Total Cost of Ownership Assessment – Technology Resources

Technology Refresh Planning

January 27, 2025

(Subject to Review/ Adoption by District Technology Committee)

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Introduction

The effective planning for, and management of Napa Valley Community College District's Institutional Technology (IT) resources is integral to its ability to achieve its mission and to support academic quality and institutional effectiveness.

This document provides a basis for the assessment of technology costs, with a Total Cost of Ownership ("TCO") assessment of technology equipment and support. The information provided by the TCO subsequently informs the District's Technology Refresh Program.

The TCO assessment and Technology Refresh Program will assist the District to achieve the following:

1. Assure that technology resources support courses, programs, and learning support services, and maintained to assure access, security, and supportive of an effective learning and working environment.
2. Provide a vehicle for the assessment of technology assets and a methodology for the request of resources through the established budget process.
3. Update the TCO assessment instrument to reflect the regular evaluation of technology resources, taking utilization, age of equipment and other relevant data into account; and
4. Use the TCO assessment to inform capital plans that support institutional improvement goals and reflect projections of the TCO of new equipment.

Background

Napa Valley Community College District's Institutional Technology (IT) Services provides operational support for the District's technology assets including hardware and enterprise systems that support instruction, student support, and administrative functions.

In support of Napa Valley Community College District's ("District") Mission, these services support more than 9,000 student enrollments at the main campus located in Napa, CA, in addition students enrolled in dual enrollment programs. Limited support is also provided to the District's satellite campus, Upper Valley Campus located in St. Helena, CA.

The District has undertaken a TCO assessment to support the planning, management, development, and long-term operating costs for its technology assets. A TCO assessment process includes documenting and assessing all costs associated with technology services for the District. The TCO, in its current phase, includes an inventory of all computer assets, their location, and time in service. When completed the TCO will include IT-related equipment and the costs of staffing and related operating costs. Importantly, the costs of technology assets from initial purchase and deployment, through operation and refurbishment to final replacement and disposal are an integral part of this assessment.

Definitions

Total Cost of Ownership ("TCO")/Life-Cycle Cost Management

A comprehensive approach to maximizing return on investment of managed physical assets that includes the summation of all known and estimated costs to include first, recurring, renewal/replacement, and end-of-useful life costs revised at critical decision points to aid in life-cycle asset management decisions.

Technology Refresh Planning

A plan, informed by a TCO assessment, which prescribes replacement cycles for technology-related assets.

Refreshing technology assets at the college ensures that systems that support teaching, learning, administrative functions, and system security are current and provide adequate support for all college functions. A TCO analysis of IT assets provides the necessary information to recommend updates and replacement of IT assets to ensure that the Mission of the District can be fulfilled.

Total Cost of Ownership Assessment

Purpose

The District's development of a Total Cost of Ownership ("TCO") Assessment seeks to formalize and integrate various technology related information and costs. The TCO Assessment provides the following benefits to the District:

- Offers a structured approach to managing the District's assets.
- Promotes the District's understanding of the full costs associated with assets, allowing for better allocation of financial and operational resources.
- Facilitates a comprehensive understanding of long-term financial implications of IT investments, enabling informed decision-making and planning.
- Aids in short- and long-term financial planning, budgeting, and identification of future capital planning needs.
- Identifies long-term funding needs and sources to support a structured replacement program.
- Encourages a proactive rather than reactive approach to IT resource planning.

Assessment Methodology

The analysis, when fully implemented, will provide TCO information for technology-related costs. These include the cost of staffing and professional support to assets currently owned or leased by the District.

The methodology utilized to complete the TCO includes the following:

- Phase I – Inventory and record all computing-related assets currently owned, operated, and supported by the District. Completed.
- Phase II – Inventory and record all infrastructure assets owned and operated by the District. These items include servers, switches, and related infrastructure components. Projected Completion – March 2025.
- Phase III – An updated record of other technology-related assets including audio-visual ("A/V") equipment and classroom instructional tools. Initial assessment of A/V equipment completed. Other classroom assets inventory completed March 2025.

<u>Maintaining the TCO Assessment Tool</u>

The TCO assessment will be compiled and updated regularly into the summary IT TCO spreadsheet (see Appendix A) utilizing the following guidance:

- The acquisition of technology-related assets will be entered into TCO instrument when technology assets are put into service.
- The Chief Technology Officer will provide an annual update to the District's Technology Committee. The update will include data on the reasonable service life of IT assets in addition to any updated costs associated with the TCO assessment tool.
- The District's Technology Committee will review the TCO not less than once each year and recommend any changes, as necessary.

Technology Refresh Planning

Background

The purchase and replacement of technology-related assets, including computers, servers, switches, and A/V equipment across the district has been inconsistent over the years. In the absence of a well-articulated and communicated refresh plan has resulted in inconsistent practices and methods for accounting for technology resources. For example, budget centers have resorted to funding technology purchases with one-time dollars, others have used on-going resources, and some having relied on department funds or grant dollars to address technology needs.

Funding inconsistencies, and the lack of assessment and planning activities have resulted in significant numbers of computers, printers, and related support equipment to be in use beyond their expected service life.

Goals of the Technology Refresh Planning

- Centralize resource and financial planning and forecast funding requirements to implement a replacement cycle for computers, technology infrastructure components, and A/V equipment.
- Assure that appropriate computing and/or A/V resources are available in department/division facilities, classrooms, and offices to support the Mission of the District.
- Implement the minimum standards for computing and A/V equipment on campus. The standard for the classroom is developed by the Distance Education Technology Committee (see Appendix C).
- Assure that each faculty and staff member who uses computing resources has a computer of sufficient capability to fulfill their job-related duties.
- Provide for the cost effective and timely purchasing and installation of new equipment while decreasing deployment time.
- Maintain a currently supported operating system from Microsoft or Apple.

Standard Refresh

- Office computers recommended to be replaced every five years, based on the TCO assessment, information security standards, warranty support from manufacturers and available funding. Requests for upgrades from faculty and administrative department leadership should be made through the annual budget process.
- The cost for a replacement computer is funded at the District level and is managed by IT. This approach eliminates the need for individual cost centers and/or departments to bear the cost of replacements for standard desktop and laptop computers. Consolidating the District's purchasing power allows the District to save money and deliver better quality devices at the best available pricing.

- One computer will be provided to all regular employees where routine computer use is required by their job description.
- Departments may request additional computers for needs that fall outside the regular employee policy outlined above (e.g., short-term staff, testing, etc.). Depending on the purpose of these machines, computers that are three or more years old may be used and will not be considered part of the normal replacement cycle.
- Upon replacement, IT will remove the previously deployed computer(s).
- With the exception of executive offices that require the need for confidential printing, desktop printers will no longer be provided unless there is no networked printer available in the requesting department. If one is needed, it will be provided from the existing inventory of printers.

Standardization

The District currently supports specific makes and models of computers, with Windows computers being the standard. These systems were selected to allow diversity in brands and operating systems yet provide enough similarities that adequate support can be maintained. Standardization also reduces cost significantly through bulk purchasing discounts and vendor agreements.

New Employees

A computer/device required to meet the job responsibilities of a new employee will be provided only if a full-time faculty and/or staff member has been hired for a newly established position. The IT budget will cover a standard configuration computer and accessories for these positions, if required. Thereafter, replacement will fall under the District's technology refresh budget.

Special Needs

IT will assess and recommend requests for above standard needs (e.g., larger displays and/or dual monitors for those who regularly work on two documents simultaneously, and for Human-Resources approved ADA/CFRA/ergonomic accommodations). If additional computers or special peripherals or software are needed, the funds will be furnished through departmental or grant funds (as determined by the departmental vice president). IT will assist by obtaining vendor quotes through the Purchasing Department and will assist in configuring machines. These computers and peripherals will not be included in the technology refresh cycle.

Note: The user's department is responsible for the purchase of additional batteries, additional monitors, accessories, or upgrades (processor, memory, storage) beyond the standard provided configuration. Peripheral devices (docking station, monitors, keyboard, etc.) typically have a longer life span compared to computers. Refresh of these devices will be determined concurrently with the refresh of the computer.

Requests for Apple equipment will require justification as to why this more expensive equipment is necessary to perform their essential job functions. A personal preference for Apple equipment is not a sufficient justification.

Recommended Replacement Cycles

To implement a successful equipment replacement cycle, all academic computer labs are categorized in one of two tiers. This tiered approach is based upon specialized equipment needs required to run discipline-specific software. A listing of computer labs and their tier can be found in Appendix A.

Type 1 Lab Criteria
This type of lab runs discipline specific software that requires higher-end hardware for proper software usage. Recommended refresh cycles are every 4 years.

Type 2 Lab Criteria
This type of lab runs basic applications which do not require upgraded hardware specifications. Recommended refresh cycles are every 5 years.

Classroom Instructor Stations
Computers used by instructors in classrooms are recommended for replacement every 5 years except for Type 1 Labs which will be replaced every 4 years.

Multimedia (A/V) Equipment
Multimedia equipment in classrooms includes, but not limited to, projectors, projector screens, document cameras, and media controllers. The average lifespan of this equipment is 8 to 10 years.

Faculty and Staff Computers
The refresh cycle for faculty and staff is every 5 years. Requests for earlier replacement, based upon department need, can be made through the Program Review cycle, and included in the annual budget process.

Student Lab and Adjunct Lab Areas
Student computer labs and adjunct faculty lab areas follow the same criteria as the Tier 2 Academic Computer Labs. These labs are on a 4 to 6-year refresh cycle and may be the recipient of replaced computers from other areas of the college.

Telephones
The telephones are replaced every 6+ years depending on licensing requirements and compatibility with current VoIP architecture.

Network Equipment
Network equipment is technology that provides the foundation for day-to-day operations, internet access, and relevant security. This technology encompasses firewalls, core routers, endpoint switches, wireless network and controllers, and appropriate power supplies/batteries. Refresh cycle for this equipment is every 5 to 8 years unless recommended otherwise by the manufacturer. As this equipment is critical to the consistent and secure processing of information should be refreshed prior to the manufacturer's end-of-support date or COD risks possible unscheduled downtime and security breaches.

Currently the main campus has a 10 Gbps internet connection provided through CENIC. Necessary hardware

was upgraded to support these speeds. It will be necessary to replace core networking infrastructure if the District decides to increase our internet access to speeds greater than 10 Gbps.

Production Servers

The server configuration incorporates both physical and virtual servers creating a hybrid operating environment. This hybrid environment allows the District to rapidly respond to ongoing and changing needs of students, faculty, and staff. Physical servers are placed on a 4–6-year refresh cycle considering manufacturer end-of-life and available production warranties.

Conference Rooms

The replacement of computers in conference rooms are recommended for replacement every 5 years. A/V equipment replacement recommended every 8 to 10 years. Technology used in conference rooms will be included in the TCO analysis and reflected in the Technology Refresh Plan with a recommendation for funding by the District's Technology Committee.

Recommended Replacement Cycles

Equipment	**Recommended Replacement Cycle**	**Budget Support – Annual Budget Process/ Local Budget**
Lab Desktop Computers – Tier I	4 Years	Annual Budget Process
Lab Desktop Computers – Tier II	5 Years	Annual Budget Process
Student Lab/ Adjunct Lab Spaces	4-6 years	Annual Budget Process
Faculty/Staff Desktop/ Instructor Stations/Laptop Computers	5 Years	Annual Budget Process
Servers/Blades/Network Equip.	4 Years	Annual Budget Process
Mouse/Keyboard	As Needed	Local Budget
Video Card with Dual Monitor Capability	8 Years	Local Budget
Video Card without Dual Monitor Capability	Replace with Dual Monitor Capability	Local Budget
CRT and other Monitors	Replace with Flat Panel Monitors w/Dual Monitor Capability	Local Budget
Network Capable Printers	7 Years	Annual Budget Process
Non-network Capable Printers	Replace with Network Capable Printers	Local Budget
Student Tablet	2.5 Years or at end of Operation System Useful Life	Annual Budget Process/Local Budget

Faculty/Staff Tablet	2.5 Years or at end of Operation System Useful Life	Annual Budget Process/Local Budget
Multi-Media (A/V) Equipment	6-8 years	Annual Budget Process
Telephones	8-10 years	Annual Budget Process

Current Conditions – Establishing Funding Priorities

The current condition of technology assets at the District suggests that the refresh/replacement of existing assets deemed necessary through the TCO assessment schedule, and the A/V condition reports may not be possible with the level of available resources anticipated. Therefore, the District's Technology Committee will adopt a multi-year funding approach to funding those needs considered of highest and immediate need.

Establishing Highest and Immediate Needs

The following information will be utilized to establish immediate needs:

- By utilizing the TCO assessment for desktop replacements and network servers and switches
- Through the development of a prioritized list of A/V needs by the Deans Council, under the direction of the Vice President of Academic Affairs
- With supporting information/recommendations from the District's technology staff

Priority Guidance for the Refresh of Computers and Related Equipment

- Purchases of computers and support equipment which, if not addressed, represent a security threat to the District's technology systems. These can include older desktop computers, network servers, and switches.
- Computers and related equipment necessary to meet the pedagogical needs of specific programs.
- Those desktop computers that do not support faculty and staff in meeting the minimum requirements of their position.

Priority Guidance for the Refresh of A/V and Related Equipment

- Classroom equipment that is nonoperational
- Classroom equipment that is minimally effective
- Conference room equipment that is nonoperational
- Conference room equipment that is minimally effective

Funding Sources

The District receives funding from several sources to meet its instructional and operational needs. In meeting these needs, the College will consider all sources of funding to maintain technology replacement and refresh needs as appropriate. The following funding sources can contribute to supporting these ongoing needs:

- Unrestricted General Fund – Funds used at the discretion of the District (unrestricted)

- Instructional Equipment/Scheduled Maintenance Funding – Annual allocation from the State (restricted)
- Categorical Funding – Annual allocation from the State to address specific programs and/or student outcomes (restricted)
- Grant Funding (Public and Private) – Funds provided to the District to address specific issues, student populations, and/or student outcomes (restricted)

Appendix A
Total Cost of Ownership – Summary Data

Summary of IT TCO Data - February 2025							
Classroom and Computer Lab Devices Summary TCO							
	>5 Yrs.	4-5 Yrs.	3-4 Yrs.	2-3 Yrs.	1-2 Yrs.	0-1 Yrs.	
							Totals
Type I Lab	17						17
Type II Lab	118						118
Adjunct Lab	28						28
Student Lab	20			63	179	16	278
Hybrid	157						157
Classrooms	297						297
Laptop Carts	33				7		40
Offices	164	97	138	72	20	3	494
Student Tablets	6				38		44
Totals	840	97	138	135	244	19	1,473

	2024-2025 Fiscal Year	**2025-2026 Fiscal Year**	**2026-2027 Fiscal Year**	**2027-2028 Fiscal Year**
Classroom Refresh - Recommended	See Appendix A			
Conference & Public Spaces	TBD	TBD	TBD	TBD
Replace Components (e.g. projectors)	See Appendix A			
Network Capable Printers				
	2024-2025 Fiscal Year	**2025-2026 Fiscal Year**	**2026-2027 Fiscal Year**	**2027-2028 Fiscal Year**
	TBD	TBD	TBD	TBD
Servers/ Blades/ Network Equip.				
	2024-2025 Fiscal Year	**2025-2026 Fiscal Year**	**2026-2027 Fiscal Year**	**2027-2028 Fiscal Year**
Servers/ Blades/ Network Equip.	TBD	TBD	TBD	TBD
Switches	TBD	TBD	TBD	TBD
Other Equip.	TBD	TBD	TBD	TBD
Telephones				
	2024-2025 Fiscal Year	**2025-2026 Fiscal Year**	**2026-2027 Fiscal Year**	**2027-2028 Fiscal Year**
	TBD	TBD	TBD	TBD

Appendix B
Prioritized Audio-Visual Upgrades

Prioritized Classrooms that Require Upgrading

Priority	Classroom Number	Comments
1	Room 838	Oldest equipment; high frequency of use.
2	Room 145	High relevance of classes, most used music classroom in the PAC.
3	Room 1204	Located next to the Little Theater
4	Room 1763 A	Most used conference room on campus and needs zoom capabilities.
5	Room 1230 Theater	Needs urgent fix for lighting, water leaks, audio control and cabling.
6	Room 1231	Still using old Dell projector system, needs total upgrade.
7	Student Activity C	Most populated area by students and evening events.
8	Welding Lab	Welding lab has old equipment in both classrooms
9	Room 1332	Classified lounge. When in working order, it becomes the second community room.
10	Room 2220	One of the portable classrooms. Needs everything.
11	Room 2230	One of the portable classrooms. Needs everything.
12	Room 2240	One of the portable classrooms. Needs everything.
13	Room 2210	One of the portable classrooms. Needs everything.
14	Room 603 A	Dance studio classroom in the gym needs new audio system
15	Room 603 B	Dance studio classroom B in the gym needs new audio system
16	Room 1770	Room with multiple computers at end of second floor library needs new AV equipment
17	Room 1772	Computer Lab and classroom in known as Island classroom
18	Room 1633	Needs new AV equipment
19	Room 1631	Partial upgrade needs to be completed
20	Room 1769	Speech Lab needs to be revamped

Prioritized by the Dean's Council in January 2025

Appendix C
Minimum Classroom Technology Standards

The purpose of establishing classroom technology standards is to similarly equip classrooms across the district to facilitate, ease, and assist with the familiarization of our equipment for the faculty to bring the same high quality and educational experience for students wherever they instruct. Standardization assists with the maintenance cost as the Total Cost of Ownership (TCO) of these systems is greatly reduced. These standards allow the College to facilitate the efficient delivery of technology services to support instruction and annually plan for and budget technology upgrades. Additionally, support staff more effectively service all classrooms when they are dealing with similar equipment. With this proactive, holistic approach to classroom technology support and development, faculty, staff, and students know what to expect when they enter a classroom.

Minimum Classroom Standard

This section sets the standard for the minimum technology requirement for every classroom college wide. The current classroom standard includes:

- Audio-visual control system
- Projector and screen
- Desktop computer with microphone, web cam, speakers, and recent operating system
- Integrated voice amplification for lectures where necessary
- Input for laptop computer (for all ports)
- Media player (Blu-Ray)
- Document camera
- Wired and wireless network access

Classroom temperatures should be maintained between 68 degrees and 75 degrees for optimal computer maintenance and use.
Due to rapid changes in technology, it is recommended that the classroom equipment standards be reviewed and updated annually in consultation with technology-related committees and workgroups to ensure the college is keeping pace with the rate of change in educational and classroom technologies.

Multimedia (AV) Equipment

The multimedia equipment for classroom systems includes, but not limited to, projectors, projector screens, document cameras, and media controllers. They average a lifespan of 8-10 years with upgrades to certain A/V components as technology changes or equipment wears out.

Wi-Fi

Students and faculty depend on a functional wireless network to ensure the effective delivery of instruction and student success in competing assignments. The campus wireless network should be accessible from all instructional classrooms, library and all academic, administrative, student life, athletic, lounges and dining areas. All instructional spaces should be prioritized for Wi-Fi

access and updates.

Basic Computer Labs

This type of computer lab has a station for every student that runs basic applications which do not require running the latest hardware specifications. All computers should include audio and visual capabilities. These labs are on a 5-year refresh cycle which parallels the maintenance/warranty program. Lab computers, software, and equipment must be updated and serviced by Flex Day or three (3) working days before the start of the semester.

Inventory of Basic Computer Labs

Room Number	**# of computers, including instructor**
1761	25
1760	60
1436	41
1432	51
1430	26
841	14
834	41

Computers used by instructors in academic computer labs will be replaced the same time that the student computers in the lab are replaced (every 5 years). Instructor station computers should include audio and visual capabilities.

Specialized Computer Labs

This type of computer lab has a station for every student that runs discipline specific software that requires higher-end hardware for proper software usage. All computers should include audio and visual capabilities. These labs are on a 4-year refresh cycle. Replaced computers can be cycled to Basic Computer Labs. Lab computers, software, and equipment must be updated and serviced by Flex Day or three (3) working days before the start of the semester.

Inventory of Specialized Computer Labs

Room Number	**# of computers, including instructor**
3950	19
3901 and 3902	32
3705	19
145	21

Specialized Computer/Technology Classrooms

NVC has several degree and certificate programs that require specialized computer equipment to support course learning outcomes. The following classrooms have technology beyond the minimum classroom standard.

Inventory of Specialized Computer/Technology Classrooms

Room Number	**Equipment**
3706	1 Mac desktop computer
3716	2 Mac desktop computers
3705, 3706, 3950, 3716	Laser projectors with minimum 4K output and accurate color reproduction
147	Digital audio mixer; lighting control system; high-end speaker systems
145	13 Mac desktop computers; high-end speaker systems; ceiling mounted document camera
142	5.1 surround sound system speakers, processing, and amplifiers; high resolution video projector; high gain projection screen
137	High-end speaker systems; 1 Mac desktop computer

Performing Arts Center Theatres

The PAC Main Stage (Room 148) and Studio Theater (Room 133) provides a teaching space for students learning theatre production skills. See Table 1 for a list of equipment.

Library Computer Lab (1700 Building)

60 computers are available on the first floor of the library for student use. Additionally, there are 11 group study rooms for collaboration. 3 rooms have computers and wall monitors. 2 rooms have wall monitors and connections for laptops. These computers are on a 5-year refresh cycle. All study rooms should be equipped with technology.

Academic Support

Writing Success Center (Room 832)

The Napa Valley College Writing Success Center provides in-person and online writing tutoring sessions and workshops to support student success in all disciplines. A laptop cart with 14 computers and 2 desktop computers are available for student use. These computers are on a 5-year refresh cycle. The center utilizes a wall mounted computer monitor for small workshops and has requested 2 additional monitors for larger workshops.

Math Success Center (Room 839)

The Math Success Center utilizes computers for in-person and online tutoring. There are 11 student computers, 2 workstation computers, and two tablets available. These computers and devices are on a 5-year refresh cycle. The center uses a large TV screen to monitor students requesting online tutoring.

Speech Lab (Room 1769)
The Speech Lab is a dedicated space for students to record, rehearse, and receive assistance with the production of high quality, multi-media projects. Faculty and other educators also utilize the space to record instructional videos and e-Lessons. The Speech Lab has the following equipment: computer, projector, screen, video camera, speakers, and flatscreen television.

Puente Dream Center (Room 841)
The Puente Dream Center provides a critical space of belonging for students involved in the Puente learning community and the Dream Center. The center has 2 staff computers and 4 student computers on a 5-year refresh cycle.

Laptop Carts for Classroom Use
Laptops in carts run basic applications which do not require running the latest hardware specifications. All laptops in carts should include wireless network access in addition to audio and visual capabilities. Laptop carts are on a 5-year refresh cycle.

Inventory of Laptop Carts

Building Number	**# of computers**
1700	100
1600	35
1400	35

Faculty and Instructional Staff Computers
The refresh cycle for faculty and instructional staff computers in offices is every 5-years which parallels the maintenance/warranty cycle. All faculty and instructional staff computers in offices should include audio and visual capabilities. All full-time faculty and instructional staff will be provided one ITS funded computer. All other computers must be purchased using Department or Grant funding.

Laptop/Hotspot Loaner Program
Laptops in the loaner program run basic applications which do not require running the latest hardware specifications. All laptops in the loaner program should include wireless network access in addition to audio and visual capabilities. Laptops in the loaner program are on a 5-year refresh cycle. The District currently has approximately 150 laptops and 180 hotspots available for checkout per semester in the loaner program.

Telephones
Telephones are replaced every 6+ years depending on licensing requirements as well as compatibility with current Voice-Over-IP technology.

Network Equipment
Network equipment is technology that provides the foundation for day-to-day operations, internet access, and relevant security in classrooms. This technology encompasses firewalls, core routers,

endpoint switches, wireless network and controllers, and appropriate power supplies/batteries. Refresh cycle for this equipment is every 5 to 8 years unless recommended otherwise by the manufacturer.

Necessary IT Support Infrastructure

Central Information Access Hub: A centralized information access hub (25Live, for example) is needed for teachers and staff to check the technology status of classrooms, gathering/event spaces, and offices. This should include support request links and contact information for support personnel. The classroom status tracker should flag work under construction and estimated dates of completion, as well as an area for teachers and staff to input issues as they arise.

Technology Handbooks: Each classroom should have a physical Technology Handbook to assist instructors during an Internet outage.

Classroom Technology Master List: The College should produce and publicize a classroom master list with descriptions of the technology that is available in each room, including integration capabilities with peripheral technology. Reference guides should be available for each make and model of equipment.

Inventories: The College should publicize a running inventory for all classroom technology equipment available for checkout and the process to request borrowing, including peripheral technology such as Meeting Owl devices, voice amplification systems, and external media systems that can be delivered via cart.

A student loaner equipment inventory should also be available to assist faculty and staff when making recommendations to students.

Campus Wi-Fi Signal Map: The College should produce a map to inform campus areas where teachers and students can expect to maintain usable wireless internet connectivity, including range, and strength gradients.

Technology Support Staff List: A technology support staff list with contact information should outline positions and areas of support (IT, DE, or Facilities), identifying all types of requests categorically that would fall under those positions or areas, steps to resolve issues, and standardized response times.

Communications

Communication and transparency regarding the delivery of technology services is essential for ensuring a high-level of quality instruction. The Institutional Technology Department is tasked in providing timely responses to needs regarding technology-enhanced classrooms, labs, and distance learning classrooms. Classroom support includes training on system controls, communications addressing technical or equipment issues, routine preventive maintenance of equipment, and equipment replacement and repair. The IT Department maintains a website with

how-to-guides to aid faculty and staff in utilizing instructional equipment and software. The IT Helpdesk strives to respond to classroom support requests the same business day that they are received; and prioritizes classroom technology issues with wide-spread impact on student learning. In those cases where an issue cannot be resolved as quickly, the IT Department will communicate with all instructors assigned to the affected classroom. District-wide system outages should be communicated quickly to all staff using whatever methods are available, including social media.

Software Standards

Minimum software standards ensure faculty and instructional support specialists can teach effectively in multiple modalities. Faculty expect the District to continuously renew the following software licenses as these tools are necessary for promoting equity, accessibility, and academic integrity at the college.

Current Instructional Software Assets

Software Asset	**Funding Source**	**Length of Current License**
Microsoft 365	IT Department	
Adobe Suite	IT Department	July 31, 2023
Adobe Creative Cloud	IT Department	December 2023
Turnitin.com	Academic Affairs	July 31, 2024
Canvas Studio	Academic Affairs	June 30, 2024
Dragon Naturally Speaking	Academic Affairs	August 1, 2023
Zoom	Chancellor's Office	No end date at this time
WCOnline	Academic Affairs	June 30, 2024
Net Tutor	Academic Affairs	June 30, 2023
Proctorio	Academic Affairs	
Timekeeper	IT Department	
PopeTech	Chancellor's office	on-going
Respondus (or replacement)	IT Department	
Starfish	Student Affairs	December 1, 2024

Objectives and Recommendations for Improvement

Objective: Provide all students with equitable access to the computing technologies needed for successful engagement in instructional activities.

- Recommend the College increase the number of basic computer labs, laptop carts, loaner laptops, and hotspots.
- Recommend the College expand Wi-Fi access to include all areas of the college.
- Recommend the College equip all library study rooms with computers or laptop connections and wall monitors.
- Recommend the College increase wall monitors and laptops in the Writing Success Center to facilitate larger workshops.
- Recommend the College install a digital white board in the Speech Lab and update all equipment.
- Recommend the College install a document camera and purchase an iPad for online tutoring in the Math Success Center.

Objective: Develop or enhance communication protocols regarding the consistent and timely delivery of technology support services to ensure high quality instruction

- Recommend the College use 25Live for a transparent inventory of classroom technology and a reporting tool for classroom technology issues.

Objective: Support teaching excellence and student success by regularly assessing, implementing, and promoting the use of emerging technologies.

- Recommend the current classroom standard includes a white board on every wall to aid in multimodal instruction.
- Recommend the College increase the number of classrooms with built-in Blended Learning/Hyflex capabilities.
- Recommend the College increase the number of Meeting Owl Pro (360-degree camera, mic, and speaker) devices to utilize standardized classrooms for Blending Learning/Hyflex teaching.

Objective: Continue to invest in technologies and develop processes for information security enhancements.

- Recommend the College provide one (1) IT-funded laptop per faculty member, replaced every 5 years.

Table 1
Performing Arts Center Theatres

Room	Equipment to be Maintained	Departments to Use Equipment
148 - Main Stage	Digital Audio Mixer	Theater, Music, and Film Studies
	Multi-Input Patch Bay	
	High Performance PC Desktop Computers (2)	

	High Performance Mac Desktop Computer (1)	
	4k UHD Video Camera	
	HD Video Cameras	
	HDMI Video Switcher	
	Digital Wireless Microphone Systems	
	Wireless Intercom System	
	Wired Intercom System	
	Digital Media Control Systems	
	Digital Media Network Systems	
	Digital Signal Processor - Audio System	
	Multi-Media Signal Processor	
	Amplifiers - Audio System	
	High End Speaker Systems	
	Video Monitoring System	
	Digital Lighting Control System	
	Digital Lighting Network	
	Digital Audio Network	
	High Lumens, High-Definition Projectors	
	4k UHD Computer Monitors	
	Large Format TV Monitors	
	High Gain Projection Screen	
	Various Microphones for Live Sound and Recording	
	Handheld Recording Devices	
	Studio Quality Headphones	
	Studio Quality Speaker Monitors	
	Portable Live Sound Reinforcement Audio Systems	
	Multi-Channel USB Audio Interfaces	
	Multimedia Playback Software	

133	Digital Audio Mixer	Theater, Music, and Film Studies
	Multi-Input Patch Bay	
	High Performance PC Desktop Computer (1)	
	High Performance Mac Desktop Computer (1)	
	Digital Wireless Microphone Systems	
	Wired Intercom System	
	Digital Media Control Systems	
	Digital Signal Processor - Audio System	

Amplifiers - Audio System	
High End Speaker Systems	
Video Monitoring System	
Digital Lighting Control System	
Digital Lighting Network	
Digital Audio Network	
High Lumens, High-Definition Projectors	
High Gain Projection Screen	
Multi-Channel USB Audio Interfaces	
Multimedia Playback Software	

District Technology Committee – DRAFT Budget Request 2025-2026

Technology Refresh Plan Budget Proposal & Request
This document has been prepared and endorsed by Napa Valley College District's Technology Committee for consideration by the Napa Valley College District's Budget Committee.

Introduction

Napa Valley Community College District ("District") is committed to managing its technology resources in an organized, deliberative, and cost-effective manner. The ongoing maintenance and sustainment of computers, related devices, and audio-visual ("A/V") assets to support our faculty, staff, and students are essential to advancing District's Mission and its Educational Master Plan.

Over the past few years, the quality and usefulness of the District's technology fleet has diminished due to several factors, most notably, the reduced acquisition of new computers and A/V equipment. Colleges and universities will typically maintain a refresh rate for computers of every 4 to 5 years. Other instructional technology devices like projectors and A/V equipment will typically maintain a refresh rate of 7 to 8 years. As presented in this document, data shows that the District has not sustained a refresh cycle that keeps pace with our replacement needs, industry standards and in some cases the support of instructional pedagogy.

In the last Accreditation cycle, the District received a 'recommendation' regarding the age and usefulness of its technology assets including A/V technology. The ACCJC found that the District had not developed adequate assessment tools, in the form of TCO methods which would inform technology refresh planning.

In response, the Institutional Technology Services, in collaboration with the District's Technology Committee, have developed a Total Cost of Ownership ("TCO") and a Technology Refresh Plan that informs future planning and budget development. The included funding request is reflective of these planning efforts.

Fleet Condition (Classrooms and Computer Labs) Table 1

The District currently maintains approximately 1,870 computers and devices for student use within our classrooms and computer labs.

Assuming a 5-year replacement cycle, Table 1 provides a projection of costs.

Table 1
Classroom Computer Lab Devices by Age

	5 Yrs. Plus (in units)	3-4 Yrs. (in Units)	2-3 Yrs. (in units)	1-2 Yrs. (in Units)
Type 1 Labs	17	0	0	0
Type 2 Labs	118	0	0	0
Type 1 Computers - Projected Unit Replacement Cost	$ 2,100	$ 2,162	$ 2,228	$ 2,295
Type 2 Projected Replacement Cost	$ 1,400	$ 1,442	$ 1,485	$ 1,530
Type 1 Replacement – Total Annual Cost	$ 35,700	$ 0	$ 0	$ 0
Type 2 Replacement – Total Annual Cost	$ 165,200	$ 0	$ 0	$ 0

Fleet Devices (Faculty and Staff) Table 2

The District currently maintains approximately 1,005 computers and devices for use by faculty and staff. These computers and devices are critical to ensure our faculty and staff can perform the duties for which they are assigned.

Table 2
Fleet Devices by Age/ Replacement Cost

	5 Yrs Plus	3-4 Yrs.	2-3 Yrs.	1-2 Yrs.
	509	97	135	199
Projected Unit Replacement Cost	$ 1,400	$1,442	$1,485	$1,530
Projected Replacement Cost/ Five-Year Cycle	$ 712,600	$ 139,874	$ 200,475	$ 304,470

Fleet Devices (A/V Assets) Table 3

As noted in Appendix B, an assessment of equipment in need of replacement is noted with the associated projected cost. Based on this information, the following three-year funding proposal is provided for consideration by the District's Budget Committee:

Table 3
A/V Assets – By Replacement Priority

	2024-2025 Fiscal Year	**2025-2026 Fiscal Year**	**2026-2027 Fiscal Year**
Classroom Refresh – Average Cost	$ 20,000	$ 20,600	$ 21,218
Quantity	20	10	10
Budget Request	$ 400,000	$ 206,000	$ 212,180
Conference & Public Spaces - Average Cost	$ 20,000	$ 20,600	$ 21,218
Quantity	4	4	4
Budget Request	$ 80,000	$ 82,400	$ 84,872
Replace Components (e.g., projectors)	$ 4,000	$ 4,000	$ 4,000
Quantity	20	15	10
Budget Request	$ 80,000	$ 60,000	$ 40,000
Total Amt. Requested	$ 960,000.00	$ 348,400	$ 337,052