

**Lane County Technical Advisory Committee**  
Thursday, March 19, 2015 1:00 to 3:00 pm  
Room 5, Lane ESD, 1200 Hwy 99N, Eugene

## **Lane County Technology Advisory Committee MINUTES**

**Present:** Daniele McCallum (LESD), Arne Berglund (LESD), Bob Adair (69), Fred Spencer (97J), Jason Dodge (LESD), Jerry Pergamit (1), Richard Reaksecker (66), David Nelson (4J), Ben Gernhart (40), Nathan Martin (52), Michael Bateman (28J), David Langan (4J), Michael Biehler (28J), Jesse Baber (45J3), William (45J3)

**Added:**

- Jerry asked about fire alarm lines, do they still need copper lines? Jesse said you can have IP or copper. Cell dialers are also ok, but check with your local fireperson since they have the final say.

**Topic of the month: Wireless**

- LESD Presentation: Ekahau Site Survey and Planning Tool
  - (Slide) Lifecycle of a Wi-Fi Network.
  - Wi-Fi networks periodically need to be analyzed, once a year at least.
  - Active vs Passive Surveys. Active for packet loss, packet delay. Passive for coverage & SNR maps, etc. Hybrid both at once.
  - Site survey: Import map, set scale using a long wall, choose survey method (continuous or stop & go), review data & create reports.
  - Review of survey from February. Handout of sample reports.
  - Review of Wi-Fi Planner planning feature. Add map, choose capacity requirements, add coverage area, select auto-planner, choose settings and type of APs, create plan. Report shows where drops should go, overlap areas, etc.
  - New version will recognize CAD drawing with layers, will build walls for you. Example using Yolanda CAD map.
  - Jesse asked about topological lines between colored areas. Probably thresholds from the survey, to distinguish between areas.
  - What has been the most useful feature? Knowing the channel overlaps and throughput. In the active survey, it is constantly pinging. You want to do that during peak hours.
  - Lane ESD purchased to use this as a test, but has been able to survey several schools as a service. Page Elementary was first at Springfield, was done in an active state to plan for AP replacement

project. Did the planning piece as a Step 2. Page found out that their original plan of 1 AP per classroom was creating more interference because of new APs with a longer distance (more is not always better). Has a GPS feature for outdoor areas. Does 3D for multiple floors.

- Available to all of LCTAC for checkout, let us know when you need it. LESD is also available to do surveys for you. David Langan mentioned interest in tagging along on an upcoming project to see it in use live. Bethel plans on using some of Jason's time to possibly help with using this device. If anyone is interested in being present, they are welcome to.
- Michael asked if you can allocate density of types of device use. Jason thinks it averages them out based on the total # of device.
- 802.11ac Overview
  - (Slides) Overview: Increased speed, 5ghz only, 80/160mhz channels, up to 8 spacial streams, 256-QAM, Multi-user MIMO. Data regarding Wave 2. Ruckus first 802.11ac Wave 2 AP. If looking at implementation, PLAN, ensure minimum 1gbps uplink per AP, 2 1gbps uplink ports, switches that support 802.3at (PoE+), edge switch and core 10gbps.
  - (Jesse) Recommend two CAT6a.
  - Jason will post info to the blog.
  - Wireless projects?
    - Replacing APs this summer @ South Lane. Guest pool is limited to 20mb. Testing new APs, depends on client and what it wants, not consistent between APs. Comes down to make/model, etc Chromebooks might not have a chipset comparable to a higher-end model. New laptops sometimes have terrible wireless cards, which will impact the user experience.
    - Fern Ridge whole district wireless project
    - David has a troubleshooting option at 4J

### **Roundtable Discussions:**

- District professional plans with CBT Nuggets offering
  - List of course requests have gone, expecting vouchers tomorrow.
  - If there is any interest in user-group sharing for folks taking the same courses, let us know. Would be useful for certification courses. David Langan asked about regular discussion at LCTAC for feedback. Several instructors are already recognized as good (Ben mentioned Keith Barker). Michael Bateman recommended just posting the list of people's course requests.

- LESD is committing to provide this service for 1 year no matter how many requests come in. Want to stay away from an allotment of courses per district, because of the ebb and flow of district PD needs. Unused vouchers may be offered to other agencies/ESDs, at a cost. Will do an evaluation at the end of this first year to see if we can sustain this as a source of professional development. Purchased a year and vouchers are good for 6 months, so we can cover two summers.
- Other PD plans?
  - Fern Ridge is “need to know now” approach.
- Summer Projects – What are you Planning?
  - LESD (Arne) hardware & software refresh on email system. Not much impact on district processes for email. Internal SAN for VMware environment. (Jason) install routers at small districts. Working with new firewall planning and IPV6. 10gb at the core project, reconfigure and routing LCC.
  - 4J a little bit of everything. Updating software, servers, telephone system upgrades, working on 10gb connections.
  - Pleasant Hill High School construction and configuration.
  - Junction City maintenance on everything. Hire new full time employee next year.
  - Creswell implementing VMware system. Install a couple new core switches. Software updates, Chromebooks.
  - Crow new phone system (3Cx windows-based software PBX with Yaylink IP phones), new AD domain. Upgrade to eSchool version with HTML5.
  - South Lane call management, updates. Trying to get district to remove student accounts. Switch upgrade Procurve 2900 series. 70 APs to install, topology changes with WAN. Implement static route failover. 3 lab upgrades. Plan for a future bond for Harrison.
  - Siuslaw new kindergarten center constructed. Phone system upgrade, server upgrades. Moving from eSchool to Synergy, summer training.
  - Fern Ridge three building renovations (two ES, MS). Wireless, new phones at all three sites, data center upgrade, SAN upgrade, lab upgrades. Example of researching options around existing MyTel phones – expand or replace?

**Next planned LCTAC meeting, May 21, 2015 – Data Retention, Disaster Recovery**