

# ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 11 PAGES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

BPA NO.

1. DATE OF ORDER <b>MAR 10 2011</b>		2. CONTRACT NO. (if any) GS35F0131R		6. SHIP TO:	
3. ORDER NO. NRC-HQ-11-P-33-0079		4. REQUISITION/REFERENCE NO.		a. NAME OF CONSIGNEE Roberto Figueroa	
5. ISSUING OFFICE (Address correspondence to) U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Pearllette Merriweather Mail Stop: TWS-01-B10M Washington, DC 20555				b. STREET ADDRESS Attn: Roberto Figueroa Mail T5E79 11555 Rockville Pike Roberto.Figueroa@nrc.gov	
		c. CITY Rockville		d. STATE MD	e. ZIP CODE 20852
7. TO:		f. SHIP VIA			
a. NAME OF CONTRACTOR CARASOFT TECHNOLOGY CORPORATION		8. TYPE OF ORDER			
b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE		<input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 12369 SUNRISE VALLEY DR STE D2		REFERENCE YOUR Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.			
d. CITY RESTON	e. STATE VA	f. ZIP CODE 201915430		Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
9. ACCOUNTING AND APPROPRIATION DATA 2011-10-51-J-144 D1407 252A 31X0200.110 FSS:110454 DUNS#: 088365767		\$110,937.49		10. REQUISITIONING OFFICE OIS	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT Destination	
<input checked="" type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED			
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED			
13. PLACE OF		14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 11/22/2011		16. DISCOUNT TERMS NET 30
a. INSPECTION SEE BLOCK 6	b. ACCEPTANCE SEE BLOCK 6				

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	In accordance with the terms and conditions of GSA contract GS-35F-0131R, The Contractor shall provide the U.S. Nuclear Regulatory Commission with services in accordance with attached Statement of Work. The period of performance is 3/15/2011 - 7/4/2011.					
001	11-SVC-12 PSO Credit 601-1200	628	HOUR	83.24	\$52,274.72	
002	CS-TAM-TIER-1 U.S.Federal VMware Technical Account Manager	1	LT	58,662.77	\$58,662.77	
	Please indicate acceptance of this order by having an official who is authorized to sign for the organization:  <div> <div>Margaret Headley</div> <div>Margaret Headley</div> <div>Get Acct. Rep.</div> </div> Signature Name Title					
	Date					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		\$110,937.49	17(n) TOTAL (Cont. pages)
21. MAIL INVOICE TO:							
a. NAME Department of Interior / NBC NRCPayments@nbc.gov						\$110,937.49	17(o) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box) Attn: Fiscal Services Branch - D2770 7301 W. Mansfield Avenue							
c. CITY Denver		d. STATE CO	e. ZIP CODE 80235-2230				
22. UNITED STATES OF AMERICA BY (Signature) 						23. NAME (Typed) Pearlette Merriweather TITLE: CONTRACTING/ORDERING OFFICER	

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SUNSI REVIEW COMPLETE

OPTIONAL FORM 347 (REV. 10/2010)  
PRESCRIBED BY GSA/FAR 48 CFR 53.2110

TEMPLATE - ADM001

MAR 14 2011

ADM002

**U.S. NUCLEAR REGULATORY COMMISSION (NRC)  
OFFICE OF INFORMATION SERVICES (OIS)**

**Statement of Work  
ADAMS VMware Support**

**Background**

The mission of the U. S. Nuclear Regulatory Commission (NRC) is to license and regulate the Nation's civilian use of byproduct, source and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment. The NRC's scope of responsibility includes regulation of commercial nuclear power plants; research, test, and training reactors; nuclear fuel cycle facilities (also called fuel cycle facilities); medical, academic, and industrial uses of radioactive materials; and the transport, storage and disposal of radioactive materials and wastes. The NRC's regulations are designed to protect the public and occupational workers from radiation hazards in those industries using radioactive materials.

The NRC employs over 5000 professionals nation-wide. The current NRC headquarter complex is located in Rockville, MD with the majority of the NRC personnel working in the White Flint North office complex consisting of two buildings – One White Flint North (OFWN) and Two White Flint North (TWFN). Three (3) other NRC headquarters campus offices exist in Rockville, MD and one (1) in Bethesda, MD. There are four (4) regional offices throughout the United States located in King of Prussia, PA (Region I), Atlanta, GA (Regions II), Lisle, IL (Regions III), and Arlington, TX (Region IV). The NRC Technical Training Center (TTC) is located in Chattanooga, TN and the NRC "On-site" Representatives office is located in Las Vegas, NV.

The NRC currently has a fully integrated network providing local and wide area access to users in Headquarters offices, regional offices, field offices, and onsite locations. Within each building at Headquarters and at each regional office, users are connected via local area networks (LANs). The wide area network (WAN) connects public and Agency users with information resources such as the Technical Training Center, the National Institutes of Health computing center, the Public Document Room (PDR), and the Internet. In addition, NRC employees can connect from home or onsite locations to remote information servers.

The Agencywide Documents Access and Management System (ADAMS) is an information system that provides access to all image and text documents that the NRC has made public since November 1, 1999, as well as bibliographic records (some with abstracts and full text) that the NRC made public before November 1999. The NRC continues to add several hundred new documents daily. ADAMS permits full-text searching and enables users to view document images, download files, and print locally. Two methods of using ADAMS are available:

**ADAMS PUBLIC Access** - search ADAMS Public and Public Legacy Libraries. New documents are added throughout the day.

**Web-based Access** - search ADAMS Public Library with a web-based search engine. New documents released during the day are added later that night. Most documents released before November 1999 are not available.

## System Overview

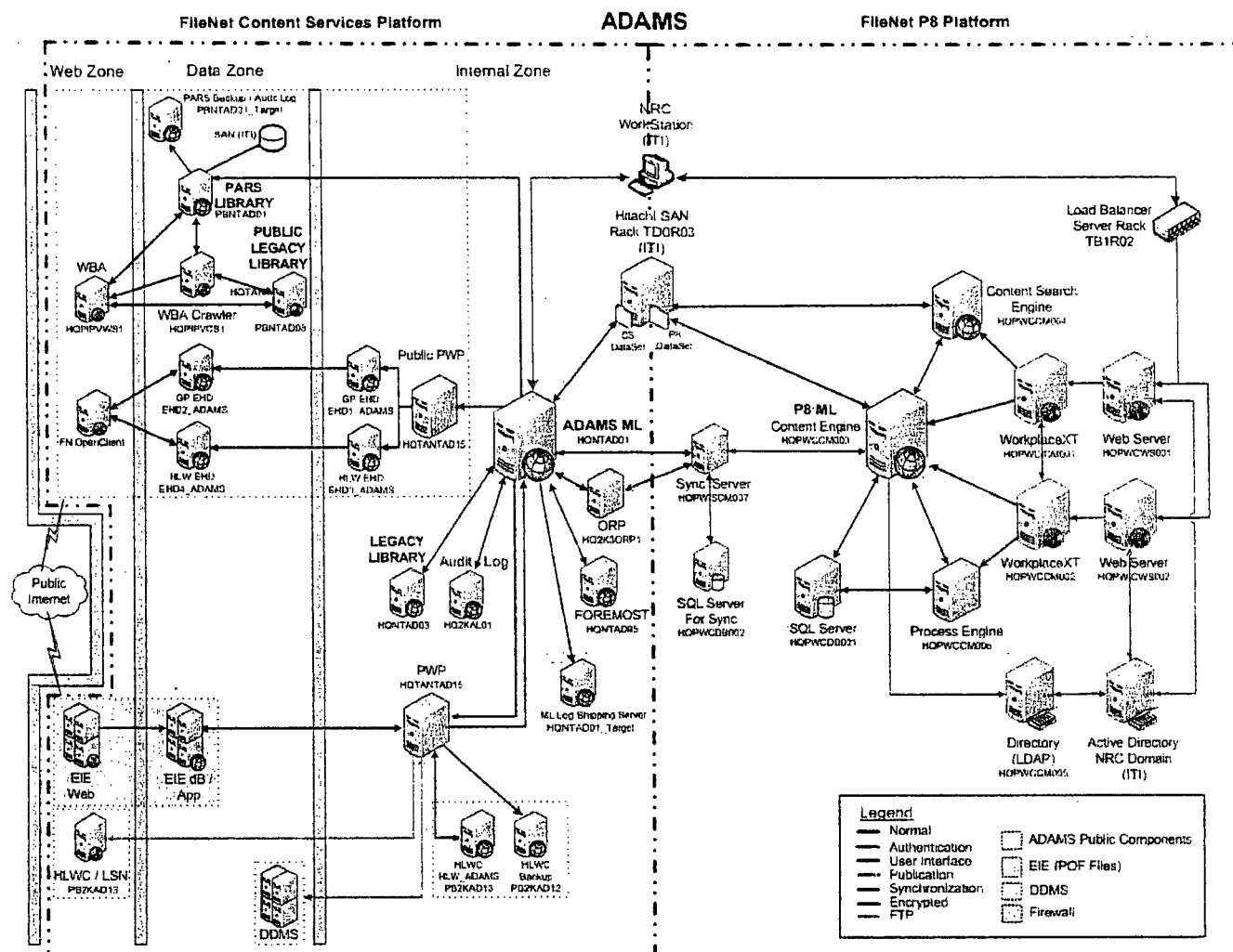
ADAMS supports document capture, distribution and dissemination, records management, and search and retrieval by both NRC staff and the public. ADAMS stores and processes information that is designated sensitive unclassified information or below, that consists of programmatic and administrative material. These documents are generated both internally and externally in various formats and are made available to the Government or the public for reference and reuse. ADAMS is used to organize, process, and manage documentary material - Official Agency Records (OARs) and the NRC staff's "works in progress" (non-record reference materials and draft OAR documents). ADAMS is the system of record for OARs, and is tightly integrated into many of the Agency's mission critical standard operating procedures and records management processes. The system is in widespread use throughout the Agency Headquarters (HQ) and Regional Offices.

ADAMS's capabilities include:

- Document Management
- Records Management
- Document Retrieval
- Document Publishing

The current implementation of ADAMS is uses the IBM FileNet Content Services (CS) platform. IBM FileNet application suite is a customized commercial-off-the-shelf (COTS) product. The COTS product provides the basic capabilities needed in a document management system. Customization is used to enhance the COTS functions. The ADAMS infrastructure consists of the Main Library and Public component. The following table illustrates the number of system within the ADAMS infrastructure:

Current System	Hardware
Main Library	The ADAMS Main Library consists of 12 servers running the Microsoft operating system.
Public	The Public ADAMS consists of 11 servers running the Microsoft Operating system.



## Objectives

The primary objectives of this contract are:

- To adopt VMware technology within the infrastructure.
- To obtain professional services to assess the existing virtual infrastructure;
- Assist in the migration of servers to the virtual infrastructure; and
- Complete a Site Recovery Manager (SRM) design and implementation.

## Scope of Work

Contractor support is required to perform the tasks outlined in the following paragraphs to assist the NRC in the design of a technical solution leveraging industry best practices for eventual deployment of an alternate site to support disaster recovery of a critical IT system. The tasks associated with this contract include the following:

The Contractor shall provide technical support to service as the single point-of-contact for all project management activities including project timeline, status reporting, expense management, travel coordination, resource advocacy, and the collation and assembly of the finalized Virtual Infrastructure Methodology deliverables.

The Contractor shall provide technical support to deliver VMware technical solution. The technical support shall provide the design, documentation, installs, configures and tests the virtualization components.

The Contractor shall provide technical support to transfer knowledge about the installed components and helps create processes to support the solution.

### Specific Tasks

The Contractor shall assess the NRC's existing environment and develop a Management Framework.

The activities of this engagement are organized as follows:

- a. Project Planning
- b. Virtual Infrastructure Health Check
- c. Physical Environment Assessment and Server Migration
- d. SRM Design and Implementation
- e. Knowledge Transfer workshop
- f. Project Wrap-up

### *Project Planning*

The Contractor shall attend a kick-off meeting to be held within 5 calendar days after approved security clearance to introduce staff and to conduct a detailed project review.

Topics to be discussed include:

- a. Project timelines and scheduling
- b. Identification of key NRC project team members with whom VMware will work to accomplish the tasks laid out in this SOW
- c. Confirmation of required hardware, software, networking, and security that NRC needs to provide in order to successfully complete this engagement.

The Contractor shall work with NRC's project officer to develop and agree to a project plan for this engagement. The project plan identifies:

- a. Timelines for project activities
- b. Milestones for key deliverables

### *Virtual Infrastructure Health Check*

The Contractor shall analyze the existing virtual infrastructure to validate VMware best practices are being followed and that the infrastructure is prepared for the upgrade to VSphere. The contractor shall provide recommendations based on findings:

- a. Assess up to twenty (20) ESX hosts and two (2) Virtual Center instance to validate that VMware best practices are being followed in the areas of:
  - o Management and Monitoring
  - o Security
  - o Performance
  - o Stability

- o Backup and Recovery (Business Continuity/Disaster Recovery)
  - o VSphere Preparedness
- b. Assess existing engineering documentation for Virtual Infrastructure to validate that design plans meet VMware best practices
  - c. Provide an assessment report including all findings and recommendations of the service.

### *Physical Environment Assessment*

The Contractor shall analyze existing x86 servers' capacity statistics and other required data gathering for server virtualization with VMware Infrastructure.

- a. Conduct an assessment of the server environment for virtualization candidates (up to 50 x86 servers or as required). A qualified server refers to a server running an Operating Environment supported by VMware Capacity Planner Data Manager
- b. Install VMware Capacity Planner Collector(s) as required
- c. Gather system and performance data for up to thirty days on server environment
- d. Review NRC supplied list of servers desired to be virtualized and validate identified virtualization candidates with detailed performance metrics and analysis
- e. Provide an assessment report including all findings and recommendations for servers to be migrated to the Virtual Environment.
- f. Identify up to fifteen (15) physical servers to be migrated into the virtual infrastructure
- g. Develop plans for migration of each physical server identified.
- h. Complete physical to virtual migrations for up to fifteen (15) physical servers.

### *Site Recovery Manager Design and Implementation*

The Contractor shall assist the NRC in the design and implementation of their Site Recovery Manager solution. The contractor shall provide technology implementation services to help NRC establish a functional VMware Site Recovery Manager implementation within the Virtual Infrastructure environments in their primary and disaster recovery sites.

Activities include:

- a. The Contractor shall verify requirements for the SRM deployment
- b. The Contractor shall develop an SRM design and architecture based on NRC requirements and VMware best practices
- c. The Contractor shall develop test and acceptance criteria for the SRM implementation, but the testing is limited to the technology
- d. The Contractor shall install and configure up to two (2) instance of VMware SRM on both the primary and disaster recovery infrastructure
- e. The Contractor shall validate that up to four (4) production servers can successfully utilize SRM
- f. The Contractor shall execute acceptance test to validate the successful implementation of SRM
- g. The Contractor shall provide SRM architecture documentation along with results of results of acceptance testing

### *Knowledge Transfer Workshop*

The Contractor shall conduct a Knowledge Transfer workshop (typically up to five NRC resources). This workshop shall summarize any knowledge gaps observed during the Assessment and shall include recommendations to close any gaps. In addition, a high level design-documentation review shall be conducted. Finally any other Best Practices

recommendations shall be discussed during this session. The method of delivery shall be via whiteboard and/or hands-on interactions, utilizing the assessment documentation developed in previous phases of the project.

### *Project Wrap-up*

The project review and closure activities include a final presentation that summarizes the findings and recommendations made during the engagement. The project completion form (see Appendix A) is presented for signature and the following deliverables are turned over to the NRC:

#### Contractor Personnel Skills Set Requirements

The Contractor shall provide personnel who are VMware Certified Professionals and have significant technical architectural expertise with VMware Infrastructure, VMware VSphere, VMware VCenter and VMware SRM.

#### Meetings

The Contractor shall attend system review and technical meetings to discuss such topics as: schedule, budget, resources, equipment, goals, milestones, or anything else that may need attention by the Project Officer (PO). The frequency of these meetings will be agreed upon by both the PO and Contractor immediately following contract award.

#### Reporting

The Contractor shall provide a weekly progress report to the project officer. The report is due by Thursday of the next week and must identify the title of the project, the contract number, and the period covered by the report. Each report must include the following:

- a. A listing of the efforts completed during the period, the cumulative and current hours of each labor category spent on each task, milestones reached or, if missed, an explanation provided;
- b. Any problems or delays encountered or anticipated and recommendations for resolution. If the recommended resolution involves a contract modification, e.g., change in work requirements, level of effort (cost) or schedule delay, the contractor shall submit a separate letter to the contracting officer identifying the required change and estimated cost impact;
- c. A summary of progress to date; and
- d. Plans for the next reporting period.
- e. Identified risk and mitigation plan.

#### Deliverables

The Contractor shall provide written recommendations on architecture, design, and implementation/deployment, risk mitigation, and technology integration based upon information and requirement collected. These recommendations shall be provided as needed for each task, and may be revised during the course of the project as requirement are added, changed, or removed. The format of these recommendations will depend on the required effort and will be agreed upon by the contractor and project officer prior to the start of the effort. These recommendations will be reviewed by the project officer or designee, and if accepted, an implementation plan (which must include step-by-step directions for the implementation schedule) shall be provided. For problem resolution, the contractor shall provide a written assessment of the problem and a course of action to analyze and resolve the problem.

The delivery schedule shall be the contractor's responsibility and followed accordingly.

<b>Deliverables</b>	<b>Estimated Delivery Schedule*</b>
Assemble a delivery team	After Award - Before the kickoff meeting
Personnel Security Packages	Within 5 calendar days after contract award
Kick-off meeting	Within 5 calendar days after approved security clearance
Project Plan	Within 7 calendar days after kickoff meeting
Virtual Infrastructure Health Check Assessment Report	Within 14 calendar days after kickoff meeting
Physical Environment Assessment Report & Recommendation	Within 28 calendar days after kickoff meeting
SRM Design & Architecture Documentation	Within 28 calendar days after kickoff meeting
Reporting	Weekly – Due by the Thursday of the next week

\* Actual Delivery Schedule may vary and is subject to approval by the NRC Project Officer

#### Acceptance of Deliverables

The Project Officer (PO) will have ten (10) business days to complete its review of the deliverables. The PO will accept or reject the deliverables in writing. In the event of the rejection of any deliverable, the PO, giving the specific reason(s) for rejection, shall notify the contractor in writing. The contractor shall have five (5) business days to correct the rejected deliverable and return it to the PO.

#### Optional Task

The Contractor shall provide adhoc services which encompass addressing ongoing and developing strategic objectives of the NRC. The Contractor shall assist the NRC in developing technical and strategic to facilitate the successful deployment of VMware solutions.

#### Government Furnished Materials

The NRC will provide access to facilities and computer systems as required for VMware project team to perform tasks as outlined in this SOW.

1. The NRC will make reasonable facilities accommodations at the place of performance. These accommodations will include a desk/cubicle, voice telephone, analog telephone connection for modem access, and shared access to laser printer, copier, fax, and conference room facilities.
2. The NRC will provide a suitable environment for training (overhead projector and conference facilities). Computer hardware and systems support is required for the knowledge transfer workshops, including: working hardware, network, and storage that is compatible with VMware ESX.
3. Computer hardware and systems support is required for the capacity assessment process, including:
  - i. Dedicated, networked (including Internet access) Windows 2000 Server SP3 or higher machine with at least 500 MHz CPU, 256MB RAM, and 2GB free disk space.



- ii. External internet access to enable utilization data to be reported to VMware for consolidation and analysis.
- iii. Local and domain administrator (root) access to existing servers to gather data for use in analysis.

#### Place of Performance

#### NRC Headquarters

- A. One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852
- B. Two White Flint North  
11545 Rockville Pike  
Rockville, MD 20852

#### Regional Offices

- C. U.S. NRC Region IV  
Texas Health Resources Tower  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

#### Period of Performance

The period of performance for this contract is from 12 months from the date of award..

#### Type of Contract

Labor Hour Type Contract

#### Security Requirements

The contractor shall comply with published NRC administrative, physical, and technical security controls to ensure all of the Government's security requirements are met. In addition, all contractor personnel must adhere to the NRC Public Building's rules and regulations. All contractor personnel whose duties under this contract require their presence on site shall be clearly identified by a distinctive badge furnished by the NRC. The Project Officer shall assist the contractor in obtaining badges for the contractor personnel.

#### Hours of Work

Contractor personnel are expected to conform to customer agency normal operating hours. Normal working hours for the site is Monday through Friday, 7:30 a.m. – 4:15 p.m. (EST). Access to the NRC facilities will be provided by the NRC as required during non-business hours. Contractor may be required to work outside the normal operating hours to minimize impact on the user communities.

#### Travel

Travel may be expected to the Regional Office (Arlington, TX).

Travel under this contract will be reimbursed in accordance with Federal Travel Regulations. For anticipated task related travel, the contractor shall submit travel requests in writing to the NRC Project Officer for approval, a minimum of 3 days before the requested date of the travel, and include a breakdown of estimated travel costs.

#### Safeguard of Proprietary Information

In connection with the performance of the work under this delivery order, the contractor may be furnished, or may develop or acquire, proprietary data (trade secrets) or confidential or privileged technical, business, or financial information, including Commission plans, policies, reports, financial plans, internal data protected by the Privacy Act of 1974 (Pub.L. 93-579) or other information which has not been released to the public or has been determined by the Commission to be otherwise exempt from disclosure to the public. The contractor agrees to hold the information in confidence and not to directly or indirectly duplicate, disseminate, or disclose the information in whole or in part to any other person or organization except as may be necessary to perform the work under this contract. The contractor agrees to return the information to the Commission or otherwise dispose of it at the direction of the contracting officer. Failure to comply with this clause is grounds for termination of this contract.

