September 2, 2009

MEMORANDUM FOR THOSE WHO ORDER PCs AND LAPTOPS FOR ▮▮▮▮

FROM:

SUBJECT: Differences between consumer class and business class PCs and laptops

This memorandum is to clarify cost concerns for those who order computers for ▮▮▮▮ Specifically, ▮▮ has been receiving complaints about the about the high cost of the PCs and laptops approved for purchase in the Centralized IT Purchase. These complaints state that it is cheaper to buy a **consumer** machine than it is to buy a machine on the Centralized IT Purchase list. This is true, and there are several reasons for it, the greatest of which is that the PCs on the Centralized IT Purchase are **business** class computers, not consumer class.

Those responsible for IT purchases should be aware that there are two types of computers on the market: **consumer** and **business.** There are significant differences between these two classes of computers, including:

- Different computing speeds;

- Different hardware, chipsets, and motherboards;

- Different reliability, longevity, and networking abilities;

- Different capacity to accept MSHA coreload images;

- Pre-installed bloatware, which needs to be removed for business use; and

- Support and ease of management on the MSHA network.

We discuss the differences between the classes of computers below.

Consumer Class PCs

Consumer class computers are made for specific purposes such as checking e-mail, playing games, watching videos, and so on. These computers are not built with a specific chipset. (A chipset is group of integrated circuits designed to work together that controls communication between the processor and external devices. It plays a crucial role in determining performance. An example is the motherboard.). This means that one can buy a computer with a particular motherboard (the circuit board on which the CPU is mounted) then buy the exact same machine at a different time, but the second machine will have a different motherboard (and chipset), depending on when they were made and what parts were available.

The different chipsets make building a "core load" image impossible because each machine is different. MSHA's core load images are not one image: they are several images, one designed for a specific model of computer running a specific chipset. Because building core load images is resource intensive (and therefore at higher risk for introduced errors), we minimize the number of coreloads built by controlling the number of models and chipsets for which the coreload image must be created.

Limiting the number of models and chipsets used also makes future hardware and software upgrades in our production environment easier to accomplish, and with fewer problems encountered.

Also, consumer machines are loaded with bloatware. Bloatware is software loaded on the machine at the factory or the retail center, such as the "Best Buy" software or the "Dell" software or the "Toshiba" software or the "HP" software and so forth. It also includes trial versions of various software applications. This software consumes a lot of valuable space on the hard drive better used for business applications or data, and can prevent the computer from running properly or performing as quickly as it should; it could also drain the battery.

A final area of difference is support. Support is the biggest risk taken when purchasing a consumer class machine. Support is generally for one year and requires that the machine be sent back to the retail center or worse the manufacturer for service. Using support contracts structured this way one may not receive their machine back for weeks or months, leaving them without a replacement machine to work with.

Business Class PCs

Contrast the consumer class computer with a business class computer. A business class computer is built specifically for business. These computers are made with higher quality materials, so they will last longer even through daily, hard use, such as traveling into mines or on airplanes. The components have a longer lifespan, and are designed to work well on a network with network software the ▮▮▮▮ network team uses. The chipset is guaranteed to be the same on each business computer no matter how many computers are purchased or when they are purchased, depending on the agreed upon timeframe. The vendor will create and install a basic core load for the machines so that every person given the same model and chipset computer will also have the same software installed, without bloatware consuming valuable space. And finally, support can be purchased for three years onsite. The industry standard is next business-day onsite service because the vendor knows that businesses depend on computers to function.

Conclusion

▮▮▮▮ uses business-class computers for reliability, durability, and ease of management. ▮▮ has tested the computers on the Centralized Purchase Contract to ensure they will run all of the software applications required by the agency and security. The agency is not charged for computers purchased between major buys, for data transfer, or installation. These charges are incurred only during a major buy. ▮▮ is dedicated to providing ▮▮▮▮ with the best business computers on the market at the best cost possible.