

**STATEMENT OF WORK
FOR
MULTIPURPOSE RECONFIGURABLE
TRAINING SYSTEM 3D® (MRTS 3D®)
SLQ-32(V)6 Hardware Purchase for Mid-Atlantic Regional Maintenance Center and South
Western Regional Maintenance Center SWRMC**



**DEPARTMENT OF THE NAVY
NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
12211 SCIENCE DRIVE
ORLANDO, FL 32826-3275**

APPROVED BY:

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1 SCOPE

This Statement of Work (SOW) defines the effort required to provide Naval Air Warfare Center, Training Systems Division (NAWCTSD), with a hardware product to be procured in accordance with this SOW. Hardware procured shall be separated into three deliveries 1. Mid-Atlantic Regional Maintenance Center (MARMC), Norfolk NAS, in Norfolk, Virginia, and 2. South Western Regional Maintenance Center (SWRMC), San Diego NAS in San Diego, CA and 3. Naval Air Warfare Center Training System Division (NAWCTSD), Orlando, FL and shipped to the designated site for software installation, testing and hardware assembly.

1.1 Background

The MRTS 3D trainers use Commercial off-the-shelf (COTS) hardware and Windows operating systems to simulate, for training purposes, various naval tactical systems. Computers are linked together in a standalone Local Area Network (LAN) which runs government-owned simulation software.

1.2 Method of Tasking

This procurement shall be conducted in accordance with this SOW.

2. APPLICABLE DOCUMENTS

Nothing in this SOW supersedes applicable laws and regulations, unless a specific exemption has been obtained.

2.1 Government Documents

There are no Government documents required by this purchase order.

2.2 Non-Government Documents

There are no non-Government documents required by this purchase order.

2.3 Government Furnished Information (GFI)

There are no Government Furnished Information required by this purchase order. The Government will install and test the MRTS 3D[®] software baseline in the NAWCTSD MRTS 3D Lab.

3. REQUIREMENTS

3.1 General

The Contractor shall organize, coordinate, and control all program activities to ensure compliance with the contract requirements and the timely delivery of the required products and incidental services. The Contractor shall provide all the resources necessary to complete the tasks specified in the SOW.

3.2 Detailed Tasks

This section describes how the work will be performed and the various processes to be used to ensure the product delivered meets all requirements.

3.3 Hardware Procurement and Shipping

The contractor shall comply with the following requirements during procurement, assembly and shipping:

- a) The contractor shall procure hardware and Microsoft activation codes for operating system software as indicated on the bill-of-material (BOM) found in Appendix A.

Appendix A lists those items that need to be “Brand”, “Like w/ Approval”, or “Like – No Approval Required”.

- i. Brand – Item must be of the brand listed.
 - ii. Like w/ Approval – Items other than the brand listed with similar specifications can be accepted with government concurrence.
 - iii. Like – No Approval Required – Items other than the brand listed with similar specifications will be accepted without requiring government concurrence.
- b) The contractor shall provide status of the procurement weekly to the government in any format as long as it includes the following information:
 - i. Item Name
 - ii. Item Model Number
 - iii. Was the item changed for an approved replacement
 - iv. Quantity purchased
 - v. Date items were purchased
 - vi. Date received at contractor’s site
 - vii. Date Shipped to NAWCTSD Orlando, FL
 - viii. Date Shipped to Norfolk, VA
 - ix. Date Shipped to San Diego, CA
- c) The contractor shall receive all the material at their site.
- d) The contractor shall coordinate with suppliers to replace each defective or damaged piece of hardware.
- e) The contractor shall record all part numbers and serial numbers for all equipment with part numbers and serial numbers to include graphic cards, and hard drives. This information will be emailed to the POC listed under section j.
- f) The contractor shall document each piece of hardware’s warranty information into one report and email the information to the POC listed under section j.
- g) The contractor shall hold all equipment at their facility until they receive approval for shipment from the destination POC (Table 1).

Prior to shipping to NAWCTSD Orlando, FL, Mid-Atlantic Regional Maintenance Center (MARMC), Norfolk NAS, VA and South Western Regional Maintenance Center (SWRMC, San Diego, CA.

- h) , the contractor shall:
 - i. Coordinate with the shipper to provide shipper’s telephone and email information to destination POC
 - ii. Provide tracking information to destination POC (if offered by the Shipper)
 - iii. Coordinate with the installation’s Destination POC to ensure delivery personnel adhere to security protocol and base regulation.
 - iv. Coordinate with installation’s Destination POC and ensure delivery personnel have a lift gate during drop-off.
- i) The contractor shall have all hardware labeled as: SLQ-32 (V)6

- j) The contractor shall coordinate all shipment activities with the destination POC and all members of the IPT via email.
- i. Marilyn Bell, marilynn.r.bell.civ@us.navy.mil
 - ii. Steve Slosser, steven.j.slosser.civ@us.navy.mil
 - iii. John Friend, john.h.friend.civ@us.navy.mil
 - iv. Wes Jones, wesley.d.jones.civ@us.navy.mil

CLIN	Description	Delivery Date	Quantity	Ship to Address/Point of Contact
0001	Partial Equipment for one (1) Demo Station and one (1) IOS and spares MARMC, Norfolk, VA	TBD	1 LOT	Mid-Atlantic Regional Maintenance Center (MARMC) 9727 Avionics Loop Norfolk, VA 23511 Attn: John Friend john.h.friend.civ@us.navy.mil (757) 400-0832 (Desk) (757) 651-5897 (Work Cell) (757) 572-8340 (Cell)
0002	Partial Equipment for one (1) Demo Station and one (1) IOS and spares SWRMC, San Diego, CA	TBD	1 LOT	South Western Regional Maintenance Center (SWRMC) 3985 Cummings Road Building 116, 1 st Floor San Diego, CA 92136-5000 Attn: Wes Jones – SWRMC Code 292 wesley.d.jones.civ@us.navy.mil 619-556-6200
0003	Computers and spares for two (2) Demo Stations and two (2) IOSs: NAWCTSD	TBD	1 LOT	Naval Air Warfare Center Training Systems Center (NAWCTSD) 12211 Science Drive Orlando, FL 32826-3224 Attn: Steven Slosser steven.j.slosser.civ@us.navy.mil (407) 380-4599

3.3.1 Availability and Compatibility

In the event of an incompatibility between components meeting the specified performance requirements, the contractor shall notify the Government and provide working alternatives that meet the specified performance requirements. The Contractor shall not procure alternatives until written authorization is provided to the contract via the Government Procuring Contracting Officer (PCO).

3.3.2 Original Equipment Manufacturer (OEM)/Retail Documentation

The Contractor shall deliver the original OEM/retail manuals, software drivers, and documentation of all hardware items within scope of this procurement.

3.3.3 Meetings and Reviews

The contractor shall conduct and participate in a conference call chaired by a Government representative after an award as required.

APPENDIX A - MRTS 3D® LAB BILL OF MATERIAL

Material #	MUST BE:	Brand	P/N	Description	Total Units
1	Like w/ Approval	Acer	T272HL bmjjz	10-pt IOS Touch Monitor 1920x1080, 5ms DVI, HDMI, USB	4
2	Brand	Premier Mount	PSD-BWLB	IOS Elliptical stand w/ 72 in black poles	4
3	Brand	ICW	KUS-P2-A1-WB	Work surface tray keyboard tray mount	4
4	Brand	Premier Mount	RTM-L	IOS Rotating Mount for 27" Display	4
5	Brand	Premier Mount	PSD-SHB	IOS Dual Pole Cart Shelves	4
6	Like w/ Approval	Sallas Industrial Co	60606-000B	Vertical Surface Universal CPU Holder	8
7	Brand	Premier Mount	CMP	Dual Pole Cart Cover Packs	2
8	Brand	Dell	C8621QT	86" 4K Interactive Touch Monitor	4
9	Like w/ Approval	CyberPower	PR1500LCD	UPS	8
10	Like - No Approval Required	Monoprice	13361	Display Port 1.2a Cable 10 Feet	4
11	Like - No Approval Required	Cable Matters	B00C7RZPJ0	USB 3.0 A Male to B Male Cable 10 Feet	8
12	Like - No Approval Required	Velcro	S-17898	Velcro® Brand Cable Ties - 3/4 x 12", Black, 50 Ct.	2
13	Like w/ Approval	Monoprice	5903	Cat6A Ethernet Shielded Patch Cable 14 ft	8
14	Like - No Approval Required	Monoprice	7266	Monoprice 8P8C RJ45 Plug with Inserts for Solid Cat6 Ethernet Cable, 100pcs/pack	2
15	Like - No Approval Required	Monoprice	7248	Monoprice RJ45 Strain Relief Boots, 50 pcs/pack, Blue	2
16	Like - No Approval Required	Aibole	AI-0009	25 Ft 0.5 Inches Split Wire Sleeving	8

Material #	MUST BE:	Brand	P/N	Description	Total Units
17	Like w/ Approval	MagicFiber	UT0571	Microfiber Cleaning Cloths, 30 Pack	2
18	Like w/ Approval	Werktoough	Cordless Screw Driver Kit	Cordless Drill Screwdriver Tool Set	2
19	Brand	Peerless	SR598	Cart to house 86" monitors and computers for demo stations	4
20	Brand	Peerless	ACC-MS	Metal mounting shelf for demo station cart	8
21	Brand	Netgear	GS105	4-port Ethernet switch, managed	2
22	Like w/ Approval		Custom IOS Computer	IOS Spec (Appendix D)	4
23	Like w/ Approval		Custom Client Computer	Client Spec (Appendix B)	4
24	Brand	Dell	Dell Latitude 5420 Rugged	IA Laptops Specs (Appendix C)	1

APPENDIX B - MRTS 3D® CLIENT COMPUTER SPECS

QTY	PART	DESCRIPTION
7	Precision 5820 Tower or Equivalent	Precision 5820 Tower XCTO Base *Intel Core i7 -11700K (8 Core) 3.60 GHz Processor or <u>Intel brand equivalent</u> CPU Heatsink 5820 Tower Windows 10 Pro, 64bit English Precision 5820 Tower Core X 950W PCIe FlexBay Chassis CL *Nvidia Quadro RTX4000, RTX5000 or RTX6000 32GB, 4x8GB, DDR4 UDIMM non-ECC memory No Out-of-Band Systems Management Intel NVMe PCIe SSD (Front PCIe FlexBay) Intel Integrated controller (RST-e) with 1-2 Front FlexBay NVMe PCIe Drives Dell M.2 carrier M.2 1TB PCIe NVMe Class 40 Solid State Drive 16x Half Height DVD-/+RW Trusted Platform Module (Discrete TPM Enabled) Keyboard Mouse

APPENDIX C - MRTS 3D® DREN LAPTOP SPECS

QTY	PART	DESCRIPTION
1	Dell Latitude 5420 Rugged	<p>Processor - 8th Gen Intel® Core™ i5-8350U Processor (Quad Core, 6M Cache, 1.7GHz,15W, vPro)</p> <p>Operating System - Windows 10 Pro 64bit</p> <p>Windows AutoPilot - No Windows AutoPilot</p> <p>Base and Graphics - Intel® Core™ i5-8350U Processor Base with Integrated Intel UHD 620 Graphics</p> <p>Systems Management - No Out-of-Band Systems Management - vPro Disabled</p> <p>Memory - 32GB, 2x16GB, 2666MHz DDR4 Non-ECC</p> <p>Hard Drive - M.2 1TB PCIe NVMe Class 40 Solid State Drive</p> <p>Serial Port - No Additional IO Ports</p> <p>LCD - 14" FHD WVA (1920 x 1080) Anti-Glare Non-Touch</p> <p>Keyboard - Sealed Internal Non-Backlit Keyboard</p> <p>Driver - No Wireless LAN Card</p> <p>Wireless - No Wireless LAN Card</p> <p>Security Options - No Security Options</p> <p>Mobile Broadband - No Mobile Broadband Card</p> <p>Primary Battery - 3 Cell 51Whr 3-Year Limited Hardware Warranty ExpressCharge Capable Primary Battery</p> <p>Power Supply - 90W Rugged AC Adapter, 7.4mm Elbow Barrel</p> <p>Cable - E5 US Power Cord</p> <p>Setup and Features Guide 5420 - Quick Referene Guide</p> <p>Accessories - Factory Installed Rigid handle for the tied sku</p> <p>Processor Branding - Intel® Core™ i5 Processor Label</p> <p>GPS Solutions (Tied) - No Option Included</p> <p>Camera - No Camera or Microphone</p> <p>Hardware Support Services - 3 Years Ltd Hware Warranty: Mail-in; Customer supplies box, Dell pays shipping</p> <p>Accidental Damage - Accidental Damage Service, 3 Years</p> <p>Microsoft Office - No Microsoft Office</p> <p>Security Software - None</p>

APPENDIX D - MRTS 3D® IOS/SERVER SPECS

Category	Item	Instructor Operator Station Configuration
Form Factor		Mid Tower
Motherboard		
	Number of CPU Slots	1 Min
	SLI Capable	No
	MAX Memory Capacity	128 GB - 8X Memory Slots
	Wifi and Bluetooth	No
	TPM Module Installed	Yes
	Chipset Supported	Intel® Xeon® Processor Skylake-W , Intel® Xeon® Processor W Family
	Number of unused PCI slots	2 Min
Processor		
	Manufacturer	Intel
	QTY	1 Min
	Num Cores	>= 8
	Speed	>= 3.5 GHz
	Performance	Intel Xeon W-2145 (8-core) or better
	Processing Size	64 bit
Memory		
	Type	DDR4
	Speed	2400MHz or greater
	QTY	32 GB
Graphics Card		
	Memory	1 Gb Min
	Number of outputs	2 Display Port min
	Performance	Nvidia Quadro Quadro NVS 310 or better
Network Adaptor		
	Type	Intel Based
	Qty of NIC	2 Min
	Speed	1 Gb Min
Storage		
	Hard Drive Enclosure	2 Min Bay SSD hard drive enclosures for boot drive 2 Min Bay Non-SSD Bay hard drive enclosure
	RAID or NOT	Yes

Category	Item	Instructor Operator Station Configuration
	SS Quantity	1 Min
	SS Size	500 GB min
	Non-SS Quantity	4 Min
	Non-SS Size	2 Tb min total
Power Supply	Power Capacity	500 W or better
	Single or Multiple	1 Min (At least 2 if redundancy is desired)
	Fan Noise	< 32db (At 50% load)
	Redundant	YES
Software		
	Operating System	Windows Server 2016 (with SA) 2 CPU @ 8 Core, 2 VM
	CALs	1 per student station, unless POD used
	VMs	N/A
	VMWare	No
Misc		
	Keep your hard drive	3 year KYHD
	Warranty	3 year (Next Business Day/On-Site)
	Removable Storage	DVD or better
	Keyboard	YES
	Mouse	YES

APPENDIX E - MRTS 3D® LABS DELIVERY SCHEDULE

Material #	Brand and P/N	Description	Total Units	Deliv. 1, Norfolk, VA	Deliv. 2, San Diego, CA	Deliv. 3, NAWC-TSD MRTS Lab
1	Acer T272HL bmjjz	10-pt IOS Touch Monitor 1920x1080, 5ms DVI, HDMI, USB	4	2	2	0
2	Premier Mount PSD-BWLB	IOS Elliptical stand w/ 72 inch black poles	4	2	2	0
3	ICW KUS-P2-A1-WB	Work surface tray keyboard tray mount	4	2	2	0
4	Premier Mount RTM-L	IOS Rotating Mount for 27" Display	4	2	2	0
5	Premier Mount PSD-SHB	IOS Dual Pole Cart Shelves	4	2	2	0
6	Sallas Industrial Co 60606-000B	Vertical Surface Universal CPU Holder	8	4	4	0
7	Premier Mount CMP	Dual Pole Cart Cover Packs	2	1	1	0
8	Dell C8621QT	86" 4K Interactive Touch Monitor	4	2	2	0
9	CyberPower PR1500LCD	UPS	8	4	4	0
10	Monoprice 13361	Display Port 1.2a Cable 10 Feet	4	2	2	0
11	Cable Matters B00C7RZPJ0	USB 3.0 A Male to B Male Cable 10 Feet	8	4	4	0
12	Velcro S-17898	Velcro® Brand Cable Ties - 3/4 x 12", Black, 50 Ct.	2	1	1	0
13	Monoprice 5903	Cat6A Ethernet Shielded Patch Cable 14 ft	8	4	4	0
14	Monoprice 7266	Monoprice 8P8C RJ45 Plug with Inserts for Solid Cat6 Ethernet Cable, 100pcs/pack	2	1	1	0
15	Monoprice 7248	Monoprice RJ45 Strain Relief Boots, 50 pcs/pack, Blue	2	1	1	0
16	Aibole AI-0009	25 Ft 0.5 Inches Split Wire Sleeving	8	4	4	0
17	MagicFiber UT0571	Microfiber Cleaning Cloths, 30 Pack	2	1	1	0

Material #	Brand and P/N	Description	Total Units	Deliv. 1, Norfolk, VA	Deliv. 2, San Diego, CA	Deliv. 3, NAWC-TSD MRTS Lab
18	Werktoough Cordless Screw Driver Kit	Cordless Drill Screwdriver Tool Set	2	1	1	0
19	Peerless SR598	Cart to house 86" monitors and computers for demo stations	4	2	2	0
20	Peerless ACC-MS	Metal mounting shelf for demo station cart	8	4	4	0
21	Netgear GS105	4-port Ethernet switch, managed	2	1	1	0
22	Custom IOS Computer	IOS Spec (Appendix D)	4	0	0	4
23	Custom Client Computer	Client Spec (Appendix B)	4	0	0	4
24	Dell Latitude 5420 Rugged	IA Laptops Specs (Appendix C)	1	0	0	1