CAPISTRANO UNIFIED SCHOOL DISTRICT
33122 Valle Road
San Juan Capistrano, CA   92675

BOARD OF TRUSTEES
Special Meeting

June 8, 2011   Open Session 5:00 p.m.

AGENDA

OPEN SESSION AT 5:00 P.M.

1.   **CALL TO ORDER**

2.   **PLEDGE OF ALLEGIANCE**

3.   **ADOPTION OF THE AGENDA – ROLL CALL**

4.   **BOARD AND SUPERINTENDENT COMMENTS**

DISCUSSION/ACTION ITEMS

5.   **STATE OF TECHNOLOGY: CUSD NETWORK INFRASTRUCTURE:**   INFORMATION/
The CUSD network infrastructure is made up of over a thousand hardware pieces of   DISCUSSION/
equipment, ranging from routers to switches. Comprised of over 58 Main Distribution   Page 1
Facility switches and over 800 Intermediate Distribution Facility switches at 56 school   **EXHIBIT 1**
sites, it is an intricate and complex system essential to the daily operations of the
District. This report provides a brief summary of the state of the District's technology
infrastructure, as well as describes the capacity of the hardware and the need to replace
core networking equipment in order to sustain and maintain essential daily operations.
Contact: Ron Lebs, Deputy Superintendent, Business & Support Services

Staff Recommendation:
It is recommended the Board President recognize Ron Lebs, Deputy Superintendent,
Business & Support Services, who will provide the technology update and answer any
questions Trustees may have. This is an information item only and no Board action is
necessary.

ADJOURNMENT

Motion by _____   Seconded by _____

**THE NEXT REGULAR MEETING OF THE BOARD OF TRUSTEES IS MONDAY, JUNE 13, 2011, 7:00
P.M. AT THE CAPISTRANO UNIFIED SCHOOL DISTRICT OFFICE BOARD ROOM, 33122 VALLE
ROAD, SAN JUAN CAPISTRANO, CALIFORNIA**

For information regarding Capistrano Unified School District, please visit our website:
www.capousd.org

CAPISTRANO UNIFIED SCHOOL DISTRICT
BOARD OF TRUSTEES

33122 Valle Road
San Juan Capistrano, CA   92675

ADDENDUM
to
June 8, 2011 Board Agenda

CLOSED SESSION ITEM

AGENDA ITEM #6

A. CONFERENCE WITH LABOR NEGOTIATORS
   Dr. Joseph M. Farley/Jodee Brentlinger/Ron Lebs
   Employee Organizations:
   1) Capistrano Unified Education Association (CUEA)
   2) Capistrano School Employees Association (CSEA)
   3) Unrepresented Employees (CUMA)
   4) Teamsters
   (Pursuant to Government Code §54957.6)

INSTRUCTIONS FOR PRESENTATIONS TO THE BOARD BY
PARENTS AND CITIZENS PRESENT AT THIS MEETING

We are pleased you can be with us at this meeting, and we hope you will return often. Your visit assures us of continuing community interest in our schools.

The members of the Board of Trustees of this District are locally elected state officials, who serve four-year terms of office, and who are responsible for the educational program of our community from grades kindergarten through twelve. They are required to conduct programs of the schools in accordance with the State of California Constitution, the State Education Code, and other laws relating to schools enacted by the Legislature, and policies and procedures which this Board adopts.

The Board is a policy-making body whose actions are guided by the school district's Mission and Goals. Administration of the District is delegated to a professional administrative staff headed by the Superintendent.

The agenda and its extensive background material are studied by each member of the Board for at least two days preceding the meeting. Board Members can call the administrative staff for clarification on any item, and many of the items on the agenda were discussed by the Board during previous meetings. These procedures enable the Board to act more effectively on agenda items than would otherwise be possible.

WHAT TO DO IF YOU WISH TO ADDRESS THE BOARD OF TRUSTEES

ITEMS ON THE AGENDA. Any person may address the Board concerning any item on the agenda and may, at the discretion of the Board, be granted three (3) minutes to make a presentation to the Board at the time a specific item is under discussion. However, the time assigned for individual presentations could be fewer than three (3) minutes depending upon the total number of speakers who wish to address a specific agenda topic. Prior to the opening of the meeting, a Request to Address the Board card (located in the foyer) should be completed and submitted to the Secretary of the Board. The total time devoted to presentations to the Board shall not exceed twenty (20) minutes, unless additional time is granted by the Board. All presentations shall be heard by the Board prior to the formal discussion of the agenda topic under consideration. Once an agenda item has been opened for public comment, no additional "Request to Address the Board of Trustees" cards shall be accepted for that topic.

ORAL COMMUNICATIONS (Non-Agenda Items). Citizens may address the Board on any item not appearing on the agenda. Individual presentations are limited to three (3) minutes per individual, with twenty (20) minutes in total being devoted for this purpose, but could be less if there are a large number of Oral Communication speakers. Legally, the Board may not take action on items raised by speakers under Oral Communications. However, at its discretion, the Board may refer items to the administration for follow-up or place topics on a future Board agenda.

PUBLIC HEARINGS. Anytime the Board schedules a separate public hearing on any given topic, it shall not hear speakers on that topic before the public hearing, except as to the scheduling of the hearing, nor shall it hear speakers after the hearing, except as to changes in the policy or recommended actions which are directed at the time of the hearing.

CLOSED SESSION. In accordance with Education Code §35146 and Government Code §54957, the Board may recess to Closed Session to discuss personnel matters which they consider inadvisable to take up in a public meeting.

REASONABLE ACCOMMODATION

In order to help ensure participation in the meeting of disabled individuals, appropriate disability-related accommodations or modifications shall be provided by the Board, upon request, in accordance with the Americans with Disabilities Act (ADA). Persons with a disability who require a disability-related accommodation or modification, including auxiliary aids and services in order to participate in a Board meeting, shall contact the Superintendent or designee in writing by noon on the Friday before the scheduled meeting. Such notification shall provide school district personnel time to make reasonable arrangements to assure accessibility to the meeting.

CAPISTRANO UNIFIED SCHOOL DISTRICT
San Juan Capistrano, California

June 8, 2011

STATE OF TECHNOLOGY: CUSD NETWORK INFRASTRUCTURE

BACKGROUND INFORMATION

The CUSD network infrastructure is made up of over a thousand hardware pieces of equipment, ranging from routers to switches. Comprised of over 58 Main Distribution Facility (MDF) switches and over 800 Intermediate Distribution Facility (IDF) switches at 56 school sites, it is an intricate and complex system essential to the daily operations of the District. Without these devices, access to the Internet or to critical systems like Aeries would not be possible. Over the past ten years, the network has expanded and evolved greatly, especially in regards to what it is expected to deliver, its expected reliability, and its maximum capacity. Via the District network, we support over 13,000 computers, hundreds of Voice Over IP Phones, and the daily delivery of media and video textbook content for learning. These services and many more are provided via networking switches that are now reaching end of life. The purpose of this Board item is to explain three areas:

1. The history of the CUSD network
2. The current age and capacity of the network
3. The need to upgrade the network to meet current and future demands

1. History of the CUSD Network

In the past decade, the District network has moved from modems, to T1 connectivity, to now fiber optics. During this time, connectivity or bandwidth capacity of the network has gone from 10 mega bytes per second (mbps) to over 150 mbps, with the capacity to go to one Gigabyte. One Gigabyte is excellent bandwidth and necessary to provide the connectivity needed for today's classroom. In 2008, when the District moved to a fiber optic network (providing 1Gig capacity), it gave the Technology and Information Services (TIS) Department the opportunity to centralize software servers as well as the ability to deliver video streaming content. Essential software servers, once housed at 56 separate sites on over 200 separate servers, were moved to the central office data center. Software systems, such as the library, e-mail, and Aeries servers, were moved to the centralized data center which improved performance, reliability, and service. Even though the centralization of servers improved initial support and performance, it was soon discovered that the school sites' network hardware (i.e. routers and switches) was unable to keep up with the demand for services. For example, 10 year old switches are trying to sustain hundreds of computers seeking a network connection to the Internet. The network switches are at maximum capacity and cannot handle the level of data that is now passing through these devices which in turn causes the computers to operate slowly. The decade-old switches are not designed to efficiently work in the environment they are supporting today.

EXHIBIT 1

Page 1 of 4

2. Current Age and Capacity of the Network

At each school site there is a Main Distribution Facility (MDF). This is the main point of entry for all network and Internet connectivity. Of the 56 sites, 24 of the MDF switches (43%) are now over ten years old and 79% of all MDF switches are now over five years old. The typical life expectancy of a MDF is from five to seven years; estimated replacement per MDF is $30,000 to $50,000. In the past year, seven MDF switches needed to be replaced.

An extension of the MDF is the Intermediate Distribution Facility (IDF). The IDF connects back to the MDF to connect to the District network. The District supports roughly 800 IDFs, each containing one or more switches. Typically there is one IDF in each wing/building of a school site. Over 45% of IDF switches are more than ten years old. The life span of an IDF switch is from five to seven years; estimated replacement cost per switch in an IDF is $6,000-$8,000. In the past year, TIS replaced 15 IDF switches.

3. The Need to Upgrade the Network to Meet Current and Future Demands

In designing and delivering a robust and advanced network for learning and productivity, there are six essential pieces that make up the entire experience (See attachment). Like Maslow's Hierarchy of Needs, the largest and most fundamental needs of delivering technology-related services are at the bottom of the pyramid. The fundamental or more basic needs must be met before the higher needs can be delivered. The network is a critical piece to the foundation and must be robust in order to build upon it. The District continues to improve systems and add more computers, but the network can no longer sustain its already heavy load. To address this challenge, TIS has developed a comprehensive plan and road map to begin the strategic process of replacing and upgrading this foundational piece. Without this network upgrade road map, future investments in computers and applications will be of little value. The routers and switches are a bottleneck on the District network, causing down time and delayed services. In order to provide consistent and reliable access to essential applications, it will be necessary to deploy an extensive network refresh plan.

CURRENT CONSIDERATION

To replace hundreds of aged MDF and IDF network equipment will be a substantial investment. To upgrade, sustain, and support the District network infrastructure could require up to $775,000 annually. Considering current fiscal restraints this is not possible, but progress is still being made in allocating the necessary fiscal resources to address the network needs. In 2010-2011, approximately $80,000 was budgeted for networking equipment replacement. For the 2011-2012 fiscal year, a total of $400,000 has been allocated for technology capital replacement, infrastructure, and E-rate. In coming months, additional information will be provided on the available options TIS has identified for replacing the network infrastructure.

FINANCIAL IMPLICATIONS

There is no financial impact at this time.

STAFF RECOMMENDATIONS

It is recommended the Board President recognize Ron Lebs, Deputy Superintendent, Business and Support Services, who will provide the technology update and answer any questions Trustees may have. This is an information item only and no Board action is necessary.

CUSD – TECHNOLOGY HIERARCHY

Provisioning of Services and Systems

Users

51,000 students
4,000 employees
Parents
Stakeholder groups

Computers/Devices

Over 13,000 desktops, laptops, netbooks, iPods, iPads, etc

Applications

ABI, AR, ELPs, GENESEA, SharePoint, Show & Share, etc

Enterprise: Servers & Systems

Email, Aeries, QSS, Storage, McAfee Security, Active Directory, etc

Network: Routers & Switches

Switches
MDF: (50+) 43% > 10 yrs old
IDF: (800+) 45% > 10 yrs old
Wireless Access

Infrastructure: Wire & Cable

COX Fiber Connectivity
E-rate Discounts