"When You Come to a Fork in the Road, Take It"

District IT Planning and the Unprecedented Impacts of COVID-19

At the Fulton County Board of Education's June 18, 2020 meeting, Superintendent Dr. Mike Looney, summarized the school district's response to the COVID-19 pandemic with an oft-used quote from Joseph P. Kennedy: "When the going gets tough, the tough get going."

Dr. Looney presented an interim school closure matrix decision strategy detailing how the district would respond to any new cases of students or staff members contracting the virus once the new school year begins. The proposed FCS 2020-21 Return to School plan includes three possible scenarios:

1. Traditional face-to-face instruction
2. Universal remote learning
3. A blend of remote and in-person instruction.

By mid-July, the data was clear: COVID-19 cases were continuing to rise locally and across Georgia, making Universal Remote Learning the safest option for beginning the 2020-2021 school year.

At a global level, the COVID-19 pandemic has introduced a myriad of challenges for school leaders—public safety, operations, teaching-and-learning, and beyond. Seemingly overnight, school leaders are called upon to "reimagine learning" to address a "new normal" the pandemic has left in its wake. All school systems—K-12 and HigherEd—now need to reconsider how the business of learning is conducted.

In 2018, Fulton County Schools (FCS) embarked on Strategic Plan 2022 with the goal to prepare all students to graduate ready to pursue and succeed on their chosen paths. Its foundation rests on the delivery of a personalized learning environment in the digital age. The IT infrastructure required to support this personalization initiative serendipitously introduced the robust, flexible environment needed to address the challenges presented by COVID-19.

The FCS Digital Transformation Journey

FCS is located in the outer communities North and South of Atlanta, Georgia. When the FCS leadership community embarked on this journey, they looked beyond simply bringing technology into classrooms; FCS dug deeply into the policies, practices, and capabilities needed to fully support remote and blended learning scenarios as well as the Professional Development needed to up-level instruction.

On March 8, 2020, FCS was the first district in Georgia to completely shut down in response to two teachers testing positive for COVID-19. Overnight, remote learning models were suddenly necessary for 100% of the district. As schools were being closed, Superintendent Looney authorized the emergency purchase of an additional 3,000 computers at a cost of $1.5 million for students in grades 3-12. This investment helped fill out the one-to-one program and helped arm students in lower-income neighborhoods with the devices, and when necessary, the WiFi hotspots they needed to participate in Remote Learning.

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Beginning the journey

Fulton County Schools is fortunate to have a special funding model that invests in educational technology. In 2016, Fulton County voters approved SPLOST, a five-year, one-penny sales tax, that funds personal learning devices for students and optimizations across the FCS IT platform. These investments provided the solid foundation needed for transitioning to a Remote Learning environment.

The IT journey continued in earnest in 2018 following the addition of a new Enterprise Applications Executive Director. Given a charter to rationalize an unwieldy application portfolio, the effort became the catalyst for reimagining teaching and learning fueled by modern technology. FCS IT, curriculum design, and district leadership forged a partnership setting a vision for teaching and learning experiences that are defined by scenarios and use-cases.

The team refined the desired experiences and set phased goals for systems design, technology acquisition, deployment, and professional development. Also critical were setting standards and metrics to measure progress towards the development goals and ultimately learning outcomes. A public-facing balanced scorecard captures these and broader student-performance metrics and shares progress with the community.

System design principles

The team identified three vectors for defining value: Fiscal, Functional, and Fraternal. The guiding principles for IT design were:

- Lead with security – design with a solid foundation for safety/protection and privacy
- Enable active real-time collaboration among educators and between students and teachers
- Simplify the application portfolio and standardize on a single platform
- Streamline data management with a cloud-based storage and sync solution

Specifying technologies to bring into the environment was straightforward; removing duplicative applications was a critical step towards simplifying the environment and meeting parent needs for consistency across grade levels. Simplification was especially important when students were thrust into a Remote Learning scenario and parents were forced to intervene and provide "help desk" services.

Microsoft A5 license expands the toolset

The design principles led the team to the Microsoft 365 platform and the Microsoft A5 (Academic level 5) license. This license provided a hybrid cloud/on-premises integrated toolset that facilitates the functional needs of educators and students, while protecting student privacy, helping prevent disruptive security events, and helping ensure data integrity.

The Microsoft A5 license and corresponding technologies:

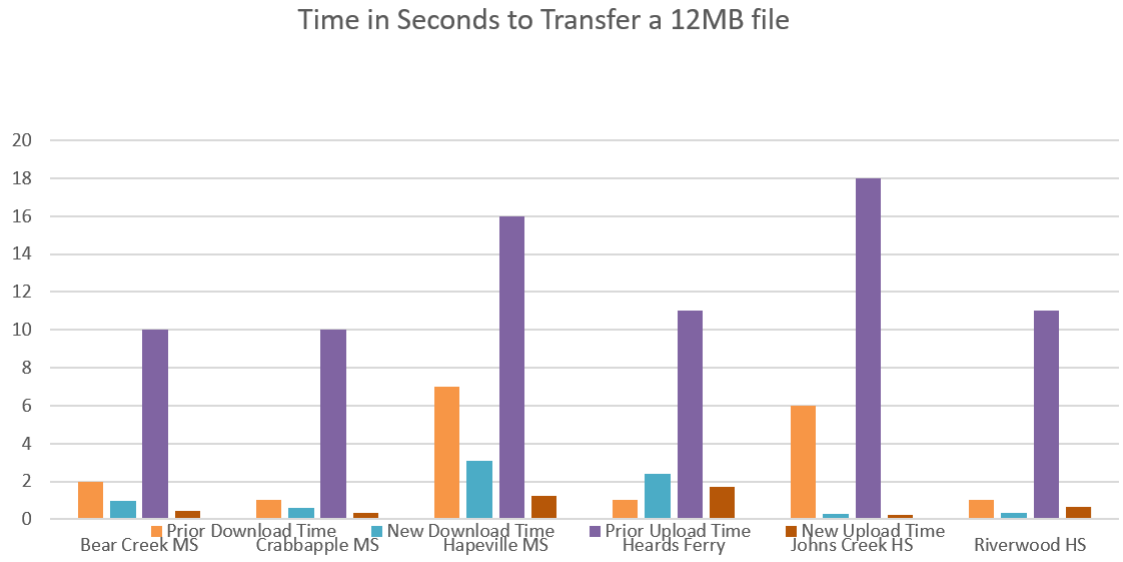
- Extends security monitoring and automates threat remediation
- Provides a PowerBI dashboard built on Caliper data for monitoring student progress and outcomes
- Integrates Telephony into online communications
- Strengthens identity management with privileged administrator accounts
- Advances data governance and compliance and supports e-discovery

- Builds on a unified EDU data scheme—one central location for SIS (School Information System) and Office 365 data, using PowerBI analytics, and flows into teaching activity and outcome analysis
- Connects Grade Sync with SIS protocols and seamlessly integrates in Office 365 applications
- Provides cloud-based discovery and inspection of sanctioned and unsanctioned applications in use through Myapps.microsoft.com

FCS is currently using OneDrive file storage for students and staff and is using Microsoft Teams for business and digital content while eliminating Google Classroom and Edmoto. By summer 2020, FCS will have more than 49,000 users, up from 7,600 in early 2019.

Office 365 and network optimization

A key step in the transformation was optimizingg Office 365 and the network to accommodate the anticipated increase in traffic. Sync time with OneDrive triggered many complaints from educators. The IT team analyzed network traffic to and from Office 365 Applications, then employed optimization strategies to decrease upload and download time--helping to build confidence among students and staff. The results were dramatic:



FCS has a 1:1 device ratio throughout the Middle and High School grades and is expanding 1:1 through grades 3-5. Parents with multiple children in the district indicated the desire for a single, consistent platform—a point especially punctuated by the COVID-19 school closures. FCS solidified its partnership with Dell Corporation and standardized on Window 10 devices, upgrading over 18,000 compatible devices and harvesting out 5,000 Windows 7 devices.

Restart and recovery—Fall 2020

The disruption of the COVID-19 pandemic forced rapid adaptation to a Remote Learning environment and stressed every system. However, the prior investments made positioned FCS for a strong and nimble response. The IT environment supported the changes needed, and the accommodations for a lingering virus are being put in place for the coming school year.

In contrast with many districts across the country, FCS has a head-start on restart! Its comprehensive plans for reopening rely on expansive technology integration and safety protocols enabled by personalized remote learning investments:

1. The District will simplify online resources by defining a focused menu of digital applications which are safe, secure, and effective. The approved menu will include Microsoft Office 365 and Teams
2. The District will provide a mobile learning device for use at home to students in grades 3-12 who request one
3. The District will provide training resources on the public website to assist families and guardians in using Teams to help their students

The future—Digital EDU-next—will be a blend of Remote Learning and in-person classroom attendance, and the demands on the technology infrastructure will continue unabated. Consolidating on the Microsoft 365 platform has proven instrumental in transforming the FCS technology environment to one that meets functional, financial, and fraternal needs today and extends them in the new-normal future.

Follow Fulton County School's journey into the 2020-2021 school year on Twitter at **@fultoncoschools**.

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