**MilleniAds Hardware:**

Due to the business issues shown in the scenario, the major categories and components needed for the company will be the following:

Motherboards, video cards, audio cards, storage system, CPU, RAM, accessories, and workstations.

Workstations/Accessories: The employees traveling and working outside of the company will need laptops and flash drives to accomplish their tasks. These employees need quick and reliable, mobile workstations. Laptops will allow the mobility and the ability to stay connected with the company’s home base. Laptops will accomplish one of the business’s issues by allowing the traveling employees to connect with the company at different locations. The workstations at the company’s home base will need basic accessories such as monitors, cases, mice, speakers, all in one printer, router, modem, and keyboards. These accessories will allow the employees to gain access to the internet. The all in one printer will accomplish one the company’s basic needs by giving the employee the ability to produce physical copies of their product.

Motherboards/Video cards/Audio cards: The motherboards for their workstation should have onboard components such as audio cards, video cards, etc. (Test out facts 3.3.2). It will also have to support 32GB RAM system. The employees will not need any type of gaming dedicated video cards and the cards integrated to the motherboard should accomplish the employees’ daily jobs. An upgrade to the internal components of the workstations should prevent one of the company’s issues and this will boost the limits for the employees’ current workstations.

CPU: a 64-bit intel system will be needed instead of a 32-bit or an AMD processor. Since the workstations will be running applications, a 64-bit processor will allow the applications to perform better (Test Out facts 3.5.2). A CPU with a multi core and with a cooling system. The CPU must also be able to be integrated with the new motherboard.

Storage: The storage systems would be a HDD instead of an SDD for the workstations. My reason for this choice is the storage vs mobility. The SDD does have a faster processor, but the HDD is cheaper and will have more storage space than the SDD (Test Out facts 5.1.2). This will help accomplish one the business issues to be able to store a lot of digital imagery. Flash drives would assist the traveling employees because it would be a large, portable storage device and it can be accessed without an internet connection.

RAM: I would integrate a DDR3 into my system due it being cheaper than a DD4, but the DDR3 still having a fast clock speed. The DDR3 can produce the 64-bit system I would want for the workstations. (Test Out 3.7.3). The DDR2 would be use more power and have a slower clock speed than the DDR3. Also, I would not use a DDR because it currently only used in older computers.

I went for cost efficiency above everything else and if the employees can care for the equipment the equipment will be durable and require minimal maintenance. Shown below, I requested the hardware get warranty upon purchase.

**Hardware Recommendation:**

Stationary Employees’ Hardware:

* Xerox All in one printer model 6515/DN ($319) (Office.Xerox.com)
* Wacom – Wireless graphic tablet w/ 2-year warranty ($189.99) (Bestbuy.com)
* Router and modem combo – Netgear Dualband w/ 2-year warranty ($120) (Bestbuy.com)
* Server – Dell T30 server ($460.00) (Amazon.com)
* Video card – Integrated Video Card ($0)
* Audio card – Onboard Dolby Digital 5.1 Surround Sound ($0)
* Motherboards – 8x Motherboards with integrated graphics and audio card. Able to allow CPU intel Core i7, HDMI and USB connectors. 4x memory slots. ($125) (newegg.com)
* RAM – 64-Bit 16GB DDR3 ($60 each) (newegg.com)
* CPU – 8x Intel Core i7-2600K w/ cooling device and 3-year warranty ($150 each) (newegg.com)
* Storage – 8x 2 TB 7200 rpm HDD ($54.99 each) (newegg.com)
* Logitech C925-e Webcam w/ 4-year protection plan ($89.71) (Amazon.com)
* Smart phones ($0) (Employees personal phones used)

The company will have updated internal components to increase the limited capabilities of the employees’ workstations that are currently in place. The upgraded internal components will improve the graphic quality, storage system, and communication/ file transfer for the employees. The issues for the mobility, storage of accounts and digital imagery, and complaints of employees will be handled from the upgrades. The motherboard will have integrated and on onboard cards because it will not need dedicated video cards or added audio cards. The company’s needs can be handled with the onboard cards. The HDD storage devices will be necessary for maximum storage, low cost, and the lack of mobility needed. The company will not have to maneuver storage devices and for this reason the SDD would not be necessary. The CPU and RAM will increase graphic quality and also assist in memory for the system. The all in one printer will accomplish the business issue to be able to print physical copies of the company’s product.

Mobile Employees’ Hardware:

* 2x HP Laptops Model #14-CF0012DX w/ 3-year warranty ($309.98 each) (Best Buy.com)
* 2x Flash Drives San Disk 128 GB ($11.99 Each) (Best Buy.com)
* Smart phones ($0) (Employees personal phones used)

The mobile employees will need an up to date basic laptop with the capability to show power points and product to other companies. The laptops will also need to be able to handle communications and files transfers back and forth between the laptop and the company’s home base server.

Estimated total value without accessories and cords: $4,942.99

Assisting in the budget of issue of $25k with the request to spend as minimal as possible.