

**Francis Howell
School District**



Technology Plan 2017-2020

Approvals:

District Technology Committee April 12, 2017

FHSD Board of Education May 18, 2017

Table of Contents

- Introduction..... 3
- Mission, Vision, Values..... 4
- District Technology Committee..... 5
- Information Review and Analysis..... 7
- Goals, Strategies, and Action Steps..... 14
- Dissemination, Monitoring, Evaluation..... 19

INTRODUCTION

The Francis Howell School District (FHSD) is one of the largest school districts in the state of Missouri. The District boundaries include several municipalities stretching across the southern half of St. Charles County, covering 167 square miles.

FHSD consists of 3 high schools, 5 middle schools, 10 elementary schools, 3 early childhood centers, 2 alternative education centers, and 3 district buildings with over 17,000 K-12 students. FHSD has approximately 1,200 certified teachers and administrators, and 1,000 support staff. FHSD does outsource food services (Sodexo) and transportation services (First Student).

The FHSD Technology Department (Technology) oversees the purchasing, implementation, and maintenance of the District network, infrastructure, and computer resources. The Technology Department is comprised of the following positions: Director of Technology, (.5) Administrative Assistant, Technology Services Manager, Information Services Manager, Senior Network Engineer, Network Engineer, Systems Administrator, (2) Software Support Specialists, Help Desk Support Tech, Programmer, and (12) Building Technicians.

MISSION, VISION, VALUES

The current FHSD Strategic plan is for 2011-2016. The District is currently in the process of strategic planning. The mission, vision, and values provide a brief and cohesive statement of the District's purpose, its vision of the future, and its commitment to achieve the vision.

The following are the mission, vision, and values of the 2011-2016 FHSD Strategic Plan:

Mission

- Preparing students today for success tomorrow.

Vision

- Every student will graduate with college and career readiness skills.

Values

Francis Howell School District is committed to the following:

- Providing a consistent and comprehensive education that fosters high levels of academic achievement
- Operating safe and well-maintained facilities
- Providing a safe learning environment for all students
- Recruiting and retaining a high quality staff
- Promoting parent, community, student, and business involvement in support of the school district
- Ensuring fiscal responsibility
- Developing responsible citizens
- Operating as a professional learning community
- Making appropriate use of technology

FHSD Technology Mission

- Provide support for 21st Century learning.
- Deliver professional development for technology.
- Ensure all students have access to technology.
- Make appropriate use of technology.
- Provide for a technology-rich curriculum.
- Enhance online learning opportunities.

DISTRICT TECHNOLOGY COMMITTEE

The FHSD District Technology Committee is one of the District strategic committees commissioned. The Technology Committee is comprised of stakeholders including teachers, staff, Technology, Academics, Board of Education members, and parents. The Technology Committee meets monthly during the school year. During the 2016-2017 school year, the Technology Committee developed a new District Technology Plan for 2017-2020.

The Technology Committee examined these five technology focus areas (TFAs):

1. Student Learning
2. Teacher Professional Learning
3. Resource Distribution and Use
4. Administration and Data Management
5. Technical Support

During the Committee meetings, the members discussed the following questions regarding the five TFA's:

- What is it that we value?
- What do we see as priorities?
- What do we want to see in this area?

TFA 1 - Student Learning:

- Security
- 21st Century learners; life-long learners
- Equality in the schools throughout the district per grade level (i.e., integration)
- Social media responsibility
- Collaboration opportunities
- Engineering By Design (EBD) and Project Lead The Way (PLTW)
- Putting tech skills in a progression-al continuum in the curriculum
- Common Sense Media Digital Citizenship certification
- Social media responsibility
- Promote and enhance Bring Your Own Technology (BYOT) program.
- Continue the emphasis on technology enhancing curriculum
- Hour of Code
- Further integration of STEAM

TFA 2 - Teacher Professional Learning:

- Timely
- Differentiated
- Collaborative
- Mentor supported
- Admin supported
- Teach tech that supports FHSD initiatives
- TeachFest (formerly 21C Fest)
- New teacher orientation
- Hotwire information

TFA 3 - Resource Distribution and Use:

- Having access to the right device for specific needs
- Student and teacher
- Quick turnaround for setting up devices to use
- Continued follow-up
- Refresh devices
- Plan to regularly manage, maintain, and optimize
- Equality and equity
- Virtual environment – VDI
- BYOT improvement strategy – i.e., setting minimum requirements
- Investigate SMART board replacements
- Software audit – every 2-3 years
- Device agnostic
- Establish district technology key performance indicators
- Green computing certification

TFA 4 - Administration and Data Management:

- Parent access to student data (elementary)
- Streamline teacher input into system
- Badge credentials for younger students – QR codes
- Data driven policies
- Security
- Accessibility of data to end users
- Resource and capacity planning
- Scalability
- Data privacy and security – IT Data Governance Program; external audit; establish a disaster recovery site
- Apply to become a Trusted Learning Environment district certification
- Create a public data dashboard for technology key performance indicators (KPI)

TFA 5 - Technical Support:

- Speed of resolution
- Self-service model
- Professional development for technology
- teacher tech support
- Knowledgeable, well trained technicians
- Good interpersonal skills
- Tenacity and drive (persistence)
- Time
- Community of practice (forum for support with software)
- Software vs. hardware
- Setting expectations on resolution
- Timely ongoing communications
- Establish effective self-guided tech support for end users
- Increase communications around technology

Items for consideration pending future revenue sources:

- 1:1 program
- Districtwide learning management system (LMS)

INFORMATION REVIEW AND ANALYSIS

The Technology Committee reviewed and analyzed a variety of different information, data, and topics. The information gave Committee members further understanding of current and projected trends in educational technology, and the status of FHSD Technology at the present.

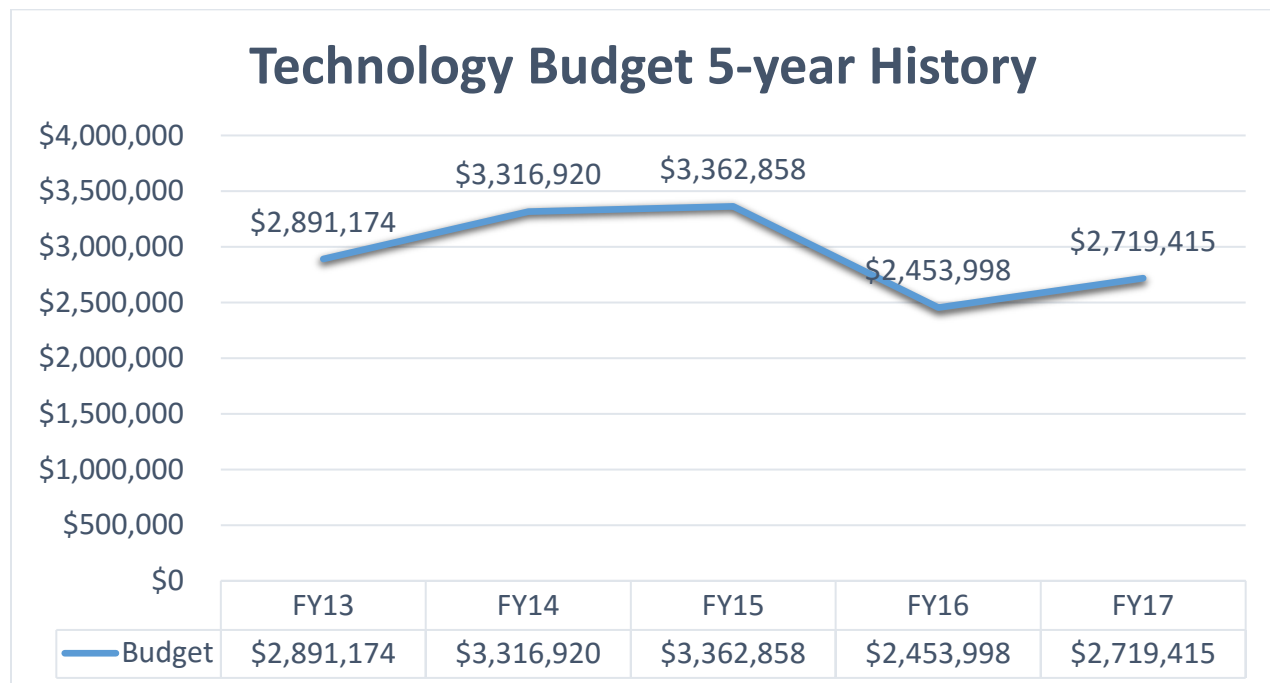
Technology Department

The FHSD Technology Department is responsible for the District network services, phone systems, software and database systems, devices, multimedia systems, and Information Technology (IT) data governance and security.

The Technology Department is comprised of 24 staff members. The positions in the Department include Director of Technology, (.5) Administrative Assistant, System Administrator, Sr. Network Engineer, Network Engineer, Information Systems Manager, Programmer, (2) Software Support Specialists, Help Desk Technician, Technology Services Mangers, and (12) Building Technicians.

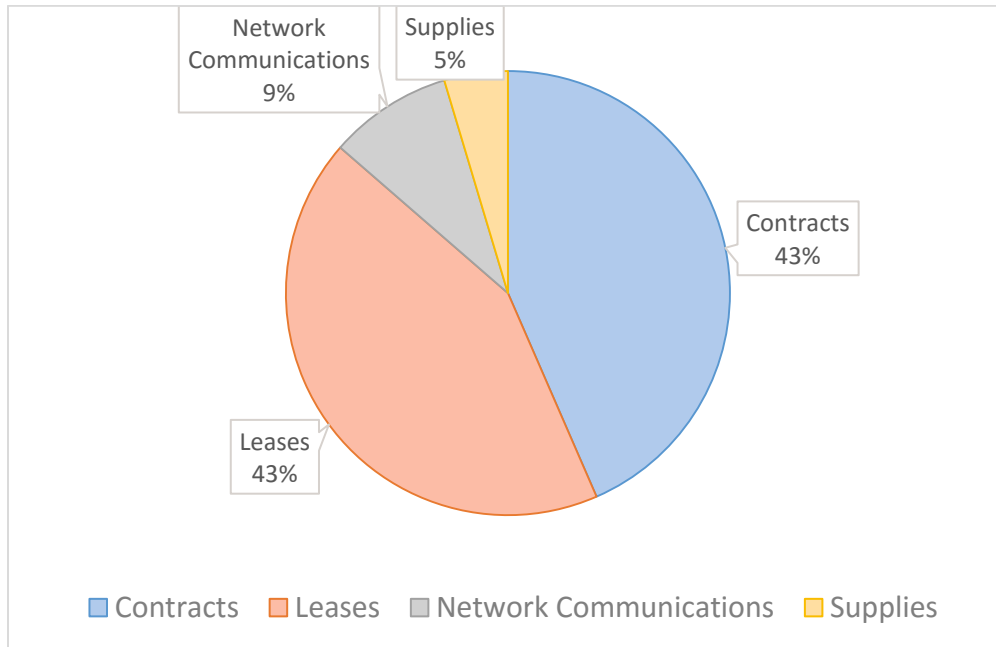
Technology Budget

The Technology operating budget (without salaries and benefits) information was presented to the Technology Committee. One chart provided the five-year history of the Technology Budget in order to ascertain the current and history trend of resources devoted to District technology. Another piece of information was the current Technology operating budget. This included the breakdown of budget allocations so Committee members have a better understanding of Technology expenditures.



Tech Budget FY17 \$2,719,415

- Contract Renewals \$1,181,975 (43%)
- Leases \$1,167,050 (43%)
- Network Communications \$244,500 (9%)
- Supplies \$125,890 (5%)

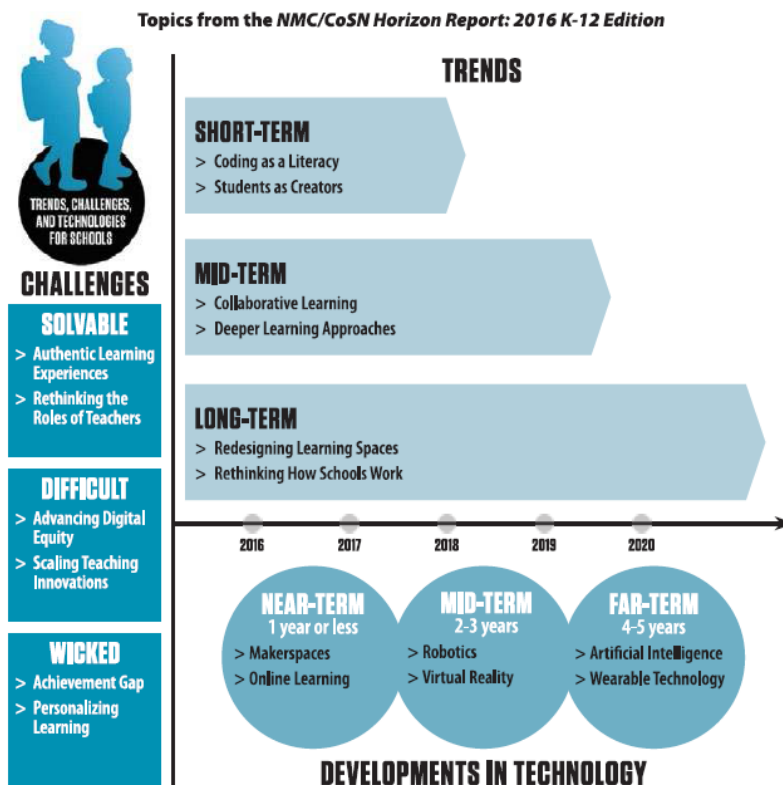


CoSN Horizon’s Report 2016

For over 13 years, the New Media Group and the Consortium of School Networking (CoSN) annually publishes the Horizon’s Report for K-12 education. CoSN is the national educational technology leader’s association. The Horizon’s Report examines emerging technologies for their potential impact on and utilization in schools. The Horizon’s Report forecasts from current and emerging trends to create a five-year timeframe. The following is a chart summarizing the trends, developments, and challenges from the Horizon’s Report:

2

NMC/CoSN Horizon Report: 2016 K-12 Edition



ISTE Standards for Students 2016

The International Society for Technology in Education (ISTE) is the association for instructional technology. ISTE created the first set of technology standards for students in 2007. In 2016, ISTE published an updated set of standards to establish a more modern set of standards for technology skills and integration for students. The ISTE Standards call for students to be empowered learners, digital citizens, knowledge constructors, innovative designers, computational thinkers, creative communicators, and global collaborators.

Empowered Learner

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

Digital Citizen

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.

Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

Innovative Designer

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.

Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

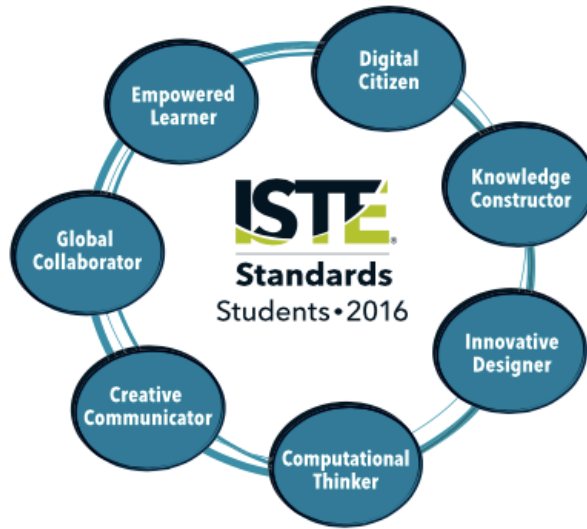
Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

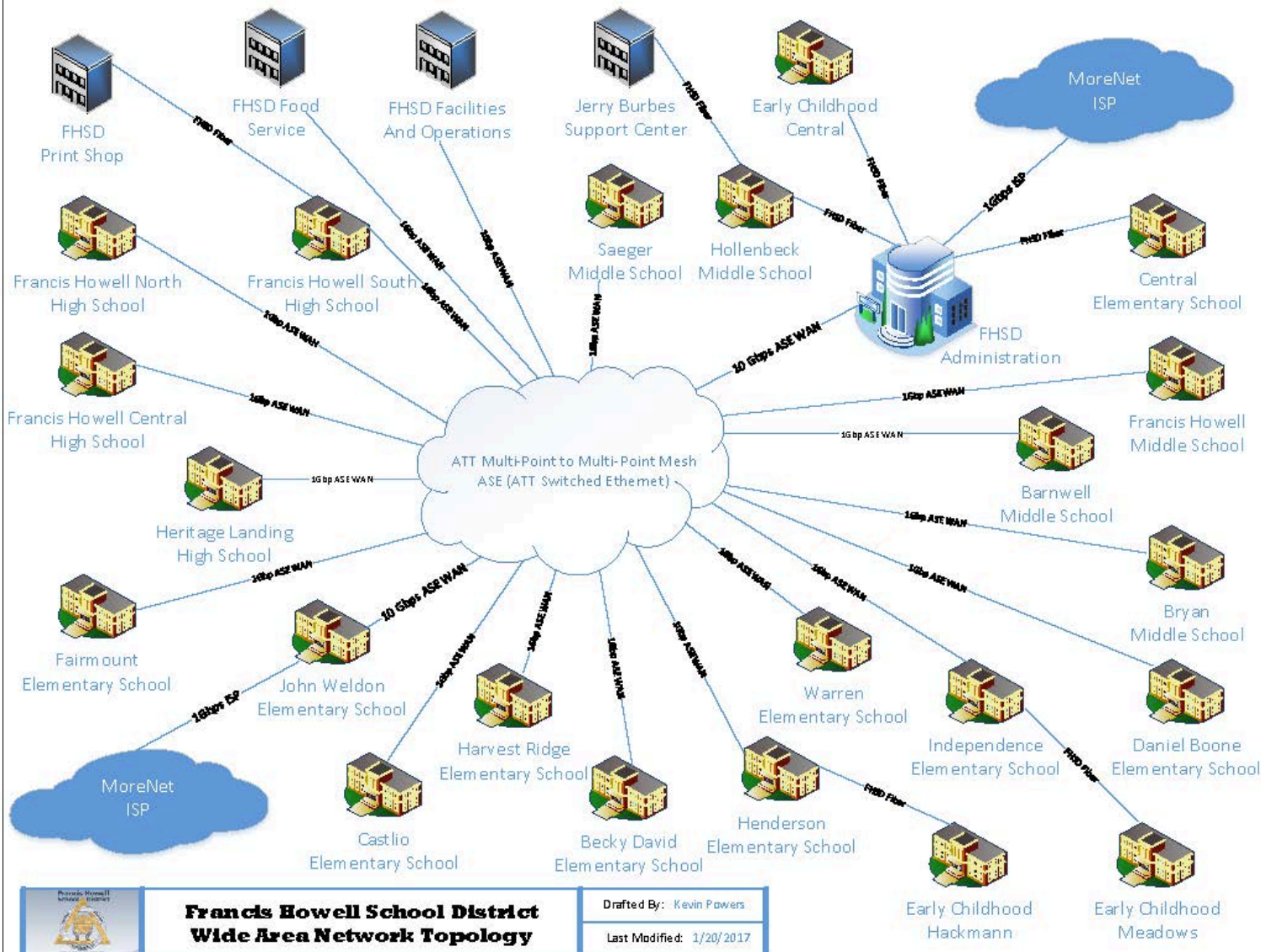
Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

The following diagram gives an overview of the seven core principles of the new standards:



Network WAN Topology



**Francis Howell School District
Wide Area Network Topology**

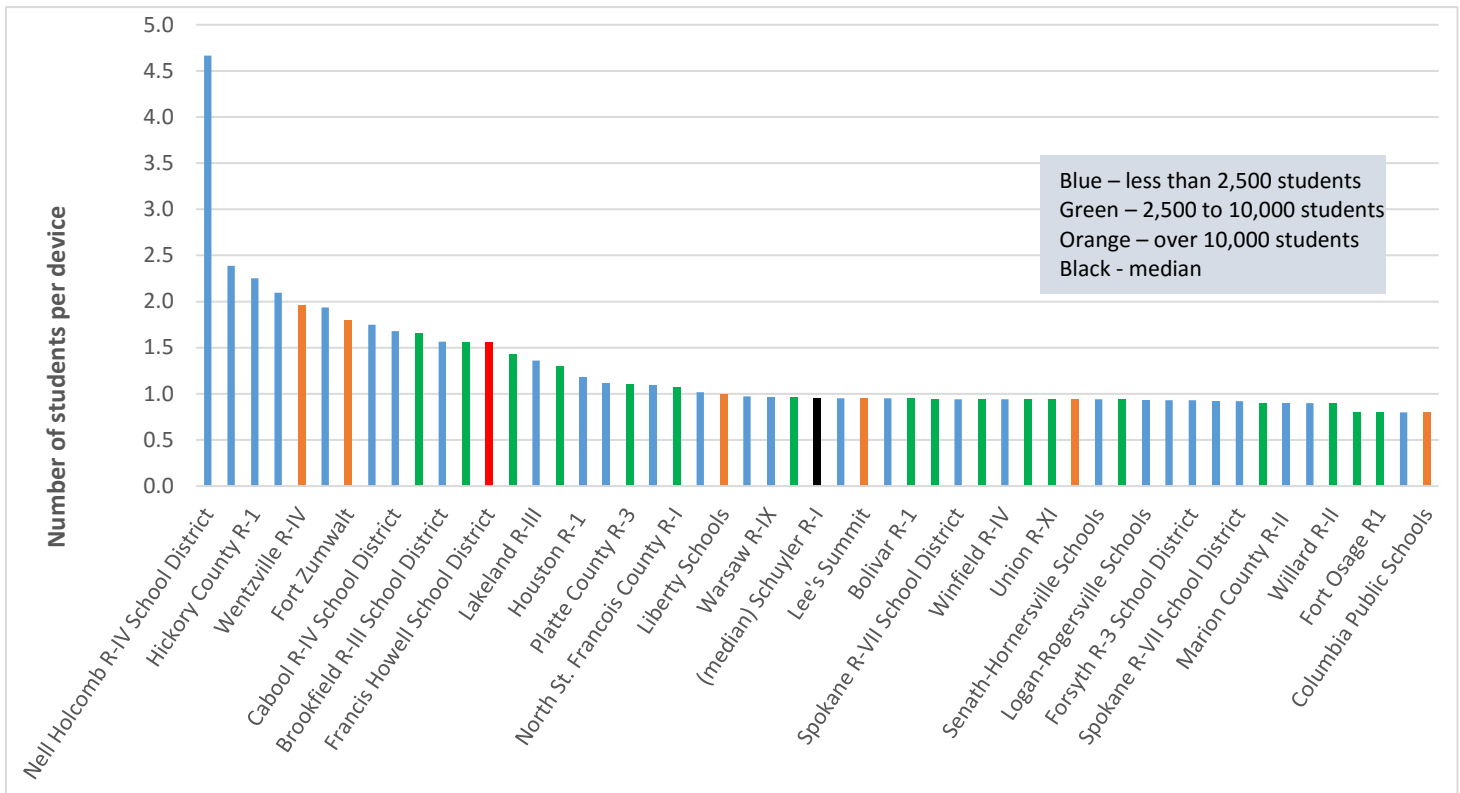
Drafted By: Kevin Powers

Last Modified: 1/20/2017

Devices and systems

FHSD Technology includes a variety of computer systems, laptops, tablets, printers, projectors, SMART Boards, and peripherals. The District currently has around 13,600 desktops, laptops, and tablet devices. Of those, around 11,000 are dedicated for student use. This gives FHSD a K-12 device-to-student ratio of 1:1.6 - 1 device for every 1.6 students. The District currently has 1,151 projectors with 1,076 SMART Boards. Every classroom K-12 has a SMART Board. Below is a chart comparing the FHSD device-to-student ratio to a sampling of 53 other Missouri school districts.

Device-to-Student Comparison - Sampling of 53 Missouri Districts January 2017



Strategic Plans

The Technology Committee also reviewed the current FHSD Strategic Plan for 2011-2016, and the FHSD Technology Plan for 2013-2016. Annually, the Technology Committee has been reviewing and monitoring the progress towards the completion of the 2013-2016 Technology Plan and the 2011-2016 Strategic Plan.

GOALS, STRATEGIES, ACTION STEPS

The Technology Committee members collaborated to develop major SMART goals for District Technology. SMART goals are based on the principles of goals being specific, measurable, attainable, realistic, and time-bound.

Technology Focus Area - Student Learning

SMART Goal: By 2020, align PK-12 curriculum development and cycles with the new 2017 ISTE Standards for Students.

| Action Steps | Time Line | Responsible Person(s) | Progress Measures |
|--|-----------|---|---|
| Establish a committee to create a professional learning continuum for grades PK-8. | 2018 | Academics, Tech Content Leader | Committee reports and Board approved curriculum documents |
| Promote Common Sense Media Digital Citizenship programs. | 2017-2020 | Director of Technology, Tech Content Leader | Track school utilization of program |
| Enhance and promote BYOT program strategies. | 2017-2020 | Director of Technology, Tech Content Leader | Audit BYOT network utilization |
| Support Hour of Code Activities during We Love to Code Week, and throughout the school year. | 2017-2020 | Director of Technology, Tech Content Leader | Track number of schools coding |

Technology Focus Area - Teacher Professional Learning

SMART Goal: By 2020, increase the number of Google Certified staff in each building by 25%.

| Action Steps | Time Line | Responsible Person(s) | Progress Measures |
|---|---------------------|---|--|
| Provide teachers with professional development training information via Hotwire and newsletters. | Ongoing | Director of Technology, Tech Content Leader | Track PD information and events |
| Engage and support the annual TeachFest Day. | 2017, then annually | Director Professional Development, Director of Technology | PD evaluation surveys |
| Create a District Google Certification program. | 2019 | Tech Content Leader | Record the number of teachers Google certified |
| Develop and implement a technology needs assessments for PLC's | 2018 | Director of Technology, District Technology Committee | PLC technology needs assessment ratings |
| Partner with other organizations to provide additional technology PD opportunities for faculty and staff. | 2020 | Director of Technology, Tech Content Leader | Documentation of technology professional development |

Technology Focus Area - Resource Distribution and Use

**SMART Goals: Improve student to device ratio by 15% by 2020 (1:1.6 to 1:1.3).
Decrease the average device age by 10% by 2020 (5.5 to 5.0 years average age).**

| Action Steps | Time Line | Responsible Person(s) | Progress Measures |
|--|-----------|--|---------------------------------------|
| Re-establish the District computer refresh cycle. | 2018 | Director of Technology | Device refresh projects and inventory |
| Establish a consistent, standard level of devices for schools provided by FHSD Technology. | 2020 | Director of Technology | Create standard and device inventory |
| Establish effective device inventory and tracking system, including funding source. | 2017 | Technology Services Manager | Device inventory |
| Investigate SMART Board replacements. | 2020 | Director of Technology, Technology Services Manager, Tech Content Leader | Evaluate potential products |
| Incorporate energy saving measures and equipment on a consistent basis, and apply for Green Computing certification. | 2020 | Director of Technology, Technology Services Manager | Green Computing certification |

Technology Focus Area - Administration and Data Management

**SMART Goals: Maintain a robust District network infrastructure, in which utilization levels do not exceed 75% during regular District operations.
Earn CoSN’s Trusted Learning Environment certification by 2020.**

| Action Steps | Time Line | Responsible Person(s) | Progress Measures |
|--|-------------|---|--|
| Initiate new WAN fiber agreement thus increasing network speeds and connections of District buildings. | August 2017 | Sr. Network Engineer | Network utilization reports |
| Establish District Technology key performance indicators. | 2018 | Director of Technology | Published indicators |
| Develop a public dashboard for FHSD Technology. | 2018 | Director of Technology | Published dashboard |
| Annually review and update the FHSD IT Data Governance Program. | Ongoing | Director of Technology, Technology Managers | Audit logs |
| Conduct a full software utilization study every two years. | 2019 | Director of Technology | Software report |
| Setup all student grades K-2 with QR code credentials. | 2018 | Systems Administrator | Implementation at all elementary schools |

Technology Focus Area -Technical Support

SMART Goals: Maintain positive service relationships as evident by scoring 80% or better “agree” or “strongly agree” on the Admin Customer Service Surveys.

| Action Steps | Time Line | Responsible Person(s) | Progress Measures |
|---|--------------------|-----------------------------|-----------------------------|
| Enact more effective strategies eliciting feedback from staff and students. | 2018 | Director of Technology | Survey results |
| Monitor work order turnaround to ensure work orders are completed in less than 5 school days. | 2018 | Technology Services Manager | Work order reports |
| Investigate "self-service" models to enhance self-directed support skills for staff. | 2019 | Technology Services Manager | Evaluation reports |
| Provide additional PD for Technology Department. | 2017, then ongoing | Technology Services Manager | Tracking Tech PD activities |

DISSEMINATION, MONITORING, EVALUATION

The FHSD Technology Plan 2016-2017 will be posted on the FHSD website to provide information and transparency to the community and stakeholders. The Technology Plan will be presented to the FHSD Strategic Committee and the other District strategic committees commissioned. The Director of Technology will share the Technology Plan with members of the Technology Department. The Technology Plan will serve as a roadmap for the Technology Department and District stakeholders. In subsequent years, the Technology Committee will continue to meet monthly during the school year. Committee members will review the ongoing work and progress towards the completion of the Technology Plan SMART Goals. Twice a year, the chairpersons of the District committees provide reports and updates on the progress of committee goals to the FHSD Board of Education. Therefore, the Director of Technology will submit bi-annual updates to the Board of Education.