

**Performance Based Statement of Work
WARGAMING AUDIOVISUAL PRESENTATION SYSTEM
GRADUATE SCHOOL OF OPERATIONAL AND INFORMATION SCIENCES
Naval Postgraduate School**

- 1.0 Background/Introduction:** The Information Dominance Center for Excellence (IDCFE) at the Naval Postgraduate School is designed to support instructor-led courses, digital recording, video teleconferencing (VTC), and team-based learning. Each room has dedicated analog video graphics array (VGA) connections and presentation capabilities.
- 2.0 Scope:** This statement of work describes the requirements for the engineering, installation, and configuration of a multidisplay audio/visual (AV) presentation system in existing spaces at the IDCFE. The existing systems will remain intact while integrating new functional capabilities.
- 3.0 Tasks**

The contractor shall perform the following task(s):

- 3.1** The Contractor shall develop a design plan and schedule for installation and shall present that plan and schedule by e-mail to the Government Technical Point of Contact (TPOC) at least two weeks prior to the start of installation for approval.
- 3.1.1** The plan shall include an initial labeling schematic, task scheduling, programming, and testing.
- 3.1.2** The plan shall also include a miscellaneous bill of materials that are required to complete the deliverables.
- 3.2 A/V Routing:** Install GOVERNMENT-OWNED EQUIPMENT (GOE) Extron 16x16 digital A/V signal routing system in an A/V equipment cabinet; physically connect 12 Xpress Transport Protocol (XTP)/High-Definition Multimedia Interface (HDMI) inputs and outputs throughout the facility with GOE XTP transmitters, receivers, and cabling.
- 3.2.1** The Contractor will be required to install new GOE or remove existing GOE to meet the requirements of this specification.
- 3.3 System Documentation:** Provide technical diagram consistent with completed labeled installation in a PDF or JPG file format.
- 3.3.1** Create a cabling schematic drawing that identifies all major components, along with each connected port and cable run.
- 3.3.2** All cabling shall be labeled end to end in conjunction with the schematic drawing.
- 3.4 Integrated Control System and Graphical User Interface (GUI):** Install GOE Extron TLP Pro 1220TG 12" Touchlink Pro and Touch Panel IPCP Pro 550 Internet Protocol (IP) Link Pro Control Processor.
- 3.4.1 Touch Panel Control:** Enable an end user to perform the following control functions via the touch panel GUI:
- 3.4.1.1** Establish remote access over IP to the control GUI.
- 3.4.1.2 System Startup/Shutdown:** Turn on/off all video displays simultaneously. Include a startup routine that sets the system back to defaults, routing the Station computer to the projectors, table inputs to each adjacent flat screen, and program volume to a preset level (to be determined at time of installation). The shutdown command shall turn off all video displays.
- 3.4.1.3 Shutdown Warning:** When the shutdown command is selected by the user, the GUI shall display a warning message advising the user of imminent shutdown and offer an opportunity to cancel or proceed with the shutdown.

- 3.4.1.4 Signal Routing:** Route any A/V source to any single video display, or to all video displays, or to any combination of video displays. Source selection from the lectern shall override any previous source selections.
 - 3.4.1.5 Program Audio Volume:** Adjust overall program audio volume. Include a toggle-style button to instantly mute and unmute program audio.
 - 3.4.1.6 Video Preview:** The GUI shall include a video preview of the active, selected video source appropriate to what the user needs to see when performing a given function. For example, when selecting sources for display, the selected source should appear in a video preview window to provide the user with confirmation of the source to be routed. Include video preview windows as needed so that the user does not need to turn away from the touch panel to see which source was routed after executing the command.
 - 3.4.1.7 Source Selection:** Selection of any needed source as the outgoing video signal, including any A/V system input and the High-Definition (HD) cameras.
 - 3.4.1.8 Other:** Any other control functions, as needed, to meet the functional requirements described herein.
- 3.5 Flat-Screen Displays:** Install two GOE swing-arm wall mounts and attach two 75” Samsung Light-Emitting Diode (LED) displays to those mounts. Install three GOE fixed wall-mounts and attach three 46” displays to those mounts.
- 3.6 Audio Mixing and Processing System:** Install a GOE DMP 128 12x8 ProDSP Digital Matrix to provide mixing of speech and program audio, and acoustic echo cancellation.
- 3.7 Microphone:** Install GOE wall connections and microphones. Integrate audio output into the GOE speaker system.
- 3.8 Video Camera:** Install two GOE Panasonic AW-HE40 video cameras in a ceiling location.
- 3.9 Cabling:** Install signal, control, data, and power cables as required. Cables will be run through a cable trough in the floor, Panduit on walls, and above a drop ceiling.
- 3.10 Installation and Integration:**
- 3.10.1 Rack-Mounted Equipment:** All equipment shall be mounted within the equipment rack except any equipment that must be located outside the rack in order to meet system functional requirements.
 - 3.10.2 LED Flat Screens:** The display output shall be programmed for native resolution.
 - 3.10.3 Sound System:** Program audio and VTC audio shall be routed to the existing GOE audio amplification system.
 - 3.10.4 Cables:** Signal, power, data, and control cables shall be routed through floor cabling trays, inside wall cavities, and/or above the suspended ceiling. Surface-mounted cables are not acceptable except when required to traverse concrete walls or other locations where interior installation is impossible. Any location where surface-mounted cables are unavoidable will require the installation of a cable raceway designed for use in visible locations and finished to match or complement the surface to which it is attached. Any location where exposed wall penetrations are unavoidable shall be equipped with trim covers.
- 3.11 Configuration Files/Back-Up Files and Rights:** All custom configuration files and back-up files created by the Contractor for control, configuration, and/or operation of the system shall, upon acceptance, become property of the Government with unrestricted rights to duplicate, modify, reverse engineer, and reutilize to meet the needs of the Government.

- 3.11.1** The Contractor shall furnish all configuration back-up file copy of the final, tested versions used during acceptance testing. Configuration files shall be provided via CD-Rom.
- 3.11.2** Flash drives will not be used to furnish any software to the Government due to Department of Defense cyber security restrictions.

4.0 Deliverables

The contractor shall be responsible for providing the following deliverables:

- 4.1** The Contractor shall provide the plan and schedule for installation for approval via E-mail.
- 4.2** Installation of the complete system to include all tasks.
- 4.3** Configuration file back-up copies of the final, tested versions used during acceptance testing, delivered via CD-ROM.
- 4.4** All system design and integration installation will be based on the A/V source and destination location matrix found in the NPS Root Hall Facility Diagram (IDCFE DIAGRAM AV.vsd) that is part of this packet.

Performance Measurement - Quality Assurance Plan

Task	Deliverable that will be inspected	Acceptable Quality Level (AQL)	Method	Frequency
4.1	Design and schedule	To the level of acceptance	TPOC review of initial design documents via e-mail	Two weeks prior to the start of work
4.2	Complete hardware installation	All GFP and CFP installed to specifications in the PBSW (e.g., using routed floor cabling trays, inside wall cavities, and/or above the suspended ceiling)	100% Inspection of Deliverables	Continuously through the period of performance
4.3	Configuration file back-up copies	All configuration files	100% Inspection of Deliverables	Upon contract completion
4.4	All system design and technical diagrams	Accurate depictions of designs and diagrams measured in feet and inches.	100% Inspection of Deliverables	Upon contract completion

If performance falls below the AQL defined above, the Contracting Officer's Representative (COR) shall document the instance(s), coordinate with the Contracting Officer and advise the Contractor. The Contractor will be requested to review the documentation and provide a written response on how performance will be corrected in the future. Re-performance of any work for failure to perform in accordance with the specified AQL or task requirement shall be completed at the Contractor's own expense and at no additional cost to the Government.

5.0 Minimum Technical Requirements

- 5.1** Extron Certified Specialist with a minimum of three years of experience performing control system integration and touch panel programming.

5.2 The Contractor must be an authorized reseller for the major system components including Extron Electronics.

6.0 **Period of Performance:** The system shall be installed and acceptance tested from date of award, not to exceed November 30, 2015.

Phase	Dates	Deliverable
Planning and Design	Not to exceed 15 days	4.1
Installation and Testing	Not to exceed 15 days	4.2
Completion	November 30, 2015	4.3 and 4.4

7.0 **Place of Performance:** The work site is in Building 235 (Root Hall), rooms 109, 111a, 111b, and 113, at the Naval Postgraduate School. The system will be installed in these locations; therefore, the contractor must perform the work at NPS.

7.1 The Contractor is responsible for communicating with the Government's assigned points-of-contact for the various facilities to schedule the work.

7.2 The Contractor is responsible for providing the Government's on-site representative with a gate access request, not less than five days in advance of the installation start date, including the full names of any and all Contractor personnel that require access to the work site and the name of their employers. Contractor personnel will be required to carry and show appropriate identification upon entering Naval Postgraduate School grounds and to comply with all regulations governing access to the facility.

8.0 Government Furnished Property:

GOE BILL OF MATERIALS				
Line #	Manufacturer	Part #	Description	Qty
1	CONTROL			
2	Extron	60-1250-11	XTP CrossPoint 1600 with 3-XTP 4i and 4o boards	1
3	Extron	60-1198-01	XTP T USW 103	12
4	Extron	60-1043-13	XTP R HDMI	12
5	Extron	60-1341-02	TLP Pro 1220TG 12" Touchlink Pro Touch panel	1
6	Extron	60-1418-01	IPCP Pro 550 IP Link Pro Control Processor	1
7	CAT 6	DM-CBL-8G	Shielded Twisted Pair Cable for XTP NP-sp500'	6
8	AUDIO			
9	Extron	60-1179-01	DMP 128 12x8 ProDSP Digital Matrix Processor with Acoustic Echo Cancellation and POTS interface	1
10	Shure	MX202/	Microflex ceiling microphone with R185 cardioid cartridge	6
11	AV EQUIPMENT			
12	Panasonic	PT-RZ370	Hybrid Laser/LEC video projector, 1080p native	1
13	Panasonic	PT-DW5100	Projector	1
14	Samsung	LED 75"	Display	2
15	Samsung	Plasma 50"	Display	3
16	NEC	LED 50"	Display	3
17	Panasonic	AW-HE40	HD video camera	2

9.0 **Contractor Furnished Property:** The Contractor shall furnish the equipment listed in bill of materials. All items are to be new, first quality goods offered by the manufacturer for sale in the United States of America, and in original equipment manufacturer's unopened packaging including all warranties, software, hardware, cables, power supplies, manuals and miscellaneous end items normally included by the manufacturer. Any deviations or substitutions must include an explanation, and must meet or exceed performance of the item being replaced. The Government reserves the right to refuse substitutions based on related requirements, which may not be stated herein.

BILL OF MATERIALS				
Line #	Manufacturer	Part #	Description	Qty
	MISCELLANEOUS			
1	N/A	N/A	Any and all miscellaneous hardware, fasteners, cables, and other items as needed to meet requirements.	1

10.0 Work Week and Hours of Operation:

The Contractor shall provide services during normal working hours excluding federal holidays. Normal working hours are 0730-1630, Monday through Friday, unless requirements dictate otherwise. Exceptions can be permitted by the COR upon request and at the COR's discretion.

Following is a list of holidays observed by the Government.

<u>Name of Holiday</u>	<u>Time of Observance</u>
New Year's Day	1 January
Martin Luther King Jr. Day	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	4 July
Labor Day	First Monday in September
Columbus Day	Second Monday in October
Veteran's Day	11 November
Thanksgiving Day	Fourth Thursday in November
Christmas Day	25 December

If any of the above holidays occur on a Saturday or a Sunday, then such holiday shall be observed by the Contractor in accordance with the practice as observed by the assigned Government employees at the using activity

11.0 Travel: The work will be completed at NPS. No travel outside of NPS is required.

12.0 Security Requirements: Unclassified.

13.0 Privacy Act Statement:

“Pursuant to Title 5 United States Code 552a(m)(1), the contractor and all employees of the contractor working under this contract are required to comply with the requirements of 5 U.S.C. 552a (“The Privacy Act of 1974”).”

14.0 Identification of Contractor Employees:

In accordance with DFAR 211.106, there shall be a clear distinction between Government employees and service contractor employees. Service contractor employees shall identify themselves as contractor personnel by introducing themselves or being introduced as contractor personnel. Contractor personnel will be required to obtain and wear badges or other visible identification for meetings with Government personnel to provide a clear distinction between service contractor employees and Government personnel. In addition, contractor personnel shall appropriately identify themselves as contractor employees in telephone conversations and in formal and informal written correspondence. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed.

15.0 Non-Personal Services Statement:

Contractor employees performing services under this order will be controlled, directed, and supervised at all times by management personnel of the contractor. Contractor management will insure that employees properly comply with the performance work standards outlined in the SOW. Contractor employees will perform their duties independent of, and without the supervision of, any Government official or other Defense Contractor. The tasks, duties, and responsibilities

set forth in the task order may not be interpreted or implemented in any manner that results in any contractor employee creating or modifying Federal policy, obligating the appropriated funds of the United States Government, overseeing the work of Federal employees, or otherwise violating the prohibitions set forth in Parts 7.5 and 37.1 of the Federal Acquisition Regulation (FAR). The Government will control access to the facility and will perform the inspection and acceptance of the completed work.

16.0 Warranty: The Contractor shall provide a one year warranty against failure caused by defect or faulty installation of any and all custom software, installation hardware, fasteners, raceways, connectors, cables, and cable/connector terminations (including but not limited to soldered connections, crimped connections, screw terminal connections, captive screw connections). The Contractor shall repair any such defects or failures at no cost to the Government.

16.1 All commercial off the shelf equipment (COTS) provided by the contractor shall be covered by the standard warranties provided by the original equipment manufacturer (OEM).

16.2 During the warranty period the Contractor shall be prepared to deploy a field technician to the Naval Postgraduate School during the normal Government business hours of 0800-1630 Pacific Standard Time. All repairs under warranty shall be completed no later than 1630 PST on the next business day following receipt of the request, unless delays are agreed upon by the Government and Contractor, or in the event that failed equipment must be returned to an OEM service center. Upon receipt of a request for warranty service the Contractor shall have a field technician on site at the Naval Postgraduate School between the hours of 0800 and 1530 PST on the next business day following receipt of the request, or at a later time and date if specified by the Government. Business days are Monday, Tuesday, Wednesday, Thursday, and Friday.

16.3 In the event of failure of any system component still covered by OEM warranty the Contractor shall contact the OEM service center and arrange for repairs. If the component cannot be repaired in the field the Contractor shall remove said component from the system, package it appropriately and arrange for shipping the component to and from the nearest OEM certified repair center. Upon receipt of the repaired component the Contractor shall re-install and test the component in the system.

16.4 The Contractor shall maintain and report to the Government all tracking information required for tracking outbound and return shipments.

16.5 During the warranty period the Contractor is responsible for all costs related to returning any equipment to an OEM service center for warranty repair including packaging, shipping and labor required to remove and reinstall the equipment.

16.6 No billable action shall be undertaken by the Contractor without a payment authorization, purchase request or modification to the purchase order from an authorized Government purchasing agent.

16.7 Prior to acceptance the Contractor shall furnish the Government with a list identifying the OEM serial numbers of all active electronic components furnished by the Contractor. All components on the list shall be identified by brand, model and serial number. Any component below \$100 in cost may be excluded from the list.

16.8 The warranty period shall begin at 0800 hours on the date of installation acceptance and shall expire at the same hour, on the same date, one year hence.