

UWEC Computer Hardware & Software Rotation Policy

Approved by Chancellor 12-4-2001

Curriculum in many courses either directly requires the latest software or a software product that the curriculum requires is dependant on the latest software. Trying to run newer software on an older upgraded computer can be an exercise in frustration and expensive to boot. Older computers crash more often running the exact same software than newer computers and older computers tend to run painfully slow in many cases. Costs for supporting older equipment, including various flavors of hardware and software, increase support costs exponentially, both in dollars for hardware repairs and upgrades, and human support hours that leads to increased FTE requirements. While recognizing the importance of timely hardware and software upgrades, faculty members have expressed frustration with what they see as constant changes coming at them. By implementing a campus-wide plan departments will have the ability to budget for expenses.

To address these issues UWEC is adopting a four-year rotation on desktop computers (PCs and Macs) and a two year rotation on supported software. Advantages to scheduling departmental software upgrades on a two year rotation

- We reduce faculty/staff frustration because they will know when they are slated for upgrades.
- We reduce faculty/staff/student frustration because we will reduce the number of versions of software that are being used on our campus. Reducing the number of versions of a product also decreases document conversion issues.
- With planned and published software upgrades, most customers are willing to wait because they know where they are in the schedule to receive the software/hardware. They will also know if they must make special arrangements until their software is due to be upgraded.
- Quite often the only way to resolve a software problem is to upgrade to latest version. When we and our customers can plan for a new version it reduces support time and reduces customers' frustrations.
- We can spend the time to customize new software for our campus before deploying it.
 - o Hundreds of hours of our customers' time have been wasted when they have installed software themselves. We customize software not only to optimize it for our campus environment; we also install hooks to make it offer features our customers have asked for. An example is in our Office2000 deployment: we customized it so our customers have access to campus-wide templates for things like PowerPoint Presentations, class list merges, surplus property, and purchase requisitions. We also build in the security fixes, etc. that are not included with the programs.

Why a four year hardware rotation plan is critical

- Software normally has minimum memory and processor requirements.
- Up-to-date software requires up-to-date hardware.

- o Items such as cheap, high-quality scanners, require usb ports
- o DVD media requires DVD drives
- o As programs get larger and create larger documents CDRW (writeable CD drives) are required to backup and transfer the data
- o Collaborative multimedia software requires a faster video card, hard drive, processor, and network connection speeds, etc.
 - Hardware repair costs start to skyrocket after the manufacturer's three year warranty expires (or one year in the case of Apple Macintoshes).
 - It takes many more hours in support time to support older hardware. This translates into more downtime and frustration for our customers, and FTE required in Desktop Computing to keep support at an acceptable level.
- o We have to maintain, test, and document fixes for each configuration we support.
- o We must have the same hardware in CNS to reproduce problems and resolve them which means we require more space, more hardware, more manuals, and more parts when we support older hardware.
- o Many times support from vendors is not available for older hardware so we have to hunt for used parts—which forces our customers to wait.
 - Running newer software on older computers causes crashes/system hangs and slow response which frustrates our customers and chews up tons of support time. Sometimes the new software just will not work.
 - This plan includes UWEC-owned computers and any desktop peripherals that are impacted when running with the latest software, e.g. if the peripherals are not supported in the new software they would have to be replaced.

How we will handle the software rotation

- When new computers arrive the default install will give customers the latest approved operating system and application suite. Customers can request the suite being used by their department if they prefer.
- We, along with our customers, will evaluate the latest versions of the OS and standard applications on a yearly basis and decide what version we will be putting out for the coming year.
- We will work with departments to establish and publish a rotating schedule to convert a department at time to the current version of the OS and application suite. This means that every other year all UWEC computers will be refreshed with the latest software on a scheduled basis—reducing the frustration of some of our customers because they will know ahead of time when an upgrade is coming. This way no one will have software that is more than two years old.
- We will utilize SMS to push critical updates to our customers' PCs such as security fixes, software patches, anti-virus definition files, and minor versions of applications that will not require any training or change how the customer uses their PC.

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc

Page 3 of 12

How we will handle the hardware rotation

- CNS will provide repair services according to UWEC Computer Repair Policy (see attachment 4).
- Computers that reach their four year life will be surplus according to UWEC

Surplus Policy (see appendix 5).

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc
Page 4 of 12

Appendix 1

How will plan actually work?

How and when would each department be upgraded?

Departments would be upgraded biannually on a schedule developed between CNS and the department. All computers in that department would be upgraded to the currently supported software and operating system releases (usually referred to as the current image). If computers needed hardware upgrades in order to run the new image then the department would be charged. Every effort will be made to keep these changes to a minimum. With a four-year rotation of hardware, this will seldom be a problem. We have been planning for a four year life when we order new computers. An example is that computers today do not need 256 meg of RAM and 40 gig hard drives, but they will in two to three years so we are ordering them equipped that way today so we will have a four year lifespan.

Example: The English department agrees to have its **software** upgraded in November of odd numbered years. During the summer of 2001 a standard image would be set up including the following software and operating system:

Windows Example: Mac Example:

- Windows 2000 operating systems • OS 9.1 operating system
- Office 2000 • Office 2001
- Current release of other software • Current release of other software

Department members would be notified in October of the coming update. Changes would be described and training would be offered. Everyone in the English department would be upgraded to this software in November. If some computers didn't have enough memory to support Office 2000 they would receive memory upgrades that would be billed back to the English department.

What if a faculty member gets a new machine?

When new machines arrive, the customer will be given, as a default, the latest image. The customer can also request they be set up with the image that matches others in their department.

Example: Professor B and Professor C in the English department both get new machines in September of 2002. Professor B wants the latest software available, so even though the rest of the English department is using Windows 2000 and Office 2000, Professor B has his computer set up with the new approved image featuring Windows XP and Office XP. Professor C works very closely with others in the English department and doesn't want to have a different "look and feel" on his computer. Professor C opts to have the standard image that was originally loaded on English computers loaded on his computer.

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc
Page 5 of 12

What if a new version of software comes out after a department has been upgraded?

Software revisions are constantly being released by vendors. When developing each year's image Desktop Computing will evaluate the newest releases, making sure they are

solid. For major releases we will have faculty and staff representatives assist in the evaluations. If new software is not deemed desirable or supportable it will not be included in an image. Departments scheduled for upgrades will get the 'old' release, and normally will not be upgraded until their next scheduled time.

Example: Office XP was released at the end of May, 2001. Evaluations will be done over the summer to make sure there are no problems with document compatibility, operation of the software, training is developed, etc. If problems are found, the Office XP version will not be included in the English department deployment. They will receive Office 2000 and will use that until they are upgraded again in 2003.

Will the versions of software in the labs match those found in faculty and staff departments?

Not always. In general, Desktop Computing will build its new image using the same version of software being deployed in the General Access Labs. However, the lab software can change on a yearly basis. Since we have a two-year rotation on software upgrades for departments, some departments will not get the new software right away. This is really no different from the current situation. Desktop Computing doesn't have the resources to roll out new software releases to the entire campus overnight. General access labs have that capability.

Example: The English department gets Office 2000 on its computers in November, 2001. In August of 2002 the General Access Labs deploy Office XP. English faculty and staff continue to use Office 2000 until their next scheduled upgrade in November of 2003.

What about faculty and staff who absolutely need the latest software loaded on their computers?

While the two-year rotation of software will work very well for most faculty and staff, there may be some who need to be upgraded more often. They may need to match the software found in labs exactly because their course curriculum utilizes new features found in the new software. Realizing the extra resources required and potential support problems caused by 'non standard' installations, in these cases, faculty and staff will be asked to justify their needs and gain approval from their dean or department chair before their installations are changed. Individual updates will be made as time allows between other scheduled department upgrades. These updates will normally involve the entire new image, not just selected software.

Example: English Professor D hears about the latest release of Office XP and wants a copy on his office computer because his computer at home has it and it sounds really cool. English Professor E utilizes web collaboration capabilities found on Office XP in H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc
Page 6 of 12

the labs for his Technical Writing class. The capabilities do not work in Office 2000 so Professor E cannot evaluate students' work without visiting the lab. Professor D and Professor E both talk to their department chair, and the chair asks Professor D to wait until the normal software rotation evolves, while Professor E has his upgrade approved.

What if an important service pack or security fix is released for my software?

Minor service packs and security fixes will be rolled out automatically utilizing SMS server. Software will be updated campus-wide, usually without faculty and staff needing

to be involved.

Example: Two months after having their computers reimaged, a critical security hole is identified in their email software. Microsoft offers software to fix the problem. Rather than waiting almost two years to get the 'fix' applied with the regular software upgrade, the new software is deployed overnight using SMS.

What happens if we suddenly change software vendors?

While most of our software stays fairly stable, we have occasionally had to change vendors. In this case, we might ask for a license extension from the original vendor or, perhaps more likely, we would have to do a special installation of the new software. This might require hands-on changes to departmental computers. Obviously this would require significant resources from Desktop Computing and would only be done when absolutely necessary and with the approval and notification of the deans and department heads.

Example: After the English department has their computers reimaged in November, 2001 our contract with Norton Anti-virus expires. The new cost is considerably higher than the old cost so we look at competing vendors. When evaluating the cost of switching to a new vendor we also quantify the cost to upgrade the entire campus and the inconvenience it will cause faculty and staff. In some cases we will have to physically go to each computer to change out the software. In other cases we may be able to change out the software remotely without having to physically go to each computer.

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc
Page 7 of 12

Appendix 2

Estimated Costs

Hardware: Based on a four-year hardware rotation and an average computer cost of \$2000 (currently we are spending \$1575 for a PC and \$2,150 for a Mac), departments should estimate an average cost of \$500 per year per workstation/staff member. So, a department with a staff of 20 people should budget \$10,000 per year for computer replacement.

Software: Most software is licensed on a campus-wide basis. We anticipate no additional costs for this plan. Departments that are using software that they purchase may need to purchase upgrades to run under the supported hardware and software. CNS can assist in getting pricing/discounts/alternatives if departments would like assistance.

Desktop Computing personnel: Personnel would need to be earmarked to perform the ongoing updates. It may require an ongoing project position or permanent position. The advantage to this plan is that the needs can be anticipated and used on an ongoing basis rather than our current system of mobilizing lots of temporary staff for sporadic projects.

University faculty and staff time and resources: This system has as its goal to reduce the time in which faculty and staff is inconvenienced with software installations. Rather than fitting in small upgrades numerous times a year they would only have to schedule one downtime. However, faculty and staff would be required to reinstall any personal software they had loaded on their computers. The same situation exists today if faculty and staff receive a new computer or need to have their current computer reimaged due to hardware or software problems. In the new plan, our customers will be able to plan ahead for when the software must be reloaded.

Appendix 3

SMS

5-25-2001

by Aaron Hinnendael

SMS is a software product from Microsoft that allows remote software installation so people do not need to physically go to the PC, remote control of a PC (if the customer allows it), automatic hardware and software inventory collection of PCs. The benefits of implementing SMS on the faculty and staff computers far outweigh the drawbacks that come along with the implementation. SMS provides many benefits that will allow the CNS staff to support customers' computers much more quickly and efficiently than the current system.

BENEFITS

SMS provides a way to quickly deploy software such as hot fixes and security fixes. SMS provides the campus with system that can deliver these necessary fixes to all computers on campus within a few hours. Currently, important hot fixes and security fixes take days to apply to the campus. When we had the virus outbreak one year ago it took CNS almost six months to put the latest software on each computer.

SMS provides inventory functionality. The current inventory system on campus is not dynamic and very inaccurate. SMS provides a dynamic inventory system for both hardware and software that can be updated in real-time. This inventory system can be tied with the MAGIC system (**the Help Desk database system we use to record phone calls to our Help Desk and record solutions to our customers' problems**) so support staff know exactly what hardware is on the caller's machine. This will also allow chairs, directors, and deans to accurately forecast the costs of upgrading or installing new hardware/software.

An important benefit of SMS is the remote tools portion of the package. The remote tools allow a supporter (i.e. Helpdesk Consultant, CNS Staff Member, etc) to take control of a customer's computer (only if the customer grants permission!) while sitting at his/her own workstation. Once the supporter has control over the customer's computer, the supporter can walk the customer through the steps toward solving the problem. The customer can watch what the supporter is doing, or the supporter can describe what to do while the customer does the action. But either way, both the supporter and customer see what is happening on the computer. Benefits from this tool include:

- There will be an extremely quick response time from the support staff.
- The supporter will no longer have to travel to the computer to work on it.
- More customers can be supported in a shorter period of time.
- The MOST requested service, just-in-time-training, will be a reality!

DRAWBACKS

Allowing people to take over computers poses a slight security risk. If somebody can get a copy of the remote tools and has domain rights and the customer either lets some take control of their computer by selecting "OK" and forgets to break the connection the hacker would have access to whatever the user has access to. For

example, if Jeff takes over Dan's computer, Jeff has full access to Dan's H: drive. Besides SMS requiring the customer to explicitly allow a support person to take control of their computer SMS also provides a method to prevent this from happening by playing a tone every thirty seconds while a computer is being remotely controlled.

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc
Page 10 of 12

Appendix 4

UWEC Computer Repair Policy

Computer Repair Guideines

Information and Technology Management

Updated: 6-13-2001

Introduction

Computing and Networking Services shall provide repair services for University owned desktop and portable computers owned by the University and located in academic classrooms, faculty/staff offices and labs. Every attempt will be made to minimize downtime and complete repairs within 24 hours. If parts must be ordered or warranty steps must be followed, a timeframe will be estimated but cannot be guaranteed. Call the CNS helpdesk for repairs or upgrades (836-5711).

These guidelines will be reviewed and updated annually during spring semester. Revisions will become effective July 1, the start of the next fiscal year.

General Guidelines

1. ONLY University purchased and inventoried computers will be repaired or upgraded by CNS. Used, donated, surplus, or personally owned equipment utilized on campus will not be maintained.
2. Repairs of desktop computers, monitors and laser printers shall be made if the repair cost (parts only) is below 50% of replacement cost and replacement parts are available. Desktop computer and monitor replacements are the responsibility of the department.
3. Computer upgrades are not considered repair and all hardware/parts costs are the responsibility of the requesting department.
4. Repair work on all UWEC non-program revenue accounts inventoried computers that are within factory warranty periods will be repaired free of charge. All repair work for Program Revenue accounts will be a charge-back (parts and labor). These units include University Centers, Housing and Residence Life, Children's Center, Health Services, Spectator, Activities Programs and Recreation, and Outreach Programs.
5. Consumable items such as ribbons, toner cartridges, batteries, paper, speakers, keyboards and track balls/mice are the responsibility of the department. CNS will assist departments by recommending vendors who sell appropriate replacement items.

Equipment – CNS Covers For One Year After Manufacturer's Warranty Has Expired

CNS technicians will repair computers at no cost for one year after the manufacturer's warranty has expired (typically after one year on Macs and three years on Dells) for non-Program Revenue accounts. Repairs requested after this one year after the manufacturer's warranty expires shall be done for the cost of the parts and materials if a department requests such repair and provides CNS a signed production request authorizing the purchase of all replacement parts from their departmental account if parts are available.

Monitors

If a monitor has failed, it will be removed for repair. A temporary monitor will be supplied on a first come, first served basis depending on availability. Only the most common monitors will be supported with a temporary replacement. Repair costs of special high-resolution monitors will be the responsibility of the requesting department. CNS will send the monitors in for repair.

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc
Page 11 of 12

Miscellaneous Related Equipment

Equipment attached to personal computers will be evaluated for repair and cost estimates will be provided to the requester. Items will be maintained on a charge-back (parts only) basis. These types of units include non-laser printers, scanners, modems, PCMCIA cards, video capture boards, external hard drives, external zip drives, back-up tape drives, label makers or other specialized equipment.

Printers

UWEC-owned printers will be repaired at no cost (except for Program Revenue accounts) for four years unless the repair cost is above 50% of replacement cost or parts are no longer available.

Exceptions

Exceptions to this policy may be made under special circumstances by contacting the Director of CNS.

H:\Documents\Management\Planning\Planned Rotation\UWEC Desktop Hardware & Software Rotation Policy12-4-2001.doc

Page 12 of 12

Appendix 5

UWEC Surplus Policy

UW Eau Claire PC/Mac Computer and Printer Surplus Policy

Introduction

When a department no longer needs a PC/Mac or printer, the department should fill out a surplus declaration on the equipment and send the form to Purchasing.

- Purchasing will contact CNS Desktop Computing with the information.
- CNS Desktop Computing will inspect the devices and advise Purchasing of which units can/cannot be refurbished. Where refurbishing is feasible, the fee for materials and time will be added to the sale price of the device. Computers over four years old will be disposed of off-campus.
 - Devices that have been refurbished will be sold through the campus Surplus Store for on-campus use. At that time Desktop Computing will be reimbursed for any refurbishing costs. Paperwork will be completed by the department purchasing the device to reflect inventory changes and turned in to CNS secretary.
 - The devices that are not candidates for refurbishing will be disposed of offcampus by the Purchasing department. Purchasing will complete the surplus/disposal paperwork and turn in to CNS secretary so that the UWEC inventory will be correct.
- CNS Desktop Computing will support devices purchased for on-campus use for four years after the computer was manufactured. Refer to the CNS repair policy for maintenance information.
- Exceptions to this policy may be made for devices that (1) will not be networked and (2) will not require maintenance from CNS. Contact the Director of CNS for approval of exceptions.