

NEVADA DEPARTMENT OF WILDLIFE POLICY AND PROCEDURE	Pages: 6 Effective: January 9, 2007 Approved: Rob Buonamici (Signature on File)
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TITLE: Computer Hardware and Software Acquisition and Replacement

REFERENCE: NRS 242.111, NRS 242.115, NRS 332.115

AFFECTED EMPLOYEES: Information Systems Specialist III (Pos. No. 0113), All Employees

PURPOSE: To establish a computer hardware and software acquisition, replacement, and upgrade policy for the Department in order to utilize the benefits of next-generation office environment, simplify technical support issues, and increase the Department's ability to deploy more effective and efficient solutions to business problems.

POLICY: The Department recognizes the importance of computer hardware and software for employees to collect, compile and analyze data; conduct research; prepare reports for information and findings; and for communications. Therefore, it is the policy of the Department to provide its employees with as advanced computer technology as feasibly practical within budget constraints and the limits of the employees' duties.

PROCEDURE:

Overview: Computers have become a necessity in conducting the business of the Department; therefore, the Department has identified the following guidelines for optimal replacement of computers and software:

- Before the point of obsolescence,
- At the point in time when it is most cost effective, and
- At the point in time when it will enable the Department to gain maximum advantage from its considerable investment in information systems.

HARDWARE STANDARD

Hardware Maintenance: New computer hardware generally comes with a warranty. If available at the time of purchase, a hardware maintenance agreement should be purchased to cover the hardware's expected life based on the replacement schedule (three years of coverage).

Desktop and Laptop Minimum Hardware Requirements: Desktop and laptop equipment purchases should continue to perform at the minimum levels established by the State throughout the unit's life cycle. The processor revision and memory must sufficiently run a standard operating system and office suite. The unit must be

serviceable by State technical support and include both a fixed disk large enough to support the current operating system and an office suite with at least a forecast 50 percent growth in size over the life cycle of the unit. A minimum of one CD/RW-ROM device shall be included in the unit for installing upgrades or patches necessary for the maintenance of the system. A network card must be included with any unit purchased to, at a minimum, allow for updates to the anti-virus software required to be installed on all desktops and laptops. Any unit purchased must have a surge suppression device included to protect the unit from electrical damage.

Laptops must conform to the above as well as include a carrying case with space for any attachments included with the unit. If the laptop is to be used as a workstation, it must include either a docking station or port replicator with a keyboard, mouse, and monitor.

Replacement versus Upgrade

The Department will replace desktops and laptops with the latest technology rather than to apply major upgrades to existing desktops and laptops as upgraded equipment tends to increase the overall complexity in the installed enterprise hardware base. Current research indicates that:

1. Upgrading is expensive because, more often than not, multiple system components must be upgraded in order to achieve the intended performance improvement.
2. The purchase price of the various hardware components needed to accomplish an upgrade often exceed the purchase price of a new computer.
3. The cost of labor to install an upgrade to existing hardware may exceed the cost of labor to install a new desktop or laptop.
4. Upgraded desktops and laptops have uncertain maintenance profiles and support costs.
5. Upgraded desktops and laptops have added administrative complexity.
6. There is no increase in residual value of upgraded desktops and laptops.

Cycle of Replacement

As a general rule/guideline, based on the classification of technology users, the Department intends on budgeting to replace approximately 20 percent of its personal computer inventory each fiscal year.

The Information Systems Specialist III will maintain a small inventory of the replaced computers for temporary placement should an employee's computer need replacing outside the authorized replacement schedule.

Classification of Technology Users

There are two major classifications of technology users defined as:

1. Leading Edge Technology Users

Those individuals within the Department who need to be at the forefront of technology in order to:

- a. Become the pilot for other members of the enterprise network, or
- b. Interface with other entities, agencies and governments where such interface requires the utilization of the latest technology.
- c. Regularly use very large files or memory intensive applications in the execution of their job duties.
- d. Maintain positions and related duties such as engineering, network/system administrators, network monitoring, application developers, CADD/GIS developers, and graphics and publications development.

2. Standard Technology Users

Those bureaus and individuals within the Department who require a standard level of technology including those who:

- a. Have a standardized suite of applications on their desktops (word processing, spreadsheets, presentations); customized applications beyond the standardized suite; statewide financial, data warehouse, and/or mainframe interfaces.
- b. May use desktops and laptops for database and decision-support; and often have access to Department-specific applications, email, Intranets, Internet, Internet based applications/databases.
- c. Maintain positions such as professional/administrative staff, operational support staff, and technical staff.

Replacement Schedule

The following is a general guideline for replacing desktops and laptops. Employees should consult with the Department's Information Systems Specialist III for assistance in

determining specific replacement needs. Replacement schedules vary according to the classifications of technology users:

1. Leading Edge Technology Users

- a. Should maintain no more than two revisions behind the current state standard technology.
- b. Should consider replacing desktops and laptops every two to three years, depending upon applications in use.

2. Standard Technology Users

- a. Should maintain no more than two revisions behind the current state standard technology.
- b. Should consider replacing desktops and laptops every four to five years, depending on applications in use.

Desktop Computers vs. Laptops/Docking Stations

Employees will be approved for desktop computers unless an employee's job duties and responsibilities warrant a laptop with docking station for the following reasons:

- 1. Cost (two desktops purchased at the price of one laptop/docking station).
- 2. Specifications for laptops taken into the field must be more rugged than a computer used in an office environment (bouncing around in a truck, dropped, dusty or wet environment, etc.) which adds cost to the purchase price.
- 3. Availability of the small-footprint (compact and robust) desktop computers.
- 4. Increased risk of damage, loss, or theft of computer and/or files taken out of the office.
- 5. Increased risk of confidential information and/or paperwork getting damaged, destroyed or into the wrong hands.
- 6. Increased risk of personal or inappropriate use.

Personal Digital Assistants (PDAs) or Handheld Devices

PDAs or handheld devices will not be approved unless the supervisor determines that the employee's job duties warrant the device and that there is budget authority. The Information Systems Specialist III must review the request prior to purchase to make sure the device meets current standards.

Purchasing Rules

All computer purchases must be through the Department of Administration, Purchasing Division's open term contracts for State approved standard specified computers and software.

Funding

Budget considerations play into any upgrade decisions that the Department makes. Computer requests (both hardware and software) must be identified through the biennial budget process and be included in the Delegation of Expenditure Authority. Computer requests will be funded from the most applicable budgetary expenditure category depending on the hardware/software's end use.

SOFTWARE STANDARD

Software Suites

With the exception of the operating system (e.g. Windows XP, etc.), Microsoft and Novel computer software cannot be purchased with the hardware. All purchases of Microsoft products including client access licenses (CALs) and Novell software must be purchased through the State's fulfillment contracts. Other software products may be purchased direct if the total order (not item) is in accordance with the State Purchasing Contract. Anything over that amount must be submitted on a requisition to State Purchasing for processing. Requisitions over the State's Purchasing Contract will require a formal bidding process.

All software ordered will be the most current version of Microsoft Windows and Microsoft Office applications (Word, Excel, PowerPoint, Access). This will facilitate the methodical and universal conversion of agency software to a consistent standard. Computer software site licenses will be used whenever possible.

With a consistent computer upgrade program, coupled with software requirements, the upgrade of software should be unnecessary. However, requests for software upgrades will be considered in light of the computer replacement schedule if the hardware will support the software application. No software upgrades for basic programs other than Microsoft Suite applications will be considered.

Upgrades to productivity software such as a suite that is comprised of word processing, spreadsheet, database, etc. should be given careful consideration. New features supported by software suites should be balanced against possible problems with new versions of software. The amount of time required for installation, training and or adjustment to using new software must be considered. Possible backward compatibility issues with earlier versions of the same vendor software or a version of similar software from other vendors must be considered. In some cases it may be best to forego installation of new software until a successful track record for the software has been

established. Typically, service packs are required and provided after the initial release of product upgrades. While the base product may perform with few user noticeable problems, security issues and subtle program imperfections have been known to cause problems that may incur much administrative overhead or in some drastic cases a rollback to an earlier version with the associated time and expense involved.

Supervisors must assure adequate software training is requested and budgeted for employees receiving new computers.

Anti-Virus Products

All computers including desktop computers, laptops, file servers, and CADD class workstations must have an anti-virus program installed. Some anti-virus programs need to be upgraded on a constant basis and the licensing usually provides for at least one year of no-cost upgrades. Employees should upgrade the virus definition files on at least a weekly (or even daily) basis and whenever there is an alert for a new virus.

Interoperability

Federal or State requirements for interoperability or security may mandate certain versions of software. This may require version upgrades or possibly new software upgrades outside the cycle of replacement.

HARDWARE AND SOFTWARE REGISTRATION

Registration

Upon receipt of new hardware and/or software, it is the individual employee's responsibility to ensure that the registration paperwork is completed and remitted in a timely manner to minimize costs of any future upgrades to the Department.