

Technology Refresh Strategy

Fundamental Strategy

Napa Valley College (NVC) is committed to managing its technology resources in an organized, deliberative, and cost-effective manner.

The following core principles guide this fundamental strategy and are expanded on in greater detail throughout:

- Having current technology is critical to the mission of NVC.
- District technology will follow agreed standards when refreshed.
- A full inventory of technology equipment will be performed annually.
- The replacement cycle for technology at NVC is:
 - Desktop computers = 5 years
 - Laptop computers = 4 years
 - Copiers/Printers = 7 years
 - Special Use items = Case-by-case (per technology type)
- Any warranty for technology equipment will match expected life and replacement cycle defined herein.
- Prioritization of technology refresh will be based on established criteria and finalized in consultation with District Technology Committee.
- Refresh of desktop computers will be staggered and represent no less than 20% and no more than 33% of existing equipment annually.
- An annual timeline for implementation of technology refresh will be followed to coincide with both academic and fiscal year constraints and existing planning cycles.

Reason for Strategic Need

Adequate computer hardware and software are essential to the delivery of information in today's colleges and to the efficient management of those institutions. Further, changes in technology require that a well-managed college have a systematic plan for upgrading and replacing computers, peripherals and other technologies to ensure that it offers access to the most basic services. Additionally, having an equipment replacement strategy in place can assist in allocating available resources and in making the best use of existing resources.

This strategy is intended to outline NVC's technology refreshment plan. Typically, the term "technology" implies any device containing or operated by a computer chip. This strategy applies to all computer and network-related resources of NVC, whether located on the campus or in remote locations or facilities. These resources include, but are not necessarily limited to:

- Desktops, laptops, and services;
- Software running on these devices;
- Peripheral equipment (e.g., printers, scanners, etc.);
- Cabling or connectivity-related devices; and
- Audio-visual equipment, such as projectors.

The mission of IT is to provide information technology tools to stakeholders of NVC, whether faculty, staff or students.

However, NVC must be prudent in integrating new technologies. If adopted too soon, NVC risks compatibility issues with existing internal and external systems, as well as the systems of customers and vendors. Conversely, if NVC fails to adopt new technologies in a timely manner, it runs the risk of having to perform an emergency technology overhaul in order to keep interoperability between its internal systems and those external to NVC.

Finally, as an institution of higher learning, NVC needs to not only have the correct technology tools available for its faculty and staff, but also needs to have the correct technology resources available for its students. Generational expectations for computer access by the vast majority of today's student make any failure in this regards critical in light of NVC's transitional efforts.

For all of these reasons, this strategy has been adopted to address the life-cycle maintenance needs of NVC. The objectives of this strategy are:

- Ensure that all faculty and staff who use technology resources in their positions have access to a computer of sufficient capability to support basic computing needs (e.g., word processing, electronic messaging, Internet access, spreadsheets, etc.) in fulfillment of their work responsibilities;
- Ensure that appropriate computing resources are available in Departmental computing facilities and NVC offices in support of NVC's mission;
- Streamline the specification, acquisition, and deployment of new equipment and re-deployment or disposal of old equipment;

I. Standardization of Technology

At any point in time, NVC gains benefits from maintaining, within reason, the practice of purchasing equipment according to agreed-upon standards. These standards will be utilized in any technology being refreshed. Agreement by a purchaser to accept standard configurations benefits NVC in multiples ways, including:

- Better pricing of components and supplies;
- Reduced administrative overhead;
- More expeditious processing of purchase requests;
- Greater technology support;
- A reduction in maintenance costs; and
- A better ability to train on the new equipment.

Notwithstanding the above, the purchase of non-standard technology components is not prohibited by this strategy. However, such purchases should be minimized as much as reasonably possible. The purchase of non-standard technology components must be justified by the existence of special circumstances that require it. Also, the purchaser of a non-standard technology component must document the source of support for the component before purchase will be approved.

Additional information regarding current standards for various types of technology equipment are defined and hosted on the NVC IT Website. Standards are reviewed annually for currency and appropriateness to the mission of NVC by the District Technology Committee.

II. Annual Inventory Requirement

Continuous advances in software functionality dictate the need for advances in computer hardware. Over time, the hardware system that performed well with one version of software will not support the newest version without an upgrade to memory, hard drive space, or processing power. Eventually computers fall behind to the point they cannot run the software to do the job. For this reason, it is a good practice to know the age of the equipment that supports NVC's mission. The best way to do this is to conduct an inventory of NVC's computer assets that is updated annually. This inventory will serve as a guide for planning on the size of the future maintenance requirements that will need to be borne by NVC.

Accordingly, each year IT will ensure that an accurate inventory of all computer systems within each Department of NVC is conducted. The inventory should note at least the age of the computers and the property control number. However, it is better to also note the type of CPU, amount of memory, size of hard drive, and type of monitor.

III. Refreshment Plan

Realizing that technology plays a critical role in NVC's education outcomes, the following replacement plan will be followed to ensure that computers on campus remain up-to-date.

- a. Standard Office Technology. This category includes all faculty and staff workstations, laptops, and / or tablets, as well classroom computers and computer laboratory equipment. This category also includes all computer peripheral devices, such as a keyboard, mouse, scanner, etc. The computers in this category will generally be configured to run office software, such as word processing and spreadsheets. All workstations will be replaced every five (5) years and laptops every four (4) years.
 - Replacements Out of Cycle. Faculty and staff workstation replacements before this 5-year period are permissible, if either of the following conditions is met:
 - The workstation is *out of warranty and repair is not feasible*; or
 - There is *adequate justification* that the workstation does not meet the requirements for the user's job.
 - Requests for Replacements Out of Cycle. Requests for workstation replacements outside of the five-year refresh cycle must be submitted in writing to the Director of Institutional Technology for approval. These requests should identify the workstation user, as well as the justification for the replacement.

- b. Copiers and Printers. NVC has used both regional printers and single printers in offices to meet faculty and administrative printing needs. However, internal printing within NVC offices has proven to be most economically served using regional printers. Single printers in each office present reliability problems and are the most expensive approach to printing. Regional printers are the most cost-effective method of printing, they provide fast printing, and they are easily maintainable. Therefore, NVC will primarily utilize regional printing solutions when replacing copiers/printers based on evaluation of the need and existing printing options. Copiers and printers have a variety of models which have resulting variance in life-expectancy, but on average should be replaced every seven (7) years based on utilization and printing volume. As always, user requiring high volume printing and security for printed material should rely upon the NVC Print Shop
- c. Special Use Items. Items in this category would include specialized equipment, such as large screen multimedia computers, Internet servers and switches, automation servers, or other unique configurations. The replacement cycle for these items will be evaluated on a distinct basis per technology or equipment type with no set standard replacement period, although a life-cycle of between 5-6 years is generally expected by default. Decisions on whether upgrades (e.g., memory, disk space, etc.) may be more appropriate than replacement will be made by the IT department.

IV. Staggered Refresh

In order to control costs and minimize disruption to NVC's operations, only a portion (no less than 20% and no more than 40%) of the computer inventory will be refreshed every year. Equipment will be replaced based on established prioritization criteria. As a result, there is no need to request new computer equipment unless there are programmatic or personnel changes.

V. Prioritization Criteria

Criteria for identification of technology which will be refreshed in a given fiscal year will be utilized as follows:

- a. Age of the Equipment. The first criteria that will be considered is the age of the equipment. Under this criterion, replacement equipment is determined as a result of the annual inventory that identifies the oldest equipment on campus.
- b. Programmatic Needs. With regard to this criterion, technology resources are allocated based on priority needs. Needs are determined based on the following considerations:
- The technology directly impacts student learning.
 - The number of students and faculty impacted by the technology.
 - The operational status of the technology (i.e. intermittent failure, disabled/defective components, heavy utilization within business area).
 - Program/area termination or inability to operate if technology is not updated.

- Documented changes in technology required for discipline or business area.
- c. Physical Location. As possible, alignment or realignment of technology within a physical space (campus, building, department/business unit) will be considered for ease of installation, ongoing support, and future facilitation of staggered refresh objectives.
- d. Reasonable distribution between Instructional and Non-Instructional areas. Consideration will be given to establishment of a balance between the needs to refresh technology for both instructional areas (i.e. Classrooms, Labs) and non-instructional areas (i.e. Faculty/Staff computers) such that no single segment is excluded in a given refresh year. Distribution is not expected to be equal in any given year based on utilization of all prioritization criteria.
- e. Budget Available. An expectation exists that a minimum percentage of every fiscal year budget will be devoted to refresh of existing technology in alignment with a staggered refresh and defined cycles, but that fluctuations may allow for both increases and decreases in available District budgetary funding. Consideration of priority will be based on current fiscal year funding as well as future funding including any known alternative funding sources where appropriate.
- f. Alternative Technology Solutions. At the time of refresh, consideration will be given to alternative technology utilization within an area based on changing needs or newly developed industry or technology solutions. Consultation will be required between the department/business area and IT prior to any recommendations or considerations impacting the refresh of existing technology.

V. Functional Realignment of Computers

The diverse system requirements of technological resources in a campus environment may allow for a gradual shifting of equipment from one function to another, using more powerful computers in higher technological environments and older computers in more limited environments. In this manner the lifespan of a computer can be increased through intelligent use of its available resources. Each computer at NVC will be evaluated on a yearly basis with regard to its ability to process the information resources being made available through it. As new computers are purchased, the older computers will be moved to more limited use areas or applications. However, only those desktop systems that are able to run the current operating system and software suite supported by NVC will be eligible for continued deployment across the campus.

VI. Refresh Timelines

In accordance with this refresh strategy, the estimated refresh timeline is as follows:

- a. February – March
 - Conduct technology inventory of all departments and personnel including computer laboratories and classrooms;

- Build proposed equipment refresh list based upon the current inventory using prioritization criteria;
 - Proposed list will be reviewed by District Technology Committee and adjusted based on feedback, as necessary;
 - Obtain Department budget account number for any additional equipment outside of standard configurations;
 - Annual refresh list finalized by March 15th.
- b. April - May
- Order and receive new computers;
 - Contact faculty and staff to develop upgrade schedule; and
- c. May - June
- Refresh computers.

VII. Hardware Acquisition

Information regarding the technology procurement process for various types of technology equipment are outlined and hosted on the NVC IT Website.

VIII. Theft, Loss, Failure or Breakage

In the event a computer or other piece of technical equipment is stolen, lost or broken, the following guidelines shall be followed separately from the normal technology refresh process:

- a. Theft. Where a computer or any other technology resource has been stolen, all employees are to immediately contact the NVC Police Department at (707) 256-7770. After filing an incident report, notify IT of the theft by calling (707) 256-7550. When theft of equipment has occurred without any established negligence, the District will be responsible for funding the replacement cost of the computer.
- b. Loss. In the event a computer or other technology resource is lost by an NVC employee, IT should be contacted immediately at (707) 256-7550. Additionally, the NVC Police Department will be notified so that an incident report can be completed. Where a loss of equipment has occurred, the Department will be responsible for funding the replacement cost of the computer.
- c. Failure. In the event a computer or other technology resource fails to operate as reasonably expected, a trouble ticket should be submitted to IT via and email to support@napavalley.edu. Upon examination of the issue, IT will make a recommendation based on replacement needs.

- d. Breakage. In the event a computer or technology resources fails because it has been broken in some fashion (e.g., dropped, liquid spills, etc.), the Department will be responsible for funding the replacement cost of the computer beyond any existing warranty coverage.

IX. Disposal

NVC will not invest funds to upgrade systems that do not meet the base criteria for deployment on campus. Instead, NVC will dispose of this equipment in a manner consistent with State of California environmental requirements.

- a. Approval. The transfer / disposal of all electronic materials that store data must be signed by the Director of Institutional Technology and the Director of Facilities. These devices include computers, external data storage and backup devices, copiers that have data storage capability, and any other devices that store electronic data.
- IT shall coordinate the transfer / disposal of all electronic materials owned by NVC.
- b. Disposal of Equipment with Data Storage. The following procedures shall guide the disposal of equipment with data storage capabilities:
- IT will pick up all equipment for preparation;
 - IT will remove all NVC identification tags;
 - IT will remove storage media from electronic devices;
 - Hard drives must be removed and rendered unreadable (e.g., through drilling, crushing or other demolition methods);
 - IT will send the electronic drives to Facilities Services;
 - IT will send the equipment designated as “electronic scrap” to Facilities Services, who will send the equipment to the appropriate Electronic Distribution Center for destruction; and
 - Landfills and other non-approved disposal centers shall not be used for equipment disposal.
- c. Disposal of Equipment without Data Storage. The following procedures shall guide the disposal of equipment without data storage capabilities:
- IT will pick up all equipment for preparation;
 - IT will remove all NVC identifications tags;

- This equipment may be disposed of by any of the following methods:
 - Transferring it to surplus (Facilities Services); or
 - Redistributing it to an eligible local government entity or a non-profit organization.
- IT Services will send the equipment designated as “scrap” to Facilities Services, who will send the equipment for disposal; and
- Landfills and other non-approved disposal centers shall not be used for equipment disposal.