

Criteria for COWS/WOWS
May 2012

Original questions to vendors

Base Cart Physical Characteristics

Work Surface height in inches
If adjustable, state lowest and highest height in inches.
If adjustable, describe type of mechanism
Work Surface dimensions in inches: Length X Width, and Square Inches.
Base dimensions in inches: Length X Width, and Square Inches.

Footprint dimensions if larger than base, in inches: Length X Width, and Square Inches.

Construction Material (metal, etc.)

Finish (composition, paint or other -- describe)
Caster description including number of wheels, diameter, material, locking/fixed/ free wheels, etc.)
Brakes Yes/No and describe
Caster upgrades/enhancements -- describe
Weight in lbs.
Does the cart have handles for maneuvering it? Yes/No

How many sides have handles?
Where are the handles located?

Do the handles change in height with the work surface or are they in a fixed position?
Push/Pull force Tile

Security

Logon method for cart: Key/Keyless/Card Swipe/Biometric/None

Does the cart automatically secure the door and/or drawers upon user sign out? Yes/No

Double locked med drawer for controlled substances? Yes/No

Locks/security to protect computer -- describe mechanism

Access method to double-locked drawer: Key/Keyless/ Card swipe/Biometric

Keypad lifespan (if applicable) - expressed in number of keystrokes

Electronic locking mechanism lifespan (if applicable) - expressed in number of lock/unlock cycles

Computer Components

Computer equipment solution options: Proprietary (all-in-one / integrated computer [i.e. requires vendor support for repair or replacement]), customer selected computer (i.e. commercial off the shelf), or vendor offers either solution option

If customer selected computer, limitations:
Size (dimensions):
Weight:
Power consumption:
Other limitations:

Is a VESA mount available for connecting the monitor? Yes/No If No, describe type of mount

Can the height of the computer monitor be adjusted independently from the work surface height? Yes/No

If the height of the computer display (monitor or laptop) can be adjusted, state lowest and highest height in inches.

If the height of the computer display (monitor or laptop) can be adjusted, can this be done without tools? Yes/No

Can the monitor be tilted up and down? Yes/No

Can the monitor be rotated from side to side? Yes/No

Does the mounting of the monitor extend it beyond the footprint of the cart's base? Yes/No

Is there a keyboard tray? Yes/No

If there is a keyboard tray, describe the directions it pulls out towards: forward or to the side(s).

Can the keyboard angle be adjusted? Yes/No

If the keyboard angle can be adjusted, can it be adjusted to both positive and negative angles? Yes/No

Is the keyboard sealed or otherwise protected from spills? If yes, describe.

Storage

Number of storage drawers on this cart (range if customizable)

Drawers can be partitioned? Yes/No

Derived requirements

Base Cart Physical Characteristics

Work surface height shall be adjustable

Highest worksurface shall be no less than 46 inches

Lowest worksurface height shall be no greater than 35 inches

Work surface shall be no less than 294 square inches

Cart (with all factory installed accessories that increase footprint of cart) shall fit through XXXXXXXX inch doorway (site fills in with smallest doorway width)

Computer and keyboard space shall be independent from and not emcumber work space

Cart shall be designed such that minor liquid spills (up to 150 ml) on the workspace shall be contained within the workspace (e.g. spilled liquids will not leak onto electronic equipment)

Cart shall have at least 4 wheels each at least 4 inches in diameter (5 inches preferred)

At least two casters shall have locking mechanisms.

Empty cart with power supply shall weigh no more than 104 pounds

Cart shall have handles for steering

Integrated wireless antenna (if equipped) shall be mounted in a manner that it cannot be used as a handle

Push/pull force of empty cart on hard surface shall not exceed 5 lbs

Push/pull force of empty cart on carpeted surface shall not exceed 11 lbs

Security

If cart has storage drawers, drawers shall be lockable

If cart uses electronic locking mecahism, electronic lock timeout shall be adjustable

If cart has controlled substance storage, controlled substance storage shall have additional secondary locking mechanism

Cart shall have apparatus to physically secure computer

If cart has electronic locking mechanism and a controlled substance drawer, electronic lock timeout for the controlled substance drawer shall be independently adjustable

If applicable, electronic keypad lifespan shall exceed 1,000,000 keystrokes

If applicable, electronic locking mechanism shall exceed 90,000 lock/unlock cycles

A metal lock with key shall be provided for each cart that can override the electronic lock(s) in the case of power failure or cart malfunction

Computer Components

Computer solution shall not be proprietary to the cart manufacturer

Cart shall have aparatus for housing computer

Apparatus for housing computer shall not require tools to access

Apparatus for housing computer shall allow user access to visualize computer status (e.g. shall be able to see power indicator)

Apparatus for housing computer shall allow user physical access to power button on computer

Apparatus for housing computer shall include adequate ventilation for proper cooling of computer

If cart uses external monitor, it shall have a VESA (Video Electronics Standards Association) compliant mount

Height of computer monitor shall be adjusted independently from work surface

If adjustable, computer monitor height shall be adjustable without tools

If computer monitor height is not adjustable, computer monitor shall be able to tilt up and down

Computer monitor shall be able to rotate from side to side

Cart shall have a keyboard tray that fits standard sized alphanumeric (Windows 104-key) keyboard with numeric keypad

Keyboard tray shall pull out far enough to expose all keys

Keyboard angle shall be adjustable (both positive and negative tilt)

Storage

Cart shall have XXXXX storage drawers (site to fill in number of storage drawers - remember, there are NO Patient drawers on the COW/WOW)

If cart has storage drawers, drawers shall be able to be partitioned

Required Desirable

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

Can different sized drawers be used on one cart? Yes/No		
Single or Double Sided storage?		
Drawers can be labeled? Yes/No	Cart shall have apparatus to allow labeling of drawers	x
Drawer dimensions, large drawer size	Storage drawer(s) shall be at least XXXX(H) X XXXX(W) x XXXX(D) (Sites to fill in)	x
Drawer dimensions, medium drawer size		
Drawer dimensions, small drawer size		
Drawer dimensions, other drawer size, Double deep medium		
If applicable: Drawer sizes are compatible with Robot Rx or other types of Pharmacy - located automated cart fills		
If company offers both point-of-care/mobile carts and full-sized medication carts, are drawers from point-of-care carts compatible with full-sized medication carts?		
Work surface/ Accessories -- please comment on the availability of these accessories/options	Work surface/ Accessories -- please comment on the availability of these accessories/options	
IV Pole yes/no If yes, describe location and height	Cart shall include IV pole	
Water pitcher holder Yes/No and describe	Cart shall include a water pitcher holder	
Cup holder Yes/No and describe	Cart shall include drinking cup dispenser	
Area for using the computer mouse, separate from primary work surface Yes/No and describe		
Waste Basket Yes/No and describe	Cart shall include medication cup dispenser	
Double lock controlled substance drawer Yes/No and describe	Cart shall include waste basket (sites may specify ### gallon capacity)	
Swing out supplemental work surface(s) Yes/No and describe	Cart shall have a separate worksurface for mouse	
Sharps container Yes/No and describe	Cart shall have storage area for mouse	
Bar code scanner dock/holder Yes/No and describe	Cart shall have sharps container	
Vital signs monitor mount Yes/No and describe	Cart shall have space on worksurface to mount scanner base/holder	
Storage for large bottles Yes/No and describe	Cart shall have apparatus to mount vital signs monitor	
Storage for IV bags Yes/No and describe	Cart shall have storage for large bottles/bulk liquids	
Health care plastics or bacteriostatic coatings	Cart shall have storage for IV bags	
	Cart shall have disinfectant ready housing or be coated with bacteriostatic material to reduce infection transmission	
	Cart shall have a nightlight	
Power Supply	Power Supply	
Type of battery/Battery options		
AC/DC power options AC/DC/Both		
Input voltage in amps		
Output voltage in Watt-hrs		
UL 60601-1 rated Yes/No	Cart with power supply shall be compliant with applicable portions of United Laboratories (UL) standard 60601-1	x
Battery run time in hours	Battery run time shall not be less than 7 (XX) hours on a full charge (requirement is madatory, but sites may indicate a number greater than 7 if needed to accommodate site's workflow)	x
Battery charging time in hours	Battery charge time shall not exceed 4 (XX) hours (requirement is madatory, but sites may indicate a number other than 4 if needed to accommodate site's workflow)	x
Battery operating temperature in Fahrenheit		
Battery charging status indicator Yes/No	Cart shall have a charging status indicator visible to the user (e.g. independent from indicator available through computer or cart management software) which is visible to the user without need for bending or stooping	x
Battery weight in pounds/ounces		
Battery does not develop charge memory yes/no	Battery shall not develop charge memory	x
Battery recharging time (full discharge to full charge) in hours	Battery shall have deep-discharge protection	x
	Cart shall have an independent battery power level guage (e.g. independent from gauge available through computer or cart management software) which is visible to the user without need for bending or stooping	x
Battery power level gauge Yes/No		
Location of Battery power level gauge -- describe		
Appearance of Battery power level gauge -- describe	Battery does not require tools to access	x
Audio or Visual alert for low battery yes/no/both	Power cord is accessible without bending or stooping	x
Location of Visual Alert for low Battery:		
Location of power cord -- describe	Power cord shall have "quick release" or "breakaway" feature to prevent cord damage if cart is moved too far from receptacle while plugged in	x
Length of power cord in feet	Power cord shall be no less than 6 feet	x
Battery Lifespan (expressed in number of charge discharge cycles)	Battery lifespan shall exceed 5,000 charge/discharge cycles	x
Cable Management/Protection	Cable Management/Protection	
Cable Management/Protection features - Describe	Factory installed cabling shall be concealed from users (except around articulating parts where concealing them would create unnecessary friction points)	x
Requires tools to access?	Cart shall contain cable management system accessible to customer allowing customer to conceal aftermarket installed cabling	x
Requires keys to access?	Cable management system shall not require special tools to access	x
Customer Service/Support	Customer Service/Support	
Customer Support/Help Desk availability (24/7; M-F 8am to 5pm, etc. -- describe)	Minimum 8AM - 5PM local time Monday - Friday	
Warranty -- describe	Warranty coverage shall include on-site repairs	
On-site Support/Repairs yes/no	Warranty coverage shall include product replacement during repairs	
Offer replacement product during repairs? yes/no	Vendor shall provide routine maintenance service program	
Provide routine maintenance/service program yes/no and describe		
Notification to purchasers of manufacturer identified problems yes/no	Vendor shall provide notification to purchasers of manufacturer identified problems	
List preventive maintenance items and frequency of service (e.g. power supply air filter: replace every 6 months)	Vendor shall define durable and consumable items in writing within the warranty schedule	
Turnaround time for replacement parts (from time customer service receives notification of needed part)	Replacement parts shall be shipped within 24-hours from time customer service receives notification of needed part	
Turnaround time for on-site repairs (from time customer service receives notification of failed unit)	Turnaround time for on-site repairs from time customer service receives notification of failed unit shall not exceed 2 business days	
On site repairs performed by manufacturer or contractor	All warranty repairs shall be performed by vendor or contractor which has been certified by the vendor to perform the repairs	
	Vendor shall provide warranty support for all items purchased from the vendor	

If the cart is bought as a package deal (cart, keyboard, monitor, computer, scanner), does cart supplier manage all customer support for all components?	Vendor shall provide warranty schedule for all items purchased from the vendor
Cart/Fleet Management Options Fleet management software definition: Software installed on a server or manager's computer that allows a manager to review a variety of cart status functions including number of battery charge discharge cycles, current status (charging, unplugged, etc.), etc. - fleet management software relies on communication with the cart status software as defined above. Fleet Software-o Does it require a server or is it standalone software loaded on the fleet manager(s) desktop Fleet Software-o Is it compatible with Windows XP and / or Windows 7 Fleet Software- Is it compatible with Guardian Edge / Symantec Endpoint Full disk encryption Encryption Fleet Software-o Will it work using a remote desktop?	Cart/Fleet Management Options Fleet management software definition: Software installed on a server or manager's computer that allows a manager to review a variety of cart status functions including number of battery charge discharge cycles, current status (charging, unplugged, etc.), etc. - fleet management software relies on communication with the cart status software as defined above. If fleet management software is offered, it shall be compatible with Windows XP and Windows 7 If fleet management software is offered, it shall be compatible with Guardian Edge and Symantec Endpoint Full Disk Encryption Products If fleet management software is offered, it shall be able to function using Remote Desktop connection If fleet management software is offered, it shall be compatible with VA's "gold image" for computers Cart status software definition: Software installed on the computer on the cart that interfaces with the cart to show the user the status of the cart such as open drawers, battery charge levels etc. If cart status software is offered, it shall be compatible with Windows XP and Windows 7 If cart status software is offered, it shall be compatible with Guardian Edge and Symantec Endpoint Full Disk Encryption Products If cart status software is offered, it shall be compatible with VA's "gold image" for computers If cart status software is offered, it shall be able to be installed by VA after installation of VA "gold image" Field-determined requirements for additional consideration 1. The equipment should have no sharp edges. 2. All external components should be securely mounted. 3. The equipment should be secure and provide adequate protection against moving and electrically energized parts. 4. The equipment should be well constructed with durable materials to withstand typical abuse and cleaning. • Delivery and Storage – 1. The vendor shall deliver materials to the job site in OEM's original, unopened containers, clearly labeled with OEM's name, equipment model and serial identification numbers and UL logo. The FACILITY may inventory the equipment at the time of delivery and reject items that do not conform to this requirement. 2. The vendor shall provide all assemble and installation services required to ready the carts for clinical use. 1. Bumpers – The cart shall have a protective bumper to prevent damage to the cart itself, or any objects the cart may come into contact with, while in use.