Board of Education

TECHNOLOGY PLANNING

JANUARY 8, 2018

2018-19+ Technology Planning

Learning Environment

- 1:1 Student Devices
- Staff Device Replacements
- Projector Replacements
- Labs/Desktops/Shared Spaces

Network + Infrastructure

- Switch + Access + Capacity
- Wireless Network
- Funding Support (E-Rate)

Looking Ahead -> Learning Environment

OUR STORY (2012 -> TODAY)

◦ Commitment to technology for learning
◦ Investments + Growth in Network
◦ Mobile blooms - Wireless installed
◦ Welcoming 1:1
◦ Entry to cloud services

BEYOND TODAY (2019+)

◦ GenOvation culture
◦ Maintaining + Norming 1:1
◦ Optimizing + Securing the Network
◦ Mobile is king - Wireless standard
◦ Cloud services are core
◦ Labs/classrooms are changing

2018-19 Learning Environment Plans

Initiatives/Projects

◦ 1:1 Learning: 2nd, 5th, 6th, 9th

◦ Staff device replacements + Expanded access

◦ Projector upgrades

◦ Curricular/Office Support

Estimated 18-19 Cost: $625,000

1:1 Learning (K-12)

◦ 1,615 student devices @ $375,520 (Year 1)

Cash basis approx. cost: $724,000

Staff Device Replacements

◦ 275 staff devices @ $116,520 (Remaining Staff)

Cash basis approx. cost: $300,000

Curricular/Office Support

◦ Course equipment, lab upgrades, office/shared space upgrades, etc. @ $50,000 (*max*)

Projector Replacements

◦ ~65 projectors @ $80,000 (HES, FES)

Looking Ahead -> Network + Infrastructure

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BEYOND TODAY (2019+)

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Evolving Needs

INFRASTRUCTURE IS THE BACKBONE OF THE 1:1 LEARNING ENVIRONMENT. AS NEEDS EVOLVE, SO TOO MUST THE HIDDEN EQUIPMENT AND WIRES

Life Cycles

Target Replacement Cycles for Capital Equipment

Student Devices

- K - 1 iPads: 3 years
- 2 - 8 Laptops: 3 years
- 9 - 12 Laptops: 4 years

Staff Devices

- Laptops: 4 years

Network + Infrastructure

Core Switches/Routers: 7 years

Access/PoE Switches: 7 years

Firewall: 4-5 years

Wireless Network: 5 years

Data Center: 5 years

Projectors

- 7 years

3-Year Network Upgrade Plan

Key Outcomes

- Network Equipment Upgrade + Consolidation
- LAN/WAN Capacity Increases
- Wireless Network Capacity

Estimated Cost of 3-Year Plan

- **$1.3 million**
- *E-Rate Offset: ~$275k (max)*

*Cost TBD; **E-Rate Category 2 Expended

2018-19	2019-20	2020-21
Network Equipment • All Cores • Access/PoE • Cabling	**Network Equipment** • Firewall* • Internet Bandwidth*	**Network Equipment** • N/A
Capacity • 10Gb WAN • 10Gb LAN	**Capacity** • N/A	**Capacity** • N/A
Wireless Upgrade • N/A	**Wireless Upgrade** • 5 buildings	**Wireless Upgrade** • Remaining
Est Total for Year $448k (before E-Rate) (167k) Est. E-Rate	**Est Total for Year** $410k (before E-Rate) (108k) Est. E-Rate**	**Est Total for Year** $443k (before E-Rate) (0) Est. E-Rate**

2018-19 Cost Summary

Fund	Capital Need
Ed	$625,000 Projected (*using historical lease/purchase practices*)
O&M	$448,000 Projected (*Year 1 of Network Refresh*)
Offsets	$205,000 (Technology Service Fee) $ 25,000 (Fabyan Foundation 1:1 Program Support) $167,000 (E-Rate Category 2)
Total/Net Amounts	$1,073,000 (before offsets) $ 868,000 (after Technology Service Fee) **$ 843,000 (after Fabyan Foundation Support)** $ 676,000 (after E-Rate Category 2)

Budget by School Year, and Fund
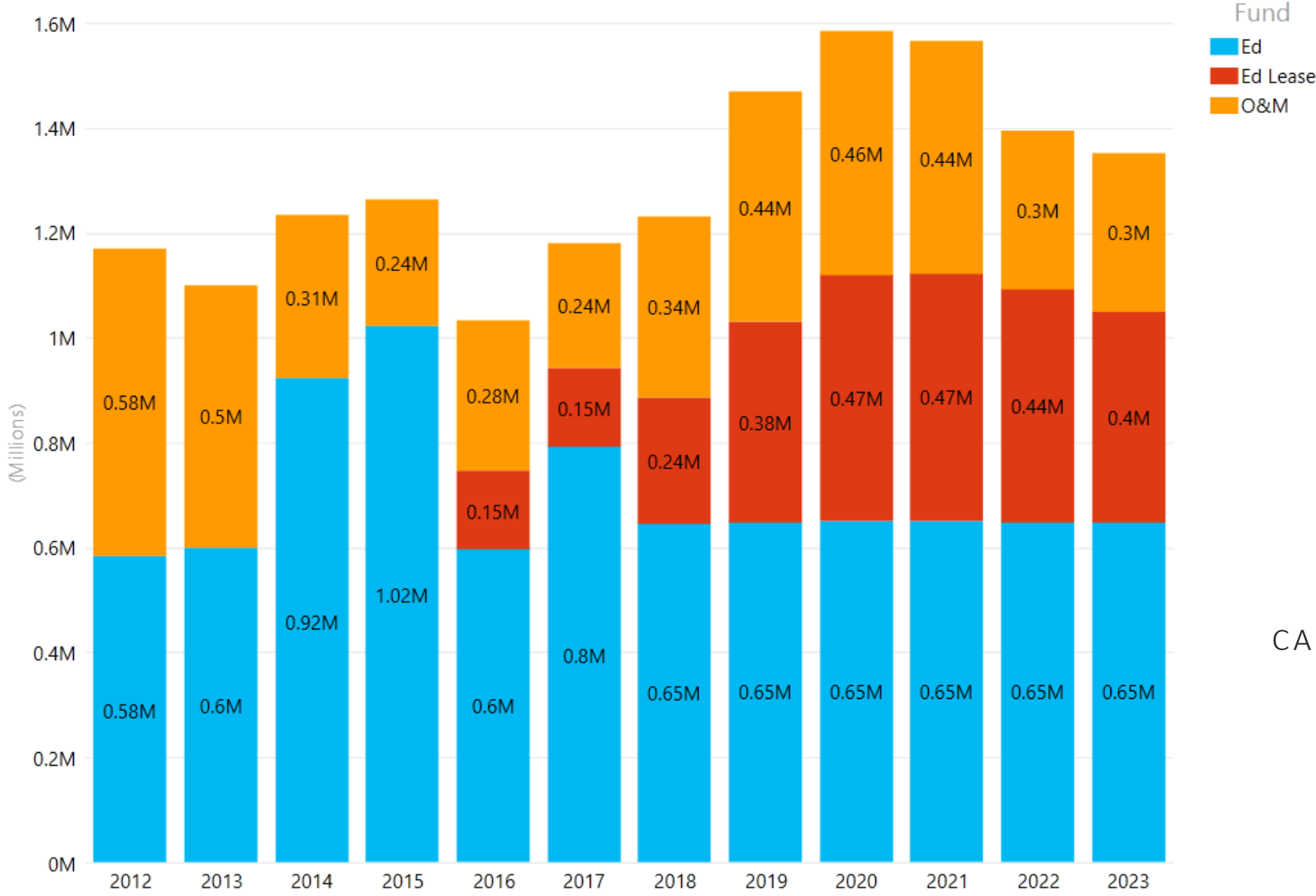
Trend Data

CAPITAL SPENDING OVER TIME

Next Steps

◦ Approval of the 2018-19 Technology Plan

◦ Proceed with E-Rate bid process for Network Equipment/Cabling

  ◦ January – Publish bid requests

  ◦ February – Requests close / review & evaluation

  ◦ March – Final selection and approval

  ◦ March 22, 2018 – deadline to submit a contract for consideration

Questions / Feedback