

# SOUTHERN CAYUGA CSD

## Instructional Technology Plan - Annually - 2015

LEA Information

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### A. LEA Information

1. What is the total student enrollment based on the most recent BEDS Day submission?

702

2. What is the student enrollment by grade band based on the latest BEDS Day submission?

|             | Enrollment |
|-------------|------------|
| Grades K-2  | 154        |
| Grades 3-5  | 138        |
| Grades 6-8  | 161        |
| Grades 9-12 | 208        |

3. What is the name of the district administrator entering the technology plan survey data?

Patrick Jensen

4. What is the title of the district administrator entering the technology plan survey data?

Superintendent

- 4a. If the response to question four was "Other", please provide the title.

(No Response)

**B. Instructional Technology Vision and Goals****1. Please provide the district mission statement.**

Provide instruction through the use of technology based learning tools to meet the demands of 21st Century learning initiatives. Foster growth among students and educators by leveraging "Technology" and "Technical Professional Development" plans that are flexible enough to accommodate the evolution of technology and the dynamic nature of the world we live in. Facilitate forums that involve all pertinent stakeholders as part of a collaborative approach to meeting the challenges of education in the 21st century.

**2. Please provide the executive summary of the instructional technology plan, including vision and goals.**

The districts initial focus has involved a comprehensive account of assets in the district related to instructional technology. Anticipated "End of Life" data has been applied to the existing inventory to generate a snapshot in time serving as a baseline for a four year technology lifecycle plan. Equipment deemed "End of Life" at the time of the snapshot was not included in the overall plan. All remaining equipment has been given an expiration date based on years of service from the date of manufacturing to present day. The four year plan addresses the needs of end users on the network and offers a sustainable refresh cycle.

Data Security, Disaster Recovery, and student Internet safety (CIPA compliancy) are primary focuses when considering an instructional technology plan. Security and student digital safety is maintained through the use of current firewall and web filtering technologies. These units are part of an Infrastructure Technology Lifecycle and have been assessed in the same manner as the end user inventory. Frontline security appliances have been given an "End of Life" timeline to ensure district data and student access remains intact.

Disaster Recovery enhancement is underway. The existing virtual environment utilizes a three host VMware farm with a SAN and LTO-6 tape library. Incremental backups are performed nightly with full backups taking place on the weekend utilizing a combination of tape and disk throughout the district. Full backup tapes are stored in a fire safe vault. While this process meets the baseline requirements of a Disaster Recovery structure, future enhancements are being evaluated. Ideally an additional host and SAN will be located in a separate wing of the campus to provide redundancy and seamless continuity to limit downtime and impact to instructional technology. Power backups are included as part of the disaster recovery plan. All data closets are connected to emergency power.

Connectivity is a key component of any Instructional Technology Plan. The ability to deliver content to the classroom and student devices is a dynamic challenge. A site survey is underway to assess the practical life expectancy of existing switches, routers, access points, and other data delivery related equipment. Subsequent goals will be documented to allow for infrastructure flexibility to meet the needs of pilot 1:1 initiatives using iPads at the elementary level and Chromebooks in grades 2-12. Plans are in place to apply the same "Lifecycle" criteria to data delivery equipment within the district to "Future Proof" internal capabilities.

Professional Development plans are being developed to enhance the skillset of our educators in the classroom. Google for education is an investment in time and resources that will directly impact the delivery of instructional technology in the classroom. Working alongside technology integrators in the district, our teachers will be provided the tools they need to deliver 21st century learning initiatives.

Instructional Technology software in the classroom is reviewed on an ongoing basis. The goal of consolidating software offerings and streamlining support, cost, and professional development will continue until standard offerings are agreed upon among all stakeholders.

**3. Please summarize the planning process used to develop the instructional technology plan. Please include the stakeholder groups participating and outcomes of the instructional technology plan development meetings.**

Instructional Technology Planning is achieved through a holistic approach. All relevant stakeholders have an opportunity to contribute to the overall plan throughout the school year in a scheduled manner. There are four types of meetings that occur with varying frequency. Meeting titles include Executive, Community Advisory Committee (CAC), Director of Technology, and District Leadership.

Executive meetings are multi-district in nature and include superintendents, principals, and business administrators. These meetings are typically separate based on title. Instructional Technology discussions occur quite often in this forum.

Community Advisory (CAC) meetings occur eight times within the school year. The Elementary school and the Jr/Sr High School conduct four meetings apiece during the school year. Instructional technology has been part of the agenda on many occasions.

Director of Technology meetings convene twice a month. Directors from Regional BOCES participating districts gather once a month to discuss technology with an emphasis on Cayuga region specific developments. The second meeting is held at the regional information center (CNYRIC) to review and discuss current instructional technologies with an emphasis on best practices. The goal continues to be development of a baseline standard that works for multiple districts.

District Leadership meetings are held twice a month with the Superintendent, Principals, Technology Director, and Business Administrator in attendance. This forum provides a central repository for information gleaned by leadership through the aforementioned meetings. Pertinent information is shared amongst the participants and consolidated and tied to the instructional technology plan.

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Instructional Technology Vision and Goals

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4. Please provide the source(s) of any gap between the current level of technology and the district's stated vision and goals.

Access Points (Checked)  
Device Gap (Checked)  
Professional Development (Checked)

- 4a. Please specify if "Other" was selected in question four.

(No Response)

5. Based upon your answer to question four, what are the top three challenges that are causing the gap? If you chose "No Gap Present" in question four, please enter N/A.

Professional Development is currently considered a gap as it relates to Google Apps for Education (GAFE) instruction. This gap was anticipated and accounted for.

The concentration of access points in support of mobile devices and 1:1 initiatives will be reviewed as devices are added to the network. The current inventory of access points has proven sufficient to support the mobile environment. The likelihood of expanding the number of access points is expected to increase exponentially.

Mobile devices will ultimately replace the existing desktop in a classroom instructional technology model. Legacy devices will be replaced by mobile technology carts in support of a shared resource educational model available to all students.

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Instructional Technology & Infrastructure Inventory

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### C. Technology and Infrastructure Inventory

1. What is the available network broadband bandwidth? Please express speed in Mb (Megabits) or Gb (Gigabits). \*

|  | Minimum Capacity (Expressed in Mb or Gb) | Maximum Capacity (Expressed in Mb or Gb) |
|--|--|--|
| Network Bandwidth: Incoming connection TO district schools (WAN)       | 100MB                                    | 1Gb                                      |
| Internal Network Bandwidth: Connections BETWEEN school buildings (LAN) | 1Gb                                      | 10Gb                                     |
| Bandwidth: Connections WITHIN school buildings (LAN)                   | 1GB                                      | 1Gb                                      |

2. What is the total contracted Internet access bandwidth for your district? Please express speed in Mb (Megabits) or Gb (Gigabits).

100Mb

3. What is the name of the agency or vendor that your district purchases its primary Internet access bandwidth service from?

Central New York Regional Information Center

4. Which wireless protocols are available in the district? Of these, which are currently in use? Check all that apply.

|          | Available/In Use                        |
|----------|---|
| 802.11a  | Available (Checked)<br>In Use (Checked) |
| 802.11b  | Available (Checked)<br>In Use (Checked) |
| 802.11g  | Available (Checked)<br>In Use (Checked) |
| 802.11n  | Available (Checked)<br>In Use (Checked) |
| 802.11ac | Available (Checked)<br>In Use (Checked) |
| 802.11ad | (No Response)                           |
| 802.11af | (No Response)                           |

5. Do you have wireless access points in use in the district?

Yes

- 5a. What percentage of your district's instructional space has wireless coverage?

100

6. Does the district use a wireless controller?

Yes

7. What is the port speed of the switches that are less than five years old in use in the district?

1Gb

8. How many computing devices less than five years old are in use in the district?

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|   | Number of devices in use that are less than five years old | How many of these devices are connected to the LAN? |
|---|--|---|
| Desktop computers/Virtual Machine (VM)                                    | 110  | 110   |
| Laptops/Virtual Machine (VM)  | 79   | 79  |
| Chromebooks   | 205  | 205   |
| Tablets less than nine (9) inches with access to an external keyboard     | 10   | 10  |
| Tablets nine (9) inches or greater with access to an external keyboard    | 455  | 455   |
| Tablets less than nine (9) inches without access to an external keyboard  | 0  | 0   |
| Tablets nine (9) inches or greater without access to an external keyboard | 0  | 0   |
| <b>Totals:</b>  | 859.00   | 859.00  |

9. Of the total number of students with disabilities in your district, what percentage of these students are provided with assistive technology as documented on their Individualized Education Programs (IEPs)?

48

10. From your technology needs assessment, please describe any additional assistance or resources that, if provided, would enhance the district's ability to provide improved access to technologies, including assistive technologies, for students with disabilities.

The number of available resources dedicated to students with special needs is limited. (Currently one resource at Cayuga BOCES) Additional funding would allow the district to retain the services of individuals specializing in a more comprehensive assessment for each student with a disability. Increasing the number of resources capable of providing such an assessment would enhance the district's ability to deliver the most beneficial assistive technology to meet the individual need.

The district educates its special needs students through an inclusive classroom setting. The environment consists of a teacher and an aide. Professional development is provided based on available funding. Additional resources would allow the district to reach a greater number of educators with in-depth growth opportunities focused on special education.

The cost of technology specifically designed to foster growth among students with disabilities can oftentimes be cost prohibitive. The district strives to deliver the best education possible while considering a number of factors. Inevitably the challenge involves providing beneficial assistive technologies while taking into account a finite budget to do so.

11. How many peripheral devices less than five years old are in use in the district?

|                         | Number of devices in use that are less than five years old |
|-------------------------|--|
| Document Cameras        | 5  |
| Flat Panel Displays     | 15   |
| Interactive Projectors  | 15   |
| Interactive Whiteboards | 1  |
| Multi-function Printers | 6  |
| Projectors              | 5  |
| Scanners                | 0  |
| Other Peripherals       | 7  |
| <b>Totals:</b>          | 54.00  |

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12. If a number was provided for "Other Peripherals" please specify the peripheral device(s) and quantities for each.

(2) 3D Makerbot Printers and (5) Color Laser Printers

13. Does your district have an asset inventory tagging system for district-owned equipment?

Yes

14. Does the district allow students to Bring Your Own Device (BYOD)?

Yes

- 14a. On an average school day, approximately how many student devices access the district's network?

255

15. Has the school district provided for the loan of instructional computer hardware to students legally attending nonpublic schools pursuant to Education Law, section 754?

Yes

**D. Software and IT Support**

1. What are the operating systems in use in the district?

|                             | Is this system in use? |
|-----------------------------|------------------------|
| Mac OS Version 9 or earlier | No                     |
| Mac OS 10 or later          | Yes                    |
| Windows XP                  | No                     |
| Windows 7.0                 | Yes                    |
| Windows 8.0 or greater      | Yes                    |
| Apple iOS 7 or greater      | Yes                    |
| Chrome OS                   | Yes                    |
| Android                     | Yes                    |
| Other                       | No                     |

2. Please provide the name of the operating system if the response to question one included "Other."

(No Response)

3. What are the web browsers, both available and supported, for use in the district?

|                                | Web Browsers available and supported for use |
|--------------------------------|--|
| Internet Explorer 7            | No   |
| Internet Explorer 8            | No   |
| Internet Explorer 9 or greater | Yes  |
| Mozilla Firefox                | Yes  |
| Google Chrome                  | Yes  |
| Safari (Apple)                 | Yes  |
| Other                          | No   |

4. Please provide the name of the web browser if the response to question three included "Other."

(No Response)

5. Please provide the name of the learning management system (LMS) most commonly used in the district.

Brain Honey

6. Please provide the names of the five most commonly used software programs that support classroom instruction in the district.

Microsoft Office Suite, Google For Education, Ensemble, SMART Notebook, STAR

7. Please provide the names of the five most frequently used research databases if applicable.

Britannica Encyclopedia, Proquest Direct, Gale, World Book, Scholastic Go!

8. Does the district have a Parent Portal?

No

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Software and IT Support

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8a. Check all that apply to your Parent Portal if the response to question eight is "Yes."

(No Response)

8b. If 'other' was selected in question eight (a), please specify the other feature(s).

(No Response)

9. What additional technology-based strategies and tools, besides the Parent Portal, are used to increase parent involvement?

Learning Management System (Checked)

Website (Checked)

Facebook (Checked)

Other (Checked)

9a. Please specify if the response to question nine was "Other".

Mailings

10. Please list title and FTE count (as of survey submission date) of all staff whose primary responsibility is technical support.

| Title                  | Number of Current FTEs |
|------------------------|------------------------|
| Director of Technology | 1.00                   |
| Network Administrator  | 1.00                   |
| Technology Integrator  | 1.00                   |
|                        | 3.00                   |

**E. Curriculum and Instruction****1. What are the district's plans to use digital connectivity and technology to improve teaching and learning?**

The district plan for technology in the classroom includes a number of technologies to support 21st century learning in a collaborative environment. More specifically through the use of interactive projection systems, 1:1 initiatives to get technology in the hands of the student, and moderating/monitoring tools for teachers to track progress and encourage collective contribution in an all-inclusive setting, the district will deliver state of the art instructional technology.

**2. Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials, and assessments?**

Yes

**2a. If "Yes", please specify.**

The needs of students with disabilities are met through the use of technology available to each student within a classroom. Individual assessments are applied and customized to ensure students with disabilities flourish in an all-inclusive classroom environment. Supporting technologies and resources are provided to meet daily curriculum objectives while considering any additional needs that may require additional learning tools albeit technology related hardware or software.

**3. Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?**

Yes

**3a. If "Yes", please provide detail.**

The district's instructional technology plan incorporates the needs of students with disabilities once initial assessments and subsequent IEP's are carried out. The technology plan is inherently flexible to accommodate the anticipated need, as well as the unforeseen, throughout the school year. Students with special needs are assigned the same equipment used in the general curriculum to promote seamless integration with fellow students. Currently iPads are utilized to deliver general curriculum content as well as specialized content.

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**F. Professional Development**

1. Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience, and method of delivery within your summary.

Professional development is focused on technology integration in the classroom, Google Classroom, and Chromebook technology. The district has deployed iPads to all K-4 classrooms on a 2-1 ratio, which are utilized for skill development through the use of apps. The apps are specifically focused on reading skill & fluency, math facts, handwriting skills, and coding. Staff and faculty members will continue to be trained to use iPads, along with specific applications which benefit their students.

In addition, staff and faculty have received and will continue to receive training on Google Classroom and Chromebooks, in order to support our 1-1 deployment plan at grades 2-8. Additional Chromebooks will be available in all 9-12 classrooms. Current staff development is focused on developing research skills and writing across content areas. Future staff development will focus on coding and robotics as courses are made available to students. Training will continue to focus on the use of interactive projectors, as well as video databases to support the flipped classroom instructional model. The interactive projectors have benefited visual learners, improved the quality of presentations, and supported collaborative work among students.

Teachers will be trained to use multiple student assessment tools, such as STAR Enterprise Reading Assessment and AIMSWEB, which provide student performance reports in reading and mathematics. In addition, training will focus on analyzing student performance data in order to ensure an aligned curriculum and instructional practice. Teachers have access to online curriculums, such as the ELA and math modules provided by the state, along with the common core standards. Staff development will also focus on the future transition to digital textbooks at the secondary level.

Professional development opportunities will continue through to the completion of the plan by members of our SCCS Faculty, along with trainers through the CO BOCES, OCMRIC, and private companies. Workshops will take place during conference days, faculty meetings, afterschool, summer, and within classrooms during the instructional day.

2. Please list title and FTE count (as of survey submission date) of all staff whose primary responsibility is technology integration training and support for teachers.

| Title                 | Number of Current FTEs |
|-----------------------|------------------------|
| Tech Integration Spec | 1.00                   |
|                       | 1.00                   |

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## Instructional Technology Plan - Annually - 2015

Technology Investment Plan

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### G. Technology Investment Plan

1. Please list the top five planned technology investments in priority order over the next three years.

|                | Anticipated Item or Service | Estimated Cost | Is Cost One-time or Annual | Potential Funding Source (May list more than one source per item.) |
|----------------|-----------------------------|----------------|----------------------------|--|
| 1              | Interactive Whiteboards     | 90,000         | One Time                   | SmartSchools Bond Act  |
| 2              | Servers                     | 100,000        | One Time                   | SmartSchools Bond Act  |
| 3              | Tablets                     | 190,000        | One Time                   | SmartSchools Bond Act  |
| 4              | Laptops                     | 168,000        | One Time                   | SmartSchools Bond Act  |
| 5              | Other                       | 250,000        | One Time                   | SmartShools Bond Act   |
| <b>Totals:</b> |                             | 798,000.00     |                            |  |

2. If "Other" was selected in question one, please specify.

Security infrastructure requires upgrading analog cameras to digital cameras, expanded campus-wide camera coverage, and replacement of the keyless exterior door security system.

Additional infrastructure encompasses a number of resources behind the scenes. Disaster Recovery, Cabling, Network Switches, and digital security remain a critical technology investment focus. These infrastructure upgrades are necessary to future proof the district's network and guard against obsolescence. The emphasis on district preparedness for future technologies and growing bandwidth is crucial to future initiatives and requirements that will likely be mandated in the coming years.

**H. Status of Technology Initiatives and Community Connectivity**

1. **Please check any developments, since your last instructional technology plan, that affect the current status of the technology initiatives.**

Technology Plan Implementation (Checked)  
Computer-based Testing (Checked)  
Developments in Technology (Checked)

- 1a. **Please specify if response to question one was other.**

(No Response)

2. **In this section, please describe how the district plans to increase student and teacher access to technology, in school, at home, and in the community.**

The district has just completed a roll-out of laptops and tablets for teachers. These units are connected to the network when at school and available for connectivity to home Wi-Fi where available.

Students in the sixth grade will participate in a 1:1 pilot initiative involving the use of Chromebooks. As part of this pilot, students will be allowed to bring their assigned device home. Instructional applications capable of offline functionality will be leveraged to address the lack of internet connectivity within the community.

The district has had preliminary discussions with town officials and vendors interested in providing broadband to the district community. These talks are ongoing with no definitive plan in place to deliver this service at this time.

3. **Please check all locations where Wi-Fi service is available to students within the school district geographical boundaries.**

School (Checked)

- 3a. **Please identify categories of available Wi-Fi locations within the community.**

(No Response)

### I. Instructional Technology Plan Implementation

1. Please provide the timeline and major milestones for the implementation of the instructional technology plan as well as the action plan to integrate technology into curriculum and instruction to improve student learning.

During the three year term of the SCCS Technology Plan, the district will complete the following tasks:

- Complete the projector replacement cycle with installation of 43 interactive projections systems.
- Complete a 1 to 1 Chromebook deployment at grades 2-12. Total of 438 units to be deployed during the next three years.
- Complete replacement of older iPads, approx. 346 units purchased during 11/12 and 12/13 school years.
- Continue replacement cycle of printers, approx. three units per year.
- Replace analog security cameras and expand coverage, approx 50 digital security cameras, server, and wiring.
- Replace keyless exterior door entry system, approx 10 doors.
- Update server and expand wireless coverage.

First year implementation will include the following:

- complete half of projector replacement cycle.
- complete half of Chromebook deployment.
- Replace three printers.
- Expand wireless coverage
- Initiate security camera and keyless exterior door upgrades.

Second year implementation will include the following:

- Complete projector replacement cycle.
- Complete Chromebook deployment.
- Replace three printers.
- Expand wireless coverage
- Complete security camera and keyless exterior door upgrades.

Third year implementation will include the following:

- Complete replacement cycle for older iPad units.
- Upgrade and add servers.
- Replace three printers.
- Expand wireless coverage.

Professional Development will continue to match the deployment of 1-1 Chromebooks at specific grade levels along with use of Google Classroom, interactive projectors, and online applications. During the next year, the district will create paperless classroom environments and introduce digital textbooks to students in specific course offerings.

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## Instructional Technology Plan - Annually - 2015

Monitoring and Evaluation

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### J. Monitoring and Evaluation

1. Please describe the proposed strategies that the district will use to evaluate, at least twice a year, the effectiveness of the implementation of the district's instructional technology plan to improve teaching and learning.

The SCCS Technology Working Group meets on a monthly basis to outline our goals and to assess our progress to date. The group discusses deployment of resources, professional development, concerns as they arise, work around solutions, and adjustments in planning to meet future needs. The group includes district administrators, building administrators, the Director of Technology, and teachers piloting technology resources in the field.

2. Please fill in all information for the policies listed below.

|   | Date of Public Forum (If applicable) | URL   | Year Policy Adopted |
|---|--------------------------------------|---|---------------------|
| Acceptable Use Policy -- AUP                          | (No Response)                        | <a href="http://www.southerncayuga.org/tfiles/folder710/SCCSPolicyBookUpdated%20Jan%2015%2Epdf">http://www.southerncayuga.org/tfiles/folder710/SCCSPolicyBookUpdated%20Jan%2015%2Epdf</a> | 2012                |
| Internet Safety/Cyberbullying                         | 04/29/2010                           | <a href="http://www.southerncayuga.org/tfiles/folder710/SCCSPolicyBookUpdated%20Jan%2015%2Epdf">http://www.southerncayuga.org/tfiles/folder710/SCCSPolicyBookUpdated%20Jan%2015%2Epdf</a> | 2010                |
| Parents' Bill of Rights for Data Privacy and Security | (No Response)                        | <a href="http://www.southerncayuga.org/789">http://www.southerncayuga.org/789</a>   | 2014                |

3. Does the district have written procedures in place regarding cybersecurity?

No

### K. Survey Feedback

Thank you for submitting your district's instructional technology plan (ITP) survey via the online collection tool. We appreciate the time and effort you have spent completing the ITP survey. Please answer the following questions to assist us in making ongoing improvements to the online survey tool.

**1. Was the survey clear and easy to use**

Yes

**1a. If response was "No", please explain.**

(No Response)

**2. Was the guidance document helpful?**

Yes

**2a. If "No", please explain.**

(No Response)

**3. What question(s) would you like to add to the survey? Why?**

(No Response)

**4. What question(s) would you omit from the survey? Why?**

(No Response)

**5. Other comments.**

(No Response)

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Appendices

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**Appendices**

1. Upload additional documentation to support your submission

(No Response)