

Technology Plan

Orofino Joint School District 171

2013-2016

Mission Statement:

We endeavour to use technology to enhance student learning, provide closer collaboration, and foster an environment of creativity and exploration both in and outside the classroom.

Assessment of Needs and Goals:

1. Student computer labs are outdated.
 1. **Goal:** Replace current WinXP systems with CRTs with Win7 Pro systems and 22" flat panel monitors. Systems should have an office package and software loaded to support current online classes and available web-based content. Two labs of 30 each at OHS, one lab of 32 at OES, one lab of 26 at THS.
 2. **Timeframe:** Labs should be installed by the start of school, fall 2013
 3. **Funding:** Approved local levy for technology improvement.
 4. **Concerns:**
 1. Improved hardware in the labs will increase demands on our network and internet access.
 2. Increased internet bandwidth will likely be required as students use more cloud-based resources.
 5. **Assessment:** Are students able to access and utilize the tools they need to be successful in our technology-based society?
2. Secondary teacher workstations are outdated.
 1. **Goal:** Replace all secondary teacher workstations with choice of 22" desktop, 17" laptop, or 15" laptop. All workstations should be Win7 Pro based and include MS Office.
 2. **Timeframe:** Systems should be in place by December 31, 2013
 3. **Funding:** Approved local levy for technology improvement.
 4. **Concerns:** Training for new software that is 10 years newer and new workstation environment.
 5. **Solutions:**
 1. Provide training, online and in-person, to support teachers.
 2. Utilize online training through ISU and SDE to increase skills.
 3. Foster teacher communication and collaboration for shared knowledge and best practices.
 6. **Assessment:**

1. Are teachers able to utilize technology tools that are available to be more effective in the classroom?
 2. Is technology use efficient and seamless in the classroom?
3. Student-student and student-teacher collaboration is limited.
1. **Goal:** Establish a learning environment where student-student and student-teacher collaboration and feedback is easy, natural, and useful. Google Apps for education will offer functional tools for this and provide student and teacher access anywhere there is an internet connection available and on most current devices.
 2. **Timeframe:** 2013-14 school year. Tools should be in place at the beginning of the school year.
 3. **Funding:** Google Apps for education is free. Time cost to implement is limited.
 4. **Concerns:**
 1. All Google content is cloud-based. Internet connection bandwidth will be taxed.
 2. Wireless connectivity will need to improve to support any wireless devices.
 5. **Assessment:**
 1. Can teachers and students use this technology on a daily basis as an unobtrusive learning tool?
 2. Is it a natural way to interact and collaborate?
 3. Does it improve educational outcomes?
 4. Are students being more creative and is work improving because of this technology?
4. Web-based educational tools are not widely available in the classroom.
1. **Goal:** Implement Chromebooks as a mobile device for one-to-one use in the classroom. Chromebooks will be cart-based so that they can be shared between classrooms and students.
 2. **Timeframe:** In place for the beginning of the 2013-2014 school year.
 3. **Funding:** Albertsons Khan Pilot Grant, approved local levy for technology.
 4. **Concerns:** Student and teacher training for device care and usage, device durability, wireless connectivity.
 5. **Solutions:**
 1. Teacher training on the device during inservice days.
 2. Taught responsibility for students and proper device handling.
 3. A teacher is responsible for each cart and its care.
 6. **Assessment:**
 1. Are teachers and students able to use the devices?
 2. Are the devices reliable and used daily?

5. Teachers have limited access to information required to make informed instructional decisions.
 1. **Goal:** Provide access to Schoolnet and training in its use. Refresh Schoolnet data as needed so that data is relevant and current.
 2. **Timeframe:** Training at the beginning of 2013-2014 school year and continuing.
 3. **Funding:** SDE funding for ISEE data and teacher support.
 4. **Concerns:** Teachers will need to be comfortable with the access and use of the data.
 5. **Assessment:**
 1. Is the data easily and reliably available to the teacher?
 2. Are teachers using student data to differentiate instruction?
 3. Are student outcomes improving?

6. Network IP addressing structure has reached its limit. There are not currently available IP addresses for increased users.
 1. **Goal:** Readdress the network using a class b license structure.
 2. **Timeframe:** Summer 2013 and migrate the changes through the 13-14 school year.
 3. **Funding:** Technology funds
 4. **Concerns:** Finding all of the places that need to be changed.
 5. **Assessment:** Is the new address scheme in place and can secondary routes be removed?

7. Wireless connectivity for Chromebooks and other mobile devices.
 1. **Goal:** Initially provide wireless hot-spots for the Chromebooks and move to cover all campuses 100%. Install Motorola solution at OHS, OES, THS and test. Hope for state high school wireless install and move Motorola solution to elementary schools.
 2. **Timeframe:** Initial install before the 2013-2014 school year. Completion during the 13-14 school year.
 3. **Funding:** approved local levy for initial install, State of Idaho high-school wireless install for the remaining.
 4. **Concerns:**
 1. Will Motorola solution work?
 1. Yes, Tested, Aug 2013, 30 Chromebooks on one AP streaming Youtube video. We could use all available internet bandwidth through one AP.
 2. Will State of Idaho high school wireless install happen?
 1. Yes, Installed Dec 2013 and live.
 3. Will increased network load be sustainable both internally and through internet access bandwidth?

1. IEN bandwidth was increased from 21Mbps to 30Mbps in December 2013.
2. Internal switches and routers seem to be fine, though GigE will likely be needed in the future for our network backbone.
3. April 2014, 30 Mbps ceiling is being hit on a regular basis, more bandwidth is ordered for 14-15 school year to maximize equipment capacity of 45 Mbps.

5. **Assessment:**

1. Can Chromebooks reliably gain access to the internet?
2. Can content be used reliably?

8. Internet bandwidth and WAN connectivity.

1. **Goal:**

1. Provide sufficient bandwidth to sustain educational use on all campuses.
2. Provide WAN network reliability such that it could serve as a VoIP carrier.

2. **Timeframe:** Ongoing

3. **Funding:** Local technology funds, Erate, IEN

4. **Concerns:**

1. TS WAN link
2. CES WAN link
3. PES WAN link
4. OES WAN link

5. **Assessment:**

1. Is WAN uptime and availability reaching 99.99%?
2. Is average network traffic below 75% utilization on each link?
3. Is average internet traffic below 75% utilization?

9. Phone system limitations for emergency calls and making and receiving calls. Calls can only be received at each site when a secretary is present. Outgoing calls cannot utilize e911 service to locate the call origin. Number of available lines is not sufficient at OHS, TS, and OES.

1. **Goal:** Install a hosted VoIP phone system with direct four digit dialing within the district, shared outside line pool, and e911 support.

2. **Timeframe:** 2014-2015

3. **Funding:** Local, Erate

4. **Concerns:**

1. WAN network reliability.
2. Local POTS fail-over for inbound and outbound calls in the case of network failure.

3. POE switches to provide power for handsets.

5. **Assessment:**

1. Network testing to confirm WAN ability and reliability.
2. POE switches available to power VoIP handsets.
3. Installed system meets requirements listed above and is reliable.

10. Network infrastructure is aging, servers are several years old. Reliability is becoming a concern. Novell network is obsolete.

1. **Goal:** Systematically replace local servers and move to a Microsoft network solution.

2. **Timeframe:** summer 2014-

3. **Funding:** Local

4. **Concerns:**

1. Cost of replacing servers
2. Current switches are old and slow by today's standards. Faster switches with POE capability will be needed in the future.

5. **Assessment:**

1. Servers should be 4 or less years old.
2. Critical servers should have a fail-over.
3. All clients should be managed.

11. Community communications systems are not in place to leverage current available technology.

1. **Goal:** Update communications systems (websites and supporting systems) to better utilize smartphones and other portable devices for parent and community communication.

2. **Timeframe:** summer 2014-

3. **Funding:** Local, :Erate

4. **Concerns:**

1. Selecting a system that will be easy to use for teachers, administrators, students, and parents.
2. Keeping information current for all users.
3. Parents should be able to select the mode or modes of information delivery
4. Emergency messages should be easy to initiate.
5. Training users to update content and use the communication system.

5. **Solutions:** School in Sites has been selected to host all of the district's websites. All of the sites will be integrated into an easy to use hosted system. All teachers will have available space for their classes that is easy to use and update. Parents will be able to choose from several contact options for communication. Smartphones and portable devices will be fully

supported. Emergency messages can be easily broadcast as needed for school closures, etc. The solution is 100% erate eligible, so the cost to the district will be 24% in the 14-15 school year. Training information for this and other systems can be delivered on the private side of this hosted solution. This should provide a district-wide training and information area for all staff.

6. **Assessment:**

1. Can parents easily obtain the information they need?
2. Does the community know where to find information they need?
3. Can teachers communicate easily with students and parents?
4. Is available information current updated easily?

12. PCs with the Microsoft XP operating system are currently in our system.

1. **Goal:** Replace aged software to Windows 7 or 8 Pro operating systems. All systems should feature dual core processing power minimum. Most current XP hardware will need to be updated.
2. **Timeframe:** summer 2014, 14-15 school year.
3. **Funding:** Local
4. **Concerns:**

1. All devices that we updated in the 13-14 school year are Win 7 already so they will not require change.
2. Number of classroom computers actually needed.

5. **Solutions:**

1. Refurbished desktops or laptops with Win 7 Pro.

6. **Assessment:**

1. Are there any Win XP PCs left?

Last revised 05/12/14

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