



**The Center for Instruction, Technology and Innovation
Instructional Technology Plan
2022-2025**

BOE Adoption Date: June 15, 2022

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CiTi Mission, Vision, Values and Technology Mission Statement

CiTi Mission, Keys and Values

Our Mission

Build Your Future!

Keys to the CiTi

Is this safe? Is this done with integrity? Is this kind? Is this helpful?

Core Values

We embrace innovation & creativity. We make student-based decisions with honesty, respect & integrity. We collaborate, focused on quality service, expertise & student success.

Instructional Technology Mission Statement

It is the objective of the Center for Instruction, Technology and Innovation (CiTi BOCES) to be a leader in our region in the integration and use of technology as a tool to facilitate, enhance, motivate, and improve the learning of our students and staff.

As a regional leader, our objectives include exploring new technologies, using existing technologies in new and proven ways, and critically evaluating the impact of their use on learning and development. We strive to measure the impact these technologies and their uses have on student performance by identifying those that demonstrate improvements in learning and engagement, and by adhering to the highest levels of safety and security. We participate with our community of peers at local, regional and statewide levels to collaborate and discuss our findings. Furthermore, these technologies must be in alignment with Federal, State, Regional, and Local initiatives and regulations.

Our goal is that technology serves as a tool our learners use to become active participants in their own learning and to become productive citizens through an increased ability to adapt within an ever-changing and technology-focused society.

Technology Committee Membership (2020-2021)

Stephanie Maturo	Director of Instructional Technology
Anthony Canale	Technology Project Manager
Peri Sukert-Nelson	Model Schools
Levi Meyer	Model Schools
Naomi Himes	Public Information Coordinator
Amanda Sawyer	Distance Learning Specialist
Garrette Weiss	Business Education Liaison

Technology Committee Membership (2021-2022)

Stephanie Maturo	Director of Instructional Technology
Anthony Canale	Technology Project Manager

CiTi Directors and Leadership Teams
CiTi Model Schools Team

Executive Summary

As a BOCES, we are constantly evolving; striving to support our students, staff and component districts with the application and integration of the highest quality research based instructional methods and technology tools. It is critical to continuously evaluate our technology initiatives, methods and tools to ensure we consistently provide the safest tools, resources and training to meet our goals. This plan will be evaluated annually and when necessary will result in an addendum to this plan.

CiTi BOCES has a rich array of classroom environments that allow us to work with new and innovative instructional technologies. To be effective, any initiatives must be supported hand in hand with high quality training and support that take into account student social and emotional growth and learning. Additionally, new and innovative technologies must align with the CiTi BOCES Professional Development Plan and New York State initiatives.

This plan aligns with the Regional 793 Plan for Technology Services and supports regional objectives and standards.

The Technology Integration Committee (TIC) took on a new format during 2020-2021 and 2021-2022 due to the COVID-19 pandemic. We met virtually and used survey tools to promote diverse participation in the conversations about technology integration and planning. The Leadership Team played a larger role in developing our technology integration vision and goals for the duration of this plan cycle. It is the intention and purpose of this new committee to guide innovative, safe and appropriate use of technology tools to improve student achievement and to prepare our staff and students for life and career.

Technology Integration Committee Vision Statements:

1. We will provide our users with a creative space, a rich set of technology tools and the understanding and awareness to drive achievement and enhance the quality of life with these tools in concert with our pedagogy and curriculum.
2. Our users will incorporate technology with purpose, responsibility, self-awareness and skill, displaying a positive attitude, a willingness to learn, and consistent practice to drive learning and to facilitate their best selves.
3. We envision a learning community fully prepared to access, analyze, apply and communicate effectively and safely, enabling each member to become successful, contributing members within an ever-changing, technology-focused global society.

Technology Goals

1. Integration of technology tools and resources that support the implementation of a multi-tiered system of support for students and staff at all levels of the organization that facilitate instructional strategies to improve student engagement and achievement.
 - a. Intentional professional development with systematic follow-up and feedback for staff and students that is supportive and reflective of the CiTi Professional Development Plan, the CiTi Mission and Vision and Regional and New York State goals; and
 - b. Addresses how technology can integrate successfully into our classrooms to provide multiple pathways to meet the specific needs of our diverse student population including students with disabilities, students with alternative learning needs, English Language Learners, and students in a focused industry career path program; and
 - c. Promote safe, secure and law-abiding use of technology resources
2. All members of the BOCES organization, including staff and students, will have access to innovative, safe and appropriate technology resources
 - a. Inclusive of the infrastructure, tools and resources to support efficient, safe, effective and meaningful teaching, learning, research and communication
 - b. By maintaining a support infrastructure with appropriate staffing to support our BOCES and component districts
 - c. Inclusive of support, service, and purchasing for the BOCES and the districts we serve

Plan Assessment and Technology Evaluation Process

The COVID-19 pandemic impacted the meeting space and continuum of our Technology Integration Committee (TIC). We used technology tools to reach our families and stakeholders. Meetings transitioned to virtual spaces and the use of forms and surveys allowed us to reach our stakeholders. This new vision for the TIC was quite effective and this group remains responsible for the ongoing assessment of the use and impact of technology throughout the BOCES organization. To assure that our plan remains focused on technology use within an educational environment, the committee members are comprised of the following components of the BOCES organization:

1. BOCES Administration, Departments and Programs
2. Instructional Programs
3. Instructional Technology Technicians
4. Support Personnel
5. Students

The committee regularly reviews the existing technology plan, applies goals to meeting current objectives and initiatives, and assists in the adjustment of the plan. This is to assure a unified and consistent approach to technology integration within the curriculum, learning, administrative and business functions of CiTi.

In addition to the plan review, the TIC will assess current and emerging technology tools and resources to help guide decision making and purchases that align with state and federal initiatives. This assessment will incorporate social and emotional learning and research to strive toward a more equitable and inclusionary digital community.

Online survey tools will continue to be used to allow broader stakeholder feedback on technology tools, resources and professional development needs. The results of these brief and periodic surveys will be used to discuss, plan, develop and implement instructional technology initiatives and resources that are responsive to stakeholder needs.

The committee, in conjunction with the Instructional Technology Department, will align purchases with the goals and objectives of this plan, and ensure that any recommendations and purchases fully integrate and are supported by the organization's technology support staff.

The most important objective of these surveys is to measure the role technology plays in the achievement and engagement of our students. All identified demonstrations of improvements in student achievement through technology integration will be shared across the organization via our Intranet and with our component districts through the Oswego County Curriculum and Instruction Committee, and with the Oswego County Directors of Technology.

Infrastructure needs/Technical Specification and Design

Category	Current Status	22/23 Needs	23/24 Needs	24/25 Needs
Telecom Services	Aging telecom systems	Replacement of phone system	PA System updates including new IP Speaker/Clocks to replace aging analog units	Continued replacement of the analog PA units
Hardware		Continuation of replacement plan, inclusive of MiFi, staff student devices, Firewall replacement, 1/3 UPS Replacements	Backup Appliance and storage system replacement, Continued UPS replacement	Edge switch updates, continued UPS replacement
Licensed Software/Subscriptions	Microsoft EES Campus licensing Adobe Campus licensing, Star, Language Live!, program/department specific licensing	Annual renewals of licensed software/subscriptions based on staff counts, transition to A5 licensing for increased security and access	Annual renewals of licensed software/subscriptions	Annual renewals of licensed software/subscriptions
Technical Support	1 Director of Technology 1 Project Manager 1 Network Administrator 2 Systems Administrator 2.4 LAN Technician 1 Computer Services Assistant	1 Director of Technology 1 Project Manager 1 Network Administrator 2 Systems Administrator 2.6 LAN Technician 1 Computer Services Assistant	1 Director of Technology 1 Project Manager 1 Network Administrator 2 Systems Administrator 2.6 LAN Technician 1.5 Computer Services Assistant	1 Director of Technology 1 Project Manager 1 Network Administrator 2 Systems Administrator 2.6 LAN Technician 1.5 Computer Services Assistant
Staff Development	1.2 Instructional Technology Integration Specialists	Student Information System integration with Google's GSuite, Personalized Learning inclusive of remote and hybrid strategies,,	Cybersecurity and safety, Data Privacy and Security, Student Information System, Personalized Learning inclusive	Cybersecurity and safety, Data Privacy and Security, Personalized Learning inclusive of remote and hybrid strategies, applying Digital

		STEM activities and integration of DEI and SEL into our digital practices	of remote and hybrid strategies, applying MTSS within a digital framework to build on DEI and SEL digital practices, Computer Science and Digital Fluency Standards, STEM activities and support for subscribed Learning Management Systems	Fluency and Computer Science standards, MTSS in a digital framework and STEM activities
Replacement Schedule/Maintenance Cycle	Updated inventory system processes and procedures to provide accurate reporting to support a 3-5 year replacement schedule	Replacement schedule reports distributed to programs and departments. Annual "Org Buy" to adhere to the replacement schedule.	Budget alignment across programs and departments to support the replacement schedule.	Continued refinement of the replacement schedule and maintenance cycle processes to support our departments and programs.
Physical Security		New site in Fulton, Assessment of camera system effectiveness on Mexico campus	Implementation of year 1 of camera system updates, addition of Bridges connectivity and camera system	Continued implementation of camera system updates
Cyber Security	Subscriptions to MalwareBytes, Windows Defender for endpoint cyber protection, NIST Framework assessments, End user training	Subscriptions to MalwareBytes, Microsoft A5 Security add-in to protect endpoints and identify threat activity, continued implementation of MFA across devices, applications and with on prem/remote	Additional layers of cyber protection tools, continued implementations of multi-factor authentication, end user device configurations to prohibit lateral movement of a threat actor, implementation of the MITRE	Ongoing work toward increased alignment with the NIST Framework, end user training based on findings,

		access, implementation of items identified through the NIST Framework assessment, continued end user training	ATT&CK framework to assess risk, continued end user training	
Policy Operations	4576-Data Security and Privacy Policy 5260-Staff Use of Computerized Information Resources 5262-Use of email in the BOCES 6214-Student Acceptable Use Policy 7250-Internet Safety/Internet Content Filtering	Policy reviews conducted based on review timelines	Policy reviews conducted based on review timelines	Policy reviews conducted based on review timelines

Action Plan

Goal #1: Integration of technology tools and resources supporting the implementation of a multi-tiered system of support for students and staff at all levels of the organization that facilitate instructional strategies to improve student engagement and achievement.				
Actions Needed	Staff Development	Person(s) Responsible	Anticipated Date of Completion	Indicator of Success
Standards and curriculum work to embed the Computer Science and Digital Fluency standards into our curricula K-12.	Itinerant Computer Education Specialists and the Director of Technology to work with Program administrators to develop a continuum of PD to meet program and curricular needs	Director of Technology working in conjunction with the Technology Committee, ISS Team, Leadership Team and Itinerant Computer Education Specialists	June 30, 2024	By June 30, 2024 the Computer Science and Digital Fluency standards will be embedded into the curriculum where appropriate, working at a regional level with Model Schools and curriculum specialists.
Development of training to implement the NYS Computer Science and Digital Fluency Standards into teacher curricula.	Itinerant Computer Education Specialists and the Director of Technology to work with Program administrators to develop a continuum of PD to meet program and curricular needs	Director of Technology working in conjunction with the technology committee, ISS Team, Leadership Team and Itinerant Computer Education Specialists	June 30, 2025	By June 30, 2025 identified teachers will have received training on how to embed the appropriate Computer Science and Digital Fluency standards for their grade band and content area.
Development of a blended and personalized learning program implemented through instructional strategies and supported by technology tools to meet the individual needs of every student and a focus	Itinerant Computer Education Specialists and the Director of Technology to work with Program administrators to develop a continuum of PD to meet program needs	Director of Technology working in conjunction with the Technology Committee, ISS Team, Leadership Team and Itinerant Computer Education Specialists	June 30, 2023	By June 30, 2023 a blended and personalized learning program will be designed, appropriate training developed, and implementation timeline identified by program.

on equity and inclusion.				
Implementation of a blended and personalized learning program implemented through instructional strategies and supported by technology tools to meet the needs of every student and a focus on equity and inclusion.	Itinerant Computer Education Specialists and Director of Technology to work with Program administrators to develop a continuum of PD to meet program needs	Director of Technology working in conjunction with the technology committee, ISS Team, Leadership Team and Itinerant Computer Education Specialists	June 30, 2025	By June 30, 2025, all Exceptional and Alternative Education programs will have implemented with 60% fidelity the blended and personalized learning program.
Use of data from our Student Information System to identify student success and areas of need.	District Data Coordinator and Itinerant Computer Education Specialists to work with Program administrators to develop a continuum of PD to meet program needs	Director of Technology working with Itinerant Computer Education Specialists and District Data Coordinator	June 30, 2025	Administrators by June 30, 2023 will be using reports and dashboards to identify by program and by student, success and areas of need. Counselors and specialists by June 30, 2024 will be using reports and dashboards to identify student success and areas of need. By June 30, 2025, Teaching staff will be using reports and dashboards by class and by student to identify areas of success and of need.
Development and implementation of a digital citizenship and onboarding	Itinerant Computer Education Specialists and Director of	Director of Technology working in conjunction with the technology	June 30, 2025	By June 30, 2024, all staff will participate in a digital citizenship

process for all new staff and students.	Technology to work with Program and Department administrators to develop a continuum of PD to meet program needs	committee, Leadership Team and Itinerant Computer Education Specialists		training program to create a community of support and awareness of the tools we use and their effective, safe and ethical use. By June 30, 2025, all students will participate in a digital citizenship training program to create a community of support and awareness of the safe, effective and ethical use of digital online tools.
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Goal #1 a.- c. Intentional professional development with systematic follow-up and feedback for staff and students that is supportive and reflective of the CiTi Professional Development Plan, the CiTi Mission and Vision and Regional and New York State goals; and addresses how technology can integrate successfully into our classrooms to provide multiple pathways to meet the specific needs of our diverse student population including students with disabilities, students with alternative learning needs, English Language Learners, and students in a focused industry career path program; and promote safe, secure and law-abiding use of technology resources				
Actions Needed	Staff Development	Person(s) Responsible	Anticipated Date of Completion	Indicator of Success
Rebrand the monthly Technology Integration Committee Meetings using our learning of what went well during the COVID-19 Pandemic to engage each location and program.	None necessary	Director of Technology	Research during 2022-2023 school year, implemented 2023-2024	Success will be indicated by monthly participation by staff and students across locations guides our implementation of technology at CiTi
Creation of reports in Data Studio to	Itinerant Computer Education	Director of Technology in	June 30, 2025	June 30, 2023 Supplemental

<p>supplement SchoolTool Dashboards to support MTSS goals at the program and student level.</p>	<p>Specialists, District Data Coordinator, Director of Technology and technology team to develop a continuum of PD to meet program needs</p>	<p>oversight of the District Data Coordinator and Itinerant Computer Education Specialists</p>		<p>reports identified June 30, 2024 Reports built and tested, training facilitated by District Data Coordinator and Itinerant Computer Education Specialists developed June 30, 2025 Reports in use by instructional staff in each program.</p>
<p>Support for the use of SchoolTool Dashboards for MTSS goals.</p>	<p>Itinerant Computer Education Specialists and District Data Coordinator to work with Program administrators to develop a continuum of PD to meet program needs</p>	<p>Director of Technology in oversight of the Itinerant Computer Education Specialists</p>	<p>Beginning in 2022-2023 and ongoing thereafter</p>	<p>Success indicated by: -Teacher use of SchoolTool Dashboards to track student performance at the end of 2024-2025 -Program counselor use of Dashboards by the end of 2023-2024 -Use of Dashboards by administrators by the end of 2022-2023</p>
<p>LMS and application strategies to facilitate accessibility, differentiation and specially designed instruction, supportive of MTSS for each student.</p>	<p>Itinerant Computer Education Specialists and Director of Technology to work with Program and Department administrators to develop a continuum of PD to meet program needs</p>	<p>Director of Technology in oversight of the Itinerant Computer Education Specialists</p>	<p>Continuum of offerings by topic and proficiency level provided throughout the year, starting in the 2022-2023 school year.</p>	<p>Success indicated by: -60% of Teachers will implement at least 2 strategies supporting accessibility, differentiation and specially designed instruction across all programs by June, 2025</p>

Development of strategies to implement equity and inclusivity within digital learning environments.	Itinerant Computer Education Specialists and Director of Technology to work with Program and Department administrators to develop a continuum of PD to meet program needs	Director of Technology in oversight of the Itinerant Computer Education Specialists	Continuum of offerings by topic and proficiency level provided throughout the year, starting in the 2022-2023 school year.	Success indicated by: -60% of Teachers will implement at least 2 strategies targeting inclusion and equity across all programs by June, 2025
Implementation of a cyber security program for staff and students that promotes the safety of our data and systems.	Itinerant Computer Education Specialists to work with Program administrators to develop a continuum of PD	Director of Technology in oversight of the Itinerant Computer Education Specialists	Occurring annually and beginning in the Winter of 2023.	Success indicated by- -Reduction over year prior of cyber incidents detected by our anti-malware systems -Report process implemented and a 5% increase in use by staff each year by 2021
Professional Development based on user needs and job requirements.		Director of Technology in oversight of the Itinerant Computer Education Specialists	Ongoing	Ongoing and responsive to current trends

Goal #2: All members of the BOCES organization, including staff and students will have access to innovative and appropriate technology resources				
Actions Needed	Staff Development	Person(s) Responsible	Anticipated Date of Completion	Indicator of Success
Threat detection systems implemented and used to identify and mitigate areas of	Not Applicable	Instructional Technology Department	December 31, 2023	By the end of December, 2023, the A5 Security platform will be fully implemented,

risk.				reports and alerts analyzed daily with responses initiated
Additional security camera density at the Mexico Main Campus.	Not Applicable	Instructional Technology Department and Director of Facilities	June 30, 2024	By June 30, 2024, Improved security camera coverage in areas of campus that currently have low coverage to a good or excellent rating.
NIST Review by the IT department to increase data security and privacy across our systems and infrastructure.	Support and training of staff in the use of the system	Instructional Technology Department	June 30, 2024	By June 30, 2024 the IT Department will score over 5.0 on all elements of the NCSR NIST Review and annually thereafter.
Cloud computing policies and procedures to support data privacy and security.	Support and training of staff in the IT Department on the implementation of systems for cloud computing technologies	Instructional Technology Department	Updated at least annually by June 30, the cyber landscape is ever changing and we remain committed	By June 30, 2023, policies, processes and procedures will be implemented to secure cloud computing technologies. Ongoing
Multi-factor authentication implemented for all staff computer devices and remote access protocols.	Support and training for the IT Department for implementation, support and training for staff and students on the use of these tools	Instructional Technology Department	June 30, 2023	By June 30, 2023 multi-factor authentication on staff devices and remote access will be implemented with fidelity across the CiTi organization.

NYSED Initiatives Alignment

The Center for Instruction, Technology and Innovation has established a comprehensive and sustained effort to support rigorous academic standards and performance improvement for all students across our programs and in our component districts. The focus is on technology tools and use that meets the varied needs of our student population. Professional development within a Multi-Tiered System of Support (MTSS) that is inclusive of technology integration supports rigor, access and improvement for all students. Technology within an MTSS model is the mechanism that removes barriers to learning, provides accessibility and provides multiple means to demonstrate learning and understanding. Data analysis tools further MTSS to ensure successful outcomes for each learner throughout our learning environment.

Our commitment to MTSS supports the use of technology devices and services to ensure access to and participation in the general curriculum for all students, including those with disabilities, alternative learning needs and multilingual students. Professional development within the MTSS umbrella supports the use of technology tools to differentiate instruction based on student needs and data. It also focuses efforts on creating a multi-tiered system to support the whole student. Technology's ability to support social emotional learning through augmented reality, virtual reality, the use of wearable devices and applications is an area we are committed to exploring, testing and implementing with fidelity based on research.

Additionally, our rich and diverse offering through our Distance Learning program promotes culturally responsive learning and allows students across our region to reach outside of our county boundaries to experience and connect with people, places and cultures they wouldn't be able to through traditional means.

The alignment of our technology goals to an MTSS model allows for the needs of each student to be met in a rigorous and supportive environment that encourages the success of all students.

Administrative Management Plan

Staffing

Specific to CiTi BOCES Organizational Instructional Technology Support and Leadership

Note: This does not include staff who support the districts we serve.

Title	Full Time Equivalent (FTE)
Technology Leadership	1.0
Instructional Support	0.6
Technical Support	5.6

Investment Plan

Anticipated Item or Service	Estimated Cost	Type of Cost (One Time, Recurring, Both)	Potential Funding Source
Hardware needs - Server infrastructure, end user devices, infrastructure equipment	290,000	Recurring	CoSer and BOCES funding, exploration of grant funding
Software and Contractual	475,000	Recurring	CoSer and BOCES funding, exploration of grant funding
Professional Development	1.2 FTE	Recurring	CoSer and BOCES funding