



School District of Pickens County

Building success beyond the classroom

SY 2021-22 SC DISTRICT TECHNOLOGY PLAN: SCHOOL DISTRICT OF PICKENS COUNTY

South Carolina law requires the S.C. Department of Education (SCDE) to approve district technology plans that specifically address and incorporate certified staff technology competency and proficiency standards aligned to the International Society for Technology in Education (ISTE) Educators standards. Districts have the option to use this form or a different format for filing their technology plan so long as it meets this requirement.

The Goals of the 2020-24 S.C. Educational Technology Plan are as follows:

A. Goal: Infrastructure, Connectivity, Security & Privacy

To support the state's learning goals, by 2024 South Carolina's public schools will have more secure networks, fast and stable technology infrastructure, and up-to-date computing devices. Public school students will have improved access to broadband internet at school and at home.

B. Goal: Teaching and Learning

To promote students' meeting the Profile of the South Carolina Graduate and to support Personalized Learning, by 2024 South Carolina's public schools will have more accessible tools for "anytime, anywhere, any pace" learning.

C. Goal: State-hosted services, collaboration opportunities, and shared services

To better support districts, create efficiencies, and improve effectiveness and quality, by 2024 the state will increase and expand state-level technology systems and services, including state-hosted regional technology support centers, backup and recovery services, procurement assistance, coordination of training, an updated student information system (SIS) with district operational data stores, and single sign-on.

The full South Carolina State plan may be found at:

https://www.scstatehouse.gov/reports/DeptofEducation/SC%20Tech%20Plan%202020-24_Final%20Version%20for%20Release.pdf.

1. Please provide a summary of your district's 2022-24 plans to have **more secure networks**.

SDPC has a strong infrastructure and various strategies in place to ensure a secure network. We have Fortinet firewalls and require FortiClient VPN access for all administrative functions outside the firewall. For example, we require all admins who access our financial software from outside the SDPC firewall to use VPN. SDPC conducts monthly internal penetration testing in collaboration with SLED. We are evaluating intrusion detection and prevention analysis, and our team plans to conduct internal and external vulnerability assessments in the winter of 2022. Once we address vulnerabilities found in these assessments, we plan to conduct an external penetration test. SDPC plans to continue these processes every two years as funding is available. SDPC has cybersecurity insurance, which covers breach liability regulatory proceeding defense expenses and fines or penalties. We limit local administrative privileges on computers to prevent malware and virus attacks. We continuously maintain software updates on all network and server hardware, and run monthly updates on all end-user devices. We do not allow end-user devices (Apple, Chrome, Windows, etc.) on our network once support is discontinued at the enterprise level.

SDPC has two geographically diverse datacenter locations to support our network infrastructure. The onsite backup server is located at a third location to maintain physical security of the backup server. Backup schedules for all servers are based on the data housed on that particular server, its function, and criticality, with the servers separated into four tiers. Tier 1 servers are considered to be mission critical and are backed up daily with one incremental backup transferred to an air-gapped cloud each week; three weeks of incremental backups are retained in the cloud, along with three months of a monthly incremental backup. Tier 2 servers are backed up daily, once incrementally each week, and once incrementally each month with similar retention policies as tier 1. Tier 3 servers are backed up once a week and retained for four weeks. Tier 4 servers are backed up once a month and retained for four months. No data is stored in the cloud for tiers two, three or four.

SDPC is in the process of developing a thorough data protection policy in collaboration with our lawyers and key stakeholders. This plan will include a privacy and data sharing agreement our vendors will be required to sign. We are contributing members of IMS Global Learning Consortium and have built out the TrustEd Apps dashboard provided by IMS for our teachers, staff, and administrators. We have a procedure in place for teachers, staff, and administrators to request app approval. All apps requested through our app approval process must be fully vetted, preferably by IMS, for security and data privacy. Teachers are trained not to allow students to create accounts for any web app unless it has been fully vetted and approved by both the IT department and instructional services.

SDPC recognizes that malware is a constant threat, and uses a multi-pronged approach to malware avoidance and mitigation. We encode every external email with a warning message, with the hopes that end users will pay more attention to possible cyber threats in these messages. We also require cyber security training annually through Safe Schools for all staff. We have an easy method for teachers to change network passwords in the event of a possible cyberthreat. Additionally, we require an annual password change for all users, and require any user who falls for a phishing scheme to change their passwords. All administrators of key systems such as ClassLink, Microsoft, and Google use multi-factor authentication. An MFA solution is also being explored for all staff to use while they are external to the SDPC network to increase security for all systems.

2. Please provide a summary of your district's 2022-24 plans to have **fast and stable technology infrastructure**.

The School District of Pickens County (SDPC) has a robust network infrastructure that is both fast and stable. Through Category 1 E-rate funding, Conterra Networks won our RFP bid to provide leased, dark fiber infrastructure in our district. Between August and November of 2019, all SDPC sites were connected to this high-speed network. The network currently provides 10 Gb between all sites. SDPC has 2 Gb of commodity internet through the SC Department of Education Consortium. Additionally, SDPC is a member of C-Light and gets 10 Gb of Internet2 bandwidth for educational traffic. SDPC installed new electronics at all sites through Category 1 and 2 E-rate funds to light the network in 2019, and will continue to replace network electronics with E-rate funds every 5-7 years.

3. Please provide a summary of your district's 2022-24 plans to have **up-to-date computing devices**.

SDPC is currently 1:1 with our "Tech It Home" program in grades 5K through 12th grade. Our 5K students have Chrome Tablets, our elementary and middle school students have 11 inch Chromebooks, and our high schoolers have 14 inch Chromebooks. These devices were purchased using local capital funds as well as funds from the E-rate Emergency Connectivity Fund and the American Rescue Plan. SDPC has a Capital Improvement Plan that supports replacement of student Chromebooks in grades 5K through 12th grade every five years. SDPC purchases insurance for each Tech It Home device and all repairs are handled off-site. Additionally, our local Capital Improvement Plan provides funds for replacing staff devices every five years. All teachers currently have a mobile laptop with a docking station, and we are moving our classified staff to a mobile model over the next two years to allow for remote work opportunities.

4. Please provide a summary of your district's 2022-24 plans to have improved **access to broadband internet at school and at home for teachers and students**. (During 2021-22, the SCDE will be requesting district assistance with collecting information on families' home broadband access to inform state expansion plans.)

SDPC is committed to working with local Internet Service Providers to connect 100% of our families to high-speed broadband Internet. In the summer of 2020, SDPC partnered with Pickens County Council to create a Pickens County Broadband Champions Committee. Jim Stritzinger, with Revolution D, led the training for our committee. During our training, we learned about the history of broadband in America, various types of broadband access such as cable, fiber, ethernet, etc., and how to access various grants to expand broadband in local communities. Mr. Stritzinger also mapped our county's broadband access and needs, creating a series of "blocks" for us to target. The committee prioritized eight blocks, with the first block being the area with the most people and the least access to high speed Internet. When the FCC announced the Emergency Connectivity Fund process, SDPC released an RFP to provide Internet access across Pickens County, using both FCC maps and the maps generated by Mr. Stritzinger. Three Internet Service Providers won the RFP. Two ISPs were awarded different areas of the county based on their ability to provide high speed broadband Internet to homes via fiber and cable. One ISP was able to provide hotspots as an emergency response for those homes where the other ISPs could not cover. We are hopeful that we will be awarded funds. The Pickens County Broadband Champion Committee is also using the maps to apply for other grants. In the meantime, any family who needs access to a hotspot is provided one.

5. Please provide a summary of your district's 2022-24 plans to have **accessible tools for anytime, anywhere, any place learning in support of the Profile of the S.C. Graduate**. Please include information on **plans to promote use of the learning object repository and learning management system(s)**.

SDPC has a digital ecosystem focused on interoperability. The first entry point for our students and staff is ClassLink, our single sign-on solution. ClassLink allows users to use one login to access every web application. A key aspect of our single sign-on solution is using OneRoster(R) to roster the majority of our web applications and digital textbooks. With single sign-on and rostering managed at the district level, we have removed administrative tasks for teachers, ensuring equity of access for all SDPC students and giving precious instructional and administrative time back to students and teachers.

Additional components of our robust digital ecosystem include Schoology, our learning management system, and SAFARI Montage, our learning object repository. SDPC has partnered with ClassLink and Schoology for six years, and SAFARI Montage for ten. The last major component of our digital ecosystem is Webex, our video conferencing tool. Webex is relatively new to SDPC, having been installed in the 2019-2020 school year. Webex allows us to manage synchronous instruction, a necessity for effective extended e-learning events. Webex also allows us to record lessons we can use for instruction. In the summer of 2020, SDPC's instructional services team worked with lead teachers to create video playlists of our power standards. We placed these playlists in SAFARI Montage, where they continue to be used by students and teachers.

Additionally, SDPC has two instructional technology coaches who work with our teachers on a variety of instructional training needs. The instructional technology coaches work with the instructional services team to plan and implement professional development that supports the Profile of the South Carolina Graduate as well as the district's personalized learning plan. We offer ongoing training in all of our tools and web applications in a variety of formats. Our coaches deliver virtual professional development, synchronous and asynchronous online instruction, as well as face-to-face instruction in both small and large groups. We value the journey that each teacher takes as they learn to integrate technology effectively, so we offer basic, intermediate and advanced courses across all web applications and tools on an ongoing basis.

6. Please provide a summary of your district's 2022-24 plans to have **certified staff demonstrate technology competency and proficiency aligned to the ISTE standards as part of staff's professional development plan**. Note: districts have flexibility in how to implement this requirement. E.g., some districts embed technology proficiency as a part of the regular professional development and evaluation process; others have staff demonstrate proficiency through job-embedded tasks. This requirement is not tied to certificate renewal. <https://www.iste.org/standards/iste-standards-for-teachers>

SDPC has required, and will continue to require, each teacher to earn 30 hours of professional development connected to technology training during each five-year certificate cycle. We plan to continue to use the state's PCS system to track proficiency.

At the core of our beliefs and values is empowering students to own their own learning, and we strive to provide as many personalized learning opportunities and pathways as possible for all students, staff, and

teachers. This vision can only be achieved with strong leadership and collaboration across all departments and schools, enabled by the efficiency of technology.

The ISTE Educator Standards provide an excellent roadmap for teachers as they help students become empowered learners. Our professional development is not just about teaching teachers how to use web applications and tools. We strive to offer opportunities that sharpen their professional practice, promote collaboration with colleagues, challenge traditional approaches to teaching and learning, and support them in empowering our students. These opportunities for professional development include a mix of self-paced courses, virtual sessions, face-to-face classes, and goal-oriented technology cohorts.

Beginning in January 2022, our professional development will be aligned to the ISTE Educator standards in PowerSchool Professional Learning, our online tracking system for staff and teacher professional development.