

# Department of Innovation and Technology Infrastructure Update

February 9, 2022  
Board of Education Meeting



# DoIT CELEBRATIONS

## CURRENT LANDSCAPE

- Some students still find themselves in periods of at-home learning
- Cybersecurity threats to public institutions are increasing
- Staff increasingly needs access to digital tools knowing that students find themselves in a variety of learning environments

## CELEBRATIONS



- Every student has a device they take home with them in order to continue their learning anytime/anywhere
- DoIT has taken a number of important steps to keep the data of staff and students safe
- DoIT has identified a numbers of essential digital tools that allows staff to create new and meaningful learning opportunities that match any learning environment their students may find themselves



# DoIT INFRASTRUCTURE CATEGORIES

**UNIVERSAL ACCESS**

**CORE INFRASTRUCTURE HARDWARE**

**OPERATIONAL SYSTEMS AND SOFTWARE**

**CLASSROOM HARDWARE CYCLES**

**CYBERSECURITY**



# 2022 - Goals and Priorities (Infrastructure)

**1 - Supporting universal access**

**2 - Ensuring a functioning network**

**3 - Adhering to SOPPA compliance**

**4 - Monitoring the hardware needs of being 1:1**

**5 - Implementing cyber security measures**

**6 - Drafting a ransomware / data breach protocol**



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# Universal Access - CONNECTIVITY

- Hotspots are federally funded via grant for the 2021-2022 school year
  - Federal government hasn't yet committed to renewing funding for SY 2022-2023
  - Alternative paths to ensure funding may need to be explored



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# Network Upgrades/Updates

MDF Switch upgrades at all elementary schools and Franklin, Monroe and Edison middle schools.

- MDF switching is used for all the routing between the schools to pass voice and data traffic to and from the SSC.
- With the new upgrades we were able to eliminate a Cisco router to save on annual maintenance costs of approximately \$23,000 a year.





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# SOPPA Compliance - Phase 1

- All district 200 digital tools are monitored for student data and privacy requirements
- Learn Platform is the central hub teachers use to check which tools are allowed
- Learn Platform has a public facing site that parents can see which tools are allowed as well
- Phase 2 - while a tool may be SOPPA compliant we need to ensure it is also instructionally recommended



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# Monitor 1:1 Devices

- Breakage rate
- Repairs are done in-house
- Most common repairs
  - Broken screens (Touch - \$\$ , non-touch - \$)
- Current fee system for breakage
  - Accidental & repairable damage
    - Free → \$15 → \$30 → \$50 + meeting w/ family
  - Non-repairable / Lost
    - Full replacement cost



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# Cybersecurity Measures

- Security monitoring
  - Firewall and filters are configured, updated, and tested regularly
- Penetration Test - How vulnerable are our systems to access from malicious third parties
  - 1 external tool was identified\*
  - Forced two factor authentication prevented access to critical systems / information
  - Internal Systems (network access) were deemed vulnerable because of weak password settings / sharing same password for multiple systems
- Phishing Campaign

\* - Patch has been identified for external tool and a fix is being developed.



# Cybersecurity Measures - Recommendations

- Continue to use 2-factor authentication wherever possible
- Change password requirements to force stronger passwords
- Blacklist commonly used passwords
- Monitor and patch critical network infrastructure regularly
- Continue to educate staff on importance of cybersecurity measures & phishing scams
- Conduct smaller internal penetration tests yearly & full external tests every three years



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# Ransomware Attack / Data Breach Protocol

## General Overview

- Proactive plan to minimize attack would happen
- Formation of response team
- Prioritize what agencies need to be contacted and guidance for next steps
- Prioritize what systems need to be brought back online first
- Maintain sufficient backups of all critical information and data



# DoIT Budget Projection

|                                        | FY 2022          | FY 2023                   | Notes                                                                                                  |
|----------------------------------------|------------------|---------------------------|--------------------------------------------------------------------------------------------------------|
| Lease Payments and Classroom Equipment | \$470,000.00     | \$1.4M<br>(+\$930,000)    | First 1:1 chromebook lease payment was paid using ESSER funds                                          |
| Network Hardware                       | \$300,000.00     | \$1.3M<br>(+\$1M)         | Should average \$410,000 after FY2023. Portion will come from ESSER some will come from local revenue. |
| Online Digital Tools                   | \$160,000        | \$335,000<br>(+\$175,000) | Some subscription fees are currently being funded out of ESSER                                         |
| <b>TOTAL</b>                           | <b>\$930,000</b> | <b>\$3.035M</b>           | ~\$2.1M as ESSER may be able to defray some costs (~\$600,000)                                         |



# DoIT Budget Projection

|                         | FY 2022 | FY 2023 | FY 2024 | Net Increase        |
|-------------------------|---------|---------|---------|---------------------|
| Total Department Budget | \$2.6M  | \$4.2M  | \$3.8M  | \$1.2M - Normalized |



# Vision 2022 Dashboard Status

|                                             |                                                                                     |
|---------------------------------------------|-------------------------------------------------------------------------------------|
| <b>COMMITMENT</b>                           |                                                                                     |
| METRIC(S)                                   | Annual Board Report<br>Technology Plan<br>(Universal Access)                        |
| <b>STATUS</b>                               |                                                                                     |
| <b>MAKING GREAT<br/>PROGRESS/ATTAINMENT</b> |  |
| <b>MAKING PROGRESS</b>                      |                                                                                     |
| <b>HOLDING CONSTANT</b>                     |                                                                                     |
| <b>REGRESSING</b>                           |                                                                                     |
| <b>NO DATA AVAILABLE</b>                    |                                                                                     |
|                                             |                                                                                     |
| CURRENT                                     | Current Plan                                                                        |
| PRIOR YEAR (2017)                           | Process Goal                                                                        |
| START OF ASSESSMENT<br>(YEAR)               | 2015                                                                                |



Questions?

