

2. AMENDMENT/MODIFICATION NO. M003	3. EFFECTIVE DATE See Block 15c.	4. REQUISITION/PURCHASE REQ. NO. NSR-06-513 NRC-07-05-505 Mod 3	5. PROJECT NO. (If applicable)
6. ISSUED BY U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Jeffrey R. Mitchell, 301-415-6465 Mail Stop T-7-I-2 Washington, DC 20555	CODE 3100	7. ADMINISTERED BY (If other than Item 6) U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop T-7-I-2 Washington, DC 20555	CODE 3100

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) ALTERNATIVE TELECOMMUNICATION SOLUTIONS, INC. ATTN: NADINE PRESSLEY 7217 LOCKPORT PLACE, SUITE 106 LORTON VA 220791584	(X)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO. NRC-07-05-505
CODE 926311879 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 09-30-2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) 611-15-122-182 R1111 251A 31x0200.611
Obligate \$239,874.67

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Bilateral Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

.....REFER TO ATTACHED PAGE TWO FOR A DESCRIPTION OF MODIFICATION NO. THREE.....

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) NADINE PRESSLEY - PRESIDENT	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Donald A. King Contracting Officer
15B. CONTRACTOR/OFFEROR Nadine Pressley (Signature of person authorized to sign)	15C. DATE SIGNED 19 SEP 06
16B. UNITED STATES OF AMERICA BY [Signature] (Signature of Contracting Officer)	16C. DATE SIGNED 9/14/06

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE

ADM002

The purpose of this modification is to (1) increase the contract ceiling by \$239,874.67 from \$1,394,551.43 to \$1,634,426.10 (2) provide funding in the amount of \$239,874.67 which increases the obligated amount from \$1,394,551.43 to \$1,634,426.10 (3) revise the price/cost schedule (4) revise the statement of work (5) delete Clarissa L. Evans Brown from Section F.4 "Place of Delivery" (6) extend the expiration date of the contract from October 31, 2006 to March 31, 2007. Accordingly the contract is modified as follows:

1. Refer to Section B, Subsection B.3, "Consideration and Obligation" paragraph (a) and (b) are hereby deleted in their entirety and replaced with the following:

"(a) The total estimated cost to the Government for full performance under this contract is \$1,634,426.10.

(b) The amount presently obligated by the Government with respect to this contract is \$1,634,426.10."

2. Refer to Section B, Subsection B.5, "Price/Cost Schedule" is hereby deleted in its entirety and replaced with the following:

Attached: "Price/Cost Schedule Revision No. 1"

3. Refer to Section C "Statement of Work" is hereby deleted in its entirety and replaced with the following:

Attached: "Statement of Work Revision No. 1"

4. Refer to Section F, Subsection F.4, "Place of Delivery - Report (JUN 1988)" paragraph (a):

Remove: "Clarissa L. Evans Brown, Mail Stop: T4-L7 301-415-6891"

Add: "Thomas M. Kardaras, Mail Stop: T-4A45, Telephone no: 301-415-6942."

5. Refer to Section F, Subsection F.6, Duration of Contract Period (Mar 1987) Atl. 3 (Mar 1987) is hereby deleted in its entirety and replaced with the following:

"Although the Government contemplates use of the system(s) (hardware and software) for the system's life of 7 years from date of installation, the term of this contract is from October 1, 2005 through March 31, 2007.

A summary of obligations from the date of award through the date of this modification is provided below:

FY05 Obligations "Award"	\$1,394,551.43
FY06 Obligations "Mod 3"	\$239,874.67
Cumulative Total of NRC Obligations	\$1,634,426.10

This modification obligates FY06 funds in the amount of \$239,874.67.
All other terms and conditions remain the same.

NRC-07-05-505 MODIFICATION NO. 3
SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK
REVISION NO. 1

**Integration Assessment, Recommendation Report and Follow On
Equipment Replacement, Modification or Upgrade for the U.S. Nuclear
Regulatory Commission Operations Center
Statement of Work**

1. Background

The U.S. Nuclear Regulatory Commission's (NRC) responsibilities during an emergency response to a nuclear accident are to monitor, assess, and if necessary, direct the nuclear power plant or fuel cycle facility to take actions to protect the health and safety of the public. In order to carry out these responsibilities, the NRC's Division of Preparedness and Response (DPR) in the Office of Nuclear Security and Incident Response is responsible for the effective operation of the NRC Operations Center (NRCOC), which is located on the 4th floor of the Two White Flint North building of the NRC complex. NRC Headquarters Operations Officers (HOOs) continuously staff the NRCOC to receive and document telephone notifications from nuclear power plant operators, fuel cycle facility operators, and others. Written reports of these notifications are distributed outside the NRCOC for review and follow-up action. A small number of these notifications trigger activation of the NRC Incident Response Plan, under which NRCOC response teams use the facilities in the NRCOC, in the Regional Offices, and at the nuclear power plant site to fulfill the NRC mission of ensuring that the public is adequately protected.

2. Scope

The contractor shall provide the NRCOC with a written report that recommends equipment solutions, integration options and an implementation schedule, to meet the defined To-Be architecture, for all of the equipment listed in the Functional Specifications section of this document. This is to include an evaluation of the As-Is architecture and existing alternatives analysis. In addition, the contractor shall provide equipment as approved by the NRC Contracting Officer (CO), and install and integrate all equipment and configurations.

3. Functional Specifications

3.1 Fujitsu Private Branch Exchange

Research and make a recommendation for a replacement for the Fujitsu Private Branch Exchange (PBX). This replacement system must include all functions of the current PBX and utilize capabilities such as automatic number identification and automatic call distribution in the HOO area to the extent that the use of them improves the business process. The PBX must interface with the HOO database records to utilize these features. The PBX must be capable of handling a greater call volume than the current system, offer visual tracking of queued calls and fully integrate with items identified in two, three and four below. The report provided

for the PBX must include a proposal for telephone hardware, additional circuits, and physical lines in the amount that all current and planned stations are supported.

The contractor shall install the new Private Branch Exchange (PBX) in room P2-11 within the NRC Two White Flint North (TWFN) building.

The contractor shall provide a remote monitor for monitoring alarm conditions that occur on the Nortel PBX. The contractor shall install the remote monitor in the Headquarters Operations Office (HOO) team room within the Headquarters Emergency Operations Center.

3.1a Uninterruptible Power Supply

The contractor shall provide an Uninterruptible Power Supply (UPS) to ensure that it can handle the load from the PBX, PBX printer, and Mercom recorders that will be physically located in the PBX room. The UPS shall be capable of connecting directly to the electrical panel that is physically located in the PBX room. The UPS must be capable of providing enough battery life to accommodate the agency's transition time over to diesel generator. The contractor shall also provide any other pricing for equipment items required to ensure proper installation of the UPS (i.e. racks, mounting brackets, etc.).

The contractor shall provide a remote monitor for monitoring alarm conditions that occur on the Nortel PBX Uninterruptible Power Supply (UPS). The contractor shall install the remote monitor in the Headquarters Operations Office (HOO) team room within the Headquarters Emergency Operations Center.

3.2 Spectel 700

Upgrade the central processing unit and the current operating platform of the Spectel 700 conferencing system. The software upgrade is provided at no charge under an existing maintenance contract. Propose options for greater integration of the Spectel 700 conferencing system into the Operations Center Information Management System (OCIMS) voice and display systems and for greater utilization of system features to improve teleconferencing efficiency. The proposal for modifying the Spectel system must include the capability of displaying external caller information to internal bridge participants and of notifying bridge participants when they are muted.

3.3 Executive Team Briefing System

Research and make a recommendation for the Executive Team (ET) Briefing system. This system must include features of the current system (such as a central mute button) and integrate with the OCIMS display and voice systems. The system must provide voice activation integration with the video camera in the ET room. The ET Briefing system currently utilizes the paging feature on the PBX. The proposed system must offer a paging feature as a stand alone or integrated into the PBX. The design of the replacement system must take into account the audio functions of the existing secure video conferencing system and

combine hardware with this system where feasible in order to maintain a separation of secure and non-secure communications.

3.4 **Voice Recorder**

Research and make a recommendation for the voice recorder. This voice recorder can be a stand alone system or an integral part of the new PBX. The new system must offer business process improvement as in the ease of recording, playback, copying and keyword search as well as provide archiving capability.

The contractor shall install the primary Telephone Recording devices in room P2-11 within the NRC Two White Flint North (TWFN) building.

3.5 **Automatic Notification System**

NOTE: Under Modification No. 3 a replacement Automatic Notification System is not required. The existing Automatic Notification System shall be installed into the new PBX system.

Research and make a recommendation for the NRC Headquarters (HQ) Automatic Notification System (ANS) system and recommend options for systems that can be utilized by our Continuity of Operations (COOP) site and by the regions. The ANS solutions for the HQ and COOP site systems must be capable of passing regular updates to and from the HOO SYBASE database. All communication between databases, web interface and other systems must be tested for integrity (hash) and must be kept confidential (encrypted). Additionally, the system must have a web interface that is accessible by all responders for updating their information and by management and staff for reporting capabilities. The web interface must allow administrators to modify information and launch scenarios. All access to the web interface must be account and password controlled. The system must support different privilege/role levels (i.e., administrator with greater access than user). The system must provide management and staff reports on responder/team availability, duty roster availability gaps, what information was changed, when and by whom and status reports on communications during and after scenarios. The system must support activation locally and remotely (i.e., both web and telephone). The system must interactively fill responder positions. For instance, if a responder belongs to two teams they must not be called for the second position if they accept the first. The system must "fill" a specified number of positions per team. The system must support the following forms of notification: numeric paging, phone, fax, email and have a security feature (i.e. pin) in place for message delivery. The system must be configurable to recognize work hours of responders, and make calls in accordance with these hours (e.g., call home number first during non work hours). The system must support concurrent events and queue processing priority. The system must be able to send multiple faxes (blast fax) all at once without launching other forms of communication (i.e., pager, phone). The system must allow for "on the fly" changes to scenarios (i.e., message content, who to contact and how). The system must support the application of updates and patches by a non-database administrator. The proposal must include the option of having the system recognize an answering machine and provide an alternative

message to the machine and having a bulletin board for call in status. The proposal must also include the option of having the database link to or include information on responder training status and link to or provide management reports on training lapses.

3.6 Fax Capacity

Research and make a recommendation for adding large scale fax capacity. The fax solution must support a concurrent volume of multi-page incoming and outgoing faxes and provide an electronic interface for sending multi-page fax data to a large number of recipients. The system must incorporate signed and scanned documents for distribution.

3.7 Display Capacity

Research and make a recommendation for adding integrated matrix capacity to accommodate current plans and future growth of display outputs.

3.8 The solutions for the PBX, ANS and conference bridging must be aligned with the COOP location in order to facilitate cross training of staff and rapid activation of COOP functions.

3.9 The NRCOC must remain fully functional during all implementations except during brief pre-planned periods where the functionality must be transferred to the COOP location.

3.10 Where appropriate, training must be completed and operation manuals must be provided for both administrators and users. The NRC project officer (PO) will provide the contractor the exact training details (e.g., location, number of people, number of days, number of manuals required).

3.11 The contractor shall work with and through the NRC PO to coordinate activities and resolve issues with the OCIMS maintenance contractors.

3.12 For all proposals, confidentiality, availability and integrity of transmission and data must be considered. All new systems will have to under go vulnerability testing (if appropriate) at the NRC's test lab before being installed. Additionally, certain new systems will have to be certified and accredited by the NRC prior to going operational. Vendor solutions that provide pre-hardened systems (free of the Top 20 Vulnerabilities www.sans.org/top20) and certification and accreditation documentation on their systems are preferred.

4. Task - The Contractor shall perform the following task (Phase 1 and Phase 2):

4.1 Phase 1 - Analyze and Recommend

4.1.1 Provide Project Plan - Due two weeks after contract award or on the date established by the NRC PO.

Before assessment begins, the contractor shall produce a project plan that includes staffing projections and milestones. This plan shall be updated to include implementation when the To-Be architecture is defined as in section 4.1.4 below. This update shall include start and end dates for each activity along with dependencies.

4.1.2 Evaluate the As-Is Environment and Architecture - *Shall begin in the third week after contract award or on the date established by the NRC PO.*

The contractor shall review the existing equipment and architecture, interview stakeholders, assess integration of systems, examine existing requirements and relevant information to understand the current technical needs and constraints.

4.1.3 Analyze Alternative Solutions - *Shall be performed in conjunction with requirement two.*

The contractor shall analyze and identify integrated options for equipment replacement, modification or upgrade that best match the business requirements of the NRCOC. The contractor shall produce a report containing the results of the analysis, recommended solutions and integration options that best match the NRCOC business needs.

The contractor shall revise the Phase 1 deliverable provided on May 22, 2006 in accordance with new changes identified by NRC within ten business days after contract modification #3 is officially issued.

4.1.4 Define To-Be NRCOC Equipment Architecture - *Shall be completed within 30 days after contract award on the date established by the NRC PO.*

Based on the NRC selection of the proposed alternatives, the contractor shall define a To-Be architecture and provide an implementation schedule.

4.2 Phase 2 - Install and Integrate

The Contractor shall not begin performance or incur cost for Phase Two work without prior written authorization from the ~~NRC Project Officer~~ NRC Contracting Officer. The Government reserves the right to modify the phase two specifications and renegotiate a firm fixed price for phase two, prior to its initiation.

-The contractor shall deploy all systems provided under this contract in parallel operations with the legacy systems being replaced to ensure no disruption to the NRC Headquarters Operations Center.

-The contractor shall provide electronic copies of all software configuration files and access control information for each system provided under this contract.

-The contractor shall ensure that all systems provided under this contract are fully compliant with current FISMA guidelines and fully operational in the NRC POE no later than October 4, 2006.

4.2a IMPLEMENTATION PLAN

The contractor shall provide NRC a final implementation plan within ten business days after contract modification #3 is officially issued. The Implementation Plan provided to NRC by the contractor must reflect the degree of urgency, innovation, and the complexity and/or sensitivity associated with this effort. At a minimum, it must describe scope, work breakdown, funding, risk management, stakeholder engagement, resources, contracting and procurement, and quality assurance.

The contractor shall not proceed work under Phase 2 without prior written authorization from the NRC Contracting Officer accepting the Implementation Plan.

In the event, that NRC requests any additional changes in the Implementation Plan after formal approval has already been granted to the contractor by the NRC Contracting Officer, the contractor shall revise the document as requested by the NRC and then obtain written approval again from the NRC contracting officer before proceeding with the Phase 2 work.

4.2b CERTIFICATION AND ACCREDITATION

The contractor shall support the NRC FISMA contractor responsible for obtaining Security Certification and Accreditation of the IT systems at NRC by providing the technical documentation that is required to complete Certification and Accreditation security deliverables for each system delivered under this contract.

The contractor shall provide assistance as needed to the independent security contractor responsible for developing and performing the FISMA security test and evaluation of the systems delivered under this contract. The contractor shall support all FISMA security test and evaluation activities as needed to ensure system certification of the systems delivered under this contract.

4.2c PERSONNEL AND MANAGEMENT REQUIREMENTS.

The contractor shall provide the correct number of qualified, competent, and fully trained personnel to perform the activities delineated under this contract. The contractor's personnel shall act in a courteous, responsive, knowledgeable, and professional manner at all times.

The contractor will be required to deploy systems supporting the NRC Headquarter Operations Center under the direction of a program manager. The contractor's program manager shall be responsible for the overall execution of the provisions of the contract including the provision of all required technical and financial reports. The contractor's program manager shall ensure compliance with the requirements for system deployment, quality assurance, and the inclusion of system security measures that are in accordance with current FISMA guidelines.

4.2d TRANSITION

The contractor shall support all NRC activities related with the future transition of the systems provided under this contract to maintenance and operations.

4.2.1 Install Solution in Test Lab ~~Shall be performed in accordance with established schedule or on dates established by the NRC PO.~~

~~Where appropriate, the contractor shall install the equipment in the NRC test lab for vulnerability testing before being installed in the production environment.~~

CONSOLIDATED TEST FACILITY

The contractor shall coordinate with the NRC staff in the Consolidated Test Facility (CTF) to harden and test the hardware and software provided under this contract prior to installing it in the NRC Production Operating Environment (POE). The contractor shall obtain written authorization from the CTF prior to physically connecting the systems provided under this contract to the NRC infrastructure and using them in the NRC POE.

4.2.2 INSTALL AND INTEGRATE SOLUTION IN NRCOC - ~~Shall be performed in accordance with established schedule or on dates established by the NRC PO.~~

The contractor shall install, integrate and provide appropriate training on all equipment for the selected solution in the NRCOC per the implementation schedule.

4.2.3 DELIVERIES OR PERFORMANCE

The contractor shall provide NRC with technical documentation within ten business days after each new hardware/software component provided under the contract is successfully installed and accepted by the NRC. The contractor shall provide technical documentation for the new ET Briefing System, Display Matrix, Automatic Notification System (ANS), Telephone Conferencing System, Telephone Recorders and Private Branch Exchange (PBX). At a minimum, the contractor shall provide detailed engineering drawings, a complete set of vendor documentation and any other technical documents required to successfully operate and maintain the system in the future.

5. **Plan for Performance**

NRC will evaluate project performance every month using the monthly technical progress reports provided by the contractor (see F.3 2052.211-71 for additional information). Failure to meet this performance standard once during any given quarter throughout the life of the contract will result in the issuance of an unsatisfactory evaluation report by the NRC project officer.

The contractor shall provide a written report detailing recommended equipment solutions and integration options. ~~Once this report has been reviewed and options selected by the NRC PO, the contractor can proceed with procurement and the implementation plan. However, each phase of procurement and implementation must be approved by the PO~~

~~before the next phase can begin.~~ Once this report is reviewed and options selected by NRC and the NRC Contracting Officer (CO) has issued to the contractor a written authorization to proceed, the contractor shall acquire the NRC selected products and install them in the manner that the NRC approved implementation plan describes. ~~The dates for the milestones in the implementation plan must be met. These dates can be adjusted in consultation with the PO. However, if the date is not adjusted or not met, deductions will be made at the end of the contract period as specified below. In the case a deduction is required, the deducted amount will be taken from the Project Manager monthly invoice amount.~~ All project milestone dates in the NRC approved Implementation Plan must be met by the contractor without exception. If the contractor does not meet a milestone or deliverable date listed in the NRC approved implementation plan for the life of the contract, and the reason for the problem is directly attributed to the inability of the contractor to perform properly under the said terms of this agreement, monetary deductions, as shown below, will be issued from the monthly invoice submitted by the contractor for the month when the problem occurred.

- < 1 milestones missed 0% deduction
- 2 - 3 milestones missed 6% deduction
- 4 - 6 milestones missed 15% deduction

6. Intentional left blank

7. Travel

It is expected that the contractor shall travel to the NRC's COOP location accompanied by the NRC PO, to check for alignment between the two sites in regard to the PBX, ANS and conferencing system. ~~This will entail one trip for one person for two days. This travel must be completed prior to the finalization of the written report. Due to security constraints, the actual location cannot be mentioned here.~~ There will be no more than three trips taken by the contractor to the NRC Headquarters offsite location under the life of this contract. All travel under this contract will be reimbursed according to Federal Travel Regulations.

All travel must be approved by the NRC Project Officer using an NRC Delivery Order. A copy of each approved Delivery Order will be provided to the NRC Contracting Officer for inclusion in the official project file. The contractor shall travel as defined in the NRC approved implementation plan.

8. Background Detail

The NRCOC relies on three major systems, as they are currently categorized, to ensure the timely flow of information during an emergency: OCIMS, the Emergency Telecommunications System (ETS), and the Emergency Response Data System (ERDS). These three systems are described briefly below.

- OCIMS is the primary means of creating, storing, sending, and retrieving information in the NRCOC, and is referred to as the OCIMS local area network (LAN). The OCIMS network is a private data network configured in a star topology, providing networking services to its three subsystems (data, display, and voice). During a response to an emergency, OCIMS supports NRC's vital

role in providing leadership focus for national and international information distribution and decision support.

- ERDS is a real-time data system that allows safety-related information to be downloaded from nuclear power plant computers to the NRCOC. The ERDS collects nuclear power plant performance and environmental data from 72 commercial nuclear power reactor sites regulated by the NRC. The transmission of data to ERDS is initiated at the reactor unit following the declaration of an alert or higher event classification. The workstation at the reactor site dials-in to modems at the HQ ERDS system to allow the custom generation and display of trend plots and data. The ERDS system is not within the scope of this effort.
- ETS is the telecommunications network (telephone circuits and equipment) that NRC relies on during an emergency for voice and data communication between the NRCOC and the emergency response facilities (control room, technical support center, and emergency operations facility) associated with every commercial nuclear power plant and major fuel cycle facility. The ETS communication links to NRC licensed facilities are carried on dedicated lines to the Federal Telecommunications System (FTS) network. The FTS network is essentially separate from the public switched telephone network. The ETS system is not within the scope of this effort.

8.1 OCIMS Voice Subsystem

The OCIMS Voice Subsystem provides the NRCOC with the ability to communicate internally and externally. The Voice Subsystem includes the Executive Team (ET) teleconferencing system and interfaces to the NRCOC Fujitsu 9600M private branch exchange (PBX) and associated telephone equipment (such as the multichannel digital recorders). All voice communication into and out of the NRCOC is routed through the PBX. The PBX and its associated un-interruptible power supply (UPS), the Spectel System 700 Conference Bridge equipment, and the primary communications cable distribution point are all located in or near the telephone equipment room in the NRCOC. There is a Spectel Conference Bridge terminal at two of the three HOO stations in the NRCOC, at the remote HOO station in the Ready Room, and at the ET Secretary's position within the Executive Team Support Team area. The HOO staff uses these terminals to establish conference calls and to hold Commissioners' Assistant briefings. The Spectel system is also used to establish bridges, such as the Emergency Notification System Bridge during incident response. A continuously operating multichannel recorder records all communications with the HOO, including calls transferred to the Spectel Conference Bridge. Phone communications throughout the NRCOC team areas are also recorded during events and exercises on the multichannel recorder. Three fax machines are located in the Operational Support Team area and another three fax machines are located in the HOO area. They are primarily used to send information to anyone that cannot be reached through e-mail and also provide a backup method of transmitting information if e-mail becomes unavailable.

8.1.1 Executive Team Briefing System

The ET Briefing System provides ET members the ability to communicate, using the teleconferencing bridge system, with NRC regional management, the State Governor's office, the White House, and other high ranking government officials. There are three

AMX controllers in the ET area. These controllers give ET staff members the ability to connect or disconnect the ET bridge, control or mute call volume, enable audio in the ET room so that HQ staff can hear the communication, and establish and control a separate call for Base Team Managers. The AMX interfaces these controls with a Gentner TI7200 and an IRP System 41. Additionally, the ET Briefing System is recorded for the duration of a briefing on the multichannel recorder.

8.1.2 Automatic Notification System

The ANS is used during events or drills for automatically and rapidly contacting individuals via telephone that have been designated as responders. Responders indicate with a telephone touch pad if they can fill their designated position or not. The system fills each position as programmed. This system is configured with multiple call scenarios based on the type of incident and location. The hardware is a non-networked proprietary system that interfaces with the PBX through a T1 line. The software is a Dialogic Communications Company Version 7.1.22 running Microsoft Windows NT 4.0 SP5.

8.2 Data Subsystem

The OCIMS Data Subsystem is comprised of the Response Computer System (RCS) and the HOO system. The RCS system is an application that provides a framework to support and facilitate the creation of documents and briefing materials used during incident response, and the HOO system is an application used by HOOs to manage information pertaining to the daily operational status of nuclear facilities and nuclear events. The RCS system comprises three servers using Microsoft Windows 2000 Advanced Server, one server using Microsoft Windows 2000 Terminal Server and Citrix Metaframe, 50 workstations, 15 notebook computers, and eight printers and seventeen portable printers. The HOO system comprises three servers using Windows NT 4.0, four workstations, and four printers. The OCIMS network includes a Nortel Baystack 450 Ethernet switch with a maximum capacity of 96 ports, providing a 10/100 Base-T Ethernet Link with connections to an Ethernet Router that provides access to the NRC wide area network and e-mail system, and connections to a Cisco 2,500 Router that provides access to the ERDS network.

The workstations comprising the OCIMS network either support the HOO, RCS, or ERDS incident response systems. The workstations operate with Windows XP SP1. A Citrix Metaframe Terminal server allows remote users, who have a copy of the remote Response Computer System (RCS) software, to connect to the OCIMS network.

8.3 OCIMS Display Subsystem

The OCIMS Display Subsystem provides the capability of displaying composite video and static images on display monitors in the NRCOC during incident response. The Display Subsystem comprises a Crestron Control System, an Autopatch Distribution Matrix, and primarily Mitsubishi 40 inch and Clarity 50 inch monitors.

There is also a Cubix System consisting of four Blade Enclosures with six XP4 blades each for a total of 24 blades. There is also one Pentium-based, NEC workstation, referred to as the Display Control workstation, that interfaces with the Crestron Control

System. It controls which set of 14 RCS static images are to be displayed (RCS practice, exercise, or events 1-4).

All 24 of the blades use Windows XP. Fourteen of these blades are used to supply static images to the Display Subsystem. Nine of them are used to support the Message Board displays. The last blade is used to replace the Display system interface computer.