs.

Exhibit “B”

The Render Engine uses hooking software and a scripting language to deal with problematic user dialogs in an automated fashion. The contractor shall update the scripting code in the Microsoft hooking software subsystem. The contractor shall handle all dialogs successfully.

The contractor shall regression test the render engine with the Document Test Corpus and shall pass all tests.

The contractor shall support the VSphere 4, VSphere 5 and Hypervisor automated methods of starting and stopping the Render Engine virtual machine.

TechDoc SOAP Web Services

TechDoc is very dependent on the metro glassfish web service stack to ease integration with the Microsoft Web service stack. Experience has shown that web services calls in client applications break with patches and changes to either the client side SOAP web services stack or the server side SOAP web services stack. The contractor shall provide the TechDoc web services consumers with support and expert advice on the difficult task of break/fixes when SOAP web services stacks are changed, patched and/or upgraded.

SharePoint Components

SharePoint Solution, Web Part, and installers. The Contractor shall provide new SharePoint Solutions, Web Parts, and SharePoint installers as needed.

The contractor shall implement the DM to SM update protocol with the TechDoc REST commands.

Search Extractors

Extractors for search: The Contractor shall provide expertise in the following document Format for the purposes of extracting text for searching. Microsoft office Open XML formats. The flow format .flo and .igx I graphics FlowCharter. And PDF.

The contractor shall provide extractors that extract the maximum readable text from Microsoft of Open XML documents.

The contractor shall provide extractors that extract the maximum readable text from flow format .flo and igx Igraphics FlowCharter documents.

The contractor shall provide extractors that extract the maximum readable text from PDFs of version 1.7 Extension Level 8, ISO 32000-1:2008 and ISO 32000-2:2008 when available.

NASA Format for Millennia Printer Driver

The contractor shall deliver a new updated print driver for Windows XP 32-bit, Windows 7 32-bit, Windows 8 32-bit, Windows XP 64-bit, Windows 7 64-bit, Windows 8 64-bit, Microsoft

Exhibit “B”

2008R2 and Microsoft 2012. The contractor shall deliver an updated print driver for all supported configurations and environments. The contractor shall regression test the print driver with the document test corpus and show that documents print correctly.

Keyword extractors

The contractor shall deliver keyword extractors that extract DWG file Metadata as TechDoc keywords within the generic keyword framework.

Text extractors

The contractor shall deliver text extractors for all documents that reside in NASA TechDoc repositories.

The contractor shall deliver a default text extractor to look for ascii, UTF-8, UTF-16-BE and UTF-16-LE character sequences in any file regardless of format.

The contractor shall deliver a text extractor for DGN format files.

The contractor shall deliver a text extractor DWG, DWT.

The contractor shall deliver a text extractor XLS

The contractor shall deliver a text extractor FLO.

The contractor shall deliver a text extractor HTML.

The contractor shall deliver a text extractor IGX.

The contractor shall deliver a text extractor for Microsoft Open Office XML file formats, DOCX, DOTX, POTX, PPSX, PPTX, XLSX, XLTX.

The contractor shall deliver a text extractor for Microsoft Office 2007 and above Visio formatted files VDX, VSX, and VTX.

The contractor shall deliver a text extractor for OLE based used for Word 6 to Word 2003, DOC, DOT, MCW, and RTF Word variant formatted files.

The contractor shall deliver a text extractor for PDF formatted files.

The contractor shall deliver a text extractor for RTF.

The contractor shall deliver a text extractor TIFF.

The contractor shall deliver a text extractor Visio formats prior to Microsoft Office 2007.

The contractor shall deliver a text extractor for Microsoft Word, version 2, 4, & 5, DOC, DOT, MCW, and RTF Word variant formatted files.

The contractor shall deliver a text extractor for PDF XML Data Package format, XDP.

Exhibit “B”

The contractor shall deliver a text extractor for generic XML formatted files.

The contractor shall deliver a text extractor for NASA Format for Millennia formatted files.

Authenticators

The contractor shall maintain and deliver updated LDAP, Windows Security Support Provider Interface, Radius, RSA-ACE, SAML, TechDoc Authenticators.

Thumbnailers

The contractor shall maintain and deliver updated image thumbnail render to support JPEG, JBIG2, JPEG2000, PNG, TIFF, SVG, ICO, BMP, PICT, PNM, WBMP, PPM, CUR, GIF formats and variations.

The contractor shall deliver image thumbnail render for future image types as required by documents.

The contractor shall maintain and deliver updated OLE thumbnail render to support DOC, MPP, PPS, PPT, XLS formats from Word 2 through current.

The contractor shall maintain and deliver updated Open Office thumbnail render to support Microsoft Open Office XML format, DOCX, DOTX, POTM, POTX, PPSM, PPSX, PPTM, PPTX, VSDX, XLSB, XLSM, XLSX, XLTM for Microsoft Office 2007, 2010, 2013 documents.

The contractor shall maintain and deliver updated PDF thumbnail render to support PDF from version 1.3 – current versions, 1.7 Extension Level 8, ISO 32000-1:2008 and ISO 32000-2:2008 when available.

The contractor shall maintain and deliver updated WMF thumbnail render to support file types EMF and WMF.

The contractor shall maintain and deliver updated NFM thumbnail render to support file types EMF and WMF.

BPMN Workflow Management Editor

BPMN is being Rolled-out with Release 8. Contractor shall deliver consulting support and critical information to NASA Trainers and Instructional Designers the necessary information for NASA to produce a workflow training class. The contractor shall deliver the Yaoqiang BPMN Editor with the workflow engine.

The contractor shall maintain the source code of Yaoqiang BPMN editor for NASA use.

Exhibit “B”

NASA Format for Millennia Viewer

The Contractor shall deliver software that correctly renders NFM formatted files. The contractor shall deliver the new versions, Release 8 and Release 9 of the NFM viewer.

The contractor shall support and maintain existing versions of the NFM viewer on Microsoft Windows and Apple Macintosh platforms. The contractor shall support NFM view on the latest version +9 months of the Apple Macintosh OS X and Microsoft Windows platform. The contractor shall support one version back from the latest released version +9 months of the Apple Macintosh OS X and Microsoft Windows platforms.

The contractor shall support, maintain source code using the following Apple APIs in the Apple Macintosh OS X 1 versions of the NFM (NASA’s format for Millennia) viewer. The contractor shall continue to support the current following APIs for Release 7x. The contractor may propose alternatives in Release 8 and beyond.

- Carbon
- Cocoa
- Quartz
- FreeType
- Gecko Plugin API (NPAPI)

The contractor shall be responsible for the NFM specification and for improving and updating its feature set.

PDF Toolbox - PDF Conversion Tools Library

The Contractor shall provide and maintain an updated version of the PDF Toolbox.

In order to properly support PDF documents in both the Document Manager and the Render Engine, this toolbox needs to be able to read and write PDF documents. It requires the developer to have deep understanding of the PDF spec (Chapter 1 – 9 and knowledge of Interactive and Transparency). Since all versions of PDF documents could be encountered and are present in NASA TechDoc repositories this toolbox needs to handle all PDF versions with a concentration on the PDF spec from version 1.3 to current versions, 1.7 Extension Level 8, ISO 32000-1:2008 and ISO 32000-2:2008 when available.

The Contractor shall provide expertise with a deep understanding of PDF spec (Chapter 1 – 9 and knowledge of Interactive and Transparency).

The Contractor shall provide support, maintenance and deliver new software that reads the full implemented PDF format and PDF document structure and converts it to NFM. The Contractor shall deliver software that correctly converts PDF to the target format that includes the following, but is not exhaustive: PDF File Structure, Filter, Encryption, Object Type, Function, Cross Reference Table and Cross Reference Streams, Object Streams, etc.

The Contractor shall deliver software that correctly solves the following conversion problem area, Unreliable Cross Reference Table/Stream. NASA PDF documents come from multiple

Exhibit “B”

sources. The version can be from oldest to latest. Some old PDF documents may be created from third party product and the cross reference table may not be correct. NASA needs to be able to scan PDF documents and recreate the reference table on fly. This is very important for old version PDF documents. The Contractor shall deliver software that correctly reads PDF documents and recreates the reference tables.

The Contractor shall deliver software that correctly solves the following conversion problem area caused by incremental updates to PDF files. Some of the documents may be heavily modified during their creation process. There will be multiple cross reference table presents in document. The Contractor shall deliver software that correctly processes incremental updates correctly and determine the correct steps to process content correctly.

The Contractor shall deliver software that correctly solves the following conversion problem areas when dealing with Cross Reference Stream and object streams. The Contractor shall provide software the correctly handles PDF Object Streams compressed data stream (a collection of PDF Objects) that can be broken into several streams to maintain smaller sizes for each object. The Contractor shall handle PDF objects correctly, that may not by bounded by the PDF Object structure when broken into smaller pieces. The Contractor shall reassemble the object collection correctly for writing out as the target

The Contractor shall provide a basic Knowledge of PDF Graphics. The Contractor shall deliver software that correctly reads and processes the PDF Coordinate Systems, color space system, Graphics State, Path and Painting, Pattern, Color function, and Image encodings and decodings.

The Contractor shall provide expertise in improving and solving the following conversion problem area, MacRomanEncoding, StandardEncoding, Symbol, and ZaphDingbats. The Contractor shall deliver software that correctly reads and processes CID-Based font encodings, it includes predefined and document embedded Cmap, which the Contractor shall able to parse and correctly map the document encoding to Unicode encoding. The Contractor shall deliver software that correctly reads and processes glyph names to determine the Unicode value for some CID fonts, which is not part of PDF Spec. The glyph name to Unicode mapping can be obtained from Adobe.

The Contractor shall provide expertise in improving and solving the following font issues: PDF document support a large set of fonts. The Contractor shall deliver software that correctly reads and processes the following fonts types: Type1 PFA / PFB, Type 1 standard, Type 1 MM, Type 1 C (CFF font), True Type, True Type collection, Type 3 (User defined Font), Open Type, and CID Type font.

The Contractor shall deliver software that correctly reads and processes all font file structures supported by PDF, that shall deliver software that correctly reads and processes Font Cmaps, shall deliver software that correctly reads and processes glyph paths, and glyph selections.

True type has a large numbers of Cmap types, which can be found in the MS TrueType font spec. The contractor shall deliver software that correctly reads and processes types 1, 2, 4, 6, and 8.

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The Contractor shall deliver software that correctly reads and processes PDF Advanced Graphics and Transparency features of PDF. The contractor shall correctly process PDF color separation information and transparent alpha. The contractor shall correctly process PDF color spaces. The contractor shall deliver software that correctly reads and processes transparent alpha information by using transparency groups and soft masks.

The Contractor shall deliver software that correctly reads and processes sequences of consecutive objects in a transparency stack and composite them to produce a single color, shape, and opacity at each step of the rendering. That includes composition computations, alpha interpolation, and blending modes. There are 17 different color blending modes. The PDF32000_2008 spec finally has details on how to implement them.

The Contractor shall deliver software that correctly reads and processes PDF Document Interactive and Navigation features in a PDF and shall deliver software that correctly reads and processes Acroform, DocInfo and Outline features.

The Contractor shall deliver software that correctly reads and processes the Name tree, Action, and Outline Object. The Contractor shall deliver software that correctly reads and processes XFA form content that replaces PDF content.

The Contractor shall deliver software that correctly processes and write/marks existing PDF files to add stamps or watermarks.

The Contractor shall deliver software that correctly processes and write/marks into the proper place to the content of a stamp and/or watermark, then repackages the PDF document back to its original style leaving as small a footprint as possible.

The Contractor shall deliver software that correctly processes and write/marks the correct document version style. PDF document has various versions. The Contractor shall deliver software that correctly processes and writes the correct file structure for the different versions. When adding stamps or watermarks, The Contractor shall deliver software that correctly processes and writes the correct structure of the current document. For example, if the document uses a reference table, the Contractor shall repackage the document with a reference table. If document is Hybrid-reference format, the Contractor shall keep it as a Hybrid-reference and also make sure our content follows the same Hybrid-reference rule. By doing so, we try to make sure the intended reader version can still process this document.

Linealized PDFs are very important to download speeds. The Contractor shall deliver software that correctly processes and writes/stamps Linearized PDF and meets it very strict structure. The Contractor shall deliver software that correctly processes and writes stamping linearized PDF. The Contractor shall deliver software that correctly processes and packages document back to linearized PDF. The Contractor shall deliver software that correctly processes and writes the Shared Object Hints table and Page Hint Table and properly handle and remove conflicting data.

Some Commercial PDF products try to fix syntax errors with the probable result that content goes missing. The Contractor shall deliver software that correctly processes and writes without fixing PDF syntax errors.

Exhibit "B"

Handling Shell PDF. The Contractor shall deliver software that correctly processes and writes Shell PDF. The Contractor shall deliver software that correctly processes and inserts stamps that need to be inserted into an XFA form. The Contractor shall deliver software that correctly processes the XFA structure and XFA templates.

The Contractor shall deliver software that correctly handle PDFs objects and process state to allow conversion of color blending, transparency, and other graphics features to and from a layer based format like NFM. The Contractor shall deliver software that correctly handles the graphic state processing of the PDF objects.

The Contractor shall deliver software that correctly processes PDF and maximizes text extraction used by search tools. The Contractor shall deliver software that correctly calculates a to Unicode Map for all fonts that don't have one in a PDF file

The Contractor shall deliver software that correctly processes transparent images in PDF. PDF doesn't directly support transparent images. So, for PNG, GIF, JPEG2000, TIF, or any other image format that supports transparent channels, the Contractor shall deliver software that correctly extracts out and converts transparent data to a soft mask.

JImage Toolbox

The Contractor shall deliver a library to render every image file format used in the image thumbnail renderers.

Drag and Drop Client

Drag and Drop is heavily dependent on the industry standard SOCKS protocol. The contractor shall support the socks protocol.

The contractor shall deliver versions compatible with Microsoft Windows XP, 7, 8

For Release 9 the contractor shall develop a version compatible with Macintosh OS X.

The contractor shall regression test the drag and drop client with the Macintosh OS X latest version and back one version.

The contractor shall deliver a new and updated version of the user drag and drop client for release 8. The drag and drop client has an automatic update feature.

The contractor shall provide, support and maintain the automatic update server for the drag and drop client from at off-site location of their choosing.

The Constrator shall meet NASA's security requirements.

The contractor shall deploy patches for the drag and drop client immediately upon successful regression testing.

The contractor shall deploy drag and drop updates on a contractor supplied drag-and-drop automatic update server.

Exhibit “B”

Scanner Agent (Kofax and Generic Scanner Software COTS Integration)

The contractor shall update the scanner agent for each new release.

NSIS Fully Automated Installers

The Contractor shall provide every software deliverable with an automated installer. The Contractor shall provide a fully automated installation process starts from both fresh OS installs

The Contractor provided installer shall automatically install roles, services and OS subcomponents, only prompt for user preference like file locations and file areas, user name and password, SQL connection information and a few other customizable preference. All missing software must be automatically installed without user input. Must be able to be run multiple times and leave the system in a functional state.

Code signing is used in TechDoc to verify the origin and integrity of the code. Because the code is signed by the current contractor

The Contractor shall deliver all installable TechDoc-developed components (Java jar files, Executables, Dynamic Link Libraries, and printer drivers) signed with time-stamping.

The Contractor shall provide code signing certificate that supports Java, Microsoft, and time-stamping, and then rebuild and resign all TechDoc-developed components. This is necessary because many of the components will not interoperate if they are signed by different parties.

TechDoc Schedule of Release 8 and Release 9 Deliverables

07/01/13 Milestone: Start of Contract Term and 1 Week Transition

07/22/13, Milestone (Maint): Sprint 1 complete and demo

08/05/13, Milestone (Maint): Sprint 2 complete and demo

08/19/13, Milestone (Maint): Sprint 3 complete and demo, Code Freeze

09/02/13, Milestone (Maint): Successful completion of Regression Testing

09/02/13, Deliverable (Maint): Acceptance Test Plan

09/16/13, Milestone (Maint): Successful Completion Acceptance Testing

09/30/13, Milestone (Maint): Release of “Release 8” with full documentation

09/30/13, Milestone (Support): OS 2008R2, SQL Server 2008R2 and TechDoc 7b Migration Complete (64)

10/14/13, Milestone (Maint): Sprint 4 complete and demo

10/28/13, Milestone (Maint): Sprint 5 complete and demo

10/31/13, Milestone (Support): Release 8 Search to production for KSC & SSC, NSSC to Staging (Lucene)

11/11/13, Milestone (Maint): Sprint 6 complete and demo

11/25/13, Milestone (Maint): Sprint 7 complete and demo

11/27/13, Milestone (Support): Release 8 Doc Managers to production for KSC & SSC, NSSC to Staging

Exhibit “B”

12/09/13, Milestone (Maint): Sprint 8 complete and demo
12/20/13, Milestone (Maint): Sprint 9 complete and demo
01/13/14, Milestone (Maint): Sprint 10 complete and demo
01/27/14, Milestone (Maint): Sprint 11 complete and demo, Code Freeze
02/10/14, Milestone (Maint): Successful Completion of Regression Testing
02/24/14, Milestone (Maint): Release 8a patch with full documentation
03/10/14, Milestone (Maint): Sprint 14 complete and demo
03/24/14, Milestone (Maint): Sprint 15 complete and demo
04/07/14, Milestone (Maint): Sprint 16 complete and demo
04/21/14, Milestone (Maint): Sprint 17 complete and demo
05/05/14, Milestone (Maint): Sprint 18 complete and demo
05/19/14, Milestone (Maint): Sprint 19 complete and demo
06/02/14, Milestone (Maint): Sprint 20 complete and demo
06/16/14, Milestone (Maint): Sprint 21 complete and demo
06/30/14, Milestone (Maint): Sprint 22 complete and demo

Appendix “A”

Document Manager Configurations and Migrations to be supported throughout contract

Environment\TDVersion	7 Java 6 32bit	7a Java 6 32bit	7b Java 6 32bit	7b Java 6 64bit	8 Java 7 64bit	8a Java 7 64bit	8b Java 7 64bit	9 Java 7 64bit
MS WINServer 2003/32 VSphe4 API MS SQLServer 2000	KSC*		KSC*					
MS WINServer 2003/32 VSphe5 API MS SQLServer 2005		SSC*	SSC					
MS WINServer 2003/32 VSphe4 API MS SQLServer 2008R2			KSC*					
MS WINServer 2003/32 VSphe5 API MS SQLServer 2008R2			SSC					
MS WINServer 2008R2 Bare Metal Hypervisor API MS SQLServer 2008R2				NSSC	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 Hypervisor API MS SQLServer 2008R2				NSSC	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSphe4 API MS SQLServer 2008R2				KSC	KSC	KSC	KSC	KSC
MS WINServer 2008R2 VSphe5 API MS SQLServer 2008R2				SSC	SSC	SSC	SSC	SSC
MS WINServer 2008R2 Bare Metal Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSphe 4 API MS SQLServer 2012SP1					KSC	KSC	KSC	KSC
MS WINServer 2008R2 VSphe5 API MS SQLServer 2012SP1					SSC	SSC	SSC	SSC
MS WINServer 2012 Bare Metal Hypervisor API MS SQLServer 2008R2					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 Hypervisor API MS SQLServer 2008R2					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 VSphe4 API MS SQLServer 2008R2					KSC	KSC	KSC	KSC
MS WINServer 2012 VSphe5 API MS SQLServer 2008R2					SSC	SSC	SSC	SSC
MS WINServer 2012 Bare Metal Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 VShere4 API MS SQLServer 2012SP1					KSC	KSC	KSC	KSC

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MS WINServer 2012 VShere5 API MS SQLServer 2012SP1						SSC	SSC	SSC	SSC
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Search Manager Configurations and Migrations to be supported throughout contract

Environment\TDVersion	7 Java 6 32bit	7a Java 6 32bit	7b Java 6 32bit	7b Java 6 64bit	8 Java 7 64bit	8a Java 7 64bit	8b Java 7 64bit	9 Java 7 64bit
MS WINServer 2003/32 Bare Metal MS SQLServer 2005		SSC*	SSC					
MS WINServer 2003/32 VSpere4 MS SQLServer 2000	KSC*		KSC*					
MS WINServer 2003/32 VSpere5 MS SQLServer 2005		SSC*	SSC					
MS WINServer 2003/32 Bare Metal MS SQLServer 2008R2			SSC					
MS WINServer 2003/32 VSpere4 MS SQLServer 2008R2			KSC*					
MS WINServer 2003/32 VSpere5 MS SQLServer 2008R2			SSC					
MS WINServer 2008R2 Bare Metal MS SQLServer 2008R2				NSSC* SSC	NSSCS SC	NSSCS SC	NSSCS SC	NSSCS SC
MS WINServer 2008R2 Hypervisor MS SQLServer 2008R2				NSSC*	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSpere4 MS SQLServer 2008R2				KSC*	KSC	KSC	KSC	KSC
MS WINServer 2008R2 VSpere5 MS SQLServer 2008R2				SSC	SSC	SSC	SSC	SSC
MS WINServer 2008R2 Bare Metal MS SQLServer 2012SP1				NSSC SSC	NSSCS SC	NSSCS SC	NSSCS SC	NSSCS SC
MS WINServer 2008R2 Hypervisor MS SQLServer 2012SP1				NSSC	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSpere 4 MS SQLServer 2012SP1				KSC	KSC	KSC	KSC	KSC
MS WINServer 2008R2 VSpere5 MS SQLServer 2012SP1				SSC	SSC	SSC	SSC	SSC
MS WINServer 2012 Bare Metal MS SQLServer 2012SP1				NSSC SSC	NSSCS SC	NSSCS SC	NSSCS SC	NSSCS SC
MS WINServer 2012 Hypervisor MS SQLServer 2012SP1				NSSC	NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 VSpere4 API MS SQLServer 2012SP1					KSC	KSC	KSC	KSC
MS WINServer 2012 VSpere5 API MS SQLServer 2012SP1					SSC	SSC	SSC	SSC

Appendix "A"

Cache Manager Configurations and Migrations to be supported throughout contract

Environment\TDVersion	7 Java 6 32bit	7a Java 6 32bit	7b Java 6 32bit	7b Java 6 64bit	8 Java 7 64bit	8a Java 7 64bit	8b Java 7 64bit	9 Java 7 64bit
MS WINServer 2008R2 Bare Metal MS SQLServer 2008R2				NSSC*	NSSCS SC	NSSCS SC	NSSCS SC	NSSCS SC
MS WINServer 2008R2 Hypervisor MS SQLServer 2008R2				NSSC*	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSphere4 MS SQLServer 2008R2				KSC*	KSC	KSC	KSC	KSC
MS WINServer 2008R2 VSphere5 MS SQLServer 2008R2				SSC	SSC	SSC	SSC	SSC
MS WINServer 2008R2 Bare Metal MS SQLServer 2012SP1					NSSCS SC	NSSCS SC	NSSCS SC	NSSCS SC
MS WINServer 2008R2 Hypervisor MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSphere 4 MS SQLServer 2012SP1					KSC	KSC	KSC	KSC
MS WINServer 2008R2 VSphere5 MS SQLServer 2012SP1					SSC	SSC	SSC	SSC
MS WINServer 2012 Bare Metal MS SQLServer 2012SP1					NSSCS SC	NSSCS SC	NSSCS SC	NSSCS SC
MS WINServer 2012 Hypervisor MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC

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MS WINServer 2012 VSphere4 MS SQLServer 2012SP1					KSC	KSC	KSC	KSC
MS WINServer 2012 VSphere5 MS SQLServer 2012SP1					SSC	SSC	SSC	SSC

Document Manager & Search Manager Combination Configurations and Migrations to be supported throughout contract

Environment\TDVersion	7 Java 6 32bit	7a Java 6 32bit	7b Java 6 32bit	7b Java 6 64bit	8 Java 7 64bit	8a Java 7 64bit	8b Java 7 64bit	9 Java 7 64bit
MS WINServer 2003/32 VSphere4 API MS SQLServer 2000			KSC*					
MS WINServer 2003/32 VSphere4 API MS SQLServer 2008R2			KSC*					
MS WINServer 2008R2 Bare Metal Hypervisor API MS SQLServer 2008R2				NSSC*	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 Hypervisor API MS SQLServer 2008R2				NSSC	NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 VSphere4 API MS SQLServer 2008R2				KSC	KSC	KSC	KSC	KSC
MS WINServer 2008R2 Bare Metal Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2008R2 Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC

Appendix “A”

MS WINServer 2008R2 VSphere 4 API MS SQLServer 2012SP1					KSC	KSC	KSC	KSC
MS WINServer 2012 Bare Metal Hypervisor API MS SQLServer 2008R2					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 Hypervisor API MS SQLServer 2008R2					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 VSphere4 API MS SQLServer 2008R2					KSC	KSC	KSC	KSC
MS WINServer 2012 Bare Metal Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 Hypervisor API MS SQLServer 2012SP1					NSSC	NSSC	NSSC	NSSC
MS WINServer 2012 VShere4 API MS SQLServer 2012SP1					KSC	KSC	KSC	KSC

TechDoc 8 Release Notes

New Features and Improvements

DM-74: Add Projects for Associating Documents

Added projects to associate/group documents together. It is very common for multiple documents to be needed while working on a project. Initially, the project will mainly be used for simply associating a group of documents together. In the future, projects will be expanded to provide more functionality based on user feedback.

Appendix "A"

DM-247: Document and Generation Attachments

Added the ability to upload attachments to a document or one of its generations. Attachments need to appear on the appropriate "Show" pages and the DM status and retrieval page. To access an attachment, the requester must have read access to the document or generation that it is attached to.

DM-456: Add an RMA Retention Start Date per CR 21419

Prior to TechDoc 8, the Release Date of a document was always used as the retention start date of a document. The retention start date can now be set per RMA file plan to the Create Date, Last Modified Date, Release Date, or any Keyword that is a date. In addition, an optional Retention Trigger Keyword/Value can be specified that must exist on the document before the further retention start date processing will occur.

DM-473: Add a new Mass Cancel Document feature for CR 23410

The ability to mass cancel a large number of documents at once has been added to TechDoc. The user provides the revision, a file, and whether the file should be rendered or not (if applicable). The file is then added to each document as the final generation of the document and then cancelled with the specified revision.

DM-486: Allow Modify Remote Email to Specify a Remote Email That Already Exists

Modify Remote Email has been enhanced to allow a remote email to be specified that already exists in the system. This would allow the following situation to be handled: Consider that a DM has the remote emails john.doe@ksc.nasa.gov and john.doe@nasa.gov used. Both emails were considered valid and referred to the same person. However, now you want to decommission the first email and have it replaced everywhere it occurs by the second email. This change allows the remote emails to be "merged" into one.

DM-491: Add System Property to define which hyperlinks and generations that Status and Retrieval display

Added the ability to change what the Status and Retrieval servlet will display to assist SSC in dealing with ISO audit findings they received. A new drop down system property called "*StatusRetrievalFetch*" has been added. The following choices are available:

- All Fetchable and Shown (Original behavior before this was added)
- Latest Release Fetchable, Others Still Shown
- Latest Release Fetchable, No Others Shown
- All Released Fetchable, Others Still Shown
- All Released Fetchable, No Others Shown

Appendix “A”

DM-493: Update TechDoc to use Tomcat 7

TechDoc has been updated to use Tomcat version 7. TechDoc was using Tomcat 5.5, which will not be supported for much longer.

DM-494: Upgrade DM to use new JRE for TechDoc 8

The JRE (Java Runtime Environment) used by TechDoc has been upgraded to support 64-bit. This allows TechDoc to take advantage of automatic performance improvements and larger memory support.

DM-498: Add support for the File Name to be placed in the Title of Documents Created with the TechDoc Client

Support has been added for allowing the file name to be used for the title of Documents created using the TechDoc Client.

DM-500: Update the Look and Feel of the DM

The Look and Feel of TechDoc is very out dated. The color schemes and all the icons have been updated. Also, layouts have been changes to allow for more compact display of various items.

DM-502: Allow an Attachment when Casting Vote

A request was made to allow an attachment to be uploaded as part of casting a vote. When this is done, the attachment is automatically added to the discussion item that is created for that particular vote.

DM-504: Add support for Office 2010 Differences in the Text Extractors

Minor differences are possible with embedded objects between Office 2007 and Office 2010. The Office text extractors have been improved to handle the differences when present so that all text is extract.

DM-505: Add new Interim Certificate Authority that is required by NSSC

NSSC recently installed a new certificate on their AP Pooling SM. Once they installed it, the DM started having trouble sending updates to the SM. The issue is the new interim certificate authority that the certificate was signed by. TechDoc has incorporated the new interim certificate authority into the TechDoc 8 stack so that it will automatically be available.

DM-506: Create and Add Extraction Context to the Text Extractor Interface

The text extractor interface in TechDoc 7 and below is becoming difficult to handle various PDF and Microsoft Office 2007/2010 issues that we have encountered. The new Extraction Context provides an object that understands the context of the current text extraction target file and provides helper methods to the extractors attempting to actually extract the text. The new context will allow TechDoc to add additional helper methods without the need to modify the interface any more after this change.

Appendix "A"

DM-507: Add Ability for Folder Shares to Open Documents in New Windows

A request was made to have Folder Shares open Documents in a new browser window. The reason is when viewing a Folder Share in a SharePoint web part, it would be very desirable if the document would open in a new window because normally web parts are not very large so viewing the document in the web part itself is very constraining.

DM-509: Add Optional Create Date and Non-Resident Document Support to REST Protocol

The REST protocol was missing two features that were needed when REST was being used in TechDoc 7 for a migration effort. First, an optional create date needs to be supported by Create Document. When missing, the current date and time will automatically be used to maintain backward compatibility. Second, the client needs to support non-resident documents. These two capabilities have been added to TechDoc.

DM-511: Add Support for Files Larger than 2GB

As requested, TechDoc now supports files larger than 2GB. Note that most browsers have trouble uploading files this large. However, the TechDoc Client can easily handle this with its use of chunked encoding. In addition, the TechDoc Client is many times faster at uploading files that a browser is anyway.

DM-512: Add Support to the DM for SQL Server 2012

TechDoc 8 includes an updated SQL Server 2012 JDBC driver that can take full advantage of SQL Server 2012. TechDoc 8 officially supports SQL Server 2008 and SQL Server 2012. The Microsoft driver no longer supports SQL Server 2000 at all.

DM-513: Add the Outlook Mime Type to DM

The Mime Type for Outlook messages has been added to the DM and the IMAP/IMAPS services used by Outlook and other email clients has been updated to default to assigning that Mime Type to uploaded email messages.

Prior to 7b, TechDoc defaulted to always assigning "message/rfc822" as the Mime Type for emails. The problem with that is that when a user attempts to view the email from TechDoc using IE, IE attempts to view the email but always displays an empty page. By setting emails to the Outlook Mime Type, IE will use Outlook to view the email and then the contents of the email will be correctly displayed.

DM-514: Delete Folder Needs To Allow a Folder Tree with No Documents to Be Deleted

Delete Folder has been improved to allow a folder tree to be deleted. However, to prevent the large scale deletion of documents accidentally, the folder can contain folders but it and any child folders in the tree cannot contain any documents. This way Mass Delete Document can be used to knowingly remove a large number of documents and Delete Folder can then be used to quickly clean up the folder tree that is left behind.

Appendix "A"

DM-515: Optimize Reports for Documents with Keyword Criteria

When running Document reports on systems with large numbers of documents and keywords, it was possible to create reports that take an extremely long time to complete. The issue arises when many keyword criteria are specified on the report.

The Reports SQL generator has been improved for this condition and the same queries that were taking hours now complete in seconds.

DM-516: Add Snapshot Isolation to the DM Database

Since TechDoc 8 requires a minimum of SQL Server 2008 R2, we can now enable to use snapshot isolation to eliminate read locking from the database. This became apparent after seeing an issue with a long running report of a server at KSC. Enabling snapshot isolation will prevent this from happening.

DM-517: Allow List to be deleted if it has Associations

A request was made to allow lists be to be deleted if they have associations. A warning is displayed on the Delete List servlet so that the user will realize associations will be lost.

DM-521: Add REST Privilege to Restrict Use of TechDoc Client and Other REST-Based Applications

A request was made to add the REST privilege to restrict which users can use the TechDoc Client and other REST-based applications. This was requested by the TechDoc working group due to the concern about how easy it is to upload large amounts of data to TechDoc.

DM-522: Update CSS to Deal with Recent Change to IE9

Changes to IE9 caused a rendering of the new look and feel were not quite right under IE9. The output still looked fine under Firefox, Safari, Chrome, and Opera. Adjustments were made so that the output looked fine in all browsers.

DM-523: Improve SAML to Work on Servers with Multiple Host Names

Prior to 7b, SAML (used for NASA's eAuth system) may not work well on a server that has multiple host names assigned to it. The method used to determine the server's host name could potential return any one of the host names causing SAML to have problems logging users in. TechDoc now uses the *ExternalBaseUrl* system property (when present) to determine the host name to use when communicating with SAML identity providers.

DM-524: TechDoc Client Doesn't Handle a Server that is Not Configured for SSO

Prior to 7b, the TechDoc Drag and Drop Client had an issue when you configured the Client to use SSO but the Server was not configured for SSO. An improvement has been made in TechDoc that allows the user to receive a message informing them that SSO cannot be used with that particular server.

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DM-525: Modify Cabinet does not work from the TechDoc Client

An improvement was made to the REST protocol used by the TechDoc Client so that cabinets can be modified. Prior to 7b, a user could modify folders but they could not modify cabinets. Of course, the user must still have the appropriate privilege and access to modify a cabinet.

DM-526: Update the DM Default Authenticator System Property to Document the Impact on SSO

The description on the DM's *DefaultAuthenticator* system property has been updated to make it obvious that choosing an SSO (Single Sign-On) authenticator such as the SAML authenticator will cause the DM to automatically use SSO for log in requests.

DM-527: Change DM TechDoc Tomcat Ports to Avoid Collisions

The Tomcat port numbers have been changed on the DM. Numerous issues with the port numbers have occurred because they are the default port number for Tomcat and more products are embedding Tomcat. By moving them, TechDoc is less likely to run into conflicts with other Tomcat-based applications.

DM-531: Add BPMN 2.0 Workflow Support to TechDoc

A BPMN 2.0 workflow engine has been added to TechDoc. The workflow engine can automate business processes that don't even involve document management. Many TechDoc-specific service tasks have been added to support document management workflows. In addition, workflows can be triggered by specific commands. For instance, a trigger can be generated so that when a document is created with the Doc Type of Invoice, run this workflow ABC on the document. A WYSIWYG BPMN 2.0 editor has been adapted to work with TechDoc to allow users to graphically create a workflow and then deploy it to TechDoc.

DM-532: Handle Smart Quotes Pasted into Various Input Fields

When copying data from sources like Office products to text boxes in TechDoc, smart quotes and various other Unicode characters can cause errors. Improvements have been made to translate these special characters back to their standard ASCII representation to avoid the errors from occurring.

DM-533: Adjust Memory Allocated to Tomcat during DM Installation

As TechDoc moves to 64-bit environments and larger systems, Tomcat needs to automatically take advantage of the larger resources available. Starting with TechDoc 8, the installer attempts to allocate reasonable memory limits to Tomcat based on available resources rather than assigning a small "should run" everywhere setting.

DM-534: Add Keywords as a Column on Document, Project, Record, and Record Set Reports

A request was received to allow a Keyword to be shown as a column on a Document report. In performing the work required, it was determined that Keywords should be

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added as columns for Projects, Records, and Record Sets. There was limited additional work required to add the functionality to all four report types at the same time.

DM-535: Add Search Folders with Selectable Columns

The Search Folder concept from the TechDoc Client has been introduced into TechDoc. A user can create a Search Folder with arbitrary document criteria and all matching documents that the user has read access to will appear in the search folder. In addition, the user can decide which columns will be shown when the documents are displayed.

DM-536: Add support for Office Open XML Thumbnails that use the EMF Format

Microsoft Office can now use EMF thumbnails in addition to JPG thumbnails that Microsoft Office used previously. The Office Open XML Thumbnail renderer has been updated to look for EMF thumbnails so that thumbnails can be produced for either type of Microsoft Office document.

DM-537: Update TechDoc 8 Installer to Configure IIS to Pass Errors Back to Client

Due to issues experienced at NSSC, the TechDoc 8 installer has been updated to ensure that the error handling setting on IIS web sites where TechDoc is installed is set to pass through mode. This will avoid the problem NSSC and other may encounter when surface hardening their IIS servers.

DM-539: Add a Text Extractor for Visio VSD Files

A TechDoc text extractor has been created that specifically handles Visio VSD files. In the past, TechDoc used the fallback text extractor that simply attempts to extract any strings of text that appear in the file whether they are valid or not.

DM-540: Improve the DM to Handle Working on Servers with Multiple Host Names

Servers running TechDoc are starting to be set up with multiple host names. Different parts of the DM (email, logging, etc.) might display different host names. The system has been updated to always use the *ExternalBaseUrl* system property (when present) to determine the host name.

DM-541: Add Temp Folder Checking on DM Start Up

If the *temp* folder used by Java is missing, the DM can experience numerous problems that Java does not report as errors. In the rare event that the *temp* folder is missing, the DM will now attempt to create that folder on startup.

DM-543: Update REST Document Search Service to Support All Document Columns

Prior to 7b, the REST Document Search Service used by the TechDoc Client only supported a select number of Document columns to be specified. In order to improve performance of a couple operations and enable more functionality in the future, the service can now return all Document columns.

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DM-544 Add a Progress Indicator When Uploading Files

As part of improving the DM look and feel under issue DM-500, the Dojo toolkit has been incorporated into TechDoc. The Dojo toolkit made it easier to add a progress indicator when uploading files. Also, there has been a long standing issue we with the Previous and Cancel button on a file upload screen. When either one of them is pressed, TechDoc would still have to upload the file (if one had been chosen), before the button press could be handled. This issue has been addressed.

DM-545: Add Nonresident URL to Generation

Nonresident Generations can now have a Nonresident URL assigned to them. DM's and SM's now use this Nonresident URL as the fetch URL so that the Generation can be fetched from its non-TechDoc location.

DM-546: Add Navigation Crumbs to the Explorer

A request was made to we add navigation crumbs to make it easier to navigate around in the Explorer. Since, the full path to the Cabinet, Folder, or Document is already displayed in the heading, TechDoc now makes all the components in the full path clickable (similar to the portions of the path being clickable in the Windows Explorer). Also, when focused on a generation, TechDoc now displays the parent folder above the document. It only takes up one line and but make navigate back to the parent folder easier.

DM-547: Add Revision as a Column in the Explorer

A request was made to add the Revision column in the explorer. With the new changes for the action gear, it really makes sense to be able to see the revisions on documents and generations.

DM-548: Add an Action Gear to Various Brief Items

As part of the user interface improvements, action gears have been added to various brief items. The purpose of an action gear is to query the system at the time the user click on it and display a popup menu of available actions the user can perform on the item the action gear belongs to. This allows for use cases like click on a folder, seeing that one of the documents has not been released yet, and using the action gear beside the document to release it without having to drill into the document first.

DM-549: Add Web 2.0 Widgets to TechDoc

As a part of improving the Look and Feel of TechDoc, Web 2.0 widgets have been added to TechDoc to improve usability. Examples include: Date and Date/Time widgets, Editable Combo Boxes for searching items by wildcard or drop down selection, Picker for choosing users and groups to send email to, rich text editor for composing email text.

DM-550: Add Change Password Feature for Improved Security and Usability

For improved security, locally authenticated users can change their password without having to first enter their current password. The password changing logic in the

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"Modify Myself" servlet has been removed and a new "Change Password" servlet has been added which requires the old and new passwords to be entered before the change can take place.

DM-551: Improve Review Vote Request Subject on Email

Per request, the subjects have been improved on emails that are sent to voters to be more user-friendly. Here are examples of the four email subjects that have been improved:

Your vote is requested on the review of PHOTO-123, Rev A, "Test Photo"
Voting has been paused on the review of PHOTO-123, Rev A, "Test Photo"
Voting has resumed on the review of PHOTO-123, Rev A, "Test Photo"
Your vote is no longer needed on the review of PHOTO-123, Rev A, "Test Photo"

DM-552: Add Support for Visio 2013 Thumbnails

Visio 2013 has introduced a new XML format (VSDX) that finally compares to the XML formats introduced by other Office products in previous versions. Thumbnail support has been added for this new format.

DM-553: Add Support for Visio 2013 Text Extraction

Visio 2013 has introduced a new XML format (VSDX) that finally compares to the XML formats introduced by other Office products in previous versions. Text extraction support has been added for this new format.

DM-554: Add Compose Email to Document, Generation, and Project

A new Compose Email capability has been added to the Document, Generation, and Project. The feature also easy selection of users and groups, rich text editing, and inclusion of various hyperlinks applicable to the item email is being created for.

DM-556: Add Ability to get Document Statistics

Many requests have received to find out how many documents, how many generations, or how much space is being taken by documents with various characteristics. A new Document Statistics feature has been added that can quickly allow Admins to determine these types of usage statistics.

DM-558: Add Partition Information to File Areas on the DM

Partition information has been added to the File Area displays. Previously, a TechDoc Admins would usually have to contact systems people to see how large the partition is where the File Area is stored.

DM-559: Add Text Searching to the DM

The ability to search for documents by the text contained in the document has been added to the DM. This allows for the searching of unreleased data. Only the latest generation of each document is searchable.

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DM-560: Add Document Default Associations to a Folder

Now document default associations can be applied to a folder. These associations are then automatically added to documents when they are created. In addition, when document default associations are changed on a folder, the user can decide to change the current associations on documents under the folder; they are also given options about how the changes should be applied (merged, overridden, or completely replaced).

DM-561: Add Access and Mail List Inheritance for Documents and Folders

When a document is created inside of a parent cabinet/folder, it inherits any default document associations that are stored on that parent. When a folder is created inside of a parent cabinet/folder, it inherits all of the parents associations. When associations are changed on a cabinet/folder, the user is now given the option to apply the changes to the children below it. If they wish to make changes to the children below; they are also given options about how the changes should be applied (merged, overridden, or completely replaced).

DM-562: Change OK Button for Quick Search on Main Menu to an Image

Multiple reports were received of people mistakenly clicking the OK button for the Quick Search on the Main Menu bar instead of clicking on the OK button inside the main content area. The Quick Search OK button has been changed to use an image instead.

DM-563: Add Release to a Generation

A release option has been added to a generation's side menu. Many users have complained that it is annoying to have to navigate back to the document to release the generation. Also, a generation's action menu will have the feature too (when appropriate).

DM-564: Add Unrelease to a Generation

An unrelease option has been added to a generation's side menu. Many users have complained that it is annoying to have to navigate back to the document to unrelease the generation. Also, a generation's action menu will have the feature too (when appropriate).

DM-565: Add New Iterators to Records to Reduce Memory Usage in TechDoc

TechDoc continues to strive to reduce memory usage wherever possible, especially as document counts continue to grow. With new features available to TechDoc 8 by using Java 7, new record iterators can easily be used to replace other methods that consume more memory. Additional focus will be placed on continuing this work in TechDoc 8a.

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DM-567: Rename Lists to Groups

As requested, lists have been renamed to groups to match the terminology of most other systems. The word List has been very confusing for users because everyone thinks of the term as a generic list of things.

SM-96: Remove Keyword History out of the SM Show History Servlet

While working on SM Admin Help, it was discovered that the Show History servlet has sections in it to support Keywords. However, there is no history for Keywords. This support was removed from the Show History servlet to remove the unnecessary code and prevent confusion in the future.

SM-97: Add Advanced Search and Quick Search to the SM

While working on the SM Admin Help, it was noticed that some SM history was not discoverable because of the lack of Advanced Search like the DM has. Advanced Search was added to the SM. Also, to allow for the same look and feel to the screens between the DM and the SM, Quick Search was added to the SM as well. In this release, the SM's Quick Search will only provide quick searches for users.

SM-98: Upgrade SM to use new JRE for TechDoc 8

The JRE (Java Runtime Environment) used by TechDoc has been upgraded to support 64-bit. This allows TechDoc to take advantage of automatic performance improvements and larger memory support.

SM-101: Update the Look and Feel of the SM

The Look and Feel of TechDoc is very out dated. The color schemes and all the icons have been updated. Also, layouts have been changes to allow for more compact display of various items.

SM-103: Add Support to the SM for SQL Server 2012

TechDoc 8 includes an updated SQL Server 2012 JDBC driver that can take full advantage of SQL Server 2012. TechDoc 8 officially supports SQL Server 2008 and SQL Server 2012. The Microsoft driver no longer supports SQL Server 2000 at all.

SM-104: Add Snapshot Isolation to the SM Database

Since TechDoc 8 requires a minimum of SQL Server 2008 R2, we can now enable to use snapshot isolation to eliminate read locking from the database. This became apparent after seeing an issue with a long running report on a DM at KSC. Enabling snapshot isolation will prevent this from happening.

SM-105: Update the SM Default Authenticator System Property to Document the Impact on SSO

The description on the SM's *DefaultAuthenticator* system property has been updated to make it obvious that choosing an SSO (Single Sign-On) authenticator such as the SAML authenticator will cause the SM to automatically use SSO for log in requests.

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SM-106: Change SM TechDoc Tomcat Ports to Avoid Collisions

The Tomcat port numbers have been changed on the SM. Numerous issues with the port numbers have occurred because they are the default port number for Tomcat and more products are embedding Tomcat. By moving them, TechDoc is less likely to run into conflicts with other Tomcat-based applications.

SM-107: Adjust Memory Allocated to Tomcat during SM Installation

As TechDoc moves to 64-bit environments and larger systems, Tomcat needs to automatically take advantage of the larger resources available. Starting with TechDoc 8, the installer attempts to allocate reasonable memory limits to Tomcat based on available resources rather than assigning a small "should run" everywhere setting.

SM-109: Improve the SM to Handle Working on Servers with Multiple Host Names

Servers running TechDoc are starting to be set up with multiple host names. Different parts of the SM (email, logging, etc.) might display different host names. The system has been updated to always use the *ExternalBaseUrl* system property (when present) to determine the host name.

SM-110: Add Temp Folder Checking on SM Start Up

If the *temp* folder used by Java is missing, the SM can experience numerous problems that Java does not report as errors. In the rare event that the *temp* folder is missing, the SM will now attempt to create that folder on startup.

SM-113: Add Partition Information to File Areas on the SM

Partition information has been added to the File Area displays. Previously, a TechDoc Admins would usually have to contact systems people to see how large the partition is where the File Area is stored.

SM-114: Change OK Button for Quick Search on Main Menu to an Image

Multiple reports were received of people mistakenly clicking the OK button for the Quick Search on the Main Menu bar instead of clicking on the OK button inside the main content area. The Quick Search OK button has been changed to use an image instead.

SM-115: Update Lucene to the Latest Version for TechDoc 8

The Lucene search engine used by TechDoc has been updated to the latest version to improve performance and reduce memory consumption.

Appendix “A”

Problems Resolved

DM-492: Fix Original PDFbox Temp File Closed Too Early Issue

An issue was identified that existed in the original PDFbox library. Some of the parser objects accept a handle to a temporary file and then attempt to close it in their finalize method. This should not be done and has been corrected.

DM-496: Make Sure Build Date is always Correct on DM *About* Screen

While working on DM-491, the build date on the *About* screen of the DM was found to be incorrect. Update 27 to Java 6 changed behavior that caused TechDoc to sometimes load the incorrect build properties file. Changes have been made to TechDoc to ensure that the correct build properties file is always interrogated for the build date.

DM-503: Can't Vote Again to Change Comments if the Type of Vote Doesn't Change

Previously, if you re-voted and tried to change the comments but you don't change the type of vote (for example, leaving it Approved), the system would say that nothing has changed and wouldn't record the new comment. This has been corrected so that you can simply change the comments without changing the type of vote.

DM-528: Update BDL Protocol Authorization to Handle IPv6

A problem has been corrected that prevented a remote application from using the BDL (Bulk Document Loader) protocol when the remote server is running on IPv6. The authorization element no longer requires the IP address to be passed. The Version 1 authorization type can now be used with any hardcoded IPv4 address since it is ignored (such as 127.0.0.1). A new Version 2 authorization type has been added that does not require any IP address to be specified at all.

DM-555: Fix Report Problem with Order by and Multiple Virtual Columns

If a user specified multiple virtual columns to display, a non-virtual column to display, and then ordered on the non-virtual column, it resulted in a SQL error. TechDoc only has a couple of tables that even have more than one virtual column. Now that individual Keywords can be added as virtual columns to a Document report, it was very easy to realize that the bug existed. This issue has been corrected.

SM-99: Make Sure Build Date is always Correct on SM *About* Screen

While working on DM-491, the build date on the *About* screen of the SM was found to be incorrect. Update 27 to Java 6 changed behavior that caused TechDoc to sometimes load the incorrect build properties file. Changes have been made to TechDoc to ensure that the correct build properties file is always interrogated for the build date.

Appendix "A"

SM-100: History Display Could Have Problem when IP Address is not set

A display issue was found when an SM history record has an IP address that has not been set. The issue was introduced when IPv6 support was added. The issue was handled on the DM but was not handled on the SM. The issue can occur much more frequently on a DM than an SM because an SM rarely creates history records with null IP addresses.

SM-111: Increase the Released File Name Length to 255 to Match the DM

In a previous version of TechDoc, the DM increased the allowed Generation file name to be 255 characters. However, a corresponding file name length was not changed in the SM. The length of a released file name on the SM has been increased to 255 characters to prevent index problems on a caching SM when the released file name is larger than 128 characters.

SM-112: Fix Cross Site Scripting (XSS) Finding Reported on the SM

A possible Cross Site Scripting (XSS) finding was reported for "Show Lookup List" on a NASA security audit. The issue appears to be that an invalid host name can be added to the Title element of the HTML output without being encoded.

In testing, the title does not appear to actually enable an XSS attack. But to remove the possibility that a future browser might allow it, the title is always encoded now to ensure that it can't happen.

Instruction to Offeror

Instruction to Offerors:

The offeror's response to this request shall consist of three parts: (A) Technical Capability; (B) Past Performance and; (C) Price.

Type of Contract

The Government contemplates award of a Blanket Purchase Agreement with Fixed Price Task Orders placed against it.

PREPARATION OF OFFER

The offeror's response to this request shall consist of three parts: (a) Technical Capability/Understanding of Requirement (b) Past Performance and; (c) Price. The response shall not exceed 12 pages total.

A page is defined as one side of a sheet, 8 ½" x11", with at least one inch margins on all sides, using not smaller than Times New Roman 12 point font. No smaller than Times New Roman 10 point font will be acceptable for charts and graphs. Foldouts count as an equivalent number of 8 ½" x11" pages. The metric standard format most closely approximating the described standard 8 ½" x11" size may also be used.

Title pages and tables of contents are excluded from the page counts specified in the factors below. In addition, the following sections are excluded from the total page count:

Cover Letter
Price
Resumes

Pages submitted in excess of the limitations specified in this provision will not be evaluated by the Government and will be returned to the offeror.

A. Technical Capability / Understanding of Requirement – (Limited to 5 pages)

The offeror shall demonstrate a clear understanding of the specific requirements and the overall Statement of Work (SOW) required and demonstrates the technical capabilities available to perform the requirements.

The offeror shall propose:

1. Describe a methodology how the SOW task will be accomplished and resources required to complete each SOW section.
2. Demonstrate the technical capabilities to perform the scope of the program by the firm/personnel.
3. Provide a draft integration schedule for all required SOW tasks.

Instruction to Offeror

4. Describe an approach for the variations in workload throughout the performance period of the task order.

Provide qualifications and experience of the offeror's proposed personnel and the firm's reach-back capability for supporting the requirements outlined in the SOW. Resumes are excluded from page count.

B. Past Performance – (Limited to 7 pages including Past Performance Documentation)

This factor involves the evaluation of the vendor's past performance for services similar in scope and nature to the requirements described in the Past Performance Document. The government may rely on contractor's referenced information and government data for evaluation of past performance.

Although the Government has the ability to seek information from any source, this does not place any duty upon the Government to locate past performance information. The burden of providing all such information is always upon the offeror in question.

- (i) The ability of the Government to seek past performance information from any source is not limited by any restrictions upon offerors in the solicitation regarding the number or nature contracts to be submitted for review. Contracts performed during the past two years, the Government may nevertheless independently locate and evaluate other contracts performed by the offeror in the past three years.
- (ii) The Government will seek to engage in an even-handed and fair evaluation process; however, the Government has absolutely no obligation to engage in "equal" comparisons of past performance of all offerors. For example, if the Government receives information from outside sources regarding the past performance of two additional contracts of an offeror, the Government is not then obligated to search for the past performance of two additional contracts for every other offeror. For example, if the solicitation limits each offeror to submitting three relevant as well as any other information obtained independently. Offerors who have submitted a technically acceptable quote will be given an opportunity to address any unfavorable reports of past performance. In accordance with FAR 15.305(a)(2)(iv), an offeror without a record of relevant past performance, or for whom information on past performance is not available, may not be evaluated favorably or unfavorably in past performance.

C. Price (No page limit)

The offeror shall include the following categories in excel or chart format:

Instruction to Offeror

- 1) All Labor Categories to perform SOW
- 2) Hours to perform the work for SOW section by labor categories
- 3) Any Other Direct Cost

Evaluation of Quotes

One award for the performance of services identified in the SOW will be made to the offeror's proposal that represents the best value.

The offeror will be evaluated in accordance with the procedures identified below and a Best Value determination. Please note that in addition to the information contained in your proposal, other sources including but not limited to information obtained from other Government organizations may be used. The selection process will be supported by appropriate Government individuals conducting the evaluation.

Evaluation factors will represent key areas of importance and will support meaningful comparison and discrimination between and among competing proposals. The three (3) evaluation factors will include:

The Technical Capability and Understanding will receive a rating based on the assessed strengths of each Offeror's proposal. The Government will evaluate the Offeror's understanding of the complexity and scope of the program based on the factors listed in Section A of Instruction to Offeror.

Past Performance will receive a rating based upon the Offers previous experience and information provided on the Past Performance Document.

Utilizing these evaluation factors will enable the acquisition team to differentiate the offerors in critical aspects of the acquisition.

Past Performance is more important than Technical Capability and Understanding; however, Past Performance and Technical Capability and Understanding combined are more important than price.

For Solicitation Information Contact

Questions or comments regarding this solicitation must be submitted in writing, cite the solicitation number, and be directed to the following email address:

suzanne.blubaugh@nasa.gov. Oral questions will not be answered due to the possibility of misunderstanding or misinterpretation. Due date for receipt of questions: May 16, 2013, 4:00 pm ET. Questions or comments should be submitted within the time designated to allow for analysis and dissemination of responses in advance of the quote due date. Late questions or comments are not guaranteed a response prior to the quote due date.

(End of provision)

Instruction to Offeror

Quote Due Date/Local Time

Offeror's quote shall be submitted electronically to the following email address: suzanne.blubaugh@nasa.gov. The quote must be received by the due date specified in Block 8 of Standard Form 1449. Do not send a hardcopy of the quote. Hand or electronic signature on the Standard Form 1449 is not required. Quotes shall be prepared in either PDF or Microsoft Office 2002 or greater. The submitted file cannot exceed 3 megabytes. (End of provision)

Administrative Information

(a) The offeror shall provide contact information (name, phone, FAX, email) of individuals that will serve as the offeror's primary and secondary points of contact for ordering services and the discussion and resolution of all problems involving the task order. Note: Contractual problems include, but are not limited to, apparent errors, potential and actual disputes, and problems pertaining to invoices and payments. The contractor shall ensure that the level of support provided is adequate for efficient and effective contract administration, including the ability to negotiate on the contractor's behalf.

(b) Federal Taxpayer or Employer Identification Number (TIN/EIN) (c) Data Universal Number System (DUNS) or Commercial and Govt. Entity (CAGE) Code (End of text)

Continuation of Instructions to Offerors

Past Performance Document

Company: _____

Tasks relevant to this BPA:

1. Developed, maintained and delivered PDF conversions tools that can read and convert PDF documents to a different format.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

2. Developed, maintained and delivered a render application that uses a virtualized environment managed by a control application and uses client applications (e.g. Microsoft Office) and the Microsoft Windows Hooking API to generate PDF renderings.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

3. Developed, maintained and delivered a PDF watermarking tool that can correctly water mark any PDF document.

Offeror has performed this task before? Y or N

Brief explanation

Continuation of Instructions to Offerors

Past Performance Document

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

4. Developed, maintained and delivered shrink-wrapped like packaged software using an automated installer like NSIS automated installer with keysigning.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

5. Developed, maintained and delivered a installable Microsoft Window Graphics Print Driver.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

6. Developed, maintained and delivered file format text extractors for the major file formats support by TechDoc.

Continuation of Instructions to Offerors

Past Performance Document

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

7. Created, Developed, maintained and delivered a document format like NASA Format for Millennia.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

8. Developed, maintained and delivered SAML, RSA ACE, Radius, & NT Domain user authenticators within a large web-based application.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

Continuation of Instructions to Offerors

Past Performance Document

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

9. Developed, maintained and delivered a Graphics Image library Toolkit that can generate thumbnails from documents.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

10. Supported large deployed networked software systems and performed System problem root cause analysis of using network traces.

Offeror has performed this task before? Y or N

Brief explanation

Contract #: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

11. Supported large deployed networked software systems and performed System problem root cause analysis of using network traces.

Continuation of Instructions to Offerors

Past Performance Document

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

12. Developed, maintained and delivered SOAP Services that are interoperable with both Microsoft and Java Stacks (i.e. Metro Integration Stack).

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

13. Developed, maintained and delivered DOD 5015 Chapter 2 functionality into a document repository.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

Continuation of Instructions to Offerors

Past Performance Document

ALT POC: _____ ALT Phone: _____ ALT Email: _____

14. Developed, maintained and delivered a search server application with the Lucene search engine embedded into the server.

Offeror has performed this task before? Y or N

Brief explanation

Contract #: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

15. Developed, maintained and delivered software Integrations with twain scanning software like KOFAX and Adobe Capture.

Offeror has performed this task before? Y or N

Brief explanation

Contract # above task performed under: _____

POC: _____ Phone: _____ Email: _____

ALT POC: _____ ALT Phone: _____ ALT Email: _____

Continuation of Instructions to Offerors

Past Performance Document

The offeror shall describe how a seamless transition was performed for a past contract of similar size and complexity. In addition, the offeror shall describe how a seamless transition is intended for this BPA:

[Empty rectangular box for offeror response]