

NASHUA SCHOOL DISTRICT: INFORMATION TECHNOLOGY BUDGET

FY 2021 Budget

March 4, 2020

Greg Rodriguez, MS

Director of Technology



2

DEPARTMENT OF TECHNOLOGY STAFF

- **Greg Rodriguez – Director**
- **TBD - Assistant Director**
- **Steve Wante – Network Administrator**
- **Ian Harvey – Programmer/System Administrator**
- **Donna Latina – System Administrator**
- **Felicia Naro – i4See Coordinator**
- **Susan Wilborg – Office Manager**
- **Bill Stoney – Assistant Systems Administrator**
- **Cori Hersom - Assistant Systems Administrator**
- **Gladys Marciano - Assistant Systems Administrator**
- **Tiago Cardoso - Assistant Systems Administrator**
- **Bobby Morales - Assistant Systems Administrator**
- **Don Tessier - Assistant Systems Administrator**
- **Doug MacKay - Assistant Systems Administrator**

DEPARTMENT OF TECHNOLOGY

- Offer technology to promote teaching, learning, and productivity through up-to-date infrastructure and computing devices.
- Gain an understanding of building administrator and teachers' technology needs, develop a plan to meet those needs, and implement plan to meet needs, improve existing systems, and add additional systems.
- Improve ease of use for teachers and staff to use our systems.
- Assist in the improvement of opportunities for our students to access the latest educational tools, software, devices and programs to maximize their ability to learn and succeed throughout their educational journey.
- Provide a safe digital environment for all users.

RATIONALE FOR BUDGET

Budget Area	Request
Contract Services	Perform high-level system and network support, specialty wiring projects, and E-Rate services
Computer Software	Maintain license cost increase and upgrade current email infrastructure
Computer Equipment	Replace aging computer equipment. Buy small number of spare access points, monitors, and computers.
Professional Development	Invest in staff learning to improve skillset and training

5

OPERATING BUDGET

FY 2020	FY 2021
\$2,244,295	\$2,286,805

6

APPENDIX TABLE OF CONTENTS

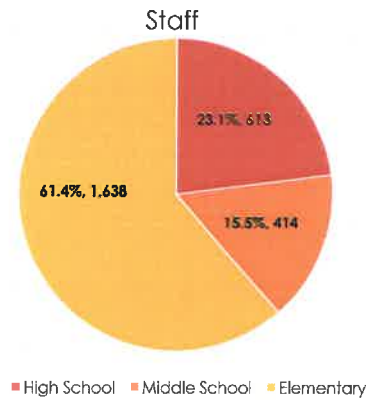
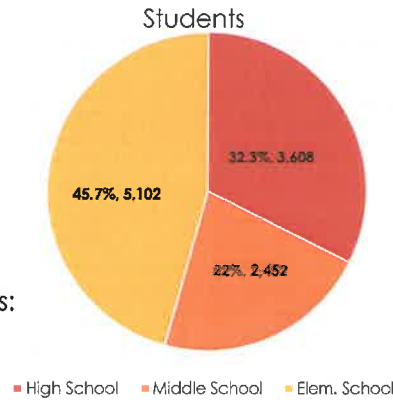
Appendix A	Users Per Grade Level
Appendix B	Chromebooks and Desktops
Appendix C	Aging Computer Environment
Appendix D	Aging Chromebooks
Appendix E	Phase I: Infrastructure Upgrades
Appendix F	Computer Equipment
Appendix G	Software Budget
Appendix H	Contract Services
Appendix I	Computer Equipment
Appendix J	Summer Help
Appendix K	Priorities Moving Forward
Appendix L	Items Not Being Funded

USERS PER GRADE LEVEL

High School:
Students: 3,608
Staff: 613*

Middle Schools:
Students: 2,452
Staff: 414*

Elementary Schools:
Students: 5,102
Staff: 1638*



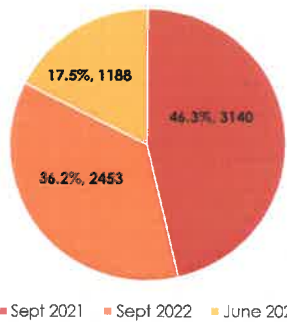
Appendix A – Users per grade level

*These included floating staff between schools and levels

CHROMEBOOKS AND DESKTOPS

Chromebook by Expiration

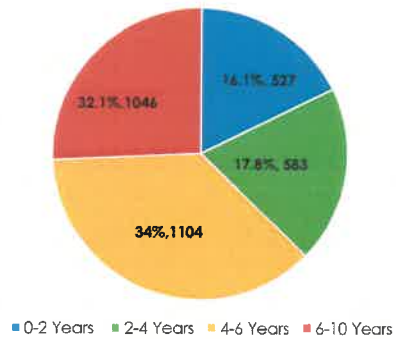
Expiration Totals by Year



Appendix B: Chromebooks and Desktops

Desktops by Year Purchased

Count by Year



AGING COMPUTING ENVIRONMENT

- Old Desktop Models
 - Models ranging from 6-10 years old
 - Most in the 8-10 year range
 - Presents issues
 - Slower Performance = Loss of productivity for students and staff
 - Increased cost of ownership
 - Repairs
 - Cost of parts
 - Time to repair
- Priority Areas
 - Labs at all three levels
 - Classroom computers
 - Offices



HP 6300

VS



HP 600 G4

Appendix C: Aging Computer Environment

AGING CHROMEBOOKS

- Every Chromebook has an Auto Update Policy (AUP = End of Life Support)
 - Our HP 11 G3/G4 has an AUP date of September 2021 (formally June 2020)
- What happens when AUP ends?
 - Automatic software updates will no longer be provided
 - No longer receive technical support from Google
 - Devices may not work as expected because the hardware can't support software
 - With no updates, no new security updates or bug fixes

Appendix D: Aging Chromebooks

AGING CHROMEBOOKS CONTINUED

- Will Chromebooks still be functional?
 - Short-term
 - According to Google, they may still work. However, there will be functional limitations
 - Existing Chrome or Android apps will still continue to work until they require higher Chrome OS versions that the devices can't receive
 - Long-term
 - Devices will become less and less functional
 - Security may be compromised because no bug fixes or patches will be installed on devices – leaves district vulnerable
- Device durability after four years of use
 - Will look to refresh devices every four years

Appendix D: Aging Chromebooks

PHASE I: INFRASTRUCTURE UPGRADES

- Replace existing switches throughout the District
 - Most are 13-18 years old
 - Replace with state-of-the-art switches to handle next generation access points
 - mGig 9200L-48PXG-4X series
 - 2960x 48 port POE
- Wireless improvements
 - Replace with state-of-the-art access points
 - Cisco 9120AX
- Typical access points hold 30 devices
 - Presents many issues with the increasing demand
 - High Schools – Phase I
 - Middle Schools (part of Middle School Project) – Phase II
 - Elementary Schools – Phase III

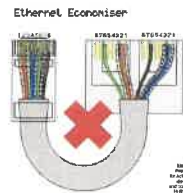
Appendix E: Phase I: Infrastructure Upgrades

GR1

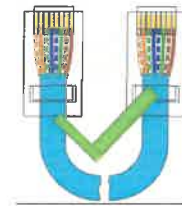
13

PHASE II: INFRASTRUCTURE UPGRADES

- Split-pair Ethernet Cables
 - Using one Ethernet cable for two connections
 - Economic way to wire the schools for Internet (not playing long-game)
 - Why is this a problem?
 - Unique issue throughout the elementary and middle schools
 - Dated technology
 - Connection limitations – two connected devices sharing same bandwidth



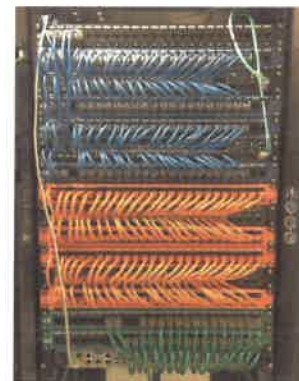
Appendix F: Phase II: Infrastructure Upgrades



14

PHASE II: INFRASTRUCTURE UPGRADES

- Patch Panels
 - The split-pair Ethernet cables connect back to the patch panel
 - Patch panels are used to connect devices to switch
- Nashua's Patch Panels
 - Old patch panels in elementary and middle schools
 - Dry and brittle (see patch panel)
 - Running out of ports to connect to
- Switch upgrade will need to include patch panel upgrade
 - Middle Schools
 - Elementary Schools



Goal

Slide 13

GR1 Gregory Rodriguez, 2/25/2020

SOFTWARE BUDGET ¹⁵

Description	FY21
AESOP (Substitute) Software Renewal	\$26,000.00
Applitrack Applicant System	\$6,000.00
Follett Aspen (X2)	\$140,000.00
Destiny Library	\$29,213.00
Barracuda Email Filtering	\$6,800.00
Blackboard Website	\$60,597.00
Casper (JAMF) Suite for iPad Inventory	\$11,000.00
Culturegrams	\$3,700.00
DameWare Renewal	\$1,000.00
Domain Name Renewals & SSL Certificates	\$1,000.00
EduLog	\$7,200.00
Energy Cap	\$1,800.00
LightSpeed Web Filtering	\$33,000.00
Microsoft Renewal	\$65,000.00
ML Schedules	\$8,200.00
Naviance (Grades 6-12)	\$28,000.00
Netop Vision	\$5,400.00
SchoolDude Inventory Software	\$16,000.00
T-Eval Renewal	\$13,600.00
TMA Software	\$7,000.00
Tools4Ever User Management	\$12,000.00
Unitrends Backup Software	\$37,408.00
VMWare	\$5,800.00
Miscellaneous	\$10,055.00
TOTAL	\$ 535,773.00

Appendix G: Software Budget

CONTRACT SERVICES ¹⁶

Contract Services	FY21 Budget
HP Support Contracts	\$ 15,000
Cisco Support Contracts	\$ 60,000
Cisco Phone Support	\$ 69,000
Wireless Maintenance	\$ 6,025
Wiring (APs, Phones, Misc)	\$ 9,000
Network Infrastructure Upgrade	\$ 109,639
External Computer Repair	\$ 2,000
Aspen Updates	\$ 5,000
Fiber Repairs	\$ 15,000
Miscellaneous	\$ 5,000
Total	\$ 295,664

Appendix H: Contract Services

17

COMPUTER EQUIPMENT

Equipment	Cost	Criticality
New Computers	\$ 420,117	#1
Spare Access Points	\$ 10,000	#2
Monitors	\$ 6,000	#3
Total	\$ 436,117	

Appendix I: Computer Equipment

18

SUMMER HELP

- 8 Weeks of Summer
- Work 7:30 to 3:30 with ½ hour lunch (7.5 hours/day)
- \$ 11/hour
- Number of Employees: 2
- 8 weeks * 5 days/week * 7.5 hours/day * \$11/hour * 2 people = \$ 6,600

Appendix J: Summer Help

PRIORITIES MOVING FORWARD

- Create up-to-date Technology Plan in line with our Strategic Plan. Items to included:
 - Technology and its impact on learning
 - Professional Development
 - SWOT analysis of staff
 - Budget
 - Digital Citizenship and Social Emotional Learning
- Invest in Desktops and Chromebooks
- Long-term planning for infrastructure and wireless
- Hire Assistant Director of Technology: Technology and Learning
 - 1-3 year goal

Appendix K: Priorities Moving Forward

ITEMS NOT BEING FUNDED

- We are not funding requested ceiling mounted projectors or more Chromebook carts
- We have very limited funds to repair/replace existing aging ceiling mounted projectors or any other A/V requests
- We have no funds to add technology, other than computers, to classrooms
- No elementary classroom phones

Appendix L: Items Not Being Funded

QUESTIONS?