

Pacific Technology Support Lifecycle Guidelines

I. Purpose

Since 2001, Pacific invested well over a million and a half dollars in desktop computer technology with Dell Corporation alone. This figure does not consider purchases made with other vendors, software purchases, or the support costs for such equipment. Considering the amount invested in desktop and laptop computers, Pacific's personal computing infrastructure should be fairly up-to-date. Yet, when OIT announced the implementation of the new GroupWise 6.5 client, several units were concerned because the GroupWise 6.5 client is not supported on the Windows 95 platform.

The following document is a proposal to better manage Pacific's personal computing technology infrastructure for faculty/staff* and to outline procedures for desktop and laptop life-cycle management. The goals of this proposal are to:

- Establish guidelines for discontinuing the use of aging software and hardware
- Establish a formal process for communicating support requirements for technology
- Provide guidelines for PC life-cycle management in conjunction with the budget year

With guidelines and recommendations in place, departments will be able to better understand and identify the required desktop technology for Pacific's infrastructure. As a result we will be able to realize the benefit from the University's significant investment in technology. Further, an updated environment will be crucial as OIT implements Active Directory (AD) and 802.1x.

** Note: This proposal does not include student owned computer..*

II. Current Situation

Pacific's decentralized IT budget has resulted in a mixed personal computing environment which is not consistently managed or refreshed. Some units rely on extremely old technology (ex. Windows 95) while others regularly obtain new computers with the latest technology. For new desktop technology, OIT recommends that Units purchase Dell Optiplex desktops and Latitude laptops. Macintosh configurations are also suggested for units with that specific need. The recommended configurations for new computer purchases are published on OIT's website. However, because of the decentralized IT budget, Units are able to purchase different solutions. For example, some have chosen to purchase HP's, Dell computers designed for home use or generic computers (white boxes).

Pacific allows this diverse environment through ITPC's Technology Diversity policy which encourages Units to use the recommended Dell standard and requires them to support other technology at a local level. Additionally, Units have technology committees to help manage the department's personal computing infrastructure. Units who seek support from OIT are required to purchase within recommendations to receive full support. Technicians are trained on fully supported technology, spare parts are kept on site and a fleet of loaners is maintained. Technology falling outside of the recommended standard or aging technology is supported on a 'best effort' basis and OIT does not commit to resolving problems in a specified time frame. OIT publishes resolution time frames for supported equipment on its website.

Though Pacific has established guidelines for coping with technological diversity, we do not have established recommendations for lifecycle management. An unmanaged computer lifecycle results in a higher total cost of ownership (Gartner claims a 30 % increase). Factors that contribute to the higher cost of ownership include difficulty in implementing or upgrading centralized technology (ex. GroupWise 6.5, AD, 802.1x); lost productivity when older systems fail; increased security risks and support costs.

III. Desktop & Laptop Lifecycle Management: Recommendation

OIT recommends the following process for refreshing desktop technology. Since new software implementations may require upgraded hardware, the scope of this recommendation includes both hardware and software. The process should begin during the Unit's budget planning process and a permanent line item added to subsequent budget years. Instead of being considered as a one-time

expenditure, acquisitions of personal computing technologies should be an ongoing part of the budget process. It is further recommend that Units include the cost of desktop technology when budgeting for new hires.

These guidelines have been established assuming a four-year lifecycle for desktops (including Apple) and a two-year cycle for laptops. These lifecycles are slightly longer than the Gartner recommended three years and eighteen months for desktops and laptops respectively. However, we believe a longer cycle can be tolerated with regular review of help desk incident tickets and cascading. (Cascading is the reallocation of computers to Users with fewer requirements than the original owners.) If these guidelines are followed, Pacific will not have technology older than four years in the personal computing infrastructure. It is further recommended that those units who upgrade more often work with Business and Finance on an alternative finance model such as leasing.

A. Designate a contact

Each Unit’s technology committee or local provider should designate a contact for managing the desktop computing lifecycle.

B. Inventory current environment

Establishing refresh schedules for hardware and software is virtually impossible without a thorough understanding of what’s in the deployment base. Inventory information is also invaluable in understanding the personal computing infrastructure’s readiness to accept newly deployed centrally managed systems such as Banner and GroupWise.

OIT intends to seek funding for a compatible centralized inventory system which collects information such as USERID, warranty information, make, model, RAM, processor speed, hard drive size, and software installed. Information collected from the inventory should be provided to the department during the budget planning process.

C. Evaluate inventory in conjunction with OIT’s standard recommendation

Unit contacts should ensure that technology in the current deployment base is compatible with PacificNet. Incompatible technology should be upgraded or replaced as appropriate.

D. Assess Users’ Needs

User needs may vary based on job position and/or responsibilities. For example, department administrative assistants may need access to Banner, email, the internet and some data processing software. Department managers and administrators may be highly mobile and have different requirements due to frequent travel, meetings and presentations. Below is an example of three different configuration needs:

Power	Standard	Basic
Internet, email, Word Processing, Web Development, Audio/Video Editing, Graphic Creation	Internet, Email, Word Processing, Data Entry	Internet, email, Some word processing
High end desktop with extra RAM, large hard drive, and combo drive (ex. cd-rw/dvd).	Mid-range desktop or laptop	Thin Client

E. Refresh environment

After evaluation, plans should be made for refreshing existing inventory:

- 1) Target machines older than four years for replacement first. *If machines cannot be upgraded to one of the three levels, immediately replace them.*
- 2) Compare User need to above chart

- 3) Based on the assessment, schedule 1/4th of the environment for replacement in the current budget year and the remainder in subsequent budget years. Consider reallocating or cascading machines to Users with less need.

F. Surplus

Include in the process a plan for replacing or disposing of computers. Note that computers and monitors are hazardous waste and cannot be thrown into a dumpster. **Additionally, the University requires that all information and licenses be removed from computers before proper disposal.** This needs to be done to prevent the compromise of sensitive or confidential information or violations of licensing agreements. Procedures for surplus are on OIT's website.

A sample replacement schedule worksheet is attached. If you need help with refresh plans, contact the Customer Support Center or your local support provider.

IV. Support Lifecycle Guidelines (Desktop Hardware & Software)

When support for technology has ended, that technology will no longer be acceptable for use on PacificNet and will not be considered when planning new implementations (ex. Banner, GroupWise, AD). Further, some software may be prohibited from connecting to PacificNet and/or simply may not work. As Units plan refresh schedules, they must be aware of the support lifecycle. OIT and TSP's will evaluate Microsoft and Macintosh operating systems as well as desktop applications (ex. Word, Excel, etc.) for support eligibility. The following will be considered:

- Vendor support or the state of vendor support for the technology.
Pacific's lifecycle will be aligned with the vendor's schedule for support. For example, Pacific will begin plans to end support when or soon after the vendor announces that the software will no longer be eligible for vendor support. Microsoft currently publishes lifecycle schedules for its product on the website, www.microsoft.com/windows/lifecycle.
- Compatibility issues with Pacific's Technology Infrastructure.
Impact of increasing the technology's lifecycle on PacificNet and other centrally supported system will be reviewed. Historical information for support derived from HEAT incident tickets for the products will also be considered.
- Security and Vulnerability.
- Functionality.
The software will be evaluated to ensure it still meets the needs of the Users as well as Pacific's central technology infrastructure. If necessary, OIT and local support may recommend replacing certain technology based on functionality issues.
- New Implementations.
Support for new technology may need to be phased out to support centralized implementations.

Technology vendors usually announce support plans well in advance and OIT regularly meets with vendors to discuss product roadmaps and plans. Based on this and the above considerations, OIT will end support in a manner that will consider Pacific's budget cycle. **Support plans will be announced in July and implemented the following July.** This gives units a 12-month advance notice. Using this notice, units will be able to include plans for refresh in the next year budget cycle. Please note, however, that sometimes OIT and local support may not be able to adhere to the 12 months notification lead time due to compelling need or emergencies (ex. security & functionality issues).

Users may be notified via the following methods:

- OIT Website
- Via Technical Support Providers (TSPs)
- PTUG notifications
- Communication from local support
- Flyers or mailings

V. Upgrading Technology

Microsoft and other vendors regularly upgrade software to completely new versions with increased functionality and features. These version upgrades usually differ from the periodically released patches and/or security updates which must be done soon after the release date to fix problems in the current version of software. However, OIT does not recommend upgrading to completely new versions of software as soon as the vendors release them. OIT and local support will not recommend technology for version upgrade and/or move it to the full support category until:

- The product is out on the market for at least six months and/or the vendor has released the first major service pack
- The product is fully tested in Pacific's technology environment
- Need for training is evaluated and a training plan devised
- User need for upgrade is assessed

Appendix: Sample Refresh Worksheet

Position	Need	Current Hardware	Current Software	Purchased/Warranty	Disposition*	Replacement Schedule/ Fiscal Year			
						05	06	07	08
Front Desk	Basic	P3; 256 MB; 8GB HD	Win 2k SP4; Office 2k	1999/No	Surplus	x			
CSC Student	Basic	P4; 256 MB; 20 GB HD	Win XP SP1; Office XP	2001/2004	Surplus		x		
STS Student	Basic	Same	Same	2003/2006	Surplus			x	
Tech I	Standard	P4; 256 MB; 40 GB HD		2000/2004	Surplus		x		
Tech I	Standard	Same	Same	Same	Surplus	x			
Tech I	Standard								
Tech II	Power	P3; 512 MB; 20 GB HD	Same	2001/2004	Surplus		x		
Coordinator	Power	P3; 512 MB; 30 GB	Win XP SP1; Office XP	2001/2004	Surplus	x			
Manager	Power/Mobile	P4; 512 MB; 20 GB HD	Win XP SP1; Office XP	2001/2004			x		

*Disposition after replacement: Surplus, Upgrade, or Cascade