Lansing Unified School District 469

Director of Technology

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What is Technology?

Mission

The mission of the Lansing USD 469 technology department is to bring the full force and effect of technology, effectively utilizing our resources, to positively impact all district stakeholders.

Goal

To accomplish more with less work.

Staffing

- Chris Fletcher - Started July 2020
- Drew Barba - Staff Since 2012
- Steve Lechliter - 1/2 Tech since August 2021, 1/2 Transportation
- Have an opening for another position
- Challenge: 78 classified staff per tech person, bottom 10% of state

Supporting District Goals

- 450 Staff - 2600 students - Parents - Patrons - Events
- Instructional - Operations - Infrastructure
- Design - Train - Support

Challenges

- Continuous Changing - Being included in planning
- Proactive vs Reactive - > Process
- Little Documentation - > Confluence

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Scope of Work - Instructional

- **Challenges: No Curriculum Director for 8 months & PLC**
- **Online Curriculum/Software**
  - HMH
  - McGraw-Hill
  - **Rostering & Logins**
    - Exports from Skyward
    - Clever
    - Login with Google
- **Computer Labs**
  - 3 Apple Labs
  - 9 Windows Labs

- Classroom Technology
  - 365 Macbooks
  - Projectors/Apple TV
  - Document Cameras
  - 3500 Staff/Student iPads
  - Apps
- Working Groups
  - Primary Tech Group - Spring Semester 2020
  - Principal Exit Interviews - Spring 2020
  - LMS iPad Team - Nov 2021

Scope of Work - Operations

- Ticket System for most departments
- Digital Access
- Communications
  - Video Support
  - Website/SchoolMessenger
- Emergency Preparedness
  - Video Security
  - Radio Repeaters

- Maintenance
  - Collaboration
  - Doors
- Food Service
  - Checkout Machines, Scanners & Student ID's
- Transportation
  - Bus Barn Systems
  - Transportation Needs

Scope of Work - Infrastructure

- Internet/Network
  - Internet Service: 2Gbps
  - Firewall/Filter
  - EWAN/Fiber Wide area network: 1-10 Gbps
  - 100 Routers/Switches
  - 340 Wireless Access Points
  - 24/7 Monitoring
- Servers/Local Services
  - Network Services
  - Local Storage

- Cloud Services
  - Microsoft
  - Google
  - Adobe Creative Cloud
- Printers/ 26 Copiers
- 441 Phones/Lines & PRI
- Intercom/Bells
- Clocks
- Video Security
- Doors Systems

Support Model

- Tier 1: Building level staff
    - Accounts & Application Support
    - iPads - Check in/Checkout/Tier 1 Support
    - **Challenge: Training staff in support roles**
- Tier 2: Technology Staff
- Tier 3: Vendors
- Ticket System for Staff, Students, and Parents
- **Challenges: Bypassing the ticket system & Who does what**

Budget

- Received September 2021
- District Budget ~$720,000
- Building level budgets: $5000
  - Working with principals to identify these items
  - **Technology Request Form**
  - Audio/Visual Budget for Auditorium/Other

- 2020 Major Expenditures
  - Copiers: $185,015
  - Internet: $105,712
  - Software: $206,561
  - Macbooks: $47,608
  - Apple iPads: $71,905
  - iPad Repairs: $17,400
  - Sped Software: $7,469

Projects

Past Projects

- PRTG Monitoring - Summer 20
- Ticket System - Jira Service Desk - Fall 20
- Documentation and Knowledge Base - Confluence - Summer 20
- New Teacher Technology Training - Summer 21
- New Core Switch - Summer 21
- LMS & LHS Video Security - Summer/Fall 21
- Transition to Mosyle for Students - Summer 21
- Google Classroom/Skyward Grade Sync Fall 21
- LHS Press Box AV - Fall 21
- LHS Digital Sign Reconnect - Fall 21
- Technology for Substitute Teachers - Fall 21

Current Projects

- Improve Security
- Improved Printing Process
- Transition to Mosyle - Staff
- Erate 2022
- Budget
- Inventory/Replacement Cycle

Future Projects

- Consolidate/Virtualize Server Infrastructure
- Summer 2022 Needs

Technology Strategy

Note: The purpose of this document is to explain my process for collecting information and organizing a plan to support the Lansing School District through resources available to the technology department.

The goal of technology should be to do more with fewer resources. We spend money on technology that enables teachers, students and staff to accomplish that which they could not accomplish without technology. The common view is that technology is a piece of hardware or software, but really it is the application of knowledge, so we need to look at tools in conjunction with knowledge to meet our desired goals set by school stakeholders. The technology department should work to determine how to best meet those desired goals by prioritizing our time and resources. Below is an explanation on how I am working to implement that strategy.

Needs Assessment

The first task is to determine our needs. This is done through a variety of processes at the district and building level. Needs at the district level are collected through meetings with district leadership such as the Superintendent, Curriculum Director, Director of Special Education. I will have similar conversations with department heads about how we can best support their department. A lot of discussion occurs at the District Leadership Team and Department Head meetings.

A similar approach is taken at the building level. I try to make myself available to building principals, Building Leadership Teams, PLCs, grade level or instructional department meetings. A majority of primary level classroom discussions happen through the Technology Integration Group we set up in December.

I have added two processes at the end of this school year. The first is a technology request form (attached at the end of this document) that will help understand what teachers expect me to plan to provide in their classrooms beyond the standard classroom technology. We used it at the high school, but will expand this to other buildings. I am also meeting with principals to do an end of year technology review which will help us plan for next school year.

Information Resources

Budget

Financial software is not typically very useful in forecasting budgetary needs. Over the past few years I have used components from different documents I have seen to develop a Google Spreadsheet to meet these needs. It is not complete as I do not have a complete inventory of our current assets. I am working with principals to determine what will be purchased using the technology budget and what will be purchased using building budgets.

In developing a budgetary plan I collect information about all of the items in our inventory and add other costs such as a case, management software and warranty. This information provides a total cost, which I can then calculate the price per year. This does not factor in the end of life value, which we hope to implement some processes to collect more value for our used devices.

Item	Price	Life	MGMT/MDM	Case/Other	Total Cost	EOL Value	TCO	Per Year C
PC	$900.00	6	$0.00	$0.00	$900.00	$0.00	$900.00	$150.00
MacBook Air / Other	$1,349.00	4	$5.00	$50.00	$1,419.00	$300.00	$1,119.00	$354.75
iPad/W AppleCare	$300.00	4	$5.50	$85.00	$407.00	$100.00	$307.00	$101.75
Projectors Basic	$650.00	15	$0.00	$0.00	$650.00	$0.00	$650.00	$43.33
Projectors Short Throw	$1,500.00	15	$0.00	$0.00	$1,500.00	$0.00	$1,500.00	$100.00

Thes costs then go into device sets, such as computer labs or grade level iPads. We multiply the number of devices in that set with the device total cost to get the total cost for that set. Then we specify the next year that the set is to be replaced and a formula using the next year and lifecycle calculates what years those devices should be replaced.

| Priority	Services/Device Set	Total Cost	Lifecycle	Cost Per Year	Next Year	Cycle Years	2020-24 $1,434,081.50
-	District Services	$0.00	0	$0.00			$160,048.00
-	High School	$0.00	0	$0.00			$380,380.00
3 -	HS iPad Group A	$52,910.00	4	$13,227.50	2021	2021, 2025, 2029, 20	$52,910.00
3 -	HS iPad Group B	$52,910.00	4	$13,227.50	2022	2022, 2026, 2030, 20	$52,910.00
3 -	HS iPad Group C	$52,910.00	4	$13,227.50	2023	2023, 2027, 2031, 20	$52,910.00
3 -	HS iPad Group D	$52,910.00	4	$13,227.50	2024	2024, 2028, 2032, 20	$52,910.00
3 -	HS Mosyle	$2,860.00	1	$2,860.00	2021	2021, 2022, 2023, 20	$11,440.00
-	Mac Lab North	$31,350.00	5	$6,270.00	2018	2018, 2023, 2028, 20	$31,350.00

The total cost for that set is placed in those cycle years specified to help us determine the items budgeted for each year.

	A	B	K	N	O	P
	Priority	Services/Device Set	Cycle Years	2020-24 $1,434,081.50	2020 $37,327.00	2021 $320,396.50
57	-	High School		$380,380.00		
58	3 -	HS iPad Group A	2021, 2025, 2029, 20	$52,910.00		$52,910.00
59	3 -	HS iPad Group B	2022, 2026, 2030, 20	$52,910.00		
60	3 -	HS iPad Group C	2023, 2027, 2031, 20	$52,910.00		
61	3 -	HS iPad Group D	2024, 2028, 2032, 20	$52,910.00		
62	3 -	HS Mosyle	2021, 2022, 2023, 20	$11,440.00		$2,860.00
63	-	Mac Lab North	2018, 2023, 2028, 20	$31,350.00		
64	-	Mac Lab Middle	2021, 2026, 2031, 20	$31,350.00		$31,350.00
65	-	Mac Lab South	2022, 2027, 2032, 20	$31,350.00		
66	-	Drafting Lab	2023, 2029, 2035, 20	$18,000.00		
67	-	Business Lab	2024, 2030, 2036, 20	$27,000.00		
68	-	Adobe Suite - HS	2020, 2021, 2022, 20	$2,500.00	$500.00	$500.00
69	1 -	PRI	2018	$0.00		
70	1 -	Transport - LHS ELAN	2018, 2019, 2020, 20	$24,750.00	$4,950.00	$4,950.00
71	-	Switches	2018	$0.00		

Then formulas are used to calculate the single year and 5 year cost for each building and technology department.

	Priority	Services/Device Set	2020-24 $1,434,081.50	2025-29 $1,599,150.00	2030-34 $1,750,395.00
6	-	District Services	$160,048.00	$182,290.00	$182,290.00
57	-	High School	$389,380.00	$418,150.00	$427,150.00
107	-	Middle School	$292,915.00	$274,725.00	$356,000.00
157	-	Intermediate School	$171,600.00	$214,500.00	$244,890.00
207	-	Elementary School	$316,470.00	$389,400.00	$389,400.00
257	-	Sped Admin Building	$68,830.00	$85,990.00	$116,570.00
307	-	Board Office	$0.00	$0.00	$0.00
357	-	Bus Barn	$14,280.00	$14,280.00	$14,280.00
407	-	Technology Department	$20,558.50	$19,815.00	$19,815.00

We can then pull graphs based on the yearly or five year cycles to help the district plan for our technology needs.

Technology Budget Summary - 5 Year Cycle
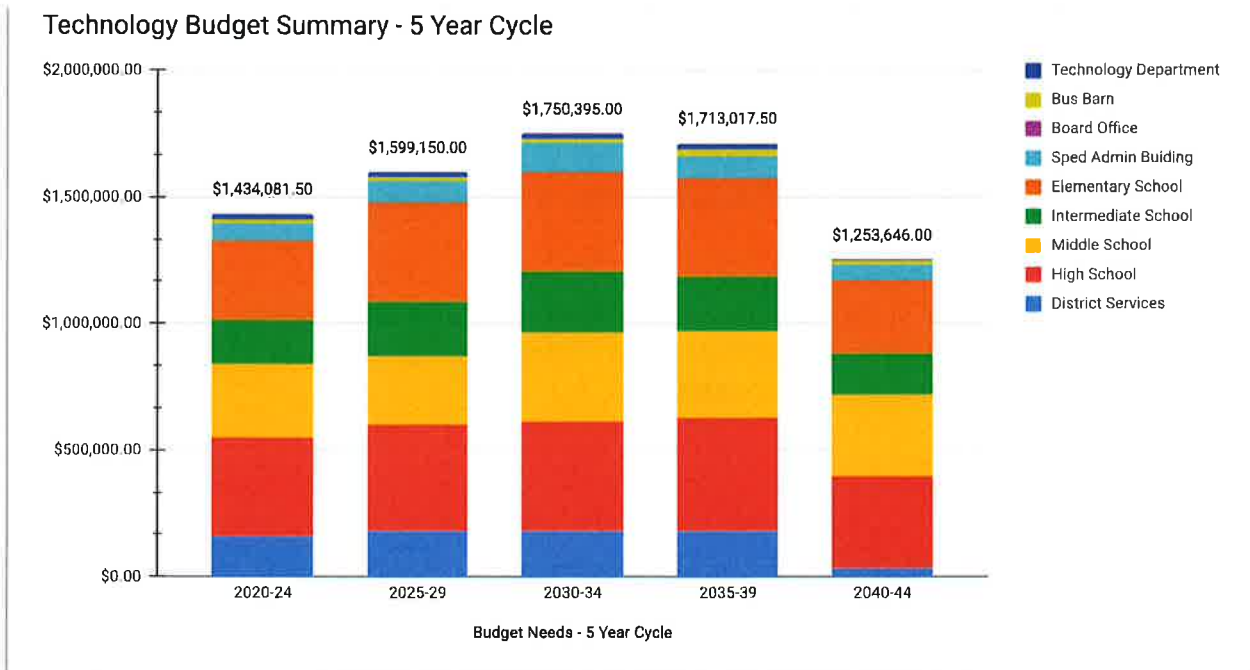
This process is not perfect as it is incredibly difficult to plan for every need, but it provides a forecast of future expenses. It also provides visibility into budgetary needs for complex systems with longer life cycles which are typically more expensive, such as intercom, phone and audio/video systems.

Inventory

Inventory is critical as knowing what you have helps you plan what and when you need to replace devices. There was not a full inventory when I was hired. We are currently pulling device information from management systems like AirWatch and Mosyle. The business office has purchased an inventory system and we will be working to help input information throughout the summer. The budget sheed discussed above becomes somewhat of an inventory system based on device sets.

Staff

It is important to have an accurate accounting of staff you support as another way to help develop plans based on positions and devices assigned to each staff member. I have been pulling this information from Skyward.

Knowledge

Knowledge is a critical component in building the capacity of an organization. This is the reason we purchased a product called Confluence. It creates a searchable knowledge base for technology staff as well as other users. For me, it has been a place to store information as I walked through buildings this year. The advantage of this over other systems is that it works almost as well on my phone as my computer so I can create notes including pictures of network closets, servers or computer labs. It also allows me to access this information easily when I am addressing an issue. As we develop documentation, it becomes a resource to help us solve future problems.

We used this program to distribute some short training videos to staff this year. My goal for this coming school year is to have a page that we can share with staff, students and parents to provide technology related tips and updates.

Plan

Knowing the need and the resources, we can develop a plan focusing first on design, then training, finally support. The reason we take this approach is scalability, design being the most scalable, support being the least. Being proactive by doing a better job of design and training should allow us to support a higher technology capacity rather than being reactive and waiting for questions.

Design

When we look at technology I want people to think that we are designing an instructional or operational environment that we must work in. Some things we can control, others we cannot. This is where we look at the needs and determine what process we need in place and what

tools best support that process. This includes hardware, software, online curriculum or software we purchase as a service. What is important about this area is that we know where these decisions are made and that we include all necessary to determine our needs and judge what service best serves those needs. Instructional services would most likely run through the Curriculum Director, while operation services would be different groups most likely developed through district leadership or the DLT.

Once a technology is selected to support a service, we must also work to develop an integration plan so each stakeholder is informed on how the service may be used to support their needs.

Training

Once we have an integration plan, then we will work to develop training that could be distributed through the appropriate tools. The Professional Development Committee is my primary outlet to provide training for instructional staff. Classified staff can be done in the Board Office or schools as needed.

My department is working on two onboarding days for new teachers this summer. My goal is to provide them an opportunity to come in and receive their MacBook and iPad as well as their login information. We will introduce them to some online training we started working at the start of last school year. We will expand on that when the new Curriculum Director starts. The Instructional Coaches are also integral in this process. We will also make ourselves available in early August to discuss any issues they may have come across since receiving their information.

We have also been working with high school office staff to develop a welcome letter for staff and students. This was one of the first items I provided to new staff and students when they entered the district. This provides their basic login information and instructions to set up their device. Once complete, they will have access to additional learning resources.

We occasionally send short tips through email to address specific questions or changes. I expect this to become a more frequent activity for my department and plan to use the ticket system to take requests so staff and students can submit topics they are interested in.

We spend a majority of our time configuring systems and providing support. We plan to start sharing other learning resources to staff and students through available communication channels. Two valuable resources are the Greenbush University program which is focused on educational topics and LinkedIn Learning which is available through the local public libraries. This resource covers a wide range of consumer to professional technology topics. I have assigned my staff videos from the LinkedIn Learning program as part of their professional growth. I feel it could be a great resource to train staff on core applications and others they might find valuable for their classroom.

Support/Ticket Process

I am working to implement systems so that my department is more responsive to district needs. Having a program that allows us to collect and prioritize issues is just as important as a financial system for the business department or online gradebook for teachers. When I started, we were working from a Google Spreadsheet. This did not provide much information besides what tickets were open. The switch to the new system creates new opportunities such as informative dashboards. I use these to review different statistics of the work being done. I am currently working on principal dashboards, which should be complete before school starts in August. Dashboards inform administrators the status of work being done in their building, a level of visibility they did not have previously.

For this to work I need to emphasize to my staff and district staff the importance of working from this system and following the guidelines below. Ticket information is not only a process to track the issue, but allows us to collect and communicate work being done.

1. If you have an emergency, do not hesitate to call or text the tech staff. If it is not an emergency, we will ask you to create a ticket.

2. Only submit tickets through the service center. If you email us, that creates multiple items we must review. There will be a process to email tickets to the system in the future.

3. No duplicate tickets. We are working to get your tickets resolved. Duplicate tickets take more time to process redundant submissions and less time working on your issues. Duplicate tickets will be designated as duplicate tickets and closed.

4. Only submit one issue per ticket. This allows us to track each issue individually.

5. If you would like to discuss a topic, feel free to email or catch us when we are free. If an actionable item comes out of that discussion, it will become a ticket.

It was difficult this year with requests coming from so many different directions and by fulfilling requests from places such as email or phone calls that were not emergencies. While entering each item into the system seems tedious, it provides us with a measure of the amount of work we are getting done.

Some issues became visible from the tickets that did get filled out this year. To address these issues, I started meeting with my staff multiple times a week so that we can review, prioritize and work together to resolve work that needs to be done. It included an opportunity for me to communicate my expectations for areas like customer service. This was also a time for me to evaluate what training my staff needs to better support district systems. If we could not resolve an issue or did not possess a skill set, then vendors were contacted to get additional support.

Review/Change

Throughout this process we are continually reviewing the system through frequent discussions to determine if priorities need to be adjusted or systems need to be changed because of new goals set by the district and/or school. This essentially starts the needs assessment process again except now we are able to take advantage of the knowledge that we have gained. During the year we can review tickets to determine how well we were able to support the district and adjust as needed. At the end of the year I will meet with principals to review how to better accomplish their goals. This is a time we can review staff changes or evaluate how technology requests fall within the district or building level budget.

Success

Finally we should be able to define success, which can be difficult in an area where so much of how we are measured is determined by failures. I believe we are successful if we create a system where we are able to collect and prioritize the needs of the district through a variety of feedback loops and then are able to align our work with those needs.

Note: There is a lot of information here. Please communicate through Mr. Wessel if you would like any additional information from the technology department.

Technology Request Form

Lansing USD 469 supplies every classroom with a standard set of technology tools, which includes a projector, Apple TV, staff laptop and iPad. We also provide each K-12 student with an iPad. We expect teachers to utilize these devices to their full potential. If the technology provided does not meet the needs of a program, then staff may request additional technology by completing the form below. These goals can be met by utilizing the iPad in conjunction with additional technology or separate technology tools. This form is meant to help teachers; the principal and technology staff have a clear understanding of how technology usage might progress as requirements change. It also allows for us to budget for the required resources for your classroom. Please provide details by completing the questions, table and system requirements portion of this page. Requests for annual subscriptions will be reviewed yearly after enrollment. Technology with a multiple year lifecycle will be re-evaluated two years before this plan expires to determine if the plan needs to be adjusted.

1. Please describe your desired outcomes:

2. How do you plan to utilize this technology to accomplish your instructional goal:

3. Please list or attach the system requirements necessary to fulfill your request:

4. Request Details

Staff Requesting Technology:	
Class/Department:	
Location/Room:	
Lifecycle/Expected years in service:	
Initial Cost - If known:	
Yearly Additional Cost - If known:	