FCMAT
FISCAL CRISIS & MANAGEMENT ASSISTANCE TEAM
CSIS California School Information Services

Dublin Unified School District

Technology Review

September 15, 2014

Joel D. Montero
Chief Executive Officer

September 15, 2014

Steven L. Hanke, Ed.D., Superintendent

Dublin Unified School District

7471 Larkdale Avenue
Dublin, CA 94568

Dear Superintendent Hanke:

In November 2013, the Dublin Unified School District and the Fiscal Crisis and Management Assistance Team (FCMAT) entered into an agreement for a review of the district's technology support services. Specifically, the agreement states that FCMAT will perform the following:

1. Conduct a comprehensive analysis of the district's state of technology including hardware, software, department staffing, student assessment and accountability requirements and technology use. Interview principals, department directors and classified staff to gather data on the software applications and hardware utilized. Review and analyze the district's technology master plan and educational master plan and make recommendations regarding the district's preparation and readiness to implement the technology component of the Common Core State Standards and Smarter Balanced Assessments.

2. Analyze the status of the following:

   a) Network administration

   b) Website development and support

   c) Hardware installation and setup

   d) Application software used at district and site levels

   e) Technology in the classrooms and student data assessment and accountability protocols

3. Review the job descriptions and staffing of the technology and assessment and accountability departments, including any site level support and its effect on both departments.
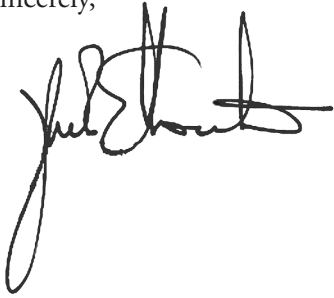
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4. Review district board policies on the use and integration of technology for district-level and site-based instruction.

5. Make staffing recommendations based on the support level necessary to meet the district's technology and student assessment and accountability requirements.

6. Review the network design for systems data safeguards against a catastrophic event or security breach. Review the processes or planning in place for ensuring that hardware and software assets are up to date.

This report contains the study team's findings and recommendations.

We appreciate the opportunity to serve you and extend our thanks to all the staff of the Dublin Unified School District for their cooperation and assistance during fieldwork.

Sincerely,

Joel D. Montero

Chief Executive Officer

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About FCMAT

FCMAT's primary mission is to assist California's local K-14 educational agencies to identify, prevent, and resolve financial and data management challenges. FCMAT provides fiscal and data management assistance, professional development training, product development and other related school business and data services. FCMAT's fiscal and management assistance services are used not just to help avert fiscal crisis, but to promote sound financial practices and efficient operations. FCMAT's data management services are used to help local educational agencies (LEAs) meet state reporting responsibilities, improve data quality, and share information.

FCMAT may be requested to provide fiscal crisis or management assistance by a school district, charter school, community college, county office of education, the state Superintendent of Public Instruction, or the Legislature.

When a request or assignment is received, FCMAT assembles a study team that works closely with the local education agency to define the scope of work, conduct on-site fieldwork and provide a written report with findings and recommendations to help resolve issues, overcome challenges and plan for the future.

Studies by Fiscal Year
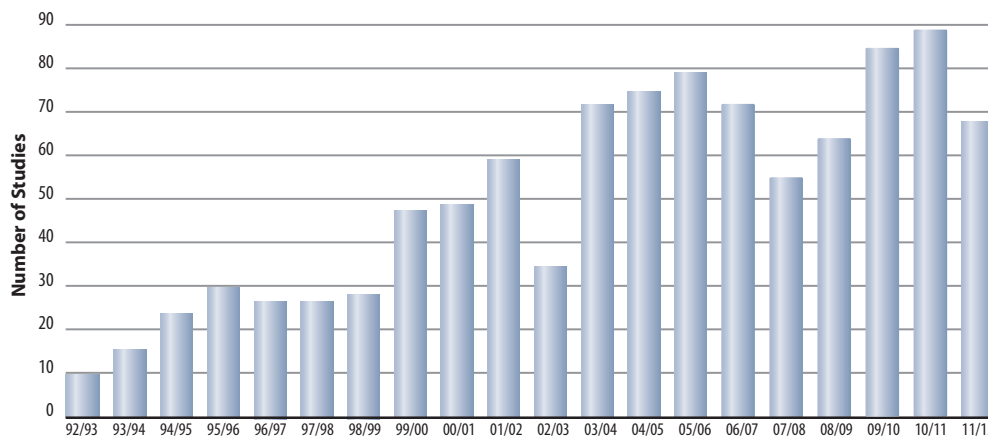
FCMAT also develops and provides numerous publications, software tools, workshops and professional development opportunities to help local educational agencies operate more effectively and fulfill their fiscal oversight and data management responsibilities. The California School Information Services (CSIS) arm of FCMAT assists the California Department of Education with the implementation of the California Longitudinal Pupil Achievement Data System (CALPADS) and also maintains DataGate, the FCMAT/CSIS software LEAs use for CSIS services. FCMAT was created by Assembly Bill 1200 in 1992 to assist LEAs to meet and sustain their financial obligations. Assembly Bill 107 in 1997 charged FCMAT with responsibility for CSIS and its statewide data management work. Assembly Bill 1115 in 1999 codified CSIS' mission.

AB 1200 is also a statewide plan for county offices of education and school districts to work together locally to improve fiscal procedures and accountability standards. Assembly Bill 2756 (2004) provides specific responsibilities to FCMAT with regard to districts that have received emergency state loans.

In January 2006, SB 430 (charter schools) and AB 1366 (community colleges) became law and expanded FCMAT's services to those types of LEAs.

Since 1992, FCMAT has been engaged to perform more than 1,000 reviews for LEAs, including school districts, county offices of education, charter schools and community colleges. The Kern County Superintendent of Schools is the administrative agent for FCMAT. The team is led by Joel D. Montero, Chief Executive Officer, with funding derived through appropriations in the state budget and a modest fee schedule for charges to requesting agencies.

Introduction

Background

The Dublin Unified School District is located in Dublin, a suburban city on the eastside of the San Francisco Bay Area and is approximately 34 miles north of San Jose. Dublin is the second-fastest growing city in the state of California, behind only Santa Clarita. In 2010, the population was about 46,063, according to the 2010 United States Census. It grew to 49,890 by 2013 and is expected to reach more than 75,000 by 2030.

The district provides K-12 educational services to approximately 7,325 students located at six elementary schools, two middle schools, a comprehensive high school and one continuation high school. The rapid growth of the community is reflected in the district enrollment projections, which anticipate an increase to approximately 11,000 students by the 2018-19 school year.

Study Team

The study team was composed of the following members:

Scott Sexsmith
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Santa Clara County Office of Education
San Jose, CA

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King City Union School District
King City, CA

*As members of this study team, these consultants were not representing their respective employers but were working solely as independent contractors for FCMAT. Each team member reviewed the draft report to confirm the accuracy and to achieve consensus on the final recommendations.

Study Guidelines

In November 2013 the Dublin Unified School District requested that FCMAT review its technology support services. FCMAT visited the district on March 12-13, 2014 to conduct interviews, collect data and review documents. This report is the result of those activities and is divided into the following sections:

- Executive Summary

- Information Technology Staffing Overview

- Educational Technology

- Services

- Network Infrastructure and Data Center

- Technology Related Policies and Regulations

- Information Technology Organization, Staffing, and Structure

- Reorganization

- Appendices

In writing its reports, FCMAT uses the Associated Press Stylebook, a comprehensive guide to usage and accepted style that emphasizes conciseness and clarity. In addition, this guide emphasizes plain language, discourages the use of jargon and capitalizes relatively few terms.

Executive Summary

Over the next few years, K-12 education classrooms will continue a rapid transformation of how technology is used and integrated into the learning environment. Many school districts will need to modify grade-specific curriculum to include utilizing technology to develop strategic thinking and "bring your own device (BYOD)" initiatives to keep pace with the increased amount of multimedia used in K-12 classrooms. Even the most progressive technology use plans could be considered obsolete in less than two years. Compounding the demand for technology, the state recently approved major changes to the K-12 curriculum with the addition of the Common Core State Standards and online Smarter Balanced Assessments, both of which will require considerable efforts to properly integrate technology into the curriculum and classroom.

Information Technology Staffing Overview

The Dublin Unified School District's Information Technology (IT) Department is led by the director of information technology, who reports to the superintendent. An additional eight positions provide technical assistance to the district office and school sites. These positions include a network and technology coordinator, one information technology technician, one network support technician, and five computer technician I positions. Staffing is discussed throughout this report and in much greater detail in the Information Technology Organization, Staffing, and Structure section.

Educational Technology

The district lacks a comprehensive plan for technology use in the classrooms, and its utilization generally depends on each teacher's skill and comfort with the technology. The adoption of various technologies is not always completed through a standardized vetting process where input from end users is evaluated and the resulting decisions are implemented uniformly throughout the district. With some exceptions, teachers are not prepared to implement the technology components of the Common Core State Standards. Although teachers received professional development training on the standards in summer 2013, it did not focus on the technology components. Teacher professional development is mostly voluntary, and this a major factor in the lack of teacher preparedness to implement the technology components of the Common Core State Standards. To better meet these needs, the district should create the position of coordinator, learning technologies and innovation to lead technology integration in the classrooms.

A coordinator position for assessment and accountability should be created to better organize staff, ensure cross-training, and provide timely and accurate data for local and state reporting purposes. A cabinet-level chief technology officer position should replace the director of technology position for improved planning, leadership, and coordination of technology use across all divisions.

Services

The district does not adequately track hardware and software acquisitions, and a physical inventory of assets has not been taken in more than five years. Hardware and software standards are almost nonexistent, and information regarding those standards is not well communicated through the district.

Network Infrastructure and Data Center

Technology staff performing network services are not adequately trained and have limited time to configure needed network security software and hardware. Fiber optic connectivity between the school sites is becoming dated, and a replacement plan should be developed. The data center lacks an adequate backup power supply, fire suppression, and proper physical access security. The data backup process is inadequate, and critical data could easily be lost.

Technology Related Policies and Regulations

Board policies were reviewed and are current. Administrative Regulation 4040, Employee Use of Technology, refers to the scheduled deletion of older emails that are not marked for retention. This administrative regulation is being partially implemented. Folders specifically designated for retention are backed up; however, email older than 30 days in generic accounts is not deleted. No backups or deletion occur in the Google Gmail system.

Information Technology Organization, Staffing, and Structure

Many staff in the Technology Department have job descriptions that are outdated or do not adequately describe the work performed. Two computer technician II positions should be filled to provide additional support for the schools and to serve as a second-tier of assistance for the computer technician I staff in the department. A technology services manager should be created to increase accountability and improve services at the help desk, computer technicians, and network and server support positions.

Reorganization

The assessment and accountability staff should become part of the newly titled Information and Technology Services (ITS) Department to work more collaboratively and to provide needed assistance with required technical services. The proposed new coordinator position of learning technologies and innovation should also be placed in the department to ensure a proper focus in supporting educational technology. The department should also add a secretarial position for administrative support.

Findings and Recommendations

Information Technology Staffing Overview

The district's Information Technology (IT) Department is led by the director of information technology who reports to the superintendent. An additional eight positions provide technical support to the district office and school sites. These positions include one network and technology coordinator, one information technology technician, one network support technician, and five computer technician I positions. Staffing is discussed throughout this report and includes detail in the Information Technology Organization, Staffing, and Structure section.

Educational Technology

Technology in Classrooms

The district's strategic plan and the draft versions of the Common Core Implementation Plan reference the importance of student and teacher use of technology in ". . . meeting district goals. i.e. successful implementation of the Common Core State Standards and Smarter Balanced Assessments." (DUSD Strategic Plan, Resource Alignment page 26)

Student Access and Use of Technology

FCMAT interviewed staff and reviewed documents provided by the district, including the Local Education Agency Plan (expired June 2013) and a draft of the Local Control Accountability Plan (LCAP). The team found that the district does not have a comprehensive plan for technology use in classrooms or a minimum standard to equip every classroom. There also is no policy for updating and replacing computer equipment, and as a result, many classroom computers and most administrative-use computers are more than five years old. All the older computers, and many computers that are less than five years old use the Microsoft XP operating system, which is no longer supported by Microsoft. Staff stated that it is common for older computers to crash several times a day, which disrupts learning and workflow.

The district does not have a consolidated, comprehensive inventory of the technology used at each school as required by Administrative Regulation 3440. The district has several documents that list technology assets, although these documents are in varying formats and have different levels of detail, making site-level comparisons unfeasible.

Despite the absence of a comprehensive plan for technology use in classrooms and a minimum standard for equipping classrooms, the team found some effective examples of technology integration. Overall, the technology used in classrooms depends heavily on individual teachers' skill level and comfort with technology.

Many staff members perceive inequities in the availability of classroom technology throughout the district. Some parent-faculty clubs provide funding for computer labs, which increases the perception that some students have more access to technology than others. This perception cannot be confirmed without an accurate, readily available inventory of computers and student devices at the school site level.

Teacher Access to Instructional Technology

Teachers were provided with the opportunity to pilot different devices for instructional effectiveness and overall ease of use. Despite providing feedback about the piloted devices to the technology advisory committee, the district purchased devices for teachers that contradicted their evaluation and recommendation from the pilot process. Interviews conducted with various groups found that there is a general concern about how decisions are made regarding instructional and learning technologies as well as a widespread perception that the Technology Department is disconnected from and generally unsupportive of the district's educational goals and objectives.

The best practice is to have a common, shared, and well-communicated plan for the use of learning technologies at each grade. This document should be aligned to that grade's learning goals, the Common Core State Standards, and the International Society for Technology in Education – National Education Technology Standards. The technology plan is updated annually and is used to identify the minimum equipment needed for each classroom, usually by grade level. A well-developed technology plan also identifies the devices best suited to meet specified learning outcomes, minimizing personal opinion in selecting devices. School districts that implement best practices also have an effective asset-tracking program so that equipment such as computers and other devices can be inventoried by site.

Recommendations

The district should:

1. Develop a comprehensive technology plan aligned with the Common Core State Standards, and the International Society for Technology in Education – National Education Technology Standards.

2. Develop and implement a minimum standard for equipping classrooms with technology.

3. Develop and implement an equipment replacement cycle.

4. Develop and implement an asset tracking system.

5. Conduct a comprehensive inventory of technology assets by site and update it annually as required by AR 3440.

Readiness for Common Core State Standards and Related Assessments

Instructional and Support Staff Readiness

With some exceptions, the district's teachers are not prepared to implement the technology components of the Common Core State Standards. Although teachers were trained in the standards in summer 2013, this training did not focus on the technology components. Interviews with staff members found that they have a general understanding of the importance of learning technologies, but not of the explicit and implicit technology components included in the Common Core State Standards. Without a basic awareness of these components, the district cannot expect successful integration of the technology components and full implementation of the standards in general. The team found that the staff has a sense of urgency regarding the field

test of the California Assessment of Student Performance and Progress, more commonly known as the Smarter Balanced Assessment Consortium (SBAC). The focus on the field test would be understandable for the short-term period that included the team's on-site visits (which was only a few weeks prior to the beginning of the field test window), but a review of the draft version of the district's Common Core Implementation Plan 2014-2015 found that the only references to technology integration is to "formulate training plan on student technology skills needed for SBAC" (page 5). Without a comprehensive plan for implementation of the technology components of Common Core State Standards and an accompanying plan for professional development, the district should expect limited success for learning technologies that help students master the standards. Districts that use best practices for implementing the standards, with the technology components included, focus on student learning via instruction and curriculum that leads to student mastery of the standards. This approach emphasizes student learning. Assessment then measures the degree to which students mastered the curriculum. Successful districts have also made the technology components of the Common Core State Standards (CCSS) explicit and have identified how those technology components will be addressed. The following links include versions of the CCSS-English Language Arts and CCSS-Mathematics that are highlighted for explicit technology components.

http://bit.ly/dusdtechela

http://bit.ly/dusdtechmath

The most successful districts regularly assess teacher and student technology skills and the degree to which students regularly use technology for learning. Data from this assessment is used to plan and deliver timely and differentiated professional development.

A major factor in the lack of teacher preparedness to implement the technology components is that teacher professional development is mostly voluntary. As noted above, the state standards cannot be fully implemented without teacher knowledge and skill in technology. The district cannot expect to successfully implement the standards' technology components with this model for teacher professional development. In addition, the team found no indication of a professional development plan or strategy to enable site administrators to lead, coach, and evaluate learning technology implementations and practices.

Despite the best efforts of some staff, including the teacher on special assignment (TOSA) and technology coaches, the voluntary model for professional development reached relatively few teachers. In concept, the TOSA's function is to oversee and support the technology coaches, provide professional development for teachers on how to implement technology into daily lessons, and coach teachers in implementing technology. Although the job duties described for the TOSA are appropriate, this employee is often diverted from the main responsibilities to address technology problems because of Technology Department understaffing, administrative tasks, and planning meetings. The TOSA is also on a teacher contract and is therefore limited in the number of workdays. Given the number of technology coaches and the need to increase professional development to reach more teachers, the district should have a dedicated educational technology leader who can coordinate these efforts in a more focused manner, and as the district continues to grow, supervise and evaluate additional TOSAs. In the short-term it would be logical for the district to convert the TOSA position to a full-time leadership position such as a coordinator position of learning technologies and innovation.

The best practices for school districts include several strategies for involving teachers in professional development with the goal of providing every teacher with appropriate training, support and organizing to deliver those services. Successful districts have a full-time leadership position dedicated to learning technologies and innovation. Although this position reports to the chief technology officer, the person filling this position works closely with the assistant superintendent of educational services to align strategic efforts. In a 2010 report by Gartner, Inc., author William Rust recommends that K-12 districts organize their technology departments to include all three primary service areas (curriculum and instruction support; business and administrative systems; communication and delivery).

Many districts utilize teacher incentive programs, offering either equipment for their classroom, continuing education units for salary schedule advancement, or hourly stipends. Other districts use substitutes so teachers can attend training during the instructional day. More innovative districts utilize blended-learning professional development models that include online components for learning and ongoing coaching. The most successful districts include site and district administrators in the teacher training and offer additional training and support specific to leadership and evaluation of learning technologies.

Communication

Every successful organization relies on effective communication, especially in times of major change such as implementation of the Common Core State Standards. The conditions at Dublin Unified make communication more difficult than in most districts and contribute to a lack of readiness to implement the technology components of the Common Core State Standards.

In the district document titled "Vision 2020 Mid-Year Progress – 2013," one of the areas being monitored is technology. As a means of measuring progress in this area, one of the five measures of success is the "Successful Upgrade of the Data Center." This upgrade includes improvements to the physical environment and upgrades to some data systems. The document cites the development of the technology upgrade plan as evidence of achieving this measure. However, interviews with staff found that the data center portion of the upgrade plan was postponed because of concerns about its direction and integrity as well as the vendor's ability to transfer data from the Novell platform to Microsoft Exchange/Outlook. This delay has had many results. One consequence of the data center upgrade was stopping the transfer of email services from the Novell platform to Microsoft Exchange and the accompanying email services. This is significant because dissatisfaction with the Novell email system (GroupWise) was so widespread that employees sought their own alternatives. Many teachers who were exploring the use of Google apps for education instruction started using Google Mail (Gmail) as their de facto email system. As a result, Gmail became the teacher's primary email platform. During interviews, the team learned that some teachers no longer check their GroupWise email accounts despite the fact that this is the email system and address provided to the public on the district's website. School and district administration continue to use GroupWise, and it continues to be the district's official email platform.

Having two email platforms has led to ineffective communication because of missed emails, wasted time and money because of duplication of effort, and eroded confidence in the Technology Department. Effective communication is one of the most essential components for school districts as they implement the Common Core State Standards. The district should expect continued and increased communication problems until this major issue is resolved.

School districts that have effective communication strategies utilize a single email platform for all official school district communications. This eliminates redundancy and makes it easier for the district to comply with laws on email retention and discovery.

The need to cancel the vendor contract for lack of performance midway through the data center upgrade resulted in further postponing the data center upgrade, which further eroded confidence in the Technology Department. Public entities in California often use select vendors (in large part by low bid), to properly plan for and implement the technological infrastructure. Implementation of the technology components of the Common Core State Standards depends on every member of the district, including the board, the community, and all employees, having confidence in the Technology Department.

The best practice for technical planning, especially critical systems such as a data center, includes obtaining expert opinion from consultants who have a professional relationship with the district. Consultants with no political or monetary gain in designing/building/maintaining these systems are important in reviewing proposed designs and requests for proposals (RFPs), evaluating vendor responses to RFPs, selecting vendors, planning projects, and monitoring implementation.

Technology Vision & Strategic Importance

The district's strategic plan, "Vision 2020", includes the following technology goal:

> To provide reliable technology services that support the application, networking and computing needs of students, teachers, leaders, and support staff in meeting district goals, i.e., successful implementation of the Common Core State Standards and Smarter Balanced Assessments.

Despite this documented and measured goal, the team found no well-communicated and unified direction for technology in general and learning technologies specifically. The district does not have an approved technology plan.

A review of the draft version of the district's Common Core implementation plan found that some software programs are listed for implementation. Teachers use these programs and applications and others without a unified approach for support or training. This further overburdens technology support staff members because they often troubleshoot undocumented problems with unfamiliar programs.

A review of planning documents and staff interviews indicate the district has an understanding of technology's operational importance, but a lack of understanding of its strategic importance and impact on all district systems. When asked what needs to change so the district can better achieve its goals and objectives, individuals and groups clearly indicated that they are frustrated with technology devices, network reliability, email, and the data center upgrade project as well as the organizational process involved in selecting instructional devices. Some leaders expressed frustration at the lack of comprehensive strategies for technology use across all levels of the organization and indicated such a strategy does not seem to be a concern among key district leaders. Interviews strongly indicated that effective, timely communication is a major weakness for the Technology Department and across all departments.

 The district changed the reporting structure of the technology leader, most recently titled the director of information technology, so that this position reports to the superintendent instead of the assistant superintendent of business. At modern districts, all other strategic operations rely heavily on technology services; therefore, the technology leader should have extensive knowledge of student and adult learning theory, innovative learning and instructional strategies, business functions such as accounts receivable, accounts payable, asset management, purchasing, fixed assets, payroll and retirement, workflow automation, the Education Code, all aspects of student data, the required state and federal reporting, Local Control Funding Formula/Local Control

Accountability Plan development and tracking. The leader should also know about all aspects of technology infrastructure, devices, network, application, security, and enterprise-level systems. In short, the technology leader should understand the functions that traditionally were under the direct oversight and supervision of assistant superintendents and be able to function at that level. He or she should be a strategist, technologist, clear communicator, and be politically knowledgeable. Some districts have created an assistant-superintendent-level chief technology officer position. This person in this position typically has the knowledge and skills listed above with several years of experience in K-12 leadership positions and often served as a technology director. Many chief technology officers have certifications from the California Educational Technology Professional Association or the Consortium for School Networking.

Staff had many opinions on who is responsible for creating and leading the direction for learning technologies. Without a well-communicated common direction, the technology coaches and individual teachers created their own approach to implementing these technologies. However, districts that have used this decentralized model were unable to support and sustain the efforts in the long term because of lack of ongoing professional development and technology support as well as an inability to effectively evaluate program results.

A district with a clear direction can communicate those plans and objectives as well as the expected results. Leaders can develop a plan for equitable access for all students, targeted allocation of resources, a professional development plan, and an evaluation process that informs progress. Such a plan allows leaders at all levels of the organization to identify the necessary tasks and actions, measure progress, and make adjustments as necessary. Developing a clear direction also ensures technology can be effectively integrated into all schools. School districts create a common, shared direction through a collaborative process, often using a districtwide technology advisory committee. In very successful school districts, a chief technology officer and a chief academic officer jointly lead this process.

Technical Support

The district's technology support staffing has not had sufficient professional development training for the learning technologies that will be necessary for implementation of the Common Core State Standards. The district plans to acquire hundreds of devices and should determine how these devices will be integrated onto the network, managed, updated, and otherwise supported as well as the capacity of staff to provide that support.

Recommendations

The district should:

1. Make available to all staff the highlighted versions of the Common Core State Standards that can be found at http://bit.ly/dusdtechela and http://bit.ly/dusdtechmath.

2. Develop grade-level technology competencies for students that align with the Common Core State Standards using the International Society for Technology in Education (ISTE) standards (www.iste.org/standards/standards-for-students) as a guide.

3. Use a detailed learning technology survey such as BrightBytes Clarity or the equivalent to query administrators, teachers, students, and parents on implementation and perceptions of technology use, readiness, and needs.

4. Develop a professional development strategy that includes training and support for all teachers and administrators to implement the technology components of the Common Core State Standards.

5. Ensure that all IT staff have appropriate professional development to support the software, devices, and infrastructure used in the Common Core State Standards.

6. Complete the data center upgrade as soon as possible.

7. Select one email platform that is efficient and secure for all district-related business.

8. Purchase a license for industry leading research and advisory services such as Gartner Inc.'s "Gartner for IT Leaders Advisor" service. Gartner's licensing is a way to access consultants with no political or monetary gain in designing/building/maintaining critical systems and are of particular value in reviewing proposed designs and requests for proposals, evaluating vendor responses to these proposals, selecting vendors, planning projects, and monitoring implementation.

9. Recruit and hire a chief technology officer who has extensive knowledge of K-12 education, including curriculum, instruction, and assessment. This position and the assistant superintendent of education services should co-lead a process to develop a shared direction for learning technologies.

10. Create the position of coordinator, learning technologies and innovation, and convert the teacher on special assignment to this leadership position. As the district continues to grow, additional teachers on special assignment can be added and supervised under this position.

11. Assign the chief technology officer to lead a collaborative process to develop a technology plan that achieves the district's goals and objectives.

Coordination of Efforts

Dublin Unified has 23 technology coaches, nine Technology Department staff members, a director of elementary education, a director of secondary education, a coordinator of student services, and a teacher on special assignment to help integrate technology into the district. This can be a strong, effective team although there have been difficulties in collaboration and communication at a time when the district is committed to increasing technology at each campus.

Professional development should be increased for all staff members. Districts often provide professional development before teachers receive technology in their rooms. This might consist of several sessions, with teachers required to attend all of them before technology is delivered or installed. The training reduces the amount of technical assistance required. The sessions can be brief, even 30 minutes in duration, but they need to be hands-on and ideally involve groups 15 or fewer.

Communication between the Technology and Educational Services departments should be improved, which will enhance communication between the department technicians and technology coaches. The teaching staff is often reluctant to contact the Technology Department

and often uses the technology coaches to resolve problems that could have been handled by the department. This diverts the technology coaches away from instructional technology assistance.

Support should be redefined to more effectively meet site needs. To properly support the growing amount of technology, the district should at least have a dedicated technician at each of the middle and high schools. The remaining computer technicians can be placed in a structured schedule at the elementary sites. This might consist of days where technicians rotate through the elementary schools, but staff are always available (or nearby) to provide prompt support in an emergency. The technology coaches should be able to provide guided instructional support and not function as site technicians. Their value is coaching in the classroom, and team teaching with the instructional staff.

The teacher on special assignment is a useful position that should be re-evaluated to ensure the duties performed are aligned with the district's direction and goals. The position performs many different duties throughout the district. More time should be dedicated to team teaching throughout the district since this is effective in demonstrating instructional technology and should be coordinated by this position. The position should not oversee the Technology Department technicians to ensure their tasks are completed.

The best practice is to have the teacher on special assignment focus on professional development through seminars, team teaching, and regular conferences. This effort should be closely focused on integrating technology and curriculum in the classroom and ensuring professional development goals are met.

Recommendations

The district should:

1. Focus on improving the collaboration and communication between the Technology and Educational Services departments, especially the technology coach and computer technician positions.

2. Establish technology classes for professional development before technology is introduced to the classrooms. Continue to provide support courses to follow up on the technology used throughout the district.

3. Ensure technology coaches do not function as site computer technicians and instead focus their time on providing instructional technology assistance in the classrooms with the teaching staff.

4. Provide dedicated computer technicians at the middle and high schools, and place the remaining computer technicians on a schedule to serve the elementary and continuation high school.

5. Ensure the teacher on special assignment is not assigned to manage the Technology Department technicians and instead focuses on the district's direction and goals for instructional technology.

Student Assessment and Accountability

The purpose of assessment is to measure student progress in the Common Core State Standards. Assessment is either formative (while instruction is in progress), or summative (after instruction is completed). Formative assessment helps students and teachers refine their learning and teaching process to allow for adjustments that will ensure concept mastery. Summative assess-

ments provide an evaluation of student learning, usually at the end of a chapter, unit, or term and are evaluated against some standard.

Multiple assessments, both in quantity and type, provide students with several opportunities and formats to demonstrate mastery. While multiple-choice tests can provide some meaningful data, assessing progress in the Common Core State Standards often involves students creating their own content or solving problems and providing explanations to defend their solution as well as the process they used to accomplish this. Therefore assessing student progress in the standards requires an extensive understanding of curriculum and instruction in addition to assessment.

As the district has rapidly grown over the past several years, it has distributed district-level assessment coordination with responsibilities and activities across many positions. For example, some of the data necessary to coordinate assessments is in the Aeries student information system, which is a primary responsibility of the applications specialist. The Online Assessment Reporting System (OARS) houses student assessment result data and is the primary responsibility of the educational learning resources technician. The student information system and OARS do not directly share data, which means student demographic data must be manually uploaded into OARS, and assessment data must be manually uploaded into the student information system. This process is inefficient and prone to errors. Teachers cannot generate historical assessment data for students, so the educational learning resources technician must extract data from both the student information system and OARS, manipulate the data in Excel, and send the spreadsheet to the teacher. Because of the several versions of Microsoft Office (2003, 2007, 2010) used throughout the district, teachers often cannot open the spreadsheet sent to them, so paper copies of the worksheets are sent through inter-district mail. This process is also inefficient, time-consuming, prone to errors, and wastes money used to print reports.

The Local Control Funding Formula (LCFF) has made data accuracy a critical function for every district. Districts are funded based on student-specific criteria, including a base grant with differentiated funding based on each student's grade level and average daily attendance, and supplemental grant funding for students who have greater educational needs such as English learners, Free and Reduced Lunch Program participants, and foster youth. Data on district students is reported to the California Department of Education through the California Longitudinal Pupil Achievement Data System (CALPADS). The accuracy of data reported to CALPADS determines how much money the district will receive from the state. The district has one employee who has the required knowledge and is responsible for the accuracy of student data housed in the student information system (which is the data source for CALPADS reporting) as well as how to submit the required report to CALPADS. This is an unacceptable risk that could lead to major reporting errors, jeopardizing district funding. The district should immediately reorganize to align assessment and accountability (data reporting), allowing for cross-training and appropriate levels of redundancy. This will ensure the accuracy of data and reporting knowledge and experience. Specifically, this includes reassigning some of the responsibilities for the positions of application specialist, the educational learning resource technician, and the assessment technician. The following table illustrates the suggested reassignment of position responsibilities:

Current Position	Description of Task	Primary Responsibility	Secondary Responsibility
Application Specialist	Application system administration for Aeries	X	Assessment Technician
Application Specialist	Source data systems administration for CALPADS reporting	X	Assessment Technician
Application Specialist	Prepare CALPADS report for review, approval, and submission	X	Assessment Technician
Application Specialist	Telephony system administration	X	
Application Specialist	Productivity Software support	X	Educational Learning Resource Technician
Application Specialist	Application testing, validation, and promotion to production environment	X	
Application Specialist	Configure and upgrade enterprise-level software	X	
Assessment Technician	Data extract and validation for pre-ID for state testing programs such as CAASPP, CELDT, CAHSEE, FitnessGram, etc.	X	Application Specialist
Assessment Technician	Order and receive state testing materials	X	Educational Learning Resource Technician
Assessment Technician	Create CTE Course Information Charts	X	Educational Learning Resource Technician
Assessment Technician	Design various charts related to assessment data reporting	X	Application Specialist
Educational Learning Resource Technician	Maintain student and instructional assessment database	X	Assessment Technician
Educational Learning Resource Technician	Train staff on use of assessment item bank	X	
Educational Learning Resource Technician	Provide troubleshooting expertise to assessment data system	X	Application Specialist
Educational Learning Resource Technician	Extract and organize data for School Accountability Report Cards	X	Application Specialist
Educational Learning Resource Technician	Coordinate Gifted And Talented Education assessments, related materials and notifications	X	Assessment Technician

The district has no system for housing or archiving student-created work products that can be used to demonstrate mastery of the Common Core State Standards. As students increase their use of technology in their daily work and create digital projects (including multimedia), a secure digital locker and electronic portfolio system will be important to store, publish, and present their digital products.

The best practice in assessment and accountability for districts similar to Dublin Unified is to centralize the duties and responsibilities for assessment oversight. Typically, an assessment coordinator or director of assessment and evaluation is assigned to coordinate assessment programs across the district, ensuring the implementation of federal, state, and districtwide testing programs, and providing expertise on effective assessment strategies and tools. The assessment coordinator often oversees a data team responsible for integrating data systems so that teachers have ready access to the data they need to guide their instructional decisions. Innovative districts utilize electronic portfolio systems that allow students to archive selected work samples, set goals, and publish portfolios for various audiences such as parent-teacher conferences, community educational showcases, college admission officers, and prospective employers.

The following table illustrates how districts similar to Dublin Unified are organized for assessment and evaluation.

District	District Size (ADA)	Title of Assessment Lead
Dublin USD	7,325	Assistant superintendent
San Leandro USD	8,704	Director, instructional technology, assessment, research, & evaluation
Castro Valley USD	9,210	Coordinator, assessment, accountability, & instructional technology
Berkeley USD	9,779	Director, evaluation & assessment
San Lorenzo USD	12,270	Director, assessment & English language programs
Palo Alto USD	12,357	Director, research & evaluation

Average Daily Attendance data from DataQuest, 2012-2013

Recommendations

The district should:

1. Create a coordinator position that oversees assessment and accountability. Sample job descriptions are attached as Appendix A to this report.

2. Investigate the use of a system such as a data warehouse where data from other disparate systems (student information, assessment, human resources, etc.) can be combined and quickly analyzed. The system should also have the capacity to provide district and site staff with relevant and current data dashboards.

3. Reorganize to create an Assessment and Accountability Department focused on overseeing districtwide assessment, streamlining data processes, developing consistent data protocols, and overseeing data governance. Positions in the assessment and accountability department should include the following:

   o Coordinator, assessment and accountability
     - Assessment technician
     - Application specialist
     - Educational learning resources technician

4. Cross-train assessment and accountability team members so they have shared expertise in critical systems.

5. Implement an electronic portfolio system to store, access and assess student work samples.

6. Standardize on the Microsoft Office suite among all users.

Services

Software Acquisition and Tracking

The district does not track purchases of software and has no purchasing standards for it. Departments order software without checking with the Technology Department for compatibility and support. The same software has sometimes been purchased several times. Some individuals ordered software and the associated licenses only later to discover that the Technology Department already owned licenses for the software. Software purchases are often onetime installations in the Special Education Department. If a computer is imaged each year, which means the hard-drive data is erased and all the software reinstalled, this onetime software has to be repurchased and reinstalled on the computer. The Technology Department should regularly communicate with other departments to ensure there are no one-time software installs or the district does not already have software licenses on file.

The district has no master database of its software. The Technology Department should document purchasing procedures for software. In the Escape financial system used by the district, all software and licensing purchases can include a technology management code in the account number at the time of requisition so the department can perform a query and determine all the software purchased for the year.

No single position or group oversees or manages software acquisition or use in the district. A district technology committee should have representatives from each department and site who can help determine department needs and help avoid unnecessary software purchases. This will ensure that a districtwide software inventory is developed and help organize all software and licensing purchases.

Recommendations

The district should:

1. Ensure all purchases relevant to the Technology Department have a department management code for tracking purposes.

2. Redefine the technology committee to include representatives from each department and site. This will help avoid unnecessary hardware and software purchases.

Hardware Standards

No formal technology purchasing standards are available to those who purchase technology in the district. The Technology Department has one document that lists a few basic items, such as HP desktops, Lenovo "Twist" laptops, and Lumens document cameras. However, most nontechnology staff who were interviewed indicated they were unaware of any published standards. Departments, school administrators, and teachers individually contact technicians to determine what can be purchased. The lack of formal purchasing standards makes it difficult for the Purchasing Department to be consistent with models and vendors, and ensure that the exact devices needed are ordered. Because technology changes so frequently, purchasing standards should be reviewed at least twice a year. This helps avoid inconsistencies with purchases, ensures the items purchased comply with standards, and helps the district receive the best prices by negotiating ahead of time. Departments that need to order items need only refer to the lists.

Because of the volume of purchases, established standards will help streamline the entire purchasing process. The Purchasing Department should help create a list of approved vendors and monitor the list of approved hardware and software to ensure that only approved items are purchased. Nonstandard items should be purchased only when approved by the Technology Department leadership.

Recommendation

The district should:

1. Establish technology purchasing standards that are reviewed at least every six months. These standards should consist of specific hardware devices and software.

Inventory

The district does not annually inventory hardware or software and has not performed a physical inventory in more than five years.

Normal procedures are for the Purchasing Department to inventory systems as computers are received in the district. The asset tags are printed by the Purchasing Department and forwarded to the Technology Department to be applied at a later date. Although the board-approved asset tag dollar amount is for items with a value of at least $500, these tags are applied on almost all items. However, the practice is inconsistent. Items are sometimes shipped directly to the site instead of the district office without the Technology Department knowing that the items were delivered or determining whether they should be inventoried. The application of asset tags is subjective, based on whether the item seems likely to be stolen. With no accurate physical inventory, no technology equipment has been officially declared surplus in years, which means inventory counts are inaccurate.

The best practice is to perform an annual inventory for reconciliation and surplus purposes. All the district's technology should be properly tracked and accounted for, along with proper disposal of nonfunctioning equipment. The district should continue to use the Escape inventory module and ensure that access is given to all appropriate staff members.

Recommendations

The district should:

2. Inventory hardware and software at least once a year. The inventory can be maintained in Escape's inventory module.

3. Establish inventory procedures and timelines that are agreed upon by the Technology, Purchasing, and Business departments.

Website and Support

All websites in the district are maintained in the vendor supplied Schoolwires system, and each individual who updates the sites has his or her own login into the system. There is no formal training for those who update websites. Various staff members throughout the district maintain the district and school site websites.

The Technology Department sometimes participates in website updates and serves as backup if the primary individual cannot maintain the site. The department also maintains the district website.

The technology coaches update the content of most sites. For each site, the district maintains a uniform appearance that follows the layout of the main district website. During interviews, many staff indicated they are frustrated with the delay in getting information published on the websites, and this can cause problems when information needs to be disseminated quickly. The school site staff interviewed often were unsure who at their site was responsible for website updates.

Each site should have clear, uniform processes identifying the person who maintains the Web pages and should submit requests for updates or changes. This could be accomplished through an internal Web page or an email address communicated to the staff. An electronic trail where requests are time-stamped and can be processed in a timely fashion will help avoid any confusion.

Recommendations

The district should:

1. Ensure that website maintenance training is available to staff by contacting Schoolwires and evaluating the training and support offerings there.

2. Publish the exact methods for staff members to request Web page changes and updates.

3. Ensure that these methods time-stamp requests for easier follow-through.

Network Infrastructure and Data Center

Network Connectivity

The district upgraded most of its core equipment; however, the Brocade switches do not have any access control lists, limiting access between virtual local area networks (VLANs). This makes it easy to see items across each VLAN, and "VLAN hopping" can occur. VLAN hopping is when software and other techniques allow malicious users on one network VLAN to access traffic on other VLANs. VLANs are designed to provide network isolation, but security problems can arise without the use of access control lists, and these issues are extremely difficult to resolve. Although VLAN hopping is uncommon, it can lead to many problems if the network is not secure. Much more training is necessary on the switches used in the district. Only the network and technology coordinator manages the Brocade switches, but that individual is not trained on those devices. These are critical devices being worked on while in use, and the coordinator is required to program, update, and maintain the switches. If a catastrophic event were to occur based on a programming error, it can be difficult to repair the error if the individuals working on the equipment are inadequately trained.

The district has a network access control device, Impulse Point, but it is not properly used. This device helps prevent other devices, such as personal laptops, from infecting the network with a virus if they are plugged into a network port. However, the district network access control device does not protect the network in this manner because it has no policies set up.

The backbone connections are 10Gbps between the sites, a 20Gbps (soon to be 40Gbps) connection to the data center, and a 1Gbps connection for the leased fiber connections. These leased connections are reliable, but can be expensive, depending on the negotiated terms of the lease. The wide area network (WAN) connection to the Alameda County Office of Education is 500Mbps. This should be increased to at least 1Gbps because of the increasing number of devices on the district's network. Common Core testing, via the Smarter Balanced Assessment Consortium browser, is network intensive, and hundreds of simultaneous connections will result in slow Internet connection speeds if the district is not at 1Gbps. The Smarter Balanced Assessment Consortium browser specifications for bandwidth consumption of simultaneous users can be found at:

http://sbac.portal.airast.org/wp-content/uploads/2013/07/SmarterBalanced_TechnicalSpecificationsManual.pdf

Although the specifications are related to bandwidth consumption of the Smarter Balanced Assessment Consortium browser, this does not consider other items such as media streaming in the classroom or the financial management system used by the business office. If the average bandwidth consumption is 8-15Kbps per browser instance, realistic estimations are double those averages to account for peak usage. It is safer to overestimate instead of underestimating the necessary bandwidth. With thousands of students, this will put an enormous burden on the district during the testing window, which should be considered so that maximum bandwidth is devoted towards student testing.

Recommendations

The district should:

1. Contract for professional services for network design and Brocade switch training.

2. Discuss upgrading bandwidth with the Alameda County Office of Education.

3. Consider correctly implementing the Impulse Point Network Access Control device to improve security.

Fiber

The district owns five of the 10 fiber links that connect the sites to the data center at the district office. The district-owned fiber is failing because it was installed in the 1990s. The fiber has 12 strands, and two are required for communication per link. As the fiber strands fail, the unused strands are made active. The fiber cable is running out of functional links. The other five links are leased fiber, meaning the district pays each month to use a service provider's fiber. One benefit of using leased fiber is that the district does not need to be concerned with maintaining or repairing the fiber cabling.

Given the past problems with district-owned fiber, the district should investigate the possibility of using redundant links between sites and to the Internet since this will ease the burdens on the Technology Department and provide increased reliability.

Recommendation

The district should:

1. Continue to pursue redundant fiber connections between the school sites since the fiber between sites is failing.

Wireless Connectivity

The district uses Ruckus for enterprise-class wireless connectivity. Throughout the district, 380 Ruckus model 7982 access points are used. These access points are the highest-density products, allowing up to 500 simultaneous connections per access point. Wireless connections are handled either via WPA2, which uses a password, or via FreeRADIUS, a free product that interfaces with Novell's "E-directory" Light Directory Access Protocol (LDAP) system.

Network speed "throttling" is in place for some wireless users, but not all of them. Throttling is a means of limiting the amount of network bandwidth, or speed, to a group of users so that all users will have some bandwidth without it all being consumed by one or more users. This is recommended to help provide all users with an equal share of the bandwidth. Because of the extensive wireless network, the system should be regularly monitored and maintained.

Data Storage

The district has an older storage area network device, Model MSA 1000 made by Hewlett-Packard and manufactured in 2005, but has no network attached storage devices. The main differences between the two are that latter devices are generally much lower in cost because they

are designed for backup and storage, while the former equipment is designed for live data access. Storage area network devices are more expensive, but more powerful than the other devices. Because of their design, storage area network devices should be monitored more closely. The district should replace its current device since it is old and will become unstable.

The best practices is to set a timeline for replacing server and storage infrastructure every three to five years for servers. Storage devices, such as storage area network or network attached storage devices are replaced on a similar schedule. This will ensure reliability in the district's data center. Many districts have also successfully migrated to cloud-based storage to reduce overall storage costs typically associated with locally hosted hardware and associated system maintenance.

Recommendation
The district should:

1. Plan for replacement of the Hewlett-Packard SAN device since it is old and may soon be prone to failure.

Data Center
The district plans a full redesign of its data center. The center was recently rekeyed to allow limited access to only a few employees, but before this occurred, many individuals had a key. The center has temperature monitors, and although cooling capacity is adequate, airflow is poor.

The temperature at data centers typically runs between 68 and 72 degrees Fahrenheit. The American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE's) 2008 Thermal Guidelines for Data Processing Environments white paper states that data communications equipment should be maintained between 68 and 77 degrees depending on altitude, humidity and other relevant factors.

The center has two air-conditioning units, one primarily in use and the other designed as a backup unit. The backup air-conditioning unit should be tested at least once per month, and this is occurring.

The diesel generator, which provides backup power in an outage, should be tested at least once per month. The department would ideally perform a small test for a disaster in which power is lost and the diesel generator is tested to ensure it turns on and supplies the necessary power. These should be scheduled, established, data center operating protocols.

There is no fire suppression in the data center or at the high school backup data storage facility. The district should consider a DuPont FM200 or equivalent system for waterless fire suppression. Information is available at the link below.

http://www2.dupont.com/FE/en_US/products/FM200.html#.U4gY1BVX-uY

The data center has no adequate uninterruptible power supply. The devices used for this purpose can keep the center functional for only a few minutes before shutting down. The district should invest in a more effective uninterruptible power supply infrastructure. This system should be able to provide 20 minutes of run time in a power loss, sufficient time to perform any shutdown procedures to avoid data center problems.

The best practices are for a district to have a temperature-controlled, fire-suppressed facility with monitoring equipment that emails, text messages, or uses another notification method when the room temperature exceeds limitations or power is lost.

Recommendations

The district should:

1. Regularly test all air-conditioning and generator systems.

2. Install a fire-suppression system.

3. Increase the backup battery systems for critical servers to provide increased runtime in a power outage.

Data Backups

The district's method for backing up critical data is not acceptable for the following reasons:

- The tape arrays are left in the tape drives until each tape is filled to capacity, which can take up to three weeks. This means that up to three weeks' worth of district data can be lost if there is problem with the data center or the tape array. This data could include GroupWise emails, files stored on the network by users, and other critical information.

- The tapes are not adequately rotated out of the array. When they are rotated, the storage locations vary from under a desk to a safe, although the safe is not used often because it is full.

- Using the safe is not adequate because it is located inside the data center. In this instance, it would be best not to leave the tapes in the safe to separate equipment in case of a data-center fire.

The district plans to implement disk-to-disk copying across different school sites to increase the reliability and speed of backed up data. This increased redundancy will improve the reliability of data recovery.

Recommendation

The district should:

1. Ensure the data backup system is reviewed and revised. The backup tapes should be rotated off site and maintained through an outside company such as Iron Mountain.

Web Content Filtering

The district uses the WebMarshal appliance from Trustwave for Web content filtering, but the teachers use one shared code to bypass the system. For tracking, monitoring, and auditing, teachers and administrators should have their own code to access content that is inadvertently blocked.

If others obtained the code used by the teachers, students could easily bypass the filter. The system also does not log the sites accessed or the individuals accessing them. The single generic code used does not provide the district with enough specific filtering of the district's staff.

The district best practices are to have staff use their own individual login credentials for Web filtering.

Recommendations

The district should:

1. Ensure all teachers have their own login to the Web filter. The teachers should not share just one code to bypass the filter.

2. Ensure any filter bypasses are logged, including the user name, date, time, and website.

Technology Related Policies and Regulations

The district uses the California School Boards Association (CSBA) Gamut online policy information service to store policies. This system allows the public to easily access all district policies, with instructions on how to access and review these documents posted on the district website.

A review of district policies on the use and integration of technology for instruction found that most are appropriate and include topics such as student privacy, appropriate use, and the Children's Internet Protection Act. Most of the policies reviewed were updated in 2012 although some dated back to 2007. CSBA will soon update most of its older sample policies.

Administrative Regulation (AR) 4040, Employee Use of Technology, Section XII Deletion of Accumulated E-Communication states the following:

> On the first business day of every month the District, the Superintendent or a designee will delete all E-Communications that are thirty days old (or older) that are accumulated in a user's District Email System generic account folder (i.e. any folder not specifically designated for retention).

As discussed earlier, the district has two email systems. This administrative regulation is partially implemented. Folders specifically designated for retention are backed up; however, email older than 30 days in generic accounts is not deleted. No backups or deletions occur in the Gmail system. Continuing with two email systems and not enforcing the email retention policy leads to inefficient use of system resources. Hundreds of thousands of emails are potentially stored, and staff time is wasted searching unnecessary emails for information requested through the Public Records Act.

The best practice is for districts to establish an email retention policy and consistently enforce it.
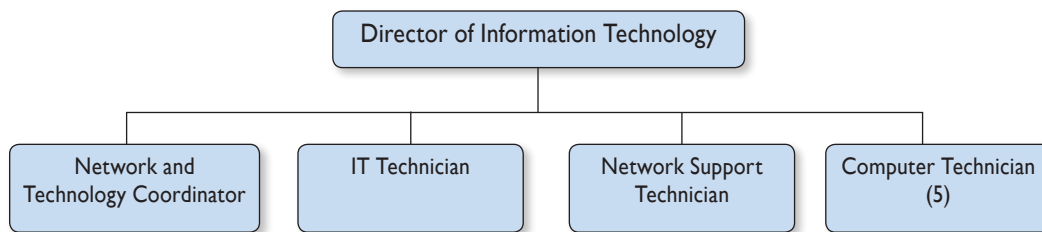
Recommendations

The district should:

1. Review the email records retention policy (AR 4040) for appropriateness of the 30-day expiration limit.

2. Consistently apply the record retention policy in all email systems.

3. Review training practices regarding email retention to ensure all staff can comply with the administrative regulation.

Information Technology Organization, Staffing, and Structure

The director of information technology leads the Technology Department. Additional positions include a network and technology coordinator, information technology technician, network support technician, and five computer technicians.

Dublin USD Technology Department

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Director of Information Technology

The director of information technology maintains the overall direction and planning for the Technology Department in collaboration with other departments across the district. The day-to-day technical components are assigned to others in the department. This position annually reviews department personnel, but is not involved in ensuring they have continued professional development, mentoring, coaching, and the overall planning for technology implementation. This position should also be involved in the strategic planning of technology projects.

In a district of this size, the department should have a chief technology officer or chief information officer position and a department manager to oversee, monitor, and evaluate the staff's day-to-day operation. The chief technology officer or chief information officer could collaborate with instructional leadership to establish the district's direction for technology and direct the department to meet the district's goals. This individual should consider the needs of each department; focus on short-term and long-term planning and goal-setting; and help determine how to meet the technology budgetary needs of the district and department. The position should be part of the district's executive cabinet and be involved in discussions and planning with the leadership team. The chief technology officer or chief information officer will set the tone for the department. This will improve the perception of technology services across the entire district and community.

A technology services manager should work closely with the chief technology officer to coordinate the efforts of the help desk, computer technicians, and networking support to improve accountability and service. This position will also coordinate hardware and software upgrades throughout the district.

Recommendations

The district should:

1. Eliminate the director of information technology position and create a chief technology officer position. Sample job descriptions are attached as Appendix A to this report.

2.   Create a technology services manager position. Sample job descriptions are in attached as Appendix A to this report.

Computer Technician I

The computer technician I position handles much of the site-based technology support, but also spends significant time educating the staff on the function of various technologies. This is the result of the staff lacking sufficient professional development. As a result, the computer technicians spend more time than necessary on calls training teachers instead of focusing on the work orders. The computer technicians also perform a significant amount of work that is outside the work order system. Without documenting and quantifying what happens on a service call, there is no accountability for staff performance for large portions of the day. Much of the higher-level technical work is assigned to the network and technology coordinator.

The position's job description was last updated in 2004 and may not accurately represent the work at the sites. In addition, the job description refers to the DOS, Novell and NT operating systems, which are either no longer used or being phased out of the district. Apple or other devices are not mentioned. The computer technician I position should have a revised job description that more accurately reflects classroom technology. The position should focus on the job description's primary duties; supporting the needs of the classrooms. Training teachers consumes too much of this position's time. It should concentrate less on training teachers in technology and more on repairing items reported in the ticketing system. The ticketing system should be extensively used throughout the district, and all work requests should be documented.

To adequately meet the increasing need for technology assistance, two senior computer technician positions should be created to introduce a higher skill level and help the computer technician I. The district has a board-approved computer technician II job description, but no one is employed in this capacity. This job description also refers to DOS, Novell and NT operating systems. This position should be able to perform all aspects of a computer technician I's duties, but spend additional time on more difficult problems. This will greatly reduce the amount of time the network and technology coordinator spends on problems that could be resolved by a senior computer technician. These computer technician II positions can also help support the large wireless infrastructure installed throughout the district.

Recommendations

The district should:

1.   Update the computer technician I job description to ensure it accurately reflects the work performed. Work with the employee bargaining unit as necessary to update the job description.

2.   Update the computer technician II job description to ensure it accurately reflects the work performed. Work with the employee bargaining unit as necessary to update the job description.

3.   Fill two computer technician II positions to provide additional technical assistance at the school sites.

Information Technology Technician

The information technology technician supports many aspects of the help desk system and over-sees some inventory-related duties as well as providing some assistance for Aeries, the district's student information system.

Because of the scope of these diverse duties, no one single task is thoroughly completed, which is one reason that inventory has not been performed in more than five years. This position should primarily manage and monitor the flow of the district's service ticketing system and answer the help desk phone during the day. The district should modify the information technology techni-cian job description so that the position focuses on help desk support and other smaller duties. The help desk technician can respond to many of the smaller requests, such as password resets, which gives the computer technicians time to work on more pressing issues. Without a dedicated help desk technician, no one effectively manages the workflow of work tickets entered into the system, increasing the disorganization in how computer technicians go about their duties. All end users should enter work requests into the system, but if no one manages this workflow, tickets can remain in the system for weeks with no resolution. A help-desk technician ensures a service ticket is created, and the issue can be resolved in a timely fashion. Although asking a technician at a site to resolve the problem is more convenient, this makes it difficult to organize work tickets.

Mandating the use of the ticketing system will help the end user get problems resolved more quickly and help technicians determine the problems experienced and the solutions. The district's current ticketing system is not used effectively. Users do not always submit tickets for service requests, yet work is supposedly being done. Without effective tracking, there is no account-ability of daily work. One example is a teacher who submits a request for a computer repair. The teacher returns to work the following day, but does not know if the computer was examined or the problem was resolved since a note describing the resolution may or may not be taped to the screen. At this point, the teacher becomes discouraged and does not want to use the work order system. When the teacher sees a technician at the site, he or she demands that the computer be immediately examined. It might be repaired this time, but the department does not know what work is being performed since no effective record-keeping or communication is happening.

This position should be classified as a help desk technician and act as the primary support for that area. If the district operated an efficient ticketing system, fewer users would have to make several attempts to get a problem resolved. This position can also resolve issues such as password resets in a timely manner. All requests need to go through the ticketing system

Recommendations

The district should:

1. Reclassify the information technology technician position to a help desk technician. Work with the employee bargaining unit as necessary to reclassify the position.

2. Expand on its existing service ticketing system and develop a more formal help desk that consists of accurate record-keeping of all services performed throughout the day by each technician along with a help desk phone number to help resolve issues over the phone.

3. Reassign the Aeries support to the application specialist positions as mentioned earlier in this report.

Network and Technology Coordinator

The network and technology coordinator is the technical position in the district and keeps all aspects of technology operational. This position handles cabling, network maintenance, server and data center maintenance, switch and router programming, wireless support, VoIP phone support, desktop support, training, and other related items. Many other duties are included, which can be overwhelming for one position. Many critical systems are not implemented because this position is so busy. For example, the network access control device is used incorrectly because configuring it properly would take too much time. For the same reason, the district's switches have no access control lists for improved network security.

This position should be classified as a network administrator. This specialized position should focus heavily on the extensive network infrastructure throughout the district. This position will work closely with the systems administrator and the technology services manager.

The job duties of a network administrator will include the following:

- Designs computer networks

- Maintains network operations

- Monitors network performance

- Configures network hardware

- Maintains data center operations

- Makes computer Internet protocol assignments

- Knows networking protocols

This position will also manage and maintain network policies and procedures. It ensures the district's network is reliable and secure by monitoring the equipment and creating policies such as access control lists in the switches to secure the district's network. This position can serve as back up to the systems administrator, but primarily should focus on the district's network and wireless infrastructure. The district would benefit from having a specialist who can spend the amount of time necessary to adequately secure the district's network.

Recommendations

The district should:

1. Reclassify the network and technology coordinator as a network administrator. Work with the employee bargaining unit as necessary to reclassify the position.

2. Develop distinct positions for higher-level department responsibilities, such as network and system administration. These individuals maintain the district's complex network more effectively and work as a team.

Network Support Technician

The network support technician position manages many server-related activities. The position oversees desktop imaging and server virtualization. The job description indicates that this position supports many network-related duties, desktop support, peripherals, installs network switches, and maintains the district's phone system. Many other duties are listed, making the total number of responsibilities difficult for one person to effectively manage.

This network support technician should be reclassified as a systems administrator and focus on the district's server infrastructure.

Some job-related examples of a systems administrator are as follows:

- Implements and maintains backup/archival systems
- Maintains ongoing documentation for systems
- Applies patches
- Manages file systems
- Handles redundant array of independent disks for servers
- Performs basic scripting for servers
- Installs and troubleshoots servers
- Images/reimages district systems
- Maintains the lightweight directory access protocol infrastructure
- Handles virtualization

A systems administrator should be a specialist in monitoring and maintaining the server and microcomputer infrastructure instead of performing network administration. This person may back up the network administrator, but his or her focus should be on the district's server and data systems. Proper backups of data, security, and documentation of the district's data systems are vital to the smooth operation of the district. This position will work closely with the network administrator and the technology services manager.
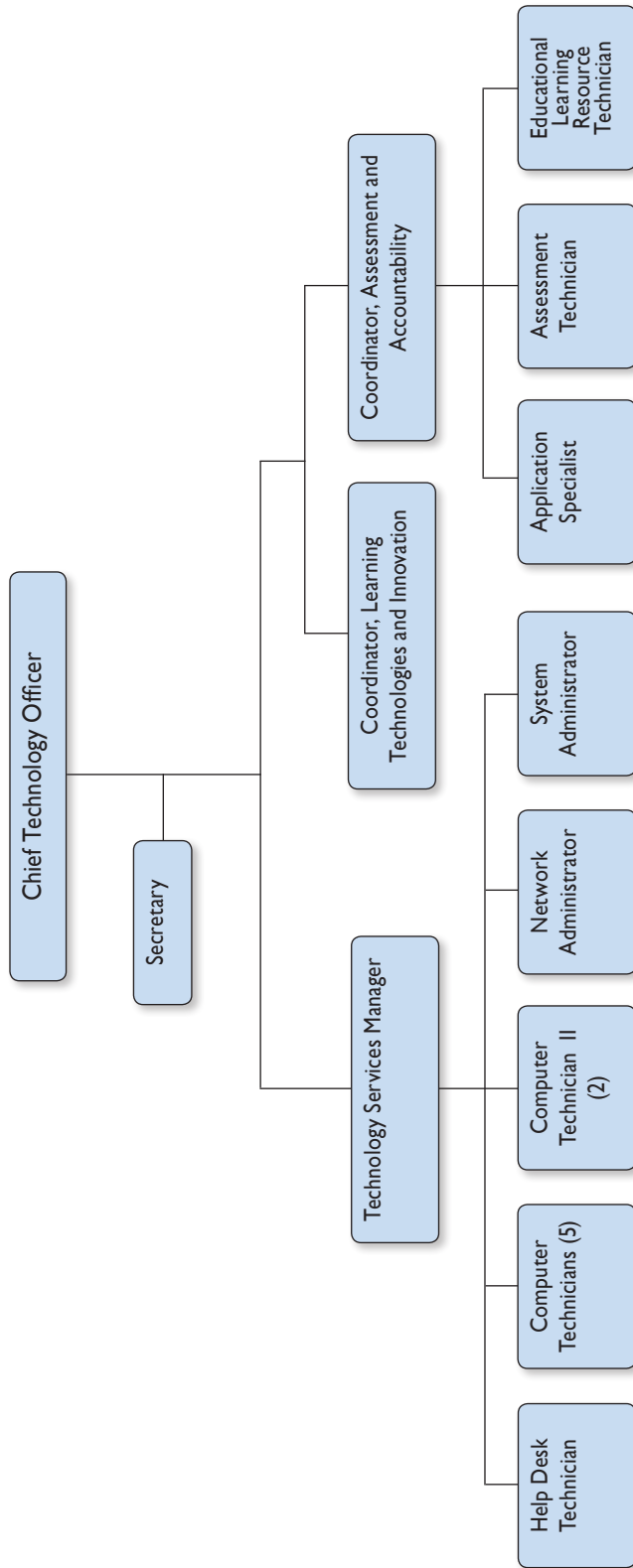
Recommendation

The district should:

1. Reclassify the network support technician position to a systems administrator. Work with the employee bargaining unit as necessary to reclassify the position.

Reorganization

Reorganizing the Technology Department to better assist school sites and classroom technology would help the district resolve site-support problems as well as the organizational obstacles experienced by the Technology Department. The Assessment and Accountability Department should also be reorganized. The district should consider combining these two departments into one to provide better service districtwide and cross-training for staff. The district should also consider placing the new coordinator of learning technologies and innovation position in the Technology Department.

The organizational chart on the following page illustrates the proposed reorganization of the newly titled Information Technology Services (ITS) Department.

Proposed Information and Technology Services Department

- Chief Technology Officer
  - Secretary
  - Technology Services Manager
    - Help Desk Technician
    - Computer Technicians (5)
    - Computer Technician II (2)
    - Network Administrator
    - System Administrator
  - Coordinator, Learning Technologies and Innovation
  - Coordinator, Assessment and Accountability
    - Application Specialist
    - Assessment Technician
    - Educational Learning Resource Technician

This organization structure meets the needs for a new support approach, additional support for the school sites, and an improved service orientation for educational technology.

A departmental secretary has been added to the department to help the chief technology officer and assist with departmental communications, meeting minutes, scheduling, employee time sheets, and other administrative functions.

The table below shows current titles and any proposed title changes for IT Department positions. Salaries shown do not include the costs for statutory and health and welfare benefits.

Current Title	Proposed Title/Change	Estimated Cost Savings
Director of Information Technology	(Position Eliminated)	$130,208 (Leadership Salary Schedule)
Network and Technology Coordinator	Network Administrator	N/A
Information Technology Technician	Help Desk Technician	N/A
Computer Technician	No Changes	N/A
Network Support Technician	Systems Administrator	N/A
Teacher on Special Assignment (Technology)	(Position Eliminated)	$68,366 (Certificated Salary Schedule, Step 6, Column B)

The following table lists proposed new and additional ITS positions and the estimated salary for each. This does not include the costs for statutory and health and welfare benefits.

New and Additional Positions	Department	Estimated Annual Salaries
Chief Technology Officer	ITS	$134,110 (Leadership Salary Schedule, Step 1, Column H)
Technology Services Manager	ITS	$105,243 (Leadership Salary Schedule, Step 9, Column D)
Secretary	ITS	$40,356 (Classified Salary Schedule A, Range 22, Step C)
Computer Technician II (2)	ITS	$43,472 EACH (Classified Salary Schedule A, Range 26, Step C)
Coordinator, Assessment and Accountability	ITS	$111,841 (Leadership Salary Schedule, Step 6, Column D)
Coordinator, Learning Technologies and Innovation	ITS	$108,515 (Leadership Salary Schedule, Step 8, Column D)

The transition to the new organizational structure indicated above can be accomplished by a combination of attrition, reclassification, redefining roles and job descriptions, and/or other means. Changes in positions, titles and salaries may be subject to negotiation and collective bargaining. The proposed reorganized department contains several new position titles, and representative duties and responsibilities are briefly described in previous sections of this report. Sample job descriptions are attached as Appendix A to this report.

Recommendations

The district should:

1. Eliminate the director of information technology position and replace it with a chief technology officer position.

2. Reclassify the network and technology coordinator position to a network administrator.

3. Reclassify the information technology technician position to a help desk technician.

4. Reclassify the network support technician position to a systems administrator.

5. Eliminate the teacher on special assignment (technology) and replace it with a coordinator, learning technologies and innovation.

6. Create a technology services manager position.

7. Add a secretary position to the Technology Department.

8. Add two computer technician II positions.

9. Create a coordinator of assessment and accountability position.

10. Place all positions in these recommendations in the in a newly titled Information and Technology Services Department by combining the technology and assessment and accountability departments.

Appendices

A: Sample Job Descriptions

B: Study Agreement

Appendix A - Sample Job Descriptions

Irvine Unified School District

CHIEF TECHNOLOGY OFFICER

DEFINITION

Under the supervision of the Superintendent, the Chief Technology Officer provides dynamic, responsive, collaborative and forward-thinking vision, leadership and management of technology systems and services to support the mission and goals of the District. This includes the planning, development, implementation, management and maintenance of all applications, infrastructure, security, networks, technology training and communications, as well as comprehensive support for the teaching and learning activities of the staff and students.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Work collaboratively with schools and departments to support technology integration and innovation.
- Provides oversight and direction for integrated data communications networks and the use of integrated database management systems.
- Plans, schedules and directs the development of computer programs, including needs analysis, interface with other existing and planned programs, debugging, and development of comprehensive documentation.
- Identifies and supports instructional applications for technology.
- Designs and implements on-line quality assurance support programs including system and database security.
- Implements and evaluates systems and procedures to protect data integrity, reliability and accessibility.
- Organizes and coordinates appropriate staff development activities to ensure proper use of equipment and programs. Assures training is both operational and conceptual in scope.
- Develops functional specifications, standards and requirements for hardware and/or software purchase and design to ensure optimum system and end-user performance.
- Promotes participation of and collaboration with end-user and staff representatives in needs assessment, program development, service delivery efforts and project review.
- Evaluates technological changes, emerging technologies and best practices in computer and communication fields to recommend innovative and cost effective integration of new technologies.
- Manages operating budget covering all centralized computer support throughout the District and recommends prudent fiscal approaches for long-term hardware and software acquisition and maintenance.
- Coordinates staff development to support technology integration.
- Leads both short and long-range planning efforts related to technology.

- Coordinates the systems design work necessary to support the integration of information systems and platforms.
- Hires, supervises, develops and evaluates the work of assigned staff.
- Other duties as assigned.

QUALIFICATIONS GUIDE
Knowledge and Abilities:

- Ability to articulate and understand complex issues and facilitate effective problem-solving.
- Knowledge of principles, techniques, procedures and developments for the operation of data processing and communications technology.
- Understanding of technology integration in support of the instructional program.
- Knowledge of computerized educational management practices.
- Knowledge of complex computer systems design, analysis and operations, with a background in managing integrated database file structures.
- Ability to plan and direct a large, complex operation that involves coordination and integration of multiple interrelated activities.
- Knowledge and experience in system design, program development, debugging and system operation.
- Knowledge of operating systems and the integration of personal computers in information systems.
- Understanding of distributed processing.
- Ability to develop and maintain cooperative relationships with community members, certificated staff and classified staff.
- Knowledge of consensus building techniques and conflict resolution strategies.

Education and Experience:

- Master's Degree from an accredited college or university with major coursework or extensive experience in Technology, Educational Technology, Computer Science, Information Systems or Business Administration or a related field; Teaching or Administrative credential preferred; valid California driver's license.
- Preference for administrative experience, in a supervisory or management capacity, with educational technology, technology support and communications.
- Demonstrated record of strategic planning, budget management, integration and staff development.

REASONING ABILITY
Ability to apply common sense understanding to carry out instructions furnished in written, oral, or diagram form. The capacity to deal with and solve problems involving multiple variables.
PHYSICAL DEMANDS
The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable

accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to sit; walk; use hands and fingers, handle, or feel objects, tools, or controls; and talk or hear. The employee is occasionally required to stand, stoop, kneel, or crouch, and reach with hands and arms. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee occasionally works near moving mechanical parts. The noise level in the work environment is usually moderate.

4/2010

This page was last modified 03/22/2005

Coordinator, Assessment and Accountability

DEFINITION

Under general direction is responsible for providing District-wide services and leadership in the area of student assessment and educational measurement related to the state testing system, the Common Core State Standards (CCSS) and the Smarter Balanced Assessment Consortium (SBAC). The Coordinator will collect, analyze and use student data; provide for group testing, educational accountability and measurement; coordinate all aspects of state and District testing, measurement and evaluation programs; compile, analyze and report test and benchmark results; plan, organize and conduct professional development related to the District's testing program and student assessment; and perform related functions and responsibilities as required. This position is directly responsible to the Administrative Director.

DISTINGUISHING CHARACTERISTICS

This position classification requires expertise in research methods, assessment strategies, educational measurement, technology-enhanced assessments and K-12 curricular programs. The job requires the ability to analyze issues, utilize technology, articulate educational measurement, and offer alternative solutions for complex tasks. Decisions are made by the incumbent that have a critical impact on the goals, organization and administration of educational programs and services of the District.

This position classification performs light work that involves sitting a portion of the time, but does require walking and standing for extended periods and lifting and/or moving up to fifty (50) pounds. This position requires accurate perceiving of sound, near and far vision, depth perception, dexterity and mobility for working with educational materials and objects, and providing oral information and direction.

Reasonable accommodation may be made to enable a person with a disability to perform the essential functions of the job.

ESSENTIAL DUTIES

- Organizes, directs and supervises all aspects of the District assessment programs, including state, CCSS, SBAC and other external testing programs.

- Directs the distribution, scoring, reporting and interpreting of District assessment programs, including state, SBAC and other external testing programs.

- Coordinates the design, implementation and reporting of evaluation studies of District programs including categorical programs and a multitude of data management systems.

- Participates in the development of the District instructional goals, research, assessment instruments and instructional techniques.

Delivers reports and performs training utilizing a multitude of technology and data analysis tools that requires a high level of proficiency and expertise with digital resources.

- Acts as a resource for the District in areas of expertise.

OTHER DUTIES

- Collaborates with K-12 Curriculum and Instruction personnel to make decisions regarding student assessment, student achievement results, and planning for support to schools.
- Participates in the budget planning process and in the development and implementation of expenditure control procedures as it relates to assessment and research.

- Conducts professional development and in-service training programs regarding various assessment areas for principals, teachers and staff.
- Serves on various District and community advisory committees.
- Prepares a variety of management and program evaluation reports as required.
- Perform other duties as assigned.

QUALIFICATIONS
Knowledge of:
- Principles, techniques, strategies, goals and objectives of public education;
- State Testing, SBAC, and student assessment and progress monitoring techniques
- Methods, techniques, procedures and strategies concerning the assessment and evaluation of instructional programs and curricular methods;
- Legal mandates, policies, regulations and operational procedures pertaining to assessment and research;
- Human relations and conflict resolution strategies for working and communicating with
- others;
- Research and development designs, methods, strategies, processes and techniques;
- Technology-enhanced assessment, digital literacy, and technology integration in Curriculum. 21st Century/Next Generation Assessment Requirements

Ability to:
- Provide specialized resource support and coordination of creative and innovative assessment programs;
- Formulate, implement and interpret research;
- Serve as a resource to instruction and leadership personnel;
- Establish and maintain effective organization, community and public relationships;
- Communicate effectively in oral and written form with correct English usage, grammar, spelling and punctuation.
- Understand and carry out oral and written directions with minimal accountability
- controls;
- Plan, organize and coordinate a variety of projects simultaneously;
- Establish and maintain cooperative and effective working relationships;

Operate complex technology, effectively manage new applications and integrate digital resources.

EXPERIENCE AND EDUCATION
Any combination of experience and training that would likely provide the required knowledge and skill is qualifying. A typical way to obtain the required knowledge and skill would be:

Experience: Three years of successful educational experience with background in educational research, measurement, assessment and program evaluation and the successful completion of an administrative training program. Experience in coordination, supervision and/or school administration preferred.

Education: Master's or higher degree from an accredited college or university in educational administration, educational research instructional technology or a closely related field. Training beyond credential requirements in statistics, assessment and research methods and materials preferred.

OTHER REQUIREMENTS

Certification Requirement: Possession of a valid California credential authorizing service as an administrator in education.

License: Possession of a valid California Motor Vehicle Operator's License.

Condition of Employment: Insurability by the District's liability insurance carrier.

Coordinator, Learning Technologies and Innovation

DEFINITION

Under direction of the Chief Technology Officer and in coordination with educational services, provides leadership and guidance in the implementation of district wide innovative educational technology; provides and directs technical assistance and support to schools in a variety of computer programs and functions; plans, organizes, recommends and directs district wide training, software adoptions and implementation; oversees application systems and websites.

EXAMPLES OF DUTIES

- Provide leadership in the integration of learning technologies in the classroom as part of innovative/21st century education redesign of classrooms.
- Plans, organizes, schedules and supervises staff in developing detailed and definitive technology use plans for each school in the District.
- Acts as a liaison for the Education Division, attending instructional events and meetings with other district and site leaders.
- Contributes to the leadership and direction in technology planning, assessment programs, equipment acquisition, applications development, and establishment of standards for hardware and software.
- Coordinates the roles of site technology coordinators and teachers on assignment to implement goals and integrate technology into instruction.
- Participate in the development and implementation of the District's Technology Plan in support of student achievement
- Work with site administrators to help teachers adapt curriculum materials and lesson plans to utilize technology
- Coordinate professional development activities directly related to the integrated use of technology in all content areas, including student demonstration projects, classroom demonstrations, team teaching, and workshops.
- Reviews curriculum, develop training programs, identify best practices, and coordinate integration of technology into the learning process.
- Participates in development and implementation of departmental goals, objectives, policy priorities, standards and procedures.
- Provides leadership and direction in applications development, to increase access to information and facilitate productivity. Support the selection and training for cloud-based applications and adoption.
- Support the integration of technology associated to the Common Core State Standards.
- Support virtual schools and online programs and other digital curriculum projects.
- Consults with division managers to develop solutions that integrate computer systems and data sharing.
- Facilitates ongoing district wide needs assessment and software technology implementation.
- Manages and implement technology grants and related budgets.
- Coordinates and promote participation in organizations, events, and conferences concerning instructional technology.
- Prepares bid requests, evaluate proposals, and oversee vendor contracts.
- Work to set standards for technology use of students and instructional staff.

- Makes recommendations for employment and evaluate performance of assigned staff.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:
Current K-12 instructional practices; principles and techniques of educational technology; project planning, scheduling and control; broad knowledge of public sector business practices; emerging trends in instructional technology and management of budgets.

Ability to:
Supervise, coordinate, and direct teachers, support staff, advisory groups and other stakeholder groups; communicate clearly and concisely, orally and in writing; define specific goals and develop sound strategies to accomplish objectives; incorporate new technology into future plans; use strong management and interpersonal skills to facilitate and lead change; comply with the District's customer service standards, as outlined in Board Policy.

Experience:
Minimum five years of teaching experience. Minimum two years of experience at a site or district level coordinating technology integration into instruction. A minimum of two years experience in a site administration position preferred.

Education
Current California teaching credential.
Educational Administrative Services credential.
Masters degree in related area or postgraduate educational technology coursework preferred

EL DORADO COUNTY OFFICE OF EDUCATION

CLASS SPECIFICATION

CLASS TITLE: **Help Desk Technician - III**

Job Purpose Statement: Under General supervision of the Director of Information Services, position is responsible for meeting the expectation of both internal and external customers in a call center environment. Primary responsibility is user support and customer service. Be present and visible in the Help Desk area and available to users requiring technical assistance. Operates audio-visual and related equipment; assists school personnel in setting up and operating such equipment. Guides the customer regarding the use of a broad range of products, offerings, and services. Provides identification, prioritization, and resolution of problems following well-defined guidelines and procedures. Performs backup of critical data files. Prepares progress reports for work performed.

Distinguishing Characteristics:

Help Desk Technician III – Demonstrates a mastery of knowledge and skill set. Requires only follow up on most tasks.

Essential Job Functions:
- Respond to questions from callers and walk-ins; remotely assist staff with technology problems in offices and classrooms for the purpose of resolving and/or clarifying problems.

- Learn fundamental operations of commonly used software, hardware, and other equipment for the purpose of assisting customers.

- Follow standard Help Desk operating procedures; accurately log all Help Desk contacts using call tracking software for the purpose of timely and efficient resolution of problems.

- Accept general responsibility for the computer data center and ensure that it is ready for use, systems up and available, stock paper and toner in printers for the purpose of efficient use of facilities.

- Become familiar with available help resources; stay updated on technology changes or problems for the purpose of assisting customers.

- Operate computer to produce, print, and sign vendor and payroll checks, prepare/print check registers for the purpose of ensuring distribution of funds and payroll.

- Analyzes comparable equipment for the purpose of recommending equipment purchases.

- Assists EDCOE staff and outside agencies with video-taping for off-air, live events, and copying for the purpose of supporting them in the completion of their work activities.

- Sets up and runs sound systems for special events for the purpose of providing delivery of media.

- Makes masters and distribution copies of educational programs for the purpose of maintaining a film and video library.

- Become familiar with EDCOE policies, services, and staff for the purpose of effective communication.

- Direct calls to appropriate EDCOE staff as necessary for the purpose of resolving problems.

- Setup of VOIP phones.

Job requirements - Qualifications

Education: High school diploma or equivalent. Education at a level to demonstrate the ability to perform the duties and responsibilities as described.

Experience: One year of increasingly responsible computer applications and systems analysis experience in a help desk environment. Experience in assisting an Audio Visual/Computer Technician to carry out the duties and responsibilities of the class or experience maintaining and repairing audio visual and computer components. Demonstrated competency in systems documentation. A-1 computer certification highly desirable.

Skills, Knowledge and/or Abilities:

Skills to Answer staff questions in person and via phone on all EDCOE supported applications; Troubleshoot computer problems; Determine source of computer problems (hardware, software, user access, etc.); Advise staff on appropriate action; Serve as liaison between staff and the technology department to resolve issues; Work one-on-one with staff on application projects; Document resolutions for future reference; Follow written directions to produce reports and print checks; Perform hardware and software installations; Provide on-the-job training to new department staff members; Provide computer orientation to new EDCOE staff.

Knowledge of Concepts of computer and network operating systems, scheduling and applications; Terminology and practice of financial and statistical work; Concepts of data storage and communications; Principles, practices, and techniques in the installation, maintenance and troubleshooting of hardware and software; operation of audio visual and computer components; tools, materials, equipment and procedures used in the

Help Desk Technician III

repair and maintenance of audio visual and computer components; safety practices; billing practices.

Abilities to Sit for prolonged periods, maintain and verify completeness of records, meet schedules and deadlines, orient others in equipment operations, establish and maintain effective working relationships, communicate with persons with varied cultural and educational backgrounds, and communicate in oral and written forms.

Licenses, Certifications, Bonding, and/or testing required: TB test clearance, Criminal Justice fingerprint clearance. Required to operate own vehicle during the course of employment, must possess a valid California Driver's license and evidence of insurability. Skills test may be administered during selection process.

Schedule D, Range 35
Approved by Personnel Commission 6/11, 12/12/12

MANAGER, TECHNICAL SERVICES

DEFINITION

Under direction of the Chief Technology Officer acts as decision-maker related to the technology vision and information technology (IT) management of the district; ensures the smooth and effective operation of the extended IT infrastructure for all district facilities; works closely with department staff senior management to help IT deliver strategic benefits to the business side the district and educational benefits of the students; provides leadership and direction for network technology and technical services; coordinates work with user departments and other TIS units.

EXAMPLES OF DUTIES

- Provides leadership and direction in technology planning, equipment acquisition, assistance to schools and establishment of standards for hardware and software.
- Plans, schedules, coordinates and supervises personnel engaged in network design, installation, and maintenance.
- Participates in development and implementation of District and department technology goals, priorities, standards, and procedures.
- Coordinates work with user departments and other TIS units.
- Oversees the management of computer installation, repair, maintenance services, technical training, and customer support.
- Supervises and evaluates the computer and network support staff for performance review and advancement.
- Determines the level and nature of specialized training required to keep staff current with emerging technologies; implements training as appropriate.
- Makes recommendations for department level positions.
- Prepares bid requests, evaluates proposals, and oversee vendor contracts.
- Assists in the preparation and oversite of departmental budgets.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

Network server operating systems; workstation hardware and software; procedures and techniques for ongoing maintenance and support of computer users; wide area network technologies including routers, video monitoring, and telephone systems; local area network technologies including wiring, hubs, and switches; emerging trends in networking as it applies to educational technology.

Ability to:

Coordinate and direct network design, implementation, maintenance, and troubleshooting; communicate clearly and concisely, orally and in writing; incorporate new technology into future hardware and network service delivery plans; work with vendors and other third parties to coordinate installations, solve problems, and complete projects; communicate with multiple stakeholder groups; comply with the District's customer service standards, as outlined in Board Policy.

EXPERIENCE AND EDUCATION

Minimum of five years' progressively responsible experience in the areas of systems engineering, networking, communications, and operating systems. Experience equivalent to graduation from college with a Bachelor's Degree in information technology, business administration, computer science, or related field. Valid Driver License required.

JOB DESCRIPTION
Park City School District
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NETWORK ADMINISTRATOR

Purpose Statement

The job of Network Administrator was established for the purpose/s of designing, configuring, installing, maintaining, and repairing network systems, subsystems and servers; overseeing the computer/server room operation and environment; providing information, direction and/or recommendations regarding network installations and configurations; resolving network operational issues; and overseeing and providing technical support to district and site staff.

Essential Functions

- Administers systems and servers related to district LAN and WAN, telephone, and technology installed A/V systems (e.g. email systems, accounts, print queue, workstation ID, IP assignments, computer labs, classroom computers, VOIP, security, antivirus, spyware, etc.) for the purpose of ensuring availability of services to authorized users.

- Designs and creates computer networks, network topology and network engineering (e.g. Internet, Intranet, web mail, FTP servers, etc.) for the purpose of ensuring effective and efficient computer operations.

- Installs and tests server software on a variety of platforms (e.g. service packs, application software, operating software, hardware upgrades, etc.) for the purpose of maintaining District WAN/LAN and telecommunication systems.

- Maintains network operations and software applications (e.g. servers (file, print, application, WEB, database, proxy, etc.), operating systems, districtwide server backup, routine maintenance programs, etc.) for the purpose of ensuring efficient operations.

- Manages assigned projects and program components (e.g. migration to new systems; scheduling installations, product research, etc.) for the purpose of delivering services in compliance with established guidelines and/or objectives.

- Participates in a variety of planning and development activities, including districtwide committees for the purpose of creating short and long range plans for the ongoing support to the district.

- Prepares written materials (e.g. procedures, system level documentation, reports, memos, site surveys, operational documentation, etc.) for the purpose of documenting activities, providing written reference, and/or conveying information.

- Recommends equipment, supplies and materials for the purpose of acquiring required items and completing jobs efficiently.

- Researches trends, products, equipment, tests, etc. for the purpose of recommending procedures and/or purchases.

- Responds to inquiries from a variety of sources (e.g. staff, administrators, school site personnel, outside vendors and service providers, etc.) for the purpose of providing technical assistance and support.

- Trains other District staff (primarily within the technology area) for the purpose of ensuring their ability to use new and/or existing operating systems, application software, hardware and peripherals.

- Troubleshoots malfunctions of network hardware and/or software applications within the District's local and wide area networks, telephones, security systems and A/V systems (e.g. servers, hubs, router/switch, network protocols, etc.) for the purpose of resolving operational issues and restoring services.

Other Functions

- Performs other related duties as assigned for the purpose of ensuring the efficient and effective functioning of the work unit.

Job Requirements: Minimum Qualifications

Skills, Knowledge and Abilities

SKILLS are required to perform multiple, technical tasks with a need to periodically upgrade skills in order to meet changing job conditions. Specific skill-based competencies required to satisfactorily perform the functions of the job include: system networking procedures and typical maintenance processes; various types of inter-relatd equipment, specification and compatibility; system programing requirements and software contingencies; hardware gateways; operating system monitoring and troubleshooting software; adhering to safety practices; planning and managing projects; and preparing and maintaining accurate records.

KNOWLEDGE is required to perform algebra and/or geometry; review and interpret highly technical information, write technical materials, and/or speak persuasively to implement desired actions; and analyze situations to define issues and draw conclusions. Specific knowledge-based competencies required to satisfactorily perform the functions of the job include: current, legacy and emerging operating systems; environments and network protocols; router/switch configurations; Inter/Intranet applications; LAN topologies, logical design, database structures; and data security, project management, processes and methodology.

ABILITY is required to schedule activities, meetings, and/or events; gather, collate, and/or classify data; and consider a variety of factors when using equipment. Flexibility is required to independently work with others in a wide variety of circumstances; work with data utilizing defined and similar processes; and utilize equipment under a variety of conditions for multiple purposes. Ability is also required to work with a wide diversity of individuals; work with a variety of data; and utilize a wide variety of types of job-related equipment. Problem solving is required to identify issues and create action plans. Problem solving with data requires independent interpretation of guidelines; and problem solving with equipment is significant. Specific ability-based competencies required to satisfactorily perform the functions of the job include: setting priorities; establishing effective relationships; being attentive to detail; analyzing a variety of LAN/PC issues and problems and making recommendations; communicating with diverse groups; conveying technical information to non-technical audiences; and working nonstandard hours.

Responsibility

Responsibilities include: working under limited supervision following standardized practices and/or methods; leading, guiding, and/or coordinating others; and operating within a defined budget. Utilization of significant resources from other work units is sometimes required to perform the job's functions. There is a continual opportunity to impact the Organization's services.

Working Environment

The usual and customary methods of performing the job's functions require the following physical demands: significant lifting, carrying, pushing, and/or pulling; some climbing and balancing; significant stooping, kneeling, crouching, and/or crawling; and significant fine finger dexterity. Generally the job requires 30% sitting, 30% walking, and 40% standing. The job is performed under minimal temperature variations and in a generally hazard free environment.

Experience   Job related experience within specialized field is required.

Education   Targeted job related education that meets organization's prerequisite requirements.

Equivalency   A+ or equivalent experience, CCNA or equivalent

Required Testing	**Certificates & Licenses**
None Specified	Valid Driver's License & Evidence of Insurability
	A+ Certification

Continuing Educ. / Training	**Clearances**
None Specified	Criminal Justice Fingerprint/Background Clearance

FLSA Status	**Approval Date**	**Salary Grade**
Exempt		TBD

Ontario-Montclair School District

CLASS SPECIFICATION
Network Administrator

GENERAL PURPOSE

Under direction, performs highly responsible and complex professional and technical tasks in the planning, design, development, implementation, maintenance and administration of the District's network infrastructure and network applications, server infrastructure, virtualization; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A Network Administrator performs advanced professional and technical responsibilities in planning, design, implementation, maintenance and administration of multi-platform network operating systems, including participating in the development of technical standards for the configuration and installation of hardware and software systems. The incumbent performs third-level problem analysis and resolution on matters related to the network operating environment and applications. The Network has overall responsibility for the planning, design, implementation, maintenance and troubleshooting of the District's network and server infrastructure infrastructure.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Provides third-level technical support for the District's network infrastructure, operating systems and applications; provides information, technical direction and training to other Information Services staff on activities required to implement projects, system hardware and software installations and upgrades, new procedures and techniques related to the network infrastructure and server infrastructure including Active Director, Group Policies in a windows server environment.

2. Installs, configures, upgrades, tests and maintains network equipment and devices, including hubs, routers and switches and wireless networks ; provides network server and device support and systems maintenance; works with external technical assistance to resolve hardware and software issues.

3. Installs, upgrades, tests and supports network applications software; plans for, configures and tests to ensure their effective integration into the on-line computing environment.

4. Performs network administration duties, including establishing and maintaining user accounts, file permissions and other authorization files; maintains system and remote access security to ensure system and data integrity; installs and tests security patches; installs and maintains anti-virus protection software.

5. Designs and implements VLAN topologies for securing District computing resources to include administrative computers, servers and other critical network infrastructure and systems. Performs security audits on network and server infrastructure based on industry standards for intrusion detection and intrusion preventions. Makes recommendation for best practices related to network security.

6. Assists in monitoring network speed, reliability and performance, using systems management software and other tools and utilities; troubleshoots and resolves complex issues including performance degradation, problems in interactions between hardware, software and network operating systems and hardware/disk failures; monitors and evaluates system and network statistics; assesses system capacity issues, evaluates software and other alternatives and recommends system upgrades or replacements; installs and tests operating system releases, upgrades and fixes.

7. Oversees and manages server support for databases; monitors memory and disk space for data storage and recommends the clean-up of disk storage; evaluates disk storage capacity and makes determinations on data.

8. Oversees and manages the Districts virtual and SAN server infrastructure for memory and disk space for data storage and recommends the clean-up of disk storage; evaluates disk storage capacity and makes determinations on data storage locations; tunes to improve database performance; performs database startups, shutdowns and recoveries.

9. Develops and reviews documentation of policies, procedures, standards, program solutions and techniques for the design, operation, installation and maintenance of network operating system software; coordinates or participates in review of the technical environment to evaluate and measure system performance and effectiveness.

10. Conducts systems analysis and design studies on proposed network applications, including effects on user base, impacts on computer resources and personnel needs; develops and maintains procedures for the reasonable security of information systems and data integrity.

OTHER DUTIES

1. Participates in the evaluation of proposed solutions by attending demonstrations, performing technical research providing technical input to evaluative committees and participating in the evaluation process.

2. Prepares various reports, as required, including project schedules and updates, charts and diagrams

3. Supervises and manages System Technicians that report directly to the Network Manager and performs staff evaluations.

MINIMUM QUALIFICATIONS
Knowledge of:
1. Network architectures and theory and principles of network design and integration, VLANS, including topologies and protocols.

2. Principles and practices of advanced network administration, including network monitoring and diagnostic methods, practices and procedures, and the TCP/IP protocol suite.

3. Methods and techniques in the installation and configuration of network operating system/ TCP/IP routing, layer 2 and layer 3 switching.

4. Network management systems, including principles and practices of security management.

5. Working knowledge of VMWARE, including principles and practices of server management.

6. Operating principles, parameters, uses, capabilities, characteristics and limitations of mid-range computers, servers, network operating systems, PCs and related equipment.

7. Working knowledge of VLANS/ TCP/IP routing and design to include Cisco IOS version 11.x and above.

8. Principles and practices of business and technical communications, including techniques in the development of system and user documentation.

Ability to:
1. Analyze complex computer system and network issues, identify the reasons for network and network device problems, failures and malfunctions and develop effective solutions.

2. Develop and recommend cost-effective technical system improvements.

3. Monitor network trends and anomalies and make adjustments as required.

4. Read, interpret and apply complex technical publications, manuals and other documentation.

5. Identify information management and data communication issues and opportunities, analyze problems and alternatives and develop sound conclusions and recommendations.

6. Develop, implement and effectively manage procedures and processes, including maintenance of schedules and timetables and preparation of reports on project status.

7. Conscientiously preserve the confidentiality of all proprietary and confidential data and information residing in the District, in accordance with Departmental and District policy and State and Federal law.

8. Operate computers, network equipment and other related hardware.

9. Complete continuing projects while troubleshooting unexpected system problems.

10. Work cooperatively with customers in a responsive, helpful, courteous and tactful manner.

11. Communicate clearly and concisely, both orally and in writing.

12. Establish and maintain effective working relationships other Information Services team members, managers, administrators, staff and others contacted in the course of work.

Training and Experience
A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a major in computer science, information systems or a closely related field; and at least three years of progressively responsible experience in the development, installation and maintenance of networks and network applications; or some combination of education, training and experience that produces the requisite knowledge and ability.

Licenses; Certificates; Special Requirements
Microsoft Certified Systems Engineer (MCSE), Cisco Certified Network Administrator (CCNA) or the equivalent are desirable. A valid Class C California driver's license, good driving record and the ability to maintain insurability under the District's vehicle insurance policy.

PHYSICAL AND MENTAL DEMANDS
The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands
While performing the duties of this class, an employee is regularly required to sit; talk or hear, in person and by telephone; use hands repetitively to finger, handle, feel or operate computers and other standard office equipment; and reach with hands or arms. An employee is frequently required to walk and stand and occasionally to lift up to 50 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

Mental Demands
While performing the duties of this class, an employee is regularly required to use oral and written communication skills; read and interpret complex data, information and documents; analyze and solve problems; observe and interpret situations; use math and mathematical reasoning; learn and apply new skills or information; perform highly detailed work on multiple, concurrent tasks; work under changing deadlines with frequent interruptions; work effectively as a team leader or member; and interact with managers, internal customers, employees, vendors, consultants and others encountered in the course of work.

WORK ENVIRONMENT
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. The employee works under typical office conditions, and the noise level is moderately quiet. The employee is on call 24x7 for the resolution of systems and network problems and issues.

Board Approved: 11/14/2012

Systems Administrator

BASIC FUNCTION:
Under general direction, responsible for providing professional-level technical support services to ensure the integrity and reliability of assigned servers, operating systems, and related network applications and services; participates in the most complex systems infrastructure upgrades, enhancements, conversions and troubleshooting; serves as a technical lead for major platforms and operating systems; leads and manages completion of projects to meet District time, budget and quality requirements.

DISTINGUISHING CHARACTERISTICS
Incumbents are expected to administer and manage assigned systems with high reliability and a minimum of supervision and direction, while providing leadership and technical guidance to other staff performing system administration tasks. Work requires in-depth technical knowledge of the District's overall systems infrastructure and associated integration and interoperating requirements and challenges. Windows group policy creation and modification using advanced scripting techniques to automate and manage the district computer population.

ESSENTIAL DUTIES/RESPONSIBILITIES:

Administers assigned enterprise server platforms running a variety of operating system software in both physical and virtual environments; installs, configures, tests, integrates and administers Windows 2008, R2, 2008, 2003/Active Directory, document management systems and other major servers, including system monitoring and management software tools; using applicable tools and utilities, monitors system performance, including server utilization and availability; performs performance tuning to achieve optimal system speed, reliability and performance; ensures systems security, disaster response and recovery processes are followed; monitors computer room environment for appropriate cooling and power consumption.

Administers or participates in administering enterprise-wide data storage in a Storage Area Network (SAN), Network Attached Storage (NAS) environment; participates in planning storage allocation architecture and allocating storage capacity; tunes and maintains SAN and NAS systems and SAN network connectivity; provides technical oversight of backup strategy; configures and maintains offsite disaster recovery databases.

Researches, troubleshoots and resolves complex and ambiguous problems often involving a combination of hardware, operating system, internally developed and vendor application software and database structure configuration, resource conflict and/or interoperating problems; installs and tests operating system patches, releases, upgrades and fixes; assesses system capacity issues, evaluates software and other alternatives and recommends system upgrades or replacements. Performs systems administration for district-wide applications; monitors daily e-mail notifications generated by scripts; researches and documents server and client configuration issues and the resolution of problems; works with external entities to research and resolve authentication and routing issues; installs and administers spam filters and anti-virus software; interacts with users to determine needs and recommend solutions to email and messaging needs; provides administration support for specialized and complex systems and software.

Monitors disk usage to ensure adequate database resources and provides disk storage as required; assists database administrators with database performance issues; with guidance, makes changes to data permissions, performs cleanup of obsolete data and supports the migration and archiving of data; performs backup and recovery processes; develops scripts to automate routine system maintenance tasks.

Provides technical assistance during the installation and testing of software; installs, tests and configures applications and new software functionalities to applicable server and client platforms; using applicable

languages, tools and utilities, provides technical advice to applications development staff of methods of performing application problem troubleshooting and resolution; recommends and installs program modifications to enhance system performance.

- Participates with members of the technology services team, vendors and end users to ensure effective integration, operation and concurrent connectivity of multiple platforms and networks; participates in the development and implementation on systems and network standards and procedures.

- Works with customers and other technology stakeholders to evaluate the uses of new technology to meet business process requirements; participates in the evaluation of new software and technologies to determine their functionality, interoperability, reliability, availability and supportability and expected return on investment; prepares periodic reports on new trends and
- opportunities.

   Participates in or conducts assigned research and development projects, including assisting network consultants in testing in a virtual environment; participates in developing new
- methodologies, standards, frameworks and tools; trains other staff on uses of new technology tools.

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   Maintains up-to-date technical knowledge by attending educational workshops, reviewing professional publications, establishing personal networks and participating in professional associations. Performs other job-related duties as assigned.

JOB COMPETENCIES: KNOWLEDGE, SKILLS, AND ABILITIES:
- KNOWLEDGE OF:

- Operating system architectures, characteristics, components and commands applicable to enterprise information systems and multiple platform operating systems; principles
- of network design and integration, including topologies and protocols;
   Data storage technology principles, practices, hardware, components and software
- including SAN and Windows 2008 R2/Active Directory environments;
   Principles, practices and methods of systems/network administration and maintenance,
- including configuration, performance tuning and diagnostic tools;
   Principles and practices of disaster recovery; database management systems and
- software, including architectures, diagnostic tools, commands and utilities; Tools
- and utilities used in monitoring and tuning systems, database and application
- performance.
- Systems integration design concepts and practices.
   Systems security and capacity planning principles, methods and practices;
   Principles, practices, methods and techniques of project management as they apply to information technology projects.
   Script languages including, command line, visual basic, powershell and other relevant languages.
-

ABILITY TO:

Perform complex systems administration in a multi-platform and operating systems environment independently and with a high degree of understanding of inter-operating and integration issues. Establish and maintain project schedules and balance responsibilities for multiple activities to ensure timely, high-quality results.
Perform advanced systems troubleshooting and tuning to resolve complex systems management, communication and inter-operating problems.

Communicate clearly and effectively, both orally and in writing.
Prepare clear, concise and accurate proposals, reports, documentation and other written materials.
Exercise sound independent judgment within general policy guidelines.
Keep technical skills current to meet continuing systems administration responsibilities.
Use tact and diplomacy when dealing with sensitive, complex and/or confidential issues
and situations.
Establish and maintain highly effective, customer-focused working relationships with all end users, other CVUSD staff, representatives of other agencies and others encountered in the course of work. Maintain an appropriate work pace to accomplish an acceptable volume of work

MINIMUM ENTRANCE QUALIFICATIONS: EDUCATION/EXPERIENCE:
Graduation from an accredited college or university with a degree in management information systems, information technology, computer science or a closely related field, AND at least four (4) years of current systems administration experience in a Windows/Active Directory environment, including configuring, coordinating and implementing releases, upgrades or changes to complex operating systems, servers and related software in a high-availability environment.

LICENSES/CERTIFICATIONS/SPECIAL REQUIREMENTS:
Valid California Class C Driver's License

PRE-EMPLOYMENT REQUIREMENTS
• California Department of Justice and Federal Bureau of Investigation fingerprint check.
• Tuberculosis screening
• Back X-Ray
• Job knowledge/experience based selection tests to assess minimum job competency and placement on the eligibility list established for filling job vacancies in the job class.

TOOLS/EQUIPMENT:

In order to effectively perform the essential functions of the classification, an incumbent is subject to properly operating the following tools/equipment with or without reasonable accommodation and/or on-the-job training upon job entry.

Operate a variety of technology related tools and equipment, including, but not limited to: server and workstation hardware, switches, routers, network cable installation/termination and testing tools; software tools for troubleshooting and configuration, and assorted peripheral devices. Utilize dollies, hand-carts, or other equipment to transport heavy equipment or ojects. Operate a variety of office equipment including personal computers and job-specific software applications, and related peripheral equipment, including, but not limited to fax machine, copier, and printer.

WORK CONDITIONS:
PHYSICAL DEMANDS
Level – Moderate / Performance of position duties/responsibilities is subject to occasional standing, walking, reaching, twisting, turning, kneeling, bending, squatting, and/or stooping, while performing duties requiring lifting, pushing, pulling, carrying, moving, and/or positioning objects weighting up to 25lbs frequently and up to 50lbs occasionally; the position is subject to exercising continuous manual dexterity (i.e., coordinated and/or precise movement of hands, arms and fingers) throughout a work shift to operate computer equipment and peripherals.

ENVIRONMENT/HAZARDS
- Indoor office and/or classroom setting
  Minimal temperature vaiations; generally hazard free environment
- Occuasion exposure to nuisance dusts
- Frequently climbing ladders up to 10 ft. and occasionally up to 15 ft.
- Occasional bio=hazards, such as exposure to rodent feces, etc.
- Driving a personal or district vehicle to District sites to conduct work

CLASSIFICATION APPROVAL:
APPROVED: 10/24/2012

Appendix B - Study Agreement

FCMAT
FISCAL CRISIS & MANAGEMENT
ASSISTANCE TEAM

CSIS California School Information Services

FISCAL CRISIS & MANAGEMENT ASSISTANCE TEAM
STUDY AGREEMENT
April 18, 2013

The Fiscal Crisis and Management Assistance Team (FCMAT), hereinafter referred to as the team, and the Dinuba Unified School District, hereinafter referred to as the district, mutually agree as follows:

1. BASIS OF AGREEMENT

The team provides a variety of services to school districts and county offices of education upon request. The district has requested that the team assign professionals to study specific aspects of the Dinuba Unified School District's operations. These professionals may include staff of the team, county offices of education, the California State Department of Education, school districts, or private contractors. All work shall be performed in accordance with the terms and conditions of this agreement.

In keeping with the provisions of Assembly Bill 1200, the county superintendent will be notified of this agreement between the district and FCMAT and will receive a copy of the final report. The final report will also be published on the FCMAT website.

2. SCOPE OF THE WORK

A. Scope and Objectives of the Study

The scope and objectives of this study are to:

1. Conduct an organizational, staffing and efficiency review of the district's facilities, maintenance, grounds and custodial operations.

   a. The team will provide comparative staffing data for districts of similar size and structure and make recommendations to improve operational efficiencies that may reduce the district's costs. The comparison will include at least three comparable school districts and may include those used in the district's collective bargaining process.

   b. The team will review job descriptions for all department positions; evaluate capacity, scheduling, efficiency and functions; and make recommendations for staffing and operational improvements. All

recommendations will include estimated savings or costs for any proposed position reductions or additions. This component will include interviews with district and site employees regarding the level of service the department provides.

    c. The team will evaluate the operational work flow of each function for the facilities, maintenance, grounds and custodial department and make recommendations for improved efficiency and standard industry practices. This component will include the following:

        i. Evaluate the district's comprehensive maintenance and deferred maintenance plans to support and provide preventive maintenance for all facilities, grounds, and the district's major facilities systems (HVAC, mechanical, plumbing, electrical and structural).

        ii. Review the district's maintenance work order system for repairs of facilities and equipment to ensure that all maintenance and repairs are completed in a timely fashion and that work order status reports are provided regularly.

        iii. Review the district's long range facilities plan and provide recommendations for staffing, if any.

        iv. Evaluate the grounds and custodial service plans for each site to ensure that the tasks and expectations for custodial and grounds employees are clearly outlined and indicate a detailed daily and periodic schedule for cleaning and simple repairs of the facilities. This will include the evaluation of the summer and non-school day programs for specialized cleaning and repairs.

B.   <u>Services and Products to be Provided</u>

    1. Orientation Meeting - The team will conduct an orientation session at the district to brief district management and supervisory personnel on the team's procedures and the purpose and schedule of the study.

    2. On-site Review - The team will conduct an on-site review at the district office and at school sites if necessary.

3.   Exit Report - The team will hold an exit meeting at the conclusion of the on-site review to inform the district of significant findings and recommendations to that point.

4.   Exit Letter – Approximately 10 days after the exit meeting, the team will issue an exit letter briefly summarizing significant findings and recommendations to date and memorializing the topics discussed in the exit meeting.

5.   Draft Reports - Electronic copies of a preliminary draft report will be delivered to the district's administration for review and comment.

6.   Final Report - Electronic copies of the final report will be delivered to the district's administration and to the county superintendent following completion of the review. Printed copies are available from FCMAT upon request.

7.   Follow-Up Support – If requested, FCMAT will return to the district at no cost six months after completion of the study to assess the district's progress in implementing the recommendations included in the report. Progress in implementing the recommendations will be documented to the district in a FCMAT management letter.

3.   **PROJECT PERSONNEL**

The study team will be supervised by Anthony L. Bridges, CFE, Deputy Executive Officer, Fiscal Crisis and Management Assistance Team, Kern County Superintendent of Schools Office. The study team may also include:

A. Eric D. Smith   FCMAT Fiscal Intervention Specialist, Project Lead
B. John Von Flue   FCMAT Fiscal Intervention Specialist
C. To be determined   FCMAT Consultant

Other equally qualified staff or consultants will be substituted in the event one of the above individuals is unable to participate in the study.

4.   **PROJECT COSTS**

The cost for studies requested pursuant to E.C. 42127.8(d)(1) shall be as follows:

A. $500. per day for each team member while on site, conducting fieldwork at other locations, preparing and presenting reports, or participating in meetings. The cost of independent consultants will be billed at the actual daily rate based on the provisions of Education Code section 84041.

B.   All out-of-pocket expenses, including travel, meals and lodging.

C.   The district will be invoiced at actual costs, with 50% of the estimated cost due following the completion of the on-site review and the remaining amount due upon the district's acceptance of the final report.

Based on the elements noted in section 2 A, the total estimated cost of the study will be $13,000.

D.   Any change to the scope will affect the estimate of total cost.

Payments for FCMAT's services are payable to Kern County Superintendent of Schools – Administrative Agent.

5.   **RESPONSIBILITIES OF THE DISTRICT**

A.   The district will provide office and conference room space during on-site reviews.

B.   The district will provide the following if requested:

1.   A map of the local area.
2.   Existing policies, regulations and prior reports that address the study scope.
3.   Current or proposed organizational charts.
4.   Current and two (2) prior years' audit reports.
5.   Any documents requested on a supplemental list. Documents requested on the supplemental list should be provided to FCMAT only in electronic format; if only hard copies are available, they should be scanned by the district and sent to FCMAT in electronic format.
6.   Documents should be provided in advance of field work; any delay in the receipt of the requested documents may affect the start date of the project. Upon approval of the signed study agreement, access will be provided to FCMAT's online SharePoint document repository, to which the district shall upload all requested documents.
7.   The district's administration will review a preliminary draft copy of the report resulting from the study. Any comments regarding the accuracy of the data presented in the report or the practicability of the recommendations will be reviewed with the team prior to completion of the final report.

Pursuant to EC 45125.1(c), representatives of FCMAT will have limited contact with pupils. The district shall take appropriate steps to comply with EC 45125.1(c).
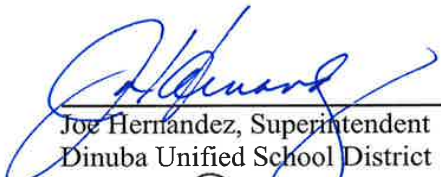
6. **PROJECT SCHEDULE**

The following schedule outlines the planned completion dates for different phases of the study:

Orientation:	April\May
Staff Interviews:	to be determined
Exit Meeting:	to be determined
Preliminary Report Submitted:	to be determined
Final Report Submitted:	to be determined
Board Presentation:	to be determined, if requested
Follow-Up Support:	if requested

7. **CONTACT PERSON**

Name of contact person: Terry Bradley, District Consultant
Telephone: (559) 595-7200
E-mail: tbradley@sbcons.com

_____   4-29-13
Joe Hernández, Superintendent   Date
Dinuba Unified School District

_____   April 18, 2013
Anthony L. Bridges, CFE   Date
Deputy Executive Officer
Fiscal Crisis and Management Assistance Team