

Portland Public Schools Technology Plan 2012-2015



Enhancing teaching and learning through service,
innovation and partnerships.

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Executive Summary

profound effect on occupational and leisure activities in our society and on educational institutions in particular. To graduate students with the skills needed for future careers and informed decision making, PPS must keep pace by planning for use of new and emerging technologies and – equally important – must provide the infrastructure, professional development, and resources to support these technologies.

Alignment of Technology Plan Goals

The 2012-2015 Strategic Plan organizes district work and continuous improvement planning around the Milestones Framework Priority Action Areas: (1) Effective Educators, (2) Rigorous, Relevant Programs for All, (3) Collaboration with Families and Communities, (4) Individual Student Supports, with the focal point being “Every student succeeds, regardless of race or class. This plan outlines a set of goals and major activities that align with each of these key work areas.

Technology Budget Strategies

PPS is committed to a long-term funding solution that provides students, teachers, and administrators with appropriate technology to support high-quality learning and efforts to accelerate the learning of all students. Financial uncertainties pose an enormous challenge in planning for technology acquisition, deployment, support, and professional development. Provisions of the No Child Left Behind (NCLB) Act and corresponding federal and state accountability standards are increasing the demands on district technology resources. The district’s unwavering commitment to address technology equity issues for students and schools culminated with a capital funding effort in 2009. This effort helped upgrade essential instructional technology in many of our high needs schools enabling teachers in those environments to better access and delivers core components of curriculum adoptions and leverage digitally rich supplemental resources to more effectively engage students and differentiate learning. This effort also

communicating and consulting with key stakeholders. ITEC, The PPS Information Technology Executive Committee (Attachment C) is a supervisory and advisory committee responsible for the planning, budgeting, prioritizing and governance of certain Information Technology projects and initiatives as they support the District's Educational Milestones and vision of modernizing schools. The Ed Box steering committee consisting of cross functional team of technical, operational, and instructional leadership and frequently provides insights and direction on projects, initiatives, and strategic direction. The Office of Information Technology has also established a Portland Association of Principals and School Administrators Information Technology advisory committee (PAPSA IT) and coordinates regularly with leadership from the Office of Teaching and Learning, the Superintendent's Leadership Team. Each of these groups within our organization play a unique role but in concert with each other provide us a lens into priorities and a voice in how technology strategies, processes and solutions can enhance teaching and learning.

Introduction/Rationale

Portland Public Schools is Oregon's largest urban school district, serving approximately 47,000 students from pre-kindergarten through grade 12. The district operates more than 100 schools and programs over a 152-square-mile enrollment area and employs over 6,500 personnel. The district's mission, adopted by the PPS Board of Education in 2011, is to support all students in achieving their very highest educational and personal potential, to inspire in them an enduring love for learning, and to prepare them to contribute as citizens of a diverse, multicultural, and international community. "Rigor, equity, personal attention" is the new Strategic Plan approved for 2012-2015 by the PPS Board of Education. Teachers, principals, support staff, students, school board members, parents, union representatives, and community/business representatives were all involved in developing the plan, which sets forth the following district goal: "By the end of elementary, middle, and high school: Every student by name meets or exceeds academic standards, and is fully prepared to make productive life decisions."

Information literacy and the ability to use technology are critical to the academic success of all students in the 21st century. Aligning PPS Technology Plan goals with the PPS Milestones Framework will help ensure that appropriate technologies are: a) accessible to all staff and students; b) integrated into PK-12 curriculum, classroom instruction, and assessment practices across the district; and c) understood and supported by teachers, administrators, families, and community partners. The Technology Plan will guide district-wide efforts to ensure students and staff has equitable access to technology and will compliment parallel efforts in the curriculum and instruction to ensure all students have the essential digital literacies and can effectively make good decisions with and about technology.

The PPS Information Technology Department works to help all of the stakeholders understand that technology is a critical tool in raising student achievement and in improving all aspects of curriculum development and instructional delivery. The Ed Box

- x Skilled Personnel -
- x Ongoing Professional Learning -
- x Technical Support -
- x Curriculum Framework -
- x Student-Centered Learning -
- x Assessment and Evaluation -
- x Engaged Communities -
- x Support Policies -
- x Supportive External Context -

State Standards

The Oregon Department of Education has also adopted the Oregon Educational Technology Standards (Attachment E) that provide districts with a compass from which to guide decision-making and core curriculum integration strategies.

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

Essential Skills for Students

In June of 2011 ODE adopted new graduation requirements that are designed to better prepare each student for success in college, work, and citizenship. These “essential skills” are what Oregon students will need to successfully complete the credit requirements, demonstrate proficiency, and meet the personalized learning requirements. Item # 6 from this document (<http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>) states “Use Technology to learn, live and work”. This skill includes all of the following:

- x Use creativity and innovation to generate ideas, products, or processes using current technology.
- x Use technology to participate in a broader community through networking, collaboration and learning.
- x Recognize and practice legal and responsible behavior in the use and access of information and technology.
- x Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

PPS Instructional Technology Standards

The PPS Office of Information Technology in collaboration with our Teaching and Learning staff will establish an advisory committee to revisit and align the standards with the key projects and initiatives currently underway across the District. This committee will consist of teachers, administrators, technology specialists, and other district staff who are linked to our instructional priorities and technical initiatives. The resulting PPS Student Education Technology Standards (Attachment F) aligned to the “refreshed” NETS will be recommended for

Student Assessment and Tracking

Technology in PPS supports assessment and tracking of student progress in meeting the content standards and performance benchmarks required to earn a diploma. The PPS Technology Plan will also support assessment and tracking of student progress in meeting national and district technology standards. IT continues to take a leadership role in this space as adaptive and assessment technology ma

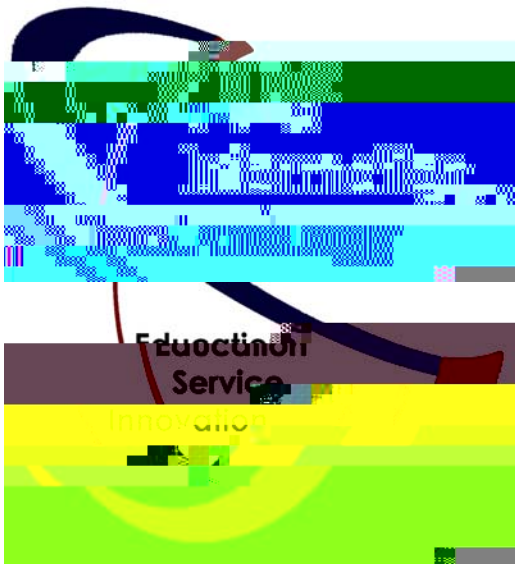
PPS Information Technology Mission, Vision, and Organizational Structure

The following page summarizes the PPS Office of Information Technology mission, vision, and values. The adopted mission “We enhance teaching and learning through service, innovation and partnerships”.

To achieve this mission, it is essential we establish and embrace high expectations of ourselves as professional educators, and continue to find and develop innovative and effective ways of motivating and teaching students. Our current information-oriented society no longer provides us with the luxury of viewing technological competence as an optional skill, and any person involved in the education of students in PPS should be knowledgeable and skilled at using technology as a tool for instruction, learning, and management.

PPS IT R.E.P.S....

- Reliable – Exceed customer expectations
- Ethical – Act openly, honestly, and with integrity
- Progressive – Lead and innovate to meet the evolving district needs
- Strategic – Align technology with educational goals



Mission

We enhance teaching and learning through service, innovation and partnerships.

Vision

We will provide a proven portfolio of solutions and services benefitting the PPS community.

Values

PPS IT R.E.P.S...

- x Reliable – Exceed customer expectations
- x Ethical – Act openly, honestly, and with integrity
- x Progressive – Lead and innovate to meet the evolving district needs
- x Strategic – Align technology with educational goals

Overview of PPS Information Technology Infrastructure

Infrastructure/Hardware Deployment – Data Network

Portland Public Schools operates more than 90 schools and the Blanchard Education Service Center (BESC) central administration building. All locations connect to a Metro Area Fiber Optic. Every classroom has at least one data outlet that can also be used for in and out phone service. Most offices have multiple data and phone outlets. The data network consists of high-speed routers at every location that is used to connect the site to the Fiber Ring. A combination of switches within each building is used to interconnect each classroom and office. As a result of a bond measure approved by Portland voters, Grants awarded by MHCRC, and Erate Funding; between 2007 and 2009, Cisco routers and switches were installed to replace devices that were out of support and needed updating.

All Schools and the BESC are connected

Many elementary school environments are primarily Apple, although some schools are migrating to PCs as new acquisitions and refresh opportunities arise. Our middle schools are mixed environments, but with the migration to a Novel-managed desktop solution our middle schools are about 80% PC. Most high schools use PCs, except for desktop publishing and multimedia instruction, where Macintosh computers are the tool of choice.

Infrastructure/Hardware Deployment – Operations Center

The PPS Data Center is housed at the BESC, where it shares space with Information Technology support units. The Data Center contains phone equipment, network equipment, and application servers. It is protected by air conditioning, fire-proofing, a battery-uninterruptible power supply, and a back-up generator. All racks and equipment is earthquake secured. A monitoring system provides rapid notification of abnormal environmental conditions. The room housing the Data Center has a raised floor and combination-locked doors for limited secure access. The disaster recovery component and plan are in line with public sector data center and are considered a model by which other educational entities can point to as best in class.

Infrastructure/Hardware Deployment – Servers

Our enterprise servers consist primarily of Hewlett-Packard hardware and are located in the Data Center along with a number of ancillary web, file, print, and network management servers. Currently, over 160 servers are supported locally and remotely across the PPS network. In the past two years, IT has embarked on an effort to

Application Deployment – E-mail

PPS migrated all mail over Microsoft Live@edu representing a thematic effort across IT to move to a cloud based strategy. This done in conjunction with a migration to Active Directory will be woven into a broader unified communications framework

web presence and will be expanding capacity in staff to execute more .net programming contribute to the implementation of SharePoint.

PPS Enterprise Needs, Priorities:

- x Moving to take advantage of mature Enterprise Resource Planning systems (i.e., employee self-service, online time and labor, and eventually electronic procurement/supply chain management).
- x Accelerating implementation and adoption of portal technology to serve a catalyst to improve communication and collaboration.
- x Leveraging portal technologies to support data-driven decision making via tight integration with data warehouse
- x Ensure information architecture of content is adaptive and representative of the variety of roles and activities assigned to staff.

PPS Learning Campus – Learning Management System

The PPS Learning Campus is an enterprise Learning Management System (LMS) that provides the district with the ability to manage, deliver, and track training participation in online or traditional instructor-led courses. This system addresses the challenges associated with training a large and widely dispersed workforce. An online system of courses and testing enables staff to learn at their own pace on selected technology applications. The PPS Learning Campus facilitates management of professional development through features such as online course catalogs and new training announcements, registration, testing, training history logs, evaluation survey forms and course completion certificates, and access to Quick Reference Guides for custom PPS courses. This is a vendor hosted service.

Document Management System

PPS has implemented a document management solution in an effort to: address issues related to security, reduce risk of loss, increase accessibility, and reduce access time. The Document Management System (DMS) is a combination of hardware and software that allows for the creation of a electronic version of each document, stored on hardware in the central office and backed up on a nightly basis for disaster recovery in case of damage. The flexibility inherent to this solution supports document scanning, storage, archiving, searching, and retrieval online and on-demand. Access is managed via identification of staff roles and job function, with the capacity to manage data down to the individual document level.

Equity and Access Guidelines

Portland Public Schools is committed to providing equitable and just access to information technology to all students, families, staff, and community members.

Accessibility must be considered when procuring, developing, or implementing information technologies, including web-based information and applications, hardware, software, multimedia, and when designing the environment. District approaches and guidelines for ensuring accessible information technology are described in (Attachment H)

PPS Acceptable Use Policy (Attachment J)

The Children's Internet Protection Act (CIPA), enacted December 21, 2000, requires recipients of federal technology funds to comply with certain Internet filtering and policy requirements. Schools and libraries receiving funds for Internet access and/or internal connection services must also meet the Internet safety policies of the Neighborhood Children's Internet Protection Act (NCIPA) that addresses the broader issues of electronic messaging, disclosure of personal information of minors, and unlawful online activities.

Analysis of the Current Environment for Technology in PPS

Along with other school districts in the region, Portland Public Schools faces a

qualified staff are opportunities for ongoing professional growth and training, and to work with more current technology.

Location

The district's geographic location is both a positive and a negative factor. Close proximity to Portland State University and other colleges/universities provides access to a pool of motivated graduates and job seekers who have needed technology skills and experience. However, the growing number of leading-edge technology companies and employers in the Portland metropolitan area also creates a more competitive hiring environment.

2012-2015 Technology Plan Goals and Strategies

2. Rigorous, Relevant Programs for All					
2.1 Improve student and teacher access to appropriate technology tools which support instructional outcomes (TESA, ELPA, labs, curricular software)					
Goals	Activity	Key Stakeholders	Resources	Time Frame	Assessment
2.1a	In collaboration with Office of Teaching and Learning develop requirements for an enterprise instructional management system	IT, OTL	IT	2012-2015	-Project Team Work Plan -RFP Release and Award -IMS Technical Build -IMS Content by Curriculum
2.1b	Continue implementation of technology bundle for PPS classrooms	IT	IT	2012-2015	-Establishment of standardized technology bundle -Deployment of standard bundles to classrooms -Qualitative feedback from teachers and students
2.1c	In collaboration with OTL, implement a digital resource review process	IT, OTL	IT, OTL	2012-2015	-Definition of review process -Implement and communicate review schedule -Analysis of reviewed resources -Establish data base of instructional resources

2012-2015 Technology Plan Goals and Strategies

3. Collaboration with Family & Communities					
3.1 Engage the community and families through use of technology enabled communication tools (Parent viewer, CMS access, and web portal)					
Goals	Activity	Key Stakeholders	Resources	Time Frame	Assessment
3.1a	Provide all schools with the support and resources to access parent-centric tools and resources.	IT, OTL	IT	2012-2015	-Parent access data -School participation rates

2012-2015 Technology Plan Goals and Strategies

4. Individual Student Supports					
4.1 Provide leadership in use of technology to support district objectives, instructional improvement and operational efficiency					
Goals	Activity	Key Stakeholders	Resources	Time Frame	Assessment
4.1a	Implement asset management monitoring strategy, gather baseline data from all sites, and generate a district-wide gap analysis.	IT, OTL	IT	2012-2105	-Implementation of a solution that enables real-time data

2012-2015 Technology Plan Goals and Strategies

FOUNDATIONAL ELEMENTS – SUPPORTING PRIORITY ACTION AREAS

5.Modernize Infrastructure					
5.1 Provide students and staff with access to relevant technologies and resources to support District goals and initiatives					
Goals	Activity	Key Stakeholders	Resources	Time Frame	Assessment
5.1a	Leverage VoIP backbone to further evolve IP-based technologies that will enhance teaching, learning, and school-based operations.	IT	IT	2012-2015	-Expansion of broadcast capabilities -Exploration and targeted use of bells, public address, and clocks over IP.
5.1b	Development of a unified communication framework and strategic investments to align and unify current disparate technologies.	IT, FAM	IT, FAM	2012-2015	-Requirements defined for a IP public address solution -RFP released if needed -IP PA implementation data
5.1c	Continue to evolve and grow current school-wide and district-wide wireless network to accommodate the growth of mobile and community based technologies	IT, FAM	IT, FAM	2012-2015	-Analysis of industry standards and development of strategic wireless roadmap capable of supporting current and future mobile computing needs.
5.1c	Continue to expand and evolve the IT Client Advocacy Program (CAP)	IT	IT	2012-2015	-Continued analysis of qualitative and quantitative

2012-2015 Technology Plan Goals and Strategies

5. Modernize Infrastructure			Resources	Time Frame	Assessment
5.2 Exceed availability, service level and satisfaction targets					
Goals	Activity	Key Stakeholders			

2012-2015 Technology Plan Goals and Strategies

4.Excellence in Operations and Services					
4.4 Continued Focus on reducing cycle time for key processes					
Goals	Activity	Key Stakeholders	Resources	Time Frame	Assessment
4.4a	Identify key IT benchmarks and establish improvement goals, and tracking methodology.	IT	IT	2012-2015	-Service Desk call center data -ITIL standards established and key Service desk data benchmarked against those standards
4.4b	Improve IT order to receipt resolutions for key performance areas	IT	IT	2012-2015	-Baseline indicators established -Key performance levels established and monitored throughout life of plan

5.Continuous Learning Ethic					
5.1 Provide improved access to online and virtual learning tools and resources to enhance management and delivery of professional development					
Goals	Activity	Key Stakeholders	Resource	Time Frame	Assessment
5.1a	Upgrade Portland Learning Campus	IT	IT	2012-2015	-Migration of content from old campus platform to new campus platform -New system brought online and

2012-2015 Technology Plan Goals and Strategies

5.Continuous Learning Ethic					
5.2 Support skill enhancement through expanded opportunities for cross training					
Goals	Activity	Key Stakeholders	Resources & Funding	Time Frame	Assessment
5.2a	Provide IT staff access to online courses to support existing job role or aligned to existing IT systems and groups	IT	IT	2012-2015	-Development of job family profession growth framework -Participation and course evaluation data of all IT participants
5.2b	Provide opportunities for IT staff to apply the skills and knowledge they have gained through professional development and training.	IT	IT	2012-2015	-Staff survey data -Feedback from employee goal setting and evaluation process

Budget Strategies to Acquire and Maintain Components of the PPS Technology Plan

Portland Public Schools is committed to securing a long-term funding solution that will provide students, teachers, and administrators with the technology needed to support high-quality, standards-based learning and to accelerate student achievement. As we move forward in strategizing technology acquisitions and deployments, the current financial uncertainties have numerous implications. Acquisition of needed technology involves more than the initial purchase price: we must also factor in infrastructure implications, ongoing support, and projected upgrade strategies. Ongoing, sustained, and job-embedded professional development is critically important, and appropriate resources need to be dedicated to the use of equipment and software. Equity is another issue that has carried through from the previous technology plan.

Our challenge is to prepare all of our students for life and learning in the 21st century. It is therefore imperative that staff and students have access to the resources that will enable them to acquire the knowledge and skills that research and experience have shown us are

Monitoring and Evaluation Process

Effective technology planning must include mechanisms for ongoing monitoring and evaluation of the district's progress in reaching clearly defined goals and performance benchmarks. Formative evaluation activities will guide ongoing improvement and fine-tuning of the PPS Technology Plan as it is implemented. Summative evaluation activities will help determine the extent to which the plan has met its targeted goals. This planning and review process for technology integration in PPS will be coordinated with other stakeholders and aligned with the key performance goals identified in the most recent Continuous Improvement Plan (CIP), as well the PPS Strategic Plan.

The district's governance structure includes central offices and oversight committees whose work is aligned to the PPS Strategic Plan. As the goals and strategies outlined in the Technology Plan are implemented, key progress monitoring and evaluation data will be reported to the appropriate district stakeholder groups, such as the Office of Information Technology, Office of Teaching and Learning, the Superintendent's Leadership Team. As appropriate, other district offices and committees will also be informed of the relevant progress of the PPS Technology Plan.

Process for Ongoing, Long-Term Technology Planning

The nature of technology in the 21st century requires large organizations to remain fluid and flexible, and it is neither realistic nor wise to specify exactly where we expect PPS to be five years – or even three years – down the road in terms of technology. Factor in the current local funding crisis and it is even more difficult to forecast with specificity more than a year in advance. PPS will continue to evolve the IT governance structure, which will in turn help us analyze and prioritize individual projects and initiatives. Key internal IT performance indicators aligned to the PPS Technology Plan Goals and Strategies will be reviewed on a regular basis while the entire plan will be reviewed and updated annually.