

# Marathon CSD Technology Plan/Smart School Investment Plan 2018-2021

**Mission:** Our Mission is to Embrace, Educate and Empower every child.

**Vision:** statement that guides instructional technology use in the district: The Marathon Central School District will excel at graduating citizens who are college and career ready and able to pursue unlimited possibilities locally and globally.

In order to do this, students must not only learn digital citizenship, which we teach at a young age, but must also be able to collaborate, explore and communicate, using technology that will be part of their everyday lives upon completing 12<sup>th</sup> grade.

## Goal #1

To provide greater ability to differentiate instruction by purchasing one to one tablets for elementary students in grades 3-6 and center based computers for grades UPK-1<sup>st</sup>. Students in grade 2 and grades 7-12 currently have one to one tablets.

Action Step #1 – Purchase 132 touch screen lap tops (tablets) for incoming 3<sup>rd</sup> and 6<sup>th</sup> graders.

Description: Purchase one to one tablets for incoming students in grades 3 and 6. Students would be using their computer in all academic classes and some special area classrooms for classroom instruction. Student material provided in Google Drive and Google Classroom would be accessible to students at home. Tablets are for school use only at this age, with the ability to sign them out for special projects. Student tablets would be labeled with their specific student name with the intention of having that exact computer follow them through high school.

Anticipated Month and Year of Completion: September 2019

Anticipated Cost: \$66,000

Action Step #2 – Purchase 170 touch screen tablets for kindergarten (6 units in each classroom), 1<sup>st</sup> grade (6 units in each classroom), incoming 5<sup>th</sup> graders (one to one) and incoming 6<sup>th</sup> graders (one to one).

Description: Purchase center based lap tops for students in kindergarten and 1<sup>st</sup> grade (6 per classroom) and one to one computers for grades 5 and 6. Students in center based classrooms would be using computers during specific portions of the day when 6 or fewer students are assigned to a particular center.

Students in grades 5 and 6 would be using their computer in all academic classes and some special area classrooms for classroom instruction. 5<sup>th</sup> and 6<sup>th</sup> grade student

material provided in Google Drive and Google Classroom would be accessible to students at home. Tablets are for school use only at this age, with the ability to sign them out for special projects. Student at this level would be assigned tablets with their specific student name with the intention of having that exact computer follow them through high school.

Anticipated Month and Year of Completion: September 2020

Anticipated Cost: \$85,000

Action Step #3 – Purchase 240 touch screen tablets for grades 9-12 with the intention of having the computers move down to 2<sup>nd</sup> grade after students graduate from high school. This will complete the cycle where computers move with the students from 2<sup>nd</sup> to 12<sup>th</sup> grade.

Description: Purchase lap tops for students in grades 9-12<sup>th</sup> grade. Students would be using their computer in all academic classes and elective classes for classroom instruction. Students would be allowed to bring computers home (with parent consent), allowing them to work on school work and collaborate from home as well as school.

Anticipated Month and Year of Completion: September 2021

Anticipated Cost: \$120,000 - \$216,000 depending on the computer purchased. Students are currently assigned a Surface Pro 4 in grades 9-12. This may be changed due to the fragility of the Surface Pro.

Action Step #4 – Update classroom presentation equipment which is at the end of its lifecycle or sooner if equipment fails.

- Description: The district has an equipment replacement plan, whereas Smartboards are replaced every 8-12 years depending on their condition. Promethean boards are replaced every 6-10 years depending on their condition and Smart TV's are replaced every 6-10 years depending on their condition. 20% of the district's Smartboards will be 10 years or older as of the 2018-2019 school year. Parts for many of the units are no longer available, making it necessary to replace them. The district plans to replace these units with flat panel interactive display. Costs: \$5000 each.

Anticipated Month and Year of Completion: As scheduled from 2018-2021.

Anticipated Cost: \$70,000 (14 @ \$5,000 each)

Action Step #5 – Provide professional development for staff to help them use the hardware to enhance their instruction.

Description: Survey staff on a semi-yearly to yearly basis to determine what professional development is needed. Provide professional development on Superintendent's Days, during school (prep time) and before/after school as needed.

Anticipated Month and Year of Completion: As scheduled from 2018-2021.

Anticipated Cost: \$22,500 (\$7,500 per year)

**Goal #2 – Upgrade building hardware to support student instruction and to enhance school security.**

Action Step #1 - Upgrade servers in all buildings. New equipment is necessary to allow for more storage space for additional memory for instructional videos, updating operating systems and updating print servers. Servers will be 8 years in 2019. This server will be needed for Appleby Elementary and the Junior/Senior High School and includes a backup system.

Description: HP Proliant DL360 Gen 10 (MS Server 2016) servers. Approximately \$8,000 per server.

Anticipated Month and Year of Completion: Summer 2019

Anticipated Cost: \$16,000

Action Step #2 – Purchase additional security cameras for each building

Description: The district will purchase additional security cameras and have them installed for the 2018-2019 school year to provide coverage in high traffic areas which are not currently covered. These cameras are necessary prior to the upcoming capital project for safety reasons.

Anticipated Month and Year of Completion: September 2018

Anticipated Cost: \$25,000

Action Step #3 – Upgrade video servers at Appleby and the Junior/Senior High School.

Description: With the inclusion of additional security cameras in the next capital project, additional storage space will be needed.

Anticipated Month and Year of Completion: Summer 2019

Anticipated Cost: \$20,000

**Goal #3**

Many of the families in our district are economically disadvantaged. This provides a disparity in the area of technology. In goal #1, we provided one-to-one technology for each student in grades 2-12, allowing all students to work with the same technology. In addition, the district would like to purchase Wi-Fi units

for buses, giving students the opportunity to work on school work while on the bus. Our district has normal bus runs which last longer than an hour and many of our sporting runs last for multiple hours.

Action Step #1 – Purchase 2 Wi-Fi units for buses - Phase 1

Description: Purchase Kajeet units which have the ability to work from multiple carrier cell towers, providing coverage for very hilly areas like those found in our district. To begin, we would purchase 2 units and utilize them on longer bus routes and sports runs. We would also provide students instruction on how to use it and what can be done. (Video streaming will not be allowed due to data usage).

Anticipated Month and Year of Completion: November 2018

Anticipated Cost: \$2,820 per unit (\$1,410 per unit)

Action Step #2 - Purchase 6 Wi-Fi units for buses - Phase 2

Description: Purchase Kajeet units which have the ability to connect to multiple carrier cell towers. We would purchase 6 units and utilize them on longer sports runs and longer normal runs. We would also provide students instruction on how to use it and what can be done.

Anticipated Month and Year of Completion: November 2019

Anticipated Cost: \$8,460 (\$1,410 per unit)

Action Step #3- Purchase 6 Wi-Fi units for buses - Phase 3

Description: Purchase 6 Kajeet units and utilize them on longer sports runs and most longer normal runs. We would provide students instruction on how to use it and what can be done.

Anticipated Month and Year of Completion: November 2020

Anticipated Cost: \$8,460 (\$1,410 per unit)

Action Step #4 - Purchase 3 Wi-Fi units for buses - Phase 4

Description: Purchase 3 Kajeet units and utilize them on longer sports runs and all longer normal runs.

Anticipated Month and Year of Completion: November 2021

Anticipated Cost: \$4,230 (\$1,410 per unit)

## Hardware Timeline

2017-2018

- January 2018 - Purchase 50 touch screen lap tops (Lenovo Yoga's) for 2<sup>nd</sup> grade
  - \$28,000
  - Purchase through BOCES project
  - This will put a one to one lap top solution where a cart with a classroom set was shared by three room.
- Moved 40-45 Surface Pro 4 computers that were awaiting incoming students/used by last years' seniors to Appleby faculty to upgrade their computers to the level of students and provided PD on use of new hardware/Google Classroom Suite.
- Summer 2018 – Restock 12 Surface Pro 4's to accommodate incoming 9<sup>th</sup> grade class – Local funds
  - Order new cases for Surface Pro's that are no longer in good condition – local funds
  - Order 25 Lenovo's for Appleby Elementary Computer Lab – BOCES funds - \$12,000
  - Transfer new Lenovo Yoga's from 2<sup>nd</sup> grade to 6<sup>th</sup> grade. Student in 6<sup>th</sup> grade will then use the same computers at the Junior/Senior High School. This progression may continue until they graduate.



2018-2019

- Summer 2019 – Purchase 132 touch screen lap tops (Lenovo Yoga's) for incoming 3<sup>rd</sup> graders and incoming 6<sup>th</sup> graders.
  - Would replace x130e (would be 6 years old) and x131e (would be 5 years old) computers
  - \$66,000
  - Purchase through Smart Schools Money
- Purchase a new server for each building to allow more space for additional memory for instructional videos, updating operating systems, and updating print driver systems.
  - Servers will be 6-7 years old at time of replacement
  - \$8,000 for each server (one for ES and one for HS)
  - Purchase through Smart Schools Money
- Purchase additional security cameras for each building - The district will purchase additional security cameras to provide coverage in high traffic areas which are not currently covered. These cameras are necessary prior to the upcoming capital project for safety reasons.
  - Anticipated Month and Year of Completion: September 2018
  - Anticipated Cost: \$25,000



- With the inclusion of additional security cameras in the next capital project, additional storage space will be needed. Will need to upgrade a video server in each building.
  - Servers will be 5 years old at time of replacement
  - \$10,000 for each server
  - Purchase through BOCES Project

#### 2019-2020

- Summer 2020 – Purchase 170 touch screen lap tops (Lenovo Yoga’s or equivalent) for K (6 units in each classroom), 1<sup>st</sup> (6 units in each classroom), incoming 5<sup>th</sup> graders (one to one) and incoming 6<sup>th</sup> graders (one to one)
  - Would replace x140e (would be 6 years old) and 11e (would be 5 years old)
  - Students would use assigned computer until they graduate from Marathon
  - \$85,000
  - Purchase through Smart Schools Money
- Purchase 10 tablets for use by board of Education members during board meetings
  - \$5,000 (\$500 each) – Local funds



#### 2020-2021

- Summer of 2021 – Purchase 240 touch screen lap tops for grades 9-12.
  - Surface Pro 4’s will be 5 years old. (Experiencing battery issues, units are non-upgradable. Screen replacement is very expensive. Considering moving to Lenovo’s.)
  - \$216,000 (Surface Pro 4’s) or \$120,000 (Lenovo’s or equivalent)
  - Purchase through Smart Schools Money
  - Cases for Surface’s purchased through local funds if needed



#### 2021-2022

- Summer of 2022 – Purchase 60 touch screen lap tops for incoming 6<sup>th</sup> graders
  - Would replace Lenovo Yoga’s if needed (would be 5 ½ years old)
  - \$30,000
  - Purchase through Smart Schools Money

#### Classroom Presentation Equipment:

- Will systematically replace equipment at the end of their life cycle or sooner if equipment fails
- Life spans:
  - Smart Boards – life span of 8-12 years
  - Promethean Boards - life span of 6-10 years

- Smart TV's – life span of 6-10 years
- Will replace these units with flat panel interactive display. Costs: \$5000
- Equipment would be replaced using BOCES project money

#### Handheld Devices (as needed):

- Includes iPads, iPad mini's, Kindles, remotes, etc.
- All devices must be able to attach to our current Wi-Fi system (Enterprise devices)
- Will be purchased with local money or BOCES project money depending on quantity

#### Adding Broadband to School Buses:

- Exploring Kajeet – uses cell carriers to access Wi-Fi but allows for device to access multiple carriers
- Would not stream video and will have additional filters to minimize broadband use
- Could be mounted on a bus or could be portable
- Would initially use on buses traveling longer distances (sports runs/long fieldtrips (4-5 buses)
- Start use with 1-2 devices during 2018-2019 - Local funds.
- Continue if successful, adding 2-10 the following year. – Smart School Funds
- Purchase device with Smart Schools Money, monthly fees would be paid through general fund.
- Costs: Device - \$1,410 per bus  
5 GB per month for 12 months - \$540 per device



BOE Public Forum: July 11, 2018