

Boulder Valley School District
Information Technology Advisory Committee (ITAC)
March 21, 2007
4:00 p.m. – 6:00 p.m.

Committee members present: Phil Bisant, Bruce Carman, Kevin Manweiler, Marla Meehl, Mike Monticello, Chris Puccio, Joe Thielen, Jim VanDyke, Dave Williamson, David Wood

Other BVSD personnel and Bond Oversight Committee members present: Kevin Cubillas, Robert Hammond, Brittany Keller, Joe McBreen, Sharon Meyer, Don Orr, Elisabeth Patterson, Jim Reed, Alan Schoenfeld

Community members present: Dan Lubar

Dave Williamson welcomed committee members to the second ITAC meeting and asked everyone present to introduce him/herself. Mr. Williamson asked for volunteers who would be interested in serving as the chairman of future ITAC meetings. Chris Puccio, committee member and Director of Information Technology for the City of Boulder, volunteered and the group unanimously elected Mr. Puccio as the chairman of ITAC.

Kevin Manweiler, WAN consultant, began the meeting with a PowerPoint presentation and an overview of the deliverables requested at the last ITAC meeting. Each member of the committee received electronic copies of each of the following items prior to the meeting and hard copies of the same items at the meeting:

- GIS route mapping of modified “new build”
- GIS route mapping of modified “new build” with possible shared fiber assets identified on route maps
- GIS topographic map of BVSD WAN serving area
- Estimated linear lengths of a new build
- High level budgetary cost of a new build, “Turnkey RFP Approach”
- List of network devices for BVSD
- List of future applications for BVSD
- The Greaves Group Study – Americas Digital Schools 2006
- Bandwidth forecast base on BVSD enrollment and network device inventory

Mr. Manweiler’s work on BVSD’s WAN project over the last couple of weeks included meeting with individual committee members to review existing WAN infrastructures for possible resource sharing. These entities included Boulder County, the cities of Boulder, Broomfield, Lafayette, and Louisville, Colorado University, UCAR, and Celestial Seasonings. Additional project progress included:

- Developing/acquiring RFP templates
 - BVSD Terms and Conditions
 - High level specifications
 - Developing construction methods document
- Engineering routes to reduce linear lengths

- Data acquisition, hand holes and splice points (City)
- Developing sample Bill of Materials (BOM)
- Develop ring configurations
- Identifying “high cost” locations, e.g., fiber routes vs. wireless
- High-level budgetary build costs

Mr. Manweiler briefly reviewed BVSD’s existing network applications and activities (Infinite Campus, Lawson, file sharing, e-mail, and internet) and future high bandwidth education and security applications the District will be pursuing. Some of these applications network activities include Discovery Learning (streaming media), IP television distribution, distance learning (video conferencing), video security, web-based testing and intervention, centralized data applications, off-site data warehousing, Alternate Data Center (disaster recovery centers), network redundancy, and Internet2.

Mr. Manweiler then presented a Data Network Bandwidth Analysis (Internet Only) using the forecast published by the Greaves Group and BVSD’s student enrollment and facilities data. The complete bandwidth analysis and information can be viewed in Mr. Manweiler’s 3-21-07 PowerPoint document, which was provided electronically to ITAC committee members and relevant BVSD personnel via e-mail.

Committee members requested a study on or reasonable bandwidth estimates for each school to ensure that bandwidth needs will be met with the type(s) of WAN options the committee will consider. The committee also asked for clarification on the Bond language so that they could consider or rule out the possibility of leasing a fiber network.

Mr. Manweiler and the committee then reviewed information pertaining to route mapping. New build linear lengths for a fiber WAN (excluding mountain schools) and new build assumptions (including aerial vs. underground fiber build facts) was illustrated.

Three new build options with their estimated costs were presented. These options included using a Turnkey Approach, the Construction Management and Material Procurement RFP Approach and the Owners Engineer Approach - RFP for Construction Only. Costs are estimated for a 288-fiber build. Mr. Manweiler further commented that doing a bid package where materials are managed by the District eliminates material markups.

The committee and BVSD personnel expressed their concerns for the storage of materials. This would need to be considered and trailer leasing options would need to be considered. The possibility of intergovernmental agreements with other government entities was also discussed. If other governmental entities were to lease fiber from BVSD, the revenue could help maintain and operate the network. It could also be used to pay for locates and managed services, a cost recovery system for maintenance, and/or it could be reinvested to build additional/future fiber networks.

The committee raised the idea of using the RFP for a sense of bid dollars and criteria basis, then later going back out with a bid package. Mr. Manweiler expressed his concern in doing this, as there is a usually a loss of leverage that comes with exercising one option and then going back

out and bidding another option. However, a RFP usually allows for more flexibility and negotiation than putting out a bid package.

Additional discussion and clarification around the three build options included:

- Leasing from Level 3 – 80 percent of the network would still have to be built and Level 3 has very little capacity and is not ready to take it out of their inventory
- 288-fiber build is standard, not custom, and runs about \$2.35 a foot
- Mr. Manweiler recommends the Turnkey Approach or the Construction Management and Material Procurement RFP Approach
- Construction management includes the scheduling of contractors and managing of materials and deliveries
- The risk with managing your materials is the delivery schedule – that could throw off your whole timeline – the schedule could be pushed out
- Concerns with having an outside person/contractor not associated with the builder as the construction manager
- Managing materials means increased liabilities and costs
- Clarification that the committee is under no timeline restriction – we want to do this right and feel comfortable with the decision we make.

BVSD personnel will meet with the Bond Council prior to the next meeting to answer the question in regard to leasing fiber (rather than doing an entire build) with the Bond money.

The committee requested the following deliverables for the next ITAC meeting:

- Answer from the Bond Council on leasing fiber
- Strategy on how we go out to bid
- Pros and cons of each fiber build including savings, risks, requirements of involvement and staffing needs
- Costs associated with outside facilities at the schools

The next ITAC meeting is scheduled for Wednesday, April 11, 2007, from 4:00 p.m. – 6:00 p.m., in the Boulder TEC/Arapahoe Ridge Staff Lounge, 6600 E. Arapahoe Road, Boulder, 80303.