

*Our Vision*

*We are a community that inspires all students to be life-long learners who strive to fulfill their unique potential and improve our society.*

*Our Mission*

*Empower students of all ages to be life-long learners who demonstrate creative thinking, critical analysis and problem solving skills in an ever changing and challenging world.*



**Welcoming All Learners**

## **District Technology Plan**

**July 1, 2015 – June 30, 2018**

**“Transforming Learning for the 21<sup>st</sup> Century”**



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## DEMOGRAPHICS

Winona Area Public Schools (WAPS) is located along the Mississippi River valley in the southeast region of rural Minnesota. The district has a student population of 3,100 students.

- Facilities:
  - (5) K-4 elementary buildings
  - (1) 5-8 Middle School
  - (1) 9 -12 High School
  - (1) Alternative Learning Center
  - (1) Community Education, Mentoring & Childcare Center
  
- Detailed district demographic information can be found here: [WAPS Demographic Data](#)

## TECHNOLOGY PLANNING

### District Technology Committee

The District Technology Committee meets on a quarterly basis during the school year in October, January, March and May. Committee members include teachers, media specialists, information technology staff, technology integration staff, administrators, support staff and a school board member. The committee reports to the Board of Education and district administration as appropriate.

The objective of the District Technology Committee;

- To serve as an advisory committee in planning and implementing district technology initiatives and financial resources.
  
- To define district goals which support advancements in technology that support classroom integration, innovation, and improvements in district operations.
  
- To support teachers and other district staff in professional development opportunities to prepare them to provide excellent educational experiences for students and ultimately help achieve the fundamental purpose of improving student achievement.

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**District Leadership**

The WAPS leadership’s commitment to technology advancement is in support of the school district mission;

*"Empower students of all ages to be life-long learners who demonstrate creative thinking, critical analysis and problem solving skills in an ever changing and challenging world".*

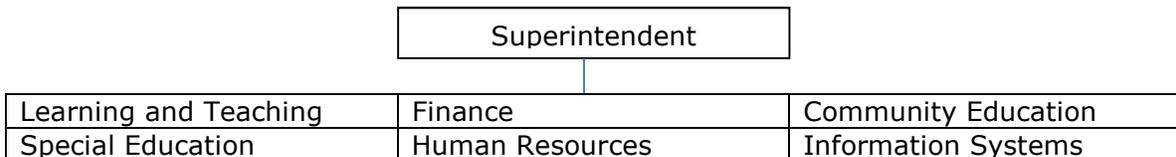
In 2014 the district began a 1:1 learning initiative titled TL<sup>21</sup>, which stands for "Transforming Learning for the 21<sup>st</sup> Century". TL<sup>21</sup> is being formulated from several key program components, including academic learning goals, professional development, funding, communication, policies, procedures, logistics and infrastructure needs.

The district leadership teams and Board of Education supports the mission of the district through adoption of policy, setting goals and engaging stakeholders, all with the ultimate goal of improving student achievement. These goals and initiatives; linked to district strategic planning, curriculum development, professional staff development and efficient/effective operations support progressive advancements in student achievement.

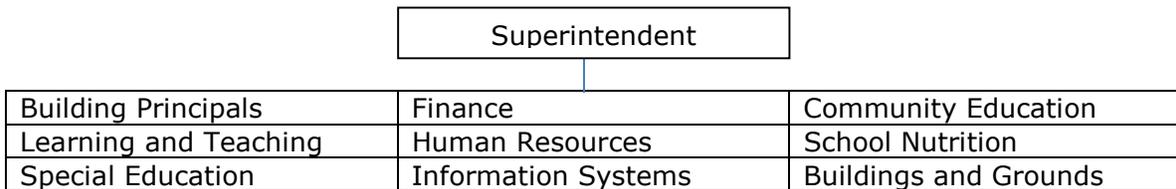
**Board of Education**

(5) District Representatives	(2) At-large Representatives
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**Executive Cabinet**



**District Administrative Team**



**Partnerships**

WAPS values partnerships with community, private and educational organizations on collaborative planning of staff development, community initiatives and funding to support technology growth and advancement in Winona and surrounding communities.

Winona State University	St. Mary’s University of MN	WAPS Foundation
Winona Parochial & Private	Winona Area Charters	Local Business Community

## Technology Needs Assessment

In planning for the TL<sup>21</sup> initiative, multiple surveys were used to assist in assessing technology needs, proficiency, skills and access to technology.

- 2014-May Teacher Technology Survey
- 2014-May Middle School Student Survey
- 2014-Oct High School Student Survey
- 2014-Oct Technology Integration Surveys

In addition to conducting internal needs assessments, the school district is currently implementing the BrightBytes Clarity product to measure the current state of our technology environment, to help set directions on future technology efforts and maximize our financial and human resources. Clarity will be used over the next three years to collect and analyze a wide ranging set of data elements produced from surveying students, staff and parents on technology use.

Ongoing meetings of our District Administrative Teams, District Technology Committee, school technology committees, grade level teams, school and department meetings routinely assess the TL<sup>21</sup> plan and district technology needs to make adjustments to this living plan.

The TL<sup>21</sup> initiative also necessitates upgrades to our district technology infrastructure. Assessments of current infrastructure and performing “health checks” on district systems are ongoing. These assessments have resulted in a four-year plan to increase capacity and performance of these systems; to support the additional resources, bandwidth, security and redundancy needs required by the increasing number of additional learning devices realized through the TL<sup>21</sup> implementation. As a piece of the 2016-18 technology planning effort, the district also completed the MDE Technology Infrastructure Collection.

WAPS has been a participant in the federal USAC E-rate program since inception. During the span of this 2016-18 technology plan, we will seek funding for discounts on multiple Category One and Category Two eligible services including; Internet access, wide area networking, voice and data telecommunications services, internal connections and basic maintenance.

## Goals and Strategies

### Goals

Aligned with the studies from The Partnership for 21<sup>st</sup> Century Skills, the learning goals of the TL<sup>21</sup> initiative are:

- To increase student engagement and productivity through personalized learning and equal access to technology
- To extend and expand learning beyond the school day – anytime, anywhere learning

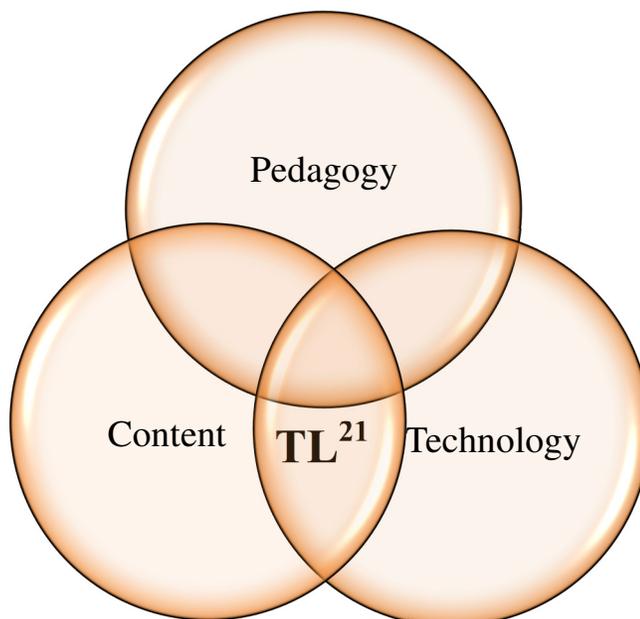
- To provide authentic and relevant learning experiences
- To increase student achievement and academic rigor
- To promote inclusion by providing opportunities that level the playing field for children with disabilities in general education classrooms
- To increase 21<sup>st</sup> century skill development in collaboration, communication, creativity, critical thinking and problem solving, digital literacy and global awareness.

### Professional Development

Professional Development is a vital part of assisting teachers to effectively integrate technology into the educational process. Frequent, relevant, personalized training and support, best meets the needs of teachers, as well as students. At Winona Area Public Schools, we strive to make technology transparent, accessible and utilized to reach curricular goals. Sound pedagogical techniques and strategies drive the selection of technologies used by teaching staff. Due to time constraints, professional development is offered in online and archived formats for self-study in addition to face-to-face sessions.

#### Objectives:

- Incorporate the integration of technology into individual professional development plans for teachers
- Develop a teacher technology needs assessment tool with teacher technology competencies - align trainings with needs
- Develop tiered training programs for teachers, support staff and administrators to personalize support
- Develop multi-modal trainings (online and face-to-face) for self-study



### Implementation Targets

The TL21 target is to fully implement a 1:1 student learning initiative in grades 3-12 prior to the 2019-2020 school year. Further, to ensure a 2:1 ratio of classroom learning devices for grades K-2. The deployment timeline schedule identifies a pilot group of students and staff at each level (high school, middle school, elementary). This allows WAPS staff to work with a manageable aggregation of learning devices at each level, resulting in the opportunity to determine program logistics and make adjustments prior to full deployment of 1:1. The implementation timeline for the WAPS TL<sup>21</sup> Learning Initiative;

### Implementation Timeline for WAPS TL<sup>21</sup> Learning Initiative

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
<b>Phase 1</b>	TL <sup>21</sup> Pilot 9 <sup>th</sup> Grade Academy					
<b>Phase 2</b>		January: Expand Pilot to WSHS Grade 10				
<b>Phase 3</b>			Fall: Expand to WSHS Grades 9-12			
<b>Phase 4</b>			January: Expand Pilot to WMS Grade 8			
<b>Phase 5</b>				Fall: Expand to WMS Grades 5-8		
<b>Phase 6</b>				January: Expand Pilot to Grade 4		
<b>Phase 7</b>				January: Expand Pilot to WALC Grade 12		
<b>Phase 8</b>					Fall: Expand to Grades 3-4	
<b>Phase 9</b>					Fall: Expand to WALC Grades 6-12	
<b>Phase 10</b>					Ensure 2:1 access in K-2 Classrooms	
						TL <sup>21</sup> Fully Implemented

### Life Cycle

In addition to the implementation timeline of student learning devices, WAPS will ensure that a comprehensive life cycle of peripheral instructional technology systems and applications is maintained; to realize the benefits of student centered education. Workstations and required supporting systems will also be refreshed for all WAPS instructional and support staff on a regular life cycle; allowing access to current productivity tools to support the WAPS mission and strategic direction. Current life cycle plans outline a three year refresh for leased mobile devices and five year rotation for desktop workstations, lab computers, virtual workstations and servers. Software and applications are routinely analyzed with enhancements, upgrades and replacements being adopted as needs and/or technology advancements dictate.



### Infrastructure

As a component of the TL<sup>21</sup> Learning Initiative, a robust technology infrastructure is key to the successful implementation of our 1:1 program. The goals of the National Education Technology Plan are *"All students and educators will have access to a comprehensive infrastructure for learning when and where they need it..... An infrastructure for learning is necessary to support a learning society in which learning is lifelong and lifewide"*.

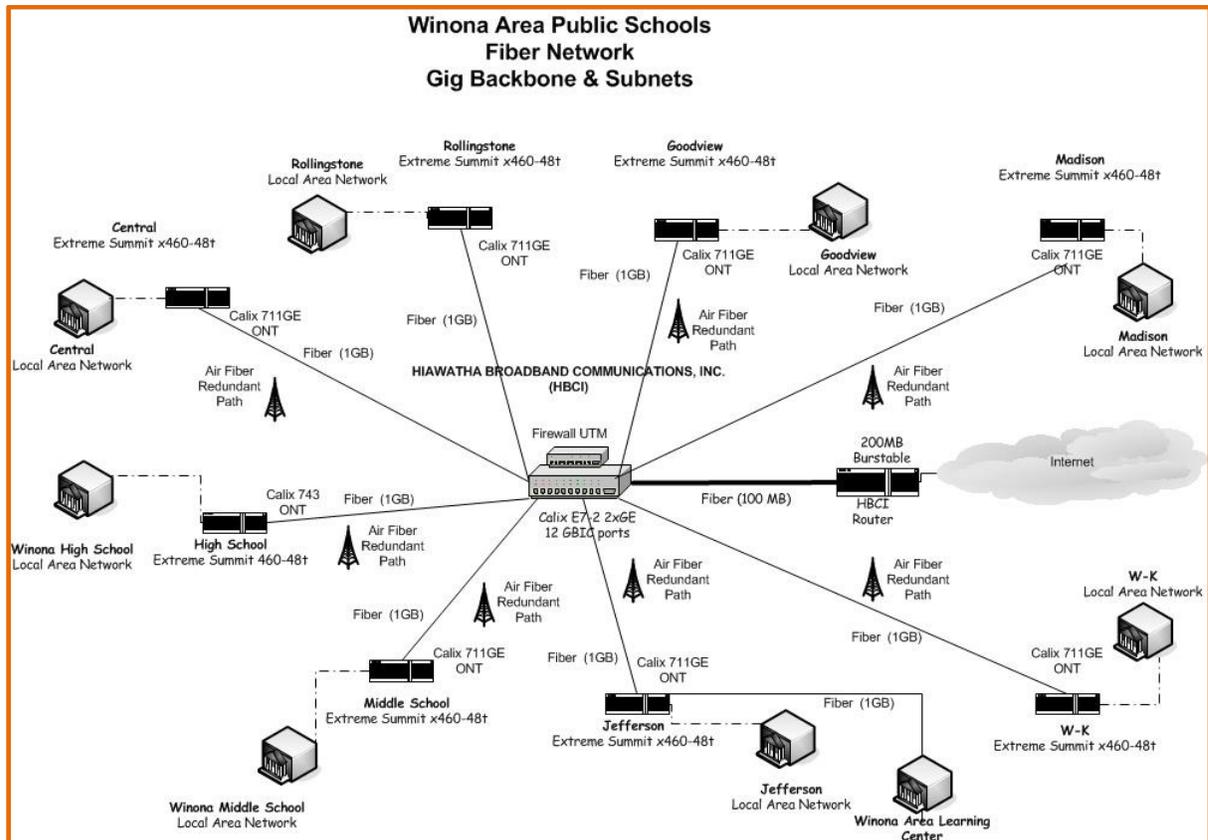
Infrastructure refers to the wiring and network equipment connecting our schools, classrooms, servers, computers, devices, applications and the Internet. The infrastructure needs to be scalable as we move forward with the TL<sup>21</sup> implementation timeline. Ongoing evaluations of systems readiness will be conducted and needs integrated into future technology budgets. There are a significant number of

infrastructure items that need consideration when implementing a successful 1:1 learning initiative such as TL<sup>21</sup>.

The WAPS network infrastructure consists of a gigabit fiber-optic network backbone between all sites. The wide area network supports both data and VoIP telecommunications transport. Data network redundancy is provided via wireless wide area connections to each facility. VoIP connectivity via (2) PRI T1 circuits provides public network access and redundancy.

District server infrastructure is centrally located and managed. Each facility contains a Local Area Network (LAN) which produces access to applications, online network storage, electronic mail/collaboration systems and a variety of network and cloud hosted software applications. All servers are archived daily to network attached storage (NAS). Data is also archived to removable media and stored at an offsite location. Multiple archive sets exist to ensure multiple levels of data protection.

All district systems are protected behind a central security system. All workstations and servers are also protected by next generation firewall systems providing protection from malicious content and intrusion prevention systems with automatic updates and scans. All electronic communications are scanned by message filtering software to reduce unsolicited and inappropriate communications. All electronic communications are archived per state and federal e-discovery mandates.



## WAPS TL<sup>21</sup> Learning Initiative Technology Infrastructure Timeline

YEAR	UPGRADES & ENHANCEMENTS	PROCEDURES & EVALUATION
2014-15	<ul style="list-style-type: none"> <li>❖ <b>Analyze Infrastructure Needs</b> <ul style="list-style-type: none"> <li>➤ Perform Health Checks</li> <li>➤ Collaboration w/K-12's</li> <li>➤ RFQs, Lease Buy Options</li> <li>➤ Service Level Agreements</li> <li>➤ Erates</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Develop</b> <ul style="list-style-type: none"> <li>➤ Logistics, Processes, Management</li> <li>➤ Policies</li> <li>➤ Support</li> <li>➤ Standards</li> <li>➤ Budget</li> </ul> </li> </ul>
2015-16	<ul style="list-style-type: none"> <li>❖ <b>Security &amp; Performance Upgrades</b> <ul style="list-style-type: none"> <li>➤ Security Systems</li> <li>➤ Firewall, Filtering, IPS</li> <li>➤ Endpoint, QOS, VPN</li> <li>➤ Bandwidth - Internet</li> <li>➤ Redundancy - WAN</li> <li>➤ Virtualization</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Evaluate</b> <ul style="list-style-type: none"> <li>➤ Procurement Process</li> <li>➤ Life Cycle</li> <li>➤ Infrastructure</li> <li>➤ SLA's</li> <li>➤ Standards</li> <li>➤ Logistics</li> <li>➤ Policies</li> <li>➤ Support Needs</li> </ul> </li> <li>❖ <b>Surveys</b></li> <li>❖ <b>Adjustments</b></li> <li>❖ <b>Budget</b></li> <li>❖ <b>Progress Reports</b></li> <li>❖ <b>Communication</b></li> <li>❖ <b>Budget</b></li> </ul>
2016-17	<ul style="list-style-type: none"> <li>❖ <b>Security &amp; Performance Adjustments</b> <ul style="list-style-type: none"> <li>➤ Bandwidth – Internet</li> <li>➤ WiFi Expansion – WSHS</li> <li>➤ Redundancy – Internet</li> </ul> </li> </ul>	
2017-18	<ul style="list-style-type: none"> <li>❖ <b>Security &amp; Performance Adjustments</b> <ul style="list-style-type: none"> <li>➤ Bandwidth – WAN/LAN</li> <li>➤ Network Switch Upgrade</li> <li>➤ WiFi Expansion – WMS</li> </ul> </li> </ul>	
2018-19	<ul style="list-style-type: none"> <li>❖ <b>Security &amp; Performance Adjustments</b> <ul style="list-style-type: none"> <li>➤ WiFi Expansion – Elementary &amp; WALC</li> </ul> </li> </ul>	
ONGOING	UPGRADES & ENHANCEMENTS	

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### **Funding**

Potential funding sources for 1:1 technology initiatives include resources such as;

- State, local, and federal funds
- Erates
- Levies and referendums
- Grants, donations and fundraising
- General Fund
- Operating Capital
- Funding shifts
- Budget reallocation

Importance must be placed on sustainability past the defined pilot stage of initial program implementation. Sustainable funding is crucial to long term success while maximizing the benefits of several key TL<sup>21</sup> initiative components;

- Transformation of learning and teaching
- Professional development
- Infrastructure upgrades
- Device life cycle management
- Organizational paradigm shifts required for long term program success.

### **Communication**

Ongoing communications with key stakeholders in our school community is important to a successful implementation of the TL<sup>21</sup> Learning Initiative. WAPS leadership will define a clear and purposeful vision to the community, as well as ongoing communication efforts to keep them informed. An array of resources should be utilized for program communications;

- Internet
- Newsletters
- Social Media
- Board of Education
- Informational sessions/Open house
- Local media

### **Policies/Procedures**

The use of Winona Area Public School technology resources is a privilege. Users of district technology must abide by all Board of Education policies and amendments, including but not limited to;

- 1) Internet & Electronic Communications Acceptable Use Policy (524)
- 2) Protection and Privacy of Pupil Records (515)
- 3) Bullying Prohibition Policy (514)
- 4) TL<sup>21</sup> Student Technology Acceptable Use Handbook

All policies and procedures surrounding the district requirements for technology use need to be up to date and adapted to the needs of a 1:1 learning initiative. This includes acceptable use expectations, along with procedures regarding usage and care, lost, stolen, or damaged devices, insurance coverage and fees. These policies

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and procedures are adopted by the Board of Education and clearly communicated to staff and students utilizing district technology resources. Details on these policies can be found on the district website at: [WAPS Technology Policies](#)

### Instructional and Technical Support

Instructional and technical supports are critical components of a strong 1:1 learning initiative. Support routinely comes from a variety of resources;

District Leadership	Technology Integration Staff	Information Technology Staff	Media Specialists
Technology Coaches	Peer to Peer	Student Led Help Desk	Industry Professionals

District leadership is an important part of a strong vision to ensure a successful program. Providing for instructional and technical support at each building is instrumental. The need to add additional staff to support the 1:1 initiative is dependent on the structure of the program relative to professional development plans and technical support needs. A student led technology help desk should be considered to assist with supporting student use of technology. This group may be on a voluntary basis or could be a course where students could earn credits for participation. Students would be provided training and guidance on parameters of supporting district technology and following district guidelines for acceptable technology use.

## Evaluation

### Implementation

The successful implementation of this plan must be driven by the school district leadership. Quality leadership is directly related to the provision of quality professional development, human and financial resources to meet the learning and teaching needs of WAPS students, staff and families.

Continued research, evaluation and communication are critical to maintaining the life cycle of the TL21 program and the technology vision of our school system.

- The District Technology Committee, District Administrative Team and Executive Cabinet must lead the vision and direction for these technology strategies to realize the goals outlined in this plan. These groups must advocate to the WAPS Board of Education for approval and support of sufficient resources to promote technology advancements.
- Continue participation in federal/state funding programs such as the E-rate.
- Research grants and welcome local fundraising efforts to obtain resources for technology equipment and training.
- Enhance and grow professional development opportunities to promote growth and vision in the use of technology to enhance student achievement and staff competencies.
- Encourage participation in internal and external seminars, conferences and workshops.

- Assess the skills, competencies and beliefs of all district staff, students and parents at least annually.
- Promote information sharing; enhance internal and external communications utilizing tools such as the Internet, social media, websites, local media and other means of communication.
- Ongoing evaluation of staff FTE needs to provide timely and quality technology support and classroom integration to enhance the instructional process.

### Evaluation

The district will utilize multiple survey and measurement tools to make routine assessments of students, staff and parents to gauge technology skills, interests, competencies, and practices. In addition, WAPS will continue to advance the use of our enterprise data warehouse for analyzing various measurements, evaluating data trends to accelerate the educational mission of the school district and advance student achievement.

### Measurements

- WAPS will use the BrightBytes Clarity system to measure the current state of our technology environment and to help set directions on future technology efforts. Clarity will be used at least annually over the next three years to collect and analyze a wide ranging set of data elements produced from students, staff and parents on technology use.
- At the completion of each pilot stage of the TL<sup>21</sup> plan, we will survey pilot participants to gauge user needs and determine necessary plan adjustments prior to the full implementation at each level.
- Individual schools and departments will conduct routine assessments to collect a variety of data on technology use and parameters;

Learning and Teaching Outcomes	Skills Assessment	Competency
Professional Development	Technology Integration	Technical Support
Infrastructure Needs	Parents and Guardians	User Satisfaction

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## Additional Information and Links

### **Children's Internet Protection Act (CIPA)**

As required by the federal CIPA law, the Winona Area Public Schools deploys an Internet filtering system to protect minors from material that is pornographic or otherwise harmful to them.

### **Internet Safety/Acceptable Use Policy**

The Winona Area Public Schools has an Internet Safety/Acceptable Use Policy in place. The policy can be found here: [Internet Safety/Acceptable Use Policy](#)

### **Links to Additional Information**

Additional information on the Winona Area Public Schools can be found here:

[District Website](#)

[Board of Education](#)

[Learning and Teaching](#)

[Technology Integration](#)

[Information Technology](#)

[TL21 Website](#)

[Technology Surveys](#)

### **2016-18 District Technology Plan**

The 2016-18 District Technology Plan can be found here: [2016-18 Technology Plan](#)

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