



# NASA ACES

## VENDOR PRODUCT PERFORMANCE SPECIFICATIONS (IT-07)

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# Vendor Product Performance Specifications (IT-07)



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## 2.0 Personal Computers

### 2.1 Apple Desktop

Vendor: Apple	Product Name: iMac Desktop
Product Model Number: iMac 27" Desktop	Product Description: Macintosh Desktop Systems
System Component	Product Performance Specification Minimum Value
<b>Processor</b>	. Intel® Core™ i5 2.7 Ghz Processor
	. Minimum Cache Size – 6MB
	. Minimum Core Count - 4
	. Available Thread Count - 8
	. Minimum Base Processor Frequency– 2.70 GHz . Peak Processor Frequency – 3.7 GHz
	. Processor Memory Controller – Integrated
	. Maximum Thermal Design Power – 65 Watts
	. Halogen Free – Yes
<b>Memory (RAM)</b>	. 8GB 1333MHz DDR3 SDRAM
<b>Hard Drive Capacity</b>	. 1 TB SATA 7200 RPM
<b>Graphics Technology</b>	. 64-bit, ATI Radeon HD 6770 512MB GDDR3 SDRAM, Supports Dual Display Config <i>Note: Dual display requires optional adapter.</i>
<b>Display Size</b>	. 27" LED Backlit glossy widescreen TFT active-matrix liquid crystal display with IPS technology
<b>Display Resolution</b>	. 1920x1080 Up To 2560x1440 Pixels
<b>Optical Drive</b>	. 8X DVD+/-RW Internal
<b>Removable Media</b>	. 2Gb FIPS USB Drive . FIPS 140-2 Validated
<b>Mouse</b>	. Optical USB w/Scroll, Apple Magic Mouse
<b>Keyboard</b>	. Apple Keyboard with Numeric Keypad (English) & User's Guide
<b>Sound</b>	. Analog stereo output
<b>Speaker(s)</b>	. Internal
<b>Headphones</b>	. Portable Lightweight Headphones
<b>Ports</b>	. 4 – USB 2.0 . 1 – FireWire 800 port . 1 – Mini Display Port output with support for DVI, VGA, Dual Link DVI (adapters sold separately) . Thunderbolt Port
<b>Slots</b>	. 1 – SDCX Card Slot
<b>Bluetooth</b>	. Revision 2.1+EDR
<b>Network Interface</b>	. 10/100/1000 BASE -T Ethernet / 802.11n
<b>Smart Card Reader</b>	. NIST SP 800-96 compliant USB (External)
<b>Energy Saving</b>	. EPEAT Gold Registered

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## 2.2 Apple Laptop

Vendor: Apple		Product Name: MacBook Pro	
Product Model Number: MacBook Pro 15.4"		Product Description: Macintosh Laptop Systems	
System Component	Product Performance Specification Minimum Value		
<b>Processor</b>	. Intel® Core™ i7-2635QM 2.0Ghz CPU		
	. Cache Size – 6MB		
	. Core Count - 4		
	. Available Thread Count – 8		
	. Base Processor Frequency– 2.0 GHz . Peak Processor Frequency - 2.93Ghz		
	. Processor Memory Controller – Integrated		
	. Maximum Thermal Design Power – 45 Watts		
	. Halogen Free – Yes		
<b>Memory (RAM)</b>	. 8.0 GB 1333 MHz DDR3 SDRAM		
<b>Hard Drive Capacity</b>	. 500 GB 7200 RPM		
<b>Graphics Technology</b>	. 64-bit, AMD Radeon HD 6490M graphics processor with 256MB of GDDR5 memory		
<b>Display Size</b>	. MacBook Pro 15.4" – Widescreen LCD/LED backlit glossy widescreen		
<b>Display Resolution</b>	. 1440 x 900 Pixels		
<b>Optical Drive</b>	. 8x slot-loading SuperDrive (DVD±R DL/DVD±RW/CD-RW)		
<b>Removable Media</b>	. 2Gb FIPS USB Drive . FIPS 140-2 Validated		
<b>Weight</b>	. 5.6 Lbs		
<b>Mouse</b>	. Multi Touch Trackpad with USB Optical Scroll Mouse		
<b>Keyboard</b>	. Integrated		
<b>Sound</b>	. The Integrated Sound capabilities include 2 stereo speakers with subwoofers, omni directional microphone, audio line in / out / headphone minijacks		
<b>Speaker(s)</b>	. Internal		
<b>Headphones</b>	. Portable Lightweight Headphones		
<b>Ports</b>	. 2 – USB 2.0 . 1 – Mini Display . 1 – MagSafe Power . 1 – Audio Line In . 1 – Audio Line Out . 1 – FireWire 800 . 1 – Thunderbolt		
<b>Slots</b>	. 1 – Kensington LockCable Slot . 1 – SD Card Slot		
<b>Network Interface</b>	■ 10/100/1000 BASE-T Ethernet / 802.11n		
<b>Bluetooth</b>	■ Integrated, Bluetooth 2.1+EDR		
<b>Smart Card Reader</b>	■ USB External Smartcard Reader - NIST SP 800-96 compliant		
<b>Webcam:</b>	■ FaceTime HD Camera		
<b>Energy Saving</b>	■ EPEAT Gold Registered		
<b>Microphone</b>	■ Integrated Omni-Directional Microphone		

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## 2.3 Apple Lightweight Laptop

Vendor: Apple		Product Name: MacBook Pro	
Product Model Number: MacBook Pro 13.3"		Product Description: Macintosh Lightweight Laptop Systems	
System Component	Product Performance Specification Minimum Value		
<b>Processor</b>	Intel® Core™ i7- 2.7Ghz Dual Core CPU		
	· Cache Size – 4MB		
	· Core Count – 2		
	· Available Thread Count – 4		
	· Base Processor Frequency– 2.7 GHz		
	· Processor Memory Controller – Integrated		
	· Maximum Thermal Design Power – 35 Watts		
	· Halogen Free – Yes		
<b>Memory (RAM)</b>	· 4 GB DDR3 1333 Mhz SDRAM (2x2Gb)		
<b>Hard Drive Capacity</b>	· 320 GB 5400 RPM SATA		
<b>Graphics Technology</b>	· 64-bit, Intel HD 3000 Graphics with 384MB of DDR3 SDRAM Shared memory		
<b>Display Size</b>	· 13.3" – Widescreen LCD / LED-backlit glossy		
<b>Display Resolution</b>	· 1280 x 800 Pixels		
<b>Optical Drive</b>	· 8x (DVD±R DL/DVD±RW/CD-RW) Internal SuperDrive		
<b>Removable Media</b>	· 2Gb FIPS USB Drive · FIPS 140-2 Validated		
<b>Weight</b>	· 4.5 Lbs		
<b>Mouse</b>	■ Integrated Multi Touch Trackpad w/ External USB Optical Scroll Mouse		
<b>Keyboard</b>	■ Integrated Full-size backlit		
<b>Sound</b>	■ Combined headphone/line in (supports digital output;		
<b>Speaker(s)</b>	■ Built-in stereo speakers		
<b>Headphones</b>	■ Portable Lightweight Headphones		
<b>Ports</b>	■ 2 – USB 2.0 ■ 1 – MagSafe power port ■ 1 – Audio Line In ■ 1 – Audio Line Out ■ 1 – FireWire 800 port ■ 1 – Thunderbolt Port		
<b>Slots</b>	■ One SDXC card slot ■ One Kensington cable lock slot		
<b>Network Interface</b>	■ 10/100/1000 BASE-T Ethernet / 802.11n		
<b>Bluetooth</b>	■ Bluetooth 2.1+EDR		
<b>Smart Card Reader</b>	■ NIST SP 800-96 compliant USB External		
<b>Energy Saving</b>	■ EPEAT Gold Registered		
<b>Webcam:</b>	■ FaceTime HD Camera		
<b>Microphone</b>	■ Built-in Omni-Directional Microphone		

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## 2.4 Apple Workstation

Vendor: Apple	Product Name: Mac Workstation
Product Model Number: Workstation	Product Description: Macintosh Workstation System
System Component	Product Performance Specification Minimum Value
<b>Processor</b>	· Two x 6-Core 2.66GHz Intel® Xeon x5650
	· Cache Size – 12MB
	· Core Count – 12 (Two 6 Core)
	· Available Thread Count – 24
	· Base Processor Frequency – 2.66 GHz
	· Processor Memory Controller – 1333Mhz
	· Maximum Thermal Design Power – 95 Watts
	· Halogen Free – Yes
<b>Memory (RAM)</b>	· 16 GB 1333 MHz DDR3 SDRAM
<b>Hard Drive Capacity</b>	· Two x 1TB SATA 7200 RPM
<b>Graphics Technology</b>	■ 128-bit, ATI Radeon HD 5770 with 1GB of GDDR5 memory with two Mini DisplayPort outputs and one dual-link DVI video output
<b>Display Size</b>	■ 24" LED/LCD Color Display
<b>Display Resolution</b>	■ 1920x1200 Pixels
<b>Optical Drive</b>	■ 18x Integrated Double-Layer SuperDrive (DVD±R DL/DVD±RW/CD-RW)
<b>Removable Media</b>	■ 2Gb FIPS USB Drive
	■ FIPS 140-2 Validated
<b>Mouse</b>	■ Optical USB w/Scroll Apple Magic Mouse
<b>Keyboard</b>	■ USB
<b>Sound</b>	■ Optical digital audio input and output
	■ Analog stereo line-level input and output mini jacks
<b>Speaker(s)</b>	■ Internal
<b>Headphones</b>	■ Portable Lightweight Headphones
<b>Ports</b>	■ 5 – USB 2.0
	■ 4 – FireWire 800 Port
	■ 2 – Mini Display Port output /w DVI Support
	■ 1 – Dual Link DVI
	■ 1 – VGA Video
<b>Open Slots</b>	■ 3 – PCI Express
	■ 2 – PCI Express 2.0 4x ■ 1 – PCI Express 2.016x
<b>Bluetooth</b>	■ Bluetooth 2.1+EDR
<b>Network Interface</b>	■ 10/100/1000 BASE-T Ethernet / 802.11n
<b>Smart Card Reader</b>	■ NIST SP 800-96 Compliant External
<b>Energy Saving</b>	■ EPEAT Gold Registered

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## 2.5 Wintel Desktop

Vendor: Lenovo		Product Name: ThinkCentre M81 Mini/Micro Tower	
Product Model Number: M81 Mini/Micro Tower		Product Description: PC Desktop System	
System Component	Product Performance Specification Minimum Value		
<b>Processor</b>	■ Intel® i5-2400 CPU 6Mb Cache, 3.1Ghz		
	■ Cache – 6MB		
	■ Core Count – 4		
	■ Available Thread Count – 4		
	■ Base Processor Frequency – 3.1 GHz		
	■ Peak Processor Frequency – 3.4 GHz		
	■ Proc Memory Controller – Integrated		
<b>Memory (RAM)</b>	■ Max Thermal Design Power – 95 Watt		
	■ Halogen Free – Yes		
	■ 4GB DDR3 SDRAM PC3-1333 Mhz		
<b>Hard Drive Capacity</b>	■ 500GB, 8M Cache, 7200RPM SATA II		
<b>Graphics Technology</b>	■ ATI HD5450with 512Mb Ram Graphics Card , 64-bit, Dual DVI/VGA		
<b>Display Size</b>	■ 23" LCD		
<b>Display Resolution</b>	■ 1920x1200		
<b>Optical Drive</b>	■ 16x Super Multi Burner DL DVD+RW		
<b>Removable Media</b>	■ 2Gb FIPS USB Drive		
	■ FIPS 140-2 Validated		
<b>Open Slots</b>	■ 2 – PCI		
	■ 1 – PCI-E 2.0 1X ■ 1 – PCI-E 2.0 16X		
<b>Mouse</b>	■ Lenovo Optical USB w/ Scroll		
<b>Keyboard</b>	■ USB SmartCard Keyboard		
<b>Sound</b>	■ Integrated Realtek alc662 High Definition Stereo Audio Output		
<b>Speaker(s)</b>	■ Internal		
<b>Headphones</b>	■ MDR210LP Portable Lightweight Headphones		
<b>Ports</b>	■ 8 USB 2.0 (6 rear, 2 front)		
	■ 1 Serial		
<b>Network Interface</b>	■ 10/100/1000 BASE-T Ethernet		
<b>Bluetooth</b>	■ Revision 2.1		
<b>Smart Card Reader</b>	■ NIST SP 800-96 compliant (Integrated)		
<b>Energy Saving</b>	■ EPEAT Gold Registered		

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## 2.6 Wintel Laptop

Vendor: HP		Product Name: HP ProBook 6560b	
Product Model Number: HP 6560b		Product Description: PC Laptop System	
System Component	Product Performance Specification Minimum Value		
<b>Processor</b>	. Intel® Core™ i5-2520M Processor		
	. Cache – 3MB		
	. Core Count – 2		
	. Available Thread Count – 4		
	. Base Processor Frequency – 2.5 GHz . Peak Processor Frequency - 3.2Ghz		
	. Processor Memory Controller – Integrated		
	. Maximum Thermal Design Power – 35 Watts		
	. Halogen Free – Yes		
<b>Memory (RAM)</b>	. 4 GB 1333 Mhz DDR3 2DIMM Memory		
<b>Hard Drive Capacity</b>	. 250 GB 7200RPM SATA 2.5 Hard Drive with 3D DriveGuard (equivalent to Free Fall sensor)		
<b>Graphics Technology</b>	. 64-bit, ATI Mobility Radeon HD 6470 with 512 MB video Ram, Supports Dual Monitor with Docking Station		
<b>Display Size</b>	. 15.6" HD+ LED AG Display		
<b>Display Resolution</b>	. 1600x900 Pixels		
<b>Optical Drive</b>	. 8x DVD+/-RW Super Multi Light Scribe SATA 12.7mm Drive		
<b>Removable Media</b>	. 2Gb FIPS USB Drive . FIPS 140-2 Validated		
<b>Weight</b>	. 5.4 lbs		
<b>Mouse</b>	. Trackpoint pad and Optical USB w/ Scroll		
<b>Keyboard</b>	. Full-sized keyboard spill-resistant keyboard with drains, numeric keypad, touchpad with scroll zone,		
<b>Sound</b>	. HP Premier Sound, Stereo output		
<b>Speaker(s)</b>	. Internal High Definition Stereo speakers		
<b>Headphones</b>	. MDR210LP Portable Lightweight Headphones		
<b>Ports</b>	. 3 – USB 2.0 . 1 – eSATA/USB 2.0 Combo . 1 – Firewire 1394 (1394)		
<b>Slots</b>	. 1 – Express Card/54 Slot w/PCMCIA Adapter . 1 – SD/MMC Media Reader . 1 – Locking Cable Slot		
<b>Network Interface</b>	. Gigabit Network (10/100/1000 NIC) & (2x2) 802.11a/b/g/n WLAN Card		
<b>Bluetooth</b>	. Bluetooth 2.1 Module		
<b>Smart Card Reader</b>	. NIST SP 800-96 compliant (Internal)		
<b>Energy Saving</b>	. EPEAT Gold Registered		
<b>Webcam</b>	■ 720p HD WebCam (Built-in)		
<b>Microphone</b>	■ Integrated microphone (integrated dual- microphone array with optional webcam)		

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## 2.7 Wintel Lightweight Laptop

Vendor: Lenovo		Product Name: ThinkPad T420	
Product Model Number: T420		Product Description: Lightweight Laptop	
System Component	Product Performance Specification Minimum Value		
<b>Processor</b>	Intel® Core™ i5-2520M Processor		
	Cache – 3MB		
	Core Count – 2		
	Available Thread Count – 4		
	Base Processor Frequency – 2.50 GHz · Peak Processor Frequency – 3.2Ghz		
	Proc Memory Controller – Integrated		
	Maximum Thermal Design Power – 35 Watts		
	Halogen Free – Yes		
<b>Memory (RAM)</b>	4 GB PC3-10600 DDR3 SDRAM 1333MHz Memory (2 DIMMs)		
<b>Hard Drive Capacity</b>	250 GB 7200 RPM HDD with Active Protection System (APS)		
<b>Graphics Technology</b>	64-bit, NVIDIA N12P-NS1 Optimus Graphics with 1GB DDR3 Memory (Support Dual Monitor Configuration with Docking Station)		
<b>Display Size</b>	14.1" WXGA+ LED Display		
<b>Display Resolution</b>	1440x900 Pixels		
<b>Optical Drive</b>	8X DVD+/-RW SATA 9.5mm		
<b>Removable Media</b>	2Gb FIPS USB Drive FIPS 140-2 Validated		
<b>Weight</b>	4.0 lbs without battery · 4.53 with 4 cell battery		
<b>Mouse</b>	ThinkPad UltraNav multipointing system, including TrackPoint pointing device and larger multitouch touchpad		
<b>Keyboard</b>	89-key Full-sized Keyb with UltraNav		
<b>Sound</b>	High Definition (HD) Analog stereo output		
<b>Speaker(s)</b>	■ Internal Stereo Speakers 1w x 2		
<b>Headphones</b>	■ MDR210LP Portable Lightweight Headphones		
<b>Ports</b>	■ 3 – USB 2.0 ■ 1 – USB 2.0/eSata port		
<b>Slots</b>	■ 1 – Express Card/54 ■ 1 – Media Smart Card Reader		
<b>Network Interface</b>	■ 10/100/1000 BASE-T Ethernet and Intel® WifiLink 6205 2x2 802.11N		
<b>Bluetooth</b>	■ Revision 2.1		
<b>Smart Card Reader</b>	■ NIST SP 800-96 compliant Integrated		
<b>Energy Saving</b>	■ EPEAT Gold Registered		
<b>Webcam</b>	■ 720p HD Camera (Built In)		
<b>Microphone</b>	■ Integrated		

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## 2.8 Wintel Workstation

Vendor: HP	Product Name: HP Z Class Workstation
Product Model Number: Z400	Product Description: PC Workstation Systems
System Component	Product Performance Specification Minimum Value
<b>Processor</b>	. Intel® Xeon® Processor W3680
	. Minimum Cache Size – 12MB
	. Minimum Core Count – 6
	. Available Thread Count – 12
	. Minimum Base Processor Frequency– 3.33 GHz
	. Processor Memory Controller – Integrated
	. Maximum Thermal Design Power – 130 Watts
	. Halogen Free – Yes
<b>Memory (RAM)</b>	. HP 16 GB (4x4 GB) DDR3-1333 ECC (6 Total DIMM Slots)
<b>Hard Drive Capacity</b>	. 2 x HP 1000 GB SATA 7200 RPM
<b>Graphics Technology</b>	. 192-bit, 768MB, NVIDIA Quadro FX1800, Dual DVI, Supports Dual Configuration
<b>Monitors Size</b>	. HP LA2405wg 24" LCD Monitor
<b>Monitor Resolution</b>	. 1920X1200 Pixels
<b>Optical drive</b>	. HP 16X DVD+/-RW SuperMulti SATA
<b>Removable Media</b>	. 2Gb FIPS USB Drive
	■ FIPS 140-2 Validated
<b>Mouse</b>	■ HP USB Optical w/Scroll
<b>Keyboard</b>	■ HP USB Smartcard Keyboard
<b>Sound</b>	■ Integrated Intel®/Realtek HD ALC262 Audio
<b>Speakers</b>	■ HP Internal
<b>Headphones</b>	■ MDR210LP Portable Lightweight Headphones
<b>Ports</b>	■ 2 – USB 2.0 - Front
	■ 6 – USB 2.0 - Rear
	■ 1 – HP Serial Port Adapter
<b>Slots</b>	■ 2 – PCI slots (full-height, full-length) ■ 1 – PCI Express Gen2 slot x8 mechanical/x4 electrical
	■ 1 – PCI Express Gen1 slot x8 mechanical/x4 electrical
	■ 2 – PCI Express x16 Gen2 slots (one dedicated for graphics)
<b>Bluetooth</b>	■ Revision 2.1 or higher
<b>Network interface</b>	■ 10/100/1000 BASE-T Ethernet
<b>Smart card reader</b>	■ NIST SP 800-96 compliant USB External Smart Card Reader
<b>Energy saving</b>	■ EPEAT Gold registered

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## 2.9 Wintel Tablet

Vendor: HP		Product Name: HP Tablet 2760p	
Product Model Number: 2760p		Product Description: PC Tablet Systems	
System Component	Product Performance Specification Minimum Value		
<b>Processor</b>	Intel® Core™ i5-2410M Processor		
	Cache – 3MB		
	Core Count – 2		
	Available Thread Count – 4		
	Base Processor Frequency – 2.30 GHz · Peak processor frequency – 2.9Ghz		
	Proc Memory Controller – Integrated		
	Maximum Thermal Design Power – 35 Watts		
	Halogen Free – Yes		
<b>Memory (RAM)</b>	4.0Gb DDR3 1333 MHz (2 Slots)		
<b>Hard Drive Capacity</b>	250 GB 7200 rpm SMART SATA Hard Drive		
<b>Graphics Technology</b>	Intel® HD 3000 Graphics		
<b>Monitor Size</b>	■ 12.1 inch diagonal LED-backlit UWVA WXGA anti-glare Touch Screen		
<b>Monitor Resolution</b>	■ 1280 x 800 Pixels		
<b>Optical Drive</b>	■ USB 8X DVD+/-RW External		
<b>Removable Media</b>	■ 2Gb FIPS USB Drive		
	■ FIPS 140-2 Validated		
<b>Weight</b>	■ 3.97 lbs		
<b>Mouse</b>	■ Stylus, Trackpoint pad and Optical USB w/ Scroll		
<b>Keyboard</b>	■ Built-in Full-sized keyboard, Enhanced dual pointing devices (touchpad and pointstick) with scroll, Digital Eraser Pen		
<b>Sound</b>	■ Analog stereo output		
<b>Speaker(s)</b>	■ Internal Stereo Speakers		
<b>Headphones</b>	■ MDR210LP Portable Lightweight Headphones		
<b>Ports</b>	■ 1 – 1394 Firewire		
	■ 3 – USB 2.0		
<b>Slots</b>	■ 1 – Express Card/34, 1 Media Smart Card Reader, Locking Cable		
<b>Network Interface</b>	■ 10/100/1000 BASE-T Ethernet and 802.11 b/g/n		
<b>Bluetooth</b>	■ Revision 2.1		
<b>Smart Card Reader</b>	■ NIST SP 800-96 Compliant Integrated		
<b>Energy Saving</b>	■ EPEAT Gold Registered		
<b>WebCam</b>	■ 2.0 Megapixel WebCam		
<b>Microphone</b>	■ Integrated		

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## 3.0 Pager

### 3.1 Sun Telecom Z400

Vendor: American Messaging		Product Name: Sun Telecom Z400	
Product Model Number: Z400		Product Description: Pager Numeric	
Component	Product Performance Specification Minimum Value		
Cellular Connectivity	. Domestic - Paging Network		
Cellular Mode	. 929.9375 MHz (Flex)		
Message Storage	. 10 messages minimum		
Display	. Date and Time		
Backlight	. Yes		
Indicator/Alerts	. Alarm/Low battery/Messages		
Service Notification	. Ringtone/Vibrate/Silent		
Messaging Display	■ Time Stamp/# of Messages/Indicator		
Device Navigation	■ Button(s)		

### 3.2 Unication Elite

Vendor: American Messaging		Product Name: Unication Elite	
Product Model Number: Z400		Product Description: Pager Alphanumeric One-Way	
Component	Product Performance Specification Minimum Value		
Cellular Connectivity	. Domestic - Paging Network		
Cellular Mode	. 929.9375 MHz (Flex)		
Message Storage	. 10 messages minimum		
Display	. Date and Time		
Backlight	. Yes		
Indicator/Alerts	. Alarm/Low battery/Messages		
Service Notification	. Ringtone/Vibrate/Silent		
Messaging Display	. Time Stamp/# of Messages/Indicator		
Device Navigation	. Button(s)		

### 3.3 Unication P900

Vendor: American Messaging		Product Name: Unication P900	
Product Model Number: Z400		Product Description: Pager – Alphanumeric Two-Way	
Component	Product Performance Specification Minimum Value		
Cellular Connectivity	. Paging Network (Domestic)		
Cellular Mode	. 900 MHz (Flex)		
Message Storage	. 10 messages minimum		
Display	. Date and Time		
Backlight	. Yes		
Indicator/Alerts	. Alarm/Low battery/Messages		
Service Notification	. Ringtone/Vibrate/Silent		
Messaging Display	. Time Stamp/# of Messages/Indicator		
Device Navigation	. Button(s)		

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## 4.0 Cell Phones

### 4.1 Cell Phone S-Seat AT&T

Vendor: Motorola	Product Name: Motorola Flipside
Product Model Number: Motorola Flipside	Product Description: Android Slider
Component	Product Performance Specification Minimum Value
<b>Cellular Connectivity</b>	. Domestic/International
<b>Cellular Mode</b>	<b>2G Network</b> 850/900/1800/1900 MHz (GSM/GPRS/EDGE)
	<b>3G Network</b> – 850/1900/MHz (UMTS/HSDPA/HSUPA)
<b>Internal Memory</b>	. 512 MB RAM / 512 MB ROM
<b>Screen Resolution</b>	. HVGA screen; 320 x 480 pixels . TFT, 256K colors
<b>Data Storage</b>	. 2 GB MicroSD, expandable up to 32 GB
<b>Battery</b>	. 1040 mAh
<b>Service Notification</b>	. Vibration, Silent, Downloadable Polyphonic, MP3
<b>Geographical/ Location Services</b>	. E911, GPS Built-in
<b>Device Navigation</b>	. Touchpad navigation all-way and Touch screen
<b>Data Input</b>	. Sliding 12 key and Full QWERTY keyboard and Touch screen full QWERTY
<b>Voice Input/output</b>	. Integrated earpiece/ microphone/speakerphone, 3.5mm stereo headset capable with adapter, Bluetooth v2.0 w/A2DP
<b>Productivity</b>	. Calendar, Tasks, Contacts, Contacts, Notepad, Voice Note, Calculator, 500 name min.
<b>Multimedia</b>	. Audio, Video, Images plus-Video: Capture/Playback/Streaming, H.263, H.264, MPEG
<b>Internet Browsing</b>	. WAP 2.0/xHTML, HTML w/Flash
<b>Connectivity</b>	. Bluetooth 2.0, USB 2.0 HS, V2.0 with A2DP
<b>Messaging</b>	. SMS and MMS
<b>Camera</b>	. Enabled
<b>508 Compliance</b>	. TTY/TDD compatible

# Vendor Product Performance Specifications (IT-07)



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## 4.2 Cell Phone S-Seat T-Mobile

Vendor: Nokia	Product Name: Nokia E73
Product Model Number: E73	Product Description: Nokia E73
Component	Product Performance Specification Minimum Value
Cellular Connectivity	Domestic/International
Cellular Mode	Multi-Band that supports cellular and data service for both US and International calls
Internal Memory	256 MB RAM / 256 MB ROM
Screen Resolution	320 x 240 pixels, TFT, 65K colors
Data Storage	2GB MicroSD, (supports up to 32 GB)
Battery	1500 mAh Lithium Ion
Service Notification	Ringtone/Vibrate/Silent
Geographical/Location Services	E911/GPS
Device Navigation	Built-in Track Pad
Data Input	QWERTY keyboard
Voice Input/output	Integrated earpiece/microphone/ speakerphone, 3.5mm stereo headset, Bluetooth enabled
Productivity	Calendar, Tasks, Contacts and Phone Book, 500 name min.
Multimedia	Audio, Video, Images
Internet Browsing	HTML compatible Web browser
Connectivity	Bluetooth v2.0, USB Micro
Messaging	SMS and MMS
Camera	Camera enabled
508 Compliance	TTY/TDD compatible

# Vendor Product Performance Specifications (IT-07)

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## 4.3 Smart Phone S-Seat AT&T

Vendor: Research in Motion (RIM)	Product Name: RIM Blackberry Torch 9800
Product Model Number: 9800	Product Description: Blackberry Torch 9800
Component	Product Performance Specification Minimum Value
<b>Cellular Connectivity</b>	. Domestic & International
<b>Cellular Mode</b>	. <b>2G Network</b> 850/900/1800/1900 MHz (GSM/GPRS/EDGE)
	. <b>3G Network</b> –850/1900/2100 MHz (UMTS/HSDPA/HSUPA)
<b>Internal Memory</b>	. 512 MB RAM / 512 MB ROM
<b>Screen Resolution</b>	. 480 x 360
<b>Data Storage</b>	. Internal 4GB and external 4GB, Micro SD, additional 32GB SD card supplied
<b>Battery</b>	. 1300 mAh
<b>Service Notification</b>	. Ringtone/Vibrate/Silent
<b>Geographical/Location Services</b>	. E911, A-GPS
<b>Device Navigation</b>	. Optical Track Pad
<b>Data Input</b>	. Touch screen and physical QWERTY keyboard
<b>Voice Input/output</b>	. Integrated earpiece, microphone, speakerphone, 3.5mm headset, Bluetooth headset enabled
<b>Mail Attachment / Document support</b>	. Microsoft Word, Excel, PowerPoint, Adobe PDF, HTML, JPEG
<b>Productivity</b>	. E-mail, calendar, task and contacts
<b>Data Synchronization</b>	. Blackberry Enterprise
<b>Multimedia</b>	. Audio, Video and Images
<b>Internet Browsing</b>	. HTML
<b>Connectivity</b>	. Bluetooth 2.1, Micro USB
<b>Device Security</b>	. Hardware (Password enabled) and AES, Triple DES, or FIPS 140-2 compliant
<b>Data Encryption</b>	. YES – Hardware based and S/MIME compatible
<b>Wi-Fi</b>	. YES – 802.11b,g,n
<b>Messaging</b>	. YES – SMS and MMS
<b>Camera</b>	. YES – Camera enabled
<b>508 Compliance</b>	. YES - TTY/TDD compatible

# Vendor Product Performance Specifications (IT-07)



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## 4.4 Smart Phone - T-Mobile

<b>[REDACTED]</b>	
Vendor: Research in Motion (RIM)	Product Name: RIM Blackberry Torch 9780
Product Model Number: 9780	Product Description: Blackberry Torch 9780
Component	Product Performance Specification Minimum Value
<b>Cellular Connectivity</b>	Domestic & International
<b>Cellular Mode</b>	<b>2G Network</b> 850/900/1800/1900 MHz (GSM/GPRS/EDGE)
	<b>3G Network</b> –900/1700/2100 MHz (UMTS/HSDPA/HSUPA)
<b>Internal Memory</b>	512 MB RAM / 512 MB ROM
<b>Screen Resolution</b>	480 x 360
<b>Data Storage</b>	External 8 GB Micro SD, additional 32GB SD card supplied
<b>Battery</b>	1500 mAh
<b>Service Notification</b>	Ringtone/Vibrate & Silent
<b>Geographical/ Location Services</b>	E911, A-GPS
<b>Device Navigation</b>	Track Pad
<b>Data Input</b>	QWERTY keyboard
<b>Voice Input/output</b>	Integrated earpiece, microphone, speakerphone, 3.5mm headset, Bluetooth headset enabled
<b>Mail Attachment / Document support</b>	Microsoft Word, Excel, PowerPoint, Adobe PDF, HTML, JPEG
<b>Productivity</b>	E-mail, calendar, task and contacts
<b>Data Synchronization</b>	Blackberry Enterprise
<b>Multimedia</b>	Audio, Video and Images
<b>Internet Browsing</b>	HMTL
<b>Connectivity</b>	Bluetooth 2.1, Micro USB
<b>Device Security</b>	Hardware (Password enabled) and AES, Triple DES, or FIPS 140-2 compliant
<b>Data Encryption</b>	YES – Hardware based and S/MIME compatible
<b>Wi-Fi</b>	YES – 802.11 g
<b>Messaging</b>	YES – SMS and MMS
<b>Camera</b>	YES – Camera enabled
<b>508 Compliance</b>	YES - TTY/TDD compatible

# Vendor Product Performance Specifications (IT-07)



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## 4.5 Smart Phone S-Seat – AT&T

Vendor: Apple		Product Name: iPhone 4	
Product Model Number: 4, SKU: 68094 (16 GB)		Product Description: The Apple iPhone 4	
Component	Product Performance Specification Minimum Value		
Cellular Connectivity	. Domestic – International		
Cellular Mode	<b>2G Network</b>		
	. 850/900/1800/1900 MHz (GSM/EDGE) <b>3G Network</b>		
	. 850/1900/2100 MHz (UMTS/HSDPA)		
Internal Memory	. 512 MB RAM / 16 GB ROM		
Screen Resolution	. 960-by-640 pixels, 3.5" widescreen Multi-Touch Retina display, TFT capacitive touchscreen, 16M colors		
Data Storage	. 16 GB Internal memory (flash drive)		
Battery	. Standard battery, Li-Po: . 1420 mAh		
Service Notification	. Vibrate/Silent/ Downloadable Polyphonic, MP3 ringtones		
Geographical/ Location Services	. E911, GPS and/or cellular triangulation		
Device Navigation	. Touch-sensitive optical trackpad		
Data Input	. Screen-based QWERTY . Intelligent software keyboard, Rotate iPhone to landscape to use a larger keyboard in Mail, Messages, Notes, and Safari		
Voice Input/output	. Integrated earpiece/ microphone/ hands-free speakerphone, 3.5mm stereo headset capable and jack, Bluetooth wireless connectivity, USB connectivity capable, Voice dialing and voice commands		
Mail Attachment / Document support	<ul style="list-style-type: none"> <li>Viewable document types: .jpg, .tiff, .gif (images); .doc and .docx (Microsoft Word); .htm and .html (web pages); .key (Keynote); .numbers (Numbers); .pages (Pages); .pdf (Preview and Adobe Acrobat); .ppt and .pptx (Microsoft</li> </ul>		
Productivity	<ul style="list-style-type: none"> <li>Calendar, Alarm clock, Maps, Spotlight Search, Call Waiting, Caller ID, Personal Organizer, Address book, Conference calling (3-Way), Call Forwarding, Multitasking, Voice memo, Messaging: SMS (threaded view),</li> </ul>		
Data Synchroniza- tion	■ Microsoft Exchange Server		
Multimedia	■ Audio, Video, Images (Google Maps- Audio/video player- TV-out)		
Internet Browsing	■ HTML (Safari)		
Connectivity	■ Bluetooth 2.1 with A2DP + EDR wireless technology, USB v2.0, 30-pin dock connector		
Device Security	■ Hardware encryption uses AES 256-bit encoding to protect all data on the device with symmetrically encrypted using proven methods such as AES, RC4, or Triple DES		
Data Encryption	■ Hardware based and S/MIME compatible		
Wi-Fi	■ 802.11g, b, n		
Messaging	■ SMS and MMS		
Camera	■ 5.0 Megapixel with 4x zoom, Video 720p HD		
508 Compliance	■ Hearing aid compatible TTY/TDD compatible		

# Vendor Product Performance Specifications (IT-07)

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## 5.0 Printer Hardware

### 5.1 MFD Color Desktop Seat

Vendor: Konica Minolta		Product Name: Bizhub C360	
Product Model Number: C360		Product Description: 36/36 PPM Color Multi-Function Device	
Component	Product Performance Specification Minimum Value		
Connectivity	. 10Base-T/100Base-TX, 1 Gig		
Networking	. Designed and ready to connect to the network		
Monthly Printing Volume Band	. 2,000 Color/5,000 B&W impressions per machine/month		
Printing Speed	. 36 ppm color . 36 ppm B&W		
Print Resolution	. 1800 x 600		
Input Resolution	. Minimum 600 dpi (for Scan, Copy, and Fax)		
Duplex Printing	. Automatic duplex printing		
Paper Handling	. 100 -sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
Paper Sizes	. Letter and legal		
Paper Capacity	. Minimum of two (2) adjustable paper trays with a minimum of 500-sheet capacity each for various paper sizes (minimally letter and legal)		
Output Tray	. Output tray selection		
Bypass Tray	. Letter and legal		
Page Description Language	. PCL6, PCL5e, Adobe Postscript 3		
Scan	. Scan to desktop, Scan to e-mail, Scan to Network		
Scan File Formats	. PDF, JPEG, TIFF, and Multi-page TIFF		
Copy	. Copy Options: 1-1, 1-2, 2-2, and 2-1 . Reduction and enlargement pre-set and zoom . Reproduce pages from bound documents, such as case bound books and magazines without distortion		
Fax	. 1fax line included; Option to activate second line		
Hard Drive	. 250 GB		
Memory (RAM)	. 2 GB		
Ports	. USB port (1 minimum port available for general use)		
Security	. Clearing/overwriting an image after completion of each job per NIST SP 800-88 and NIST SP 800-36 . An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i> , and works with NASA-issued PIV-compliant Smartcards		
Surge Protection	<ul style="list-style-type: none"> <li>• Built-in surge protection devices or surge protectors provided by the Contractor</li> </ul>		

# Vendor Product Performance Specifications (IT-07)

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## 5.2 MFD Color Floor Seat Volume Band 1 (Multi-Functional Devices Printer – MFD Color Floor Seat Volume Band 1)

Vendor: Konica Minolta		Product Name: Bizhub C360	
Product Model Number: C360		Product Description: 36/36 PPM Color Multi-Function Device	
Component	Product Performance Specification Minimum Value		
<b>Connectivity</b>	10Base-T/100Base-TX, 1 Gig		
<b>Networking</b>	Designed and ready to connect to the network		
<b>Monthly Printing Volume Band</b>	2,000 Color/7,500 B&W impressions per machine/month		
<b>Printing Speed</b>	36 ppm color 36 ppm B&W		
<b>Print Resolution</b>	1800 x 600		
<b>Input Resolution</b>	Minimum 600 dpi (for Scan, Copy, and Fax)		
<b>Duplex Printing</b>	Automatic duplex printing		
<b>Paper Handling</b>	100 -sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
<b>Paper Sizes</b>	Letter, legal, and ledger		
<b>Paper Capacity</b>	Minimum of two (2) adjustable paper trays with a minimum of 500-sheet capacity each for various paper sizes (minimally letter and legal) and a 100- sheet by-pass tray Optional 2500 sheet HCT offered		
<b>Output Tray</b>	Output tray selection		
<b>Bypass Tray</b>	Letter, legal, and ledger		
<b>Finishing</b>	Automatic stapling that can staple a minimum of 50 sheets of 20 lb paper Multiple position automatic stapling for portrait/landscape documents Sort/stack documents Optional 2-hole/3-hole punch		
<b>Page Description</b>	PCL6, PCL5e, Adobe Postscript 3 Support for other emerging standards		
<b>Language</b>			
<b>Scan</b>	Scan to desktop, Scan to e-mail, Scan to Network		
<b>Scan File Formats</b>	PDF, JPEG, TIFF, XPS and Multi-page TIFF		
<b>Copy</b>	Copy Options: 1-1, 1-2, 2-2, and 2-1 Reduction and enlargement pre-set and zoom Reproduce pages from bound documents, such as case bound books and magazines without distortion		
<b>Fax</b>	1fax line included; Option to activate second line		
<b>Hard Drive</b>	250 GB		
<b>Memory (RAM)</b>	2 GB		
<b>Ports</b>	USB port (1 minimum port available for general use)		
<b>Security</b>	Clearing/overwriting an image after completion of each job per NIST SP 800-88 and NIST SP 800-36 An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i> , and works with NASA-issued PIV-compliant Smartcards		
<b>Surge Protection</b>	Built-in surge protection devices or surge protectors provided by the Contractor		

# Vendor Product Performance Specifications (IT-07)



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## 5.3 MFD Color Floor Seat Volume Band 2

Vendor: Konica Minolta	Product Name: Bizhub C452
Product Model Number: C452	Product Description: 45/45 ppm Color Multifunctional Device
Component	Product Performance Specification Minimum Value
<b>Connectivity</b>	10Base-T/100Base-TX, 1 Gig
<b>Networking</b>	Designed and ready to connect to the network
<b>Monthly Printing Volume Band</b>	4,000 Color/15,000 B&W impressions per machine/month
<b>Printing Speed</b>	45 ppm color 45 ppm B&W
<b>Print Resolution</b>	1800 x 600
<b>Input Resolution</b>	Minimum 600 dpi (for Scan, Copy, and Fax)
<b>Duplex Printing</b>	Automatic duplex printing
<b>Paper Handling</b>	100 -sheet Auto Document Feeder (capable of handling up to legal-sized paper)
<b>Paper Sizes</b>	Letter and legal and ledger
<b>Paper Capacity</b>	4 Tray total · 2 – 500 sheets each/adjusts to statement, letter, legal, ledger · 1 – 1500 sheets (letter only) · 1 – 1000 sheets (letter only) · Optional 3000 sheet HCT offered
<b>Output Tray</b>	Output tray selection
<b>Bypass Tray</b>	Letter, legal, and ledger
<b>Finishing</b>	· Automatic stapling that can staple a minimum of 50 sheets of 20 lb paper · Multiple position automatic stapling for portrait/landscape documents · Sort/stack documents · Optional 2-hole/3-hole punch
<b>Page Description Language</b>	PCL6, PCL5e, Adobe Postscript 3 Support for emerging standards
<b>Scan</b>	Scan to desktop, Scan to e-mail, Scan to Network
<b>Scan File Formats</b>	PDF, JPEG, TIFF, XPS and Multi-page TIFF
<b>Copy</b>	· Copy Options: 1-1, 1-2, 2-2, and 2-1 · Reduction and enlargement pre-set and zoom · Reproduce pages from bound documents, such as case bound books and magazines without distortion
<b>Fax</b>	1fax line included; Option to activate second line
<b>Hard Drive</b>	250 GB
<b>Memory (RAM)</b>	2 GB
<b>Ports</b>	USB port (1 minimum port available for general use)
<b>Security</b>	<ul style="list-style-type: none"> <li>■ Clearing/overwriting an image after completion of each job per NIST SP 800- 88 and NIST SP 800-36</li> <li>■ An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i>, and works with NASA-issued PIV-compliant Smartcards</li> </ul>
<b>Surge Protection</b>	<ul style="list-style-type: none"> <li>• Built-in surge protection devices or surge protectors provided by the Contractor</li> </ul>

# Vendor Product Performance Specifications (IT-07)



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## 5.4 MFD Color Floor Seat Volume Band 3

Vendor: Konica Minolta		Product Name: Bizhub C552	
Product Model Number: C552		Product Description: 45/55 ppm Color Multifunctional Device	
Component	Product Performance Specification Minimum Value		
Connectivity	. 10Base-T/100Base-TX, 1 Gig		
Networking	. Designed and ready to connect to the network		
Monthly Printing Volume Band	. 4,000 Color/15,000 B&W impressions per machine/month		
Printing Speed	. 45 ppm color . 55 ppm B&W		
Print Resolution	. 1800 x 600		
Input Resolution	. Minimum 600 dpi (for Scan, Copy, and Fax)		
Color Graphics	. High-End Fiery graphics print controller		
Duplex Printing	. Automatic duplex printing		
Paper Handling	. 100-sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
Paper Sizes	. Letter and legal and ledger		
Paper Capacity	4 Tray total . 2 – 500 sheets each/adjusts to statement, letter, legal, ledger . 1 – 1500 sheets (letter only) . 1 – 1000 sheets (letter only) . Optional 3000 sheet HCT offered		
Output Tray	. Output tray selection		
Bypass Tray	. Letter, legal, and ledger		
Finishing	. Automatic stapling that can staple a minimum of 50 sheets of 20 lb paper . Multiple position automatic stapling for portrait/landscape documents . Sort/stack documents . Optional 2-hole/3-hole punch		
Page Description Language	. PCL6, PCL5e, Adobe Postscript 3 . Support for emerging standards		
Scan	. Scan to desktop, Scan to e-mail, Scan to Network		
Scan File Formats	. PDF, JPEG, TIFF, and Multi-page TIFF		
Copy	. Copy Options: 1-1, 1-2, 2-2, and 2-1 . Reduction and enlargement pre-set and zoom . Reproduce pages from bound documents, such as case bound books and magazines without distortion		
Fax	. 1fax line included; Option to activate second line		
Hard Drive	. 250 GB		
Memory (RAM)	. 2 GB		
Ports	. USB port (1 minimum port available for general use)		
Security	. Clearing/overwriting an image after completion of each job per NIST SP 800- 88 and NIST SP 800-36 . An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i> , and works with NASA-issued PIV-compliant Smartcards		
Surge Protection	. Built-in surge protection devices or surge protectors provided by the Contractor		

# Vendor Product Performance Specifications (IT-07)

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## 5.5 MFD B&W Desktop Seat

Vendor: Konica Minolta		Product Name: Bizhub 363	
Product Model Number: 363		Product Description: B&W 36 PPM Multifunction Device	
Component	Product Performance Specification Minimum Value		
<b>Connectivity</b>	. 10Base-T/100Base-TX, 1 Gig		
<b>Networking</b>	. Designed and ready to connect to the network		
<b>Monthly Printing Volume Band</b>	. 5,000 B&W impressions per machine/month		
<b>Printing Speed</b>	. 36 pages per minute (ppm) B&W		
<b>Print Resolution</b>	. Minimum 600 dpi		
<b>Input Resolution</b>	. Minimum 600 dpi (for Scan, Copy, and Fax)		
<b>Duplex Printing</b>	. Automatic duplex printing		
<b>Paper Handling</b>	. 50-sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
<b>Paper Sizes</b>	. Letter, legal, and ledger		
<b>Paper Capacity</b>	. Minimum of two (2) adjustable paper trays with a minimum of 500-sheet capacity each for various paper sizes (minimally letter and legal) . Optional large-capacity tray (minimum of 1,500 sheets)		
<b>Output Tray</b>	. Output tray selection		
<b>Bypass Tray</b>	. Letter, legal, and ledger		
<b>Page Description Language</b>	. PCL6, PCL5e, Adobe Postscript 3, support for other emerging standards		
<b>Scan</b>	. Scan to desktop, Scan to e-mail, Scan to Network		
<b>Scan File Formats</b>	. PDF, JPEG, TIFF, and Multi-page TIFF		
<b>Copy</b>	. Copy Options: 1-1, 1-2, 2-2, and 2-1 . Reduction and enlargement pre-set and zoom . Reproduce pages from bound documents, such as case bound books and magazines without distortion		
<b>Fax</b>	. 1fax line included; Option to activate second line		
<b>Hard Drive</b>	. Minimum 80GB		
<b>Memory (RAM)</b>	. Minimum 1GB		
<b>Ports</b>	. USB port (1 minimum port available for general use)		
<b>Security</b>	. Clearing/overwriting an image after completion of each job per NIST SP 800- 88 and NIST SP 800-36 . An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, PIV Card to Reader Interoperability Guidelines, and works with NASA-issued PIV-compliant Smartcards		
<b>Surge Protection</b>	Built-in surge protection devices or surge protectors provided by the Contractor		

# Vendor Product Performance Specifications (IT-07)

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## 5.6 MFD B&W Floor Seat Volume Band 1 (MFD B&W Floor Seat Volume Band 1)

Vendor: Konica Minolta		Product Name: Bizhub 363	
Product Model Number: 363		Product Description: 36 PPM Multifunction Device	
Component	Product Performance Specification Minimum Value		
<b>Connectivity</b>	. 10Base-T/100Base-TX, 1 Gig		
<b>Networking</b>	. Designed and ready to connect to the network		
<b>Monthly Printing Volume Band</b>	. 7,500 B&W impressions per machine/month		
<b>Printing Speed</b>	. 36 pages per minute (ppm) B&W		
<b>Print Resolution</b>	. 1800 x 600		
<b>Input Resolution</b>	. Minimum 600 dpi (for Scan, Copy, and Fax)		
<b>Duplex Printing</b>	. Automatic duplex printing		
<b>Paper Handling</b>	. 100 -sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
<b>Paper Sizes</b>	. Letter and legal and ledger		
<b>Paper Capacity</b>	. Minimum of two (2) adjustable paper trays with a minimum of 500-sheet capacity each for various paper sizes (minimum of 1,500 sheets)		
<b>Output Tray</b>	. Output tray selection		
<b>Bypass Tray</b>	. Letter, legal, and ledger		
<b>Finishing</b>	. Automatic stapling that can staple a minimum of 50 sheets of 20 lb paper . Multiple position automatic stapling for portrait/landscape documents . Sort/stack documents . Optional 2-hole/3-hole punch		
<b>Page Description Language</b>	. PCL6, PCL5e, Adobe Postscript 3 . Support for other emerging standards		
<b>Scan</b>	. Scan to desktop, Scan to e-mail, Scan to Network		
<b>Scan File Formats</b>	. PDF, JPEG, TIFF, and Multi-page TIFF		
<b>Copy</b>	. Copy Options: 1-1, 1-2, 2-2, and 2-1 . Reduction and enlargement pre-set and zoom . Reproduce pages from bound documents, such as case bound books and magazines without distortion		
<b>Fax</b>	. 1fax line included; Option to activate second line		
<b>Hard Drive</b>	. 250 GB		
<b>Memory (RAM)</b>	. 2 GB		
<b>Ports</b>	. USB port (1 minimum port available for general use)		
<b>Security</b>	. Clearing/overwriting an image after completion of each job per NIST SP 800- 88 and NIST SP 800-36 . An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i> , and works with NASA-issued PIV-compliant Smartcards		
<b>Surge Protection</b>	. Built-in surge protection devices or surge protectors provided by the Contractor		

# Vendor Product Performance Specifications (IT-07)

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## 5.7 MFD B&W Floor Seat Volume Band 2 (MFD B&W Floor Seat Volume Band 2)

Vendor: Konica Minolta		Product Name: Bizhub 501
Product Model Number: 501		Product Description: 50 ppm B&W Multifunction Device
Component	Product Performance Specification Minimum Value	
<b>Connectivity</b>	. 10Base-T/100Base-TX, 1 Gig	
<b>Networking</b>	. Designed and ready to connect to the network	
<b>Monthly Printing Volume Band</b>	. 15,000 B&W impressions per machine/month	
<b>Printing Speed</b>	. 50 pages per minute (ppm) B&W	
<b>Print Resolution</b>	. 1800 x 600	
<b>Input Resolution</b>	. Minimum 600 dpi (for Scan, Copy, and Fax)	
<b>Duplex Printing</b>	. Automatic duplex printing	
<b>Paper Handling</b>	. 80-sheet Auto Document Feeder (capable of handling up to legal-sized paper)	
<b>Paper Sizes</b>	. Letter and legal and ledger	
<b>Paper Capacity</b>	. 2 – 500 sheets each/adjusts to statement, letter, legal, ledger	
	. Optional 2,500 sheet HCT offered	
<b>Output Tray</b>	. Output tray selection	
<b>Bypass Tray</b>	. Letter, legal, and ledger	
<b>Finishing</b>	. Automatic stapling that can staple a minimum of 50 sheets of 20 lb paper . Multiple position automatic stapling for portrait/landscape documents . Sort/stack documents . Optional 2-hole/3-hole punch	
<b>Page Description Language</b>	. PCL6, PCL5e, Adobe Postscript 3 . Support for other emerging standards	
<b>Scan</b>	. Scan to desktop, Scan to e-mail, Scan to Network	
<b>Scan File Formats</b>	. PDF, JPEG, TIFF, and Multi-page TIFF	
<b>Copy</b>	. Copy Options: 1-1, 1-2, 2-2, and 2-1 . Reduction and enlargement pre-set and zoom . Reproduce pages from bound documents, such as case bound books and magazines without distortion	
<b>Fax</b>	. 1fax line included; Option to activate second line	
<b>Hard Drive</b>	. 120 GB	
<b>Memory (RAM)</b>	. 1 GB	
<b>Ports</b>	. USB port (1 minimum port available for general use)	
<b>Security</b>	. Clearing/overwriting an image after completion of each job per NIST SP 800- 88 and NIST SP 800-36 . An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i> , and works with NASA-issued PIV-compliant Smartcards	
<b>Surge Protection</b>	. Built-in surge protection devices or surge protectors provided by the Contractor	

# Vendor Product Performance Specifications (IT-07)



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## 5.8 MFD B&W Floor Seat Volume Band 3 (MFD B&W Floor Seat Volume Band 3)

Vendor: Konica Minolta		Product Name: Bizhub 601	
Product Model Number: 601		Product Description: 60 ppm Multifunction Device	
Component	Product Performance Specification Minimum Value		
<b>Connectivity</b>	. 10Base-T/100Base-TX, 1 Gig		
<b>Networking</b>	. Designed and ready to connect to the network		
<b>Monthly Printing Volume Band</b>	. 30,000 B&W impressions per machine/month		
<b>Printing Speed</b>	. 60 pages per minute (ppm) B&W		
<b>Print Resolution</b>	. 1800 x 600		
<b>Input Resolution</b>	. Minimum 600 dpi (for Scan, Copy, and Fax)		
<b>Duplex Printing</b>	. Automatic duplex printing		
<b>Paper Handling</b>	. 100 -sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
<b>Paper Sizes</b>	. Letter and legal and ledger		
<b>Paper Capacity</b>	4 Tray total . 2 – 500 sheets each/adjusts to statement, letter, legal, ledger ± 1 – 1500 sheets (letter only) . 1 – 1000 sheets (letter only) ± Optional 4000 sheet HCT offered		
<b>Output Tray</b>	. Output tray selection		
<b>Bypass Tray</b>	. Letter, legal, and ledger		
<b>Finishing</b>	. Automatic stapling that can staple a minimum of 50 sheets of 20 lb paper . Multiple position automatic stapling for portrait/landscape documents . Sort/stack documents . Optional 2-hole/3-hole punch		
<b>Page Description Language</b>	. PCL6, PCL5e, Adobe Postscript 3 . Support for other emerging standards		
<b>Scan</b>	± Scan to desktop, Scan to e-mail, Scan to Network		
<b>Scan File Formats</b>	. PDF, JPEG, TIFF, and Multi-page TIFF		
<b>Copy</b>	. Copy Options: 1-1, 1-2, 2-2, and 2-1 . Reduction and enlargement pre-set and zoom . Reproduce pages from bound documents, such as case bound books and magazines without distortion		
<b>Fax</b>	. 1fax line included; Option to activate second line		
<b>Hard Drive</b>	. 60 GB		
<b>Memory (RAM)</b>	. 1 GB		
<b>Ports</b>	. USB port (1 minimum port available for general use)		
<b>Security</b>	. Clearing/overwriting an image after completion of each job per NIST SP 800- 88 and NIST SP 800-36 . An enabled card reader that Meet the minimum requirements of NIST SP 800- 96, <i>PIV Card to Reader Interoperability Guidelines</i> , and works with NASA-issued PIV-compliant Smartcards		
<b>Surge Protection</b>	. Built-in surge protection devices or surge protectors provided by the Contractor		

# Vendor Product Performance Specifications (IT-07)

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## 5.9 Infrastructure Color Network Printer

Vendor: HP		Product Name: CP 4025N + 500 sheet tray	
Product Model Number: CC489A & CC422A		Product Description: Color LaserJet Printer	
Component	Product Performance Specification Minimum Value		
Connectivity	10Base-T/100Base-TX, 1 Gig		
Networking	Designed and ready to connect to the network		
Monthly Printing Volume Band	2,000 Color/5,000 B&W impressions per machine/month		
Printing Speed	20 pages per minute (ppm) Color 35 pages per minute (ppm) B&W		
Print Resolution	Minimum 600 dpi		
Duplex Printing	Automatic duplex printing		
Paper Handling	50-sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
Paper Sizes	Letter and legal		
Paper Capacity	Minimum of two (2) adjustable paper trays with a minimum of 250-sheet capacity each for various paper sizes (minimally letter and legal)		
Output Tray	Output tray selection		
Page Description Language	PCL6, PCL5e, Adobe Postscript 3 and support for other emerging standards		
Security	Clearing/overwriting an image after completion of each job per NIST SP 800-88 and NIST SP 800-36		
Surge Protection	Built-in surge protection devices or surge protectors provided by the Contractor		

## 5.10 Infrastructure B&W Network Printer

Vendor: HP		Product Name: : LaserJet P4015X	
Product Model Number: CB511A		Product Description: LaserJet Printer	
Component	Product Performance Specification Minimum Value		
Connectivity	10Base-T/100Base-TX, 1 Gig		
Networking	Designed and ready to connect to the network		
Monthly Printing Volume Band	5,000 B&W impressions per machine/month		
Printing Speed	35 pages per minute (ppm) B&W		
Print Resolution	Minimum 600 dpi		
Duplex Printing	Automatic duplex printing		
Paper Handling	50-sheet Auto Document Feeder (capable of handling up to legal-sized paper)		
Paper Sizes	Letter and legal		
Paper Capacity	Minimum of two (2) adjustable paper trays with a minimum of 250-sheet capacity each for various paper sizes (minimally letter and legal)		
Output Tray	Output tray selection		
Page Description Language	PCL6, PCL5e, Adobe Postscript 3		
Security	Clearing/overwriting an image after completion of each job per NIST SP 800-88 and NIST SP 800-36		
Surge Protection	Built-in surge protection devices or surge protectors provided by the Contractor		

