An External Analysis of Technology Services & Operations in Poway Unified School District

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Acknowledgements

The content of this report is honest and sometimes blunt, but I offer it with a very high degree of confidence. The findings are a synthesis of comments made by the dozens of stakeholders interviewed, as well as other information provided by PUSD. I thank all of those who provided input for their candor, sincerity and valuable time. They thoughtfully answered questions and allowed for further probing to ensure that accurate information was gathered. In spite of the general dissatisfaction of district staff with technology services, the professionalism with which they approached the issue was unwavering.

- Bob Moore

Project Background & Executive Summary

With approximately 35,000 students, the Poway Unified School District (PUSD) has a well-earned reputation as a top-tier public school district in the US. PUSD serves a diverse community, students are academically successful and the community is engaged and supportive.

With a quick look from the outside and with a non-critical eye, PUSD appears to have implemented a "best in class" IT operations center, as well as cutting-edge services, such as My Plan, the district's anytime-anywhere-any device cloud application platform. Yet those in the district recognize that there are significant problems with technology services and support, and thus the appearance of excellence from an outside perspective does not accurately reflect the systemic issues that exist in terms of services, support and leadership.

With this contradiction as context, Dr. John Collins, superintendent, commissioned an external review and analysis of PUSD's technology services, operations, staffing and infrastructure. Initially, the purpose of the review was to provide a 3-5 year roadmap for improving IT effectiveness in the district in the four areas previously mentioned; however, given the extent of the problems, as well as the environmental obstacles, creating such a roadmap, or plan, would have been impossible. That task is was challenging not because the future is difficult to imagine, rather because PUSD staff are so mired in the current state that they are unable to envision a desirable future state other than to fix what is broken. Therefore, this report provides a set of recommendations that can create a state of readiness for PUSD leadership to envision a future state and to move forward with technology.

During December 2014 and January 2015 approximately 100 stakeholders were interviewed to seek input on future desired technology services, staffing and infrastructure. (See Appendix A for a list of Stakeholders Interviewed.) Interviews took place in 1-on-1 settings, as well as small groups. A wide variety of stakeholders were included, such as district administrative leaders, support staff, principals, teachers and IT staff. In addition, a significant amount of documentation was reviewed and, separate extensive conversations were held with Dr. Richard Newman and Robert Gravina.

The review yielded several specific findings described in the following pages. For each **Finding** an **Impact Statement** and **Recommendation** is provided. It must be made clear, that while the challenges facing district staff in acquiring, implementing and using technologies to support teaching, learning and operations are significant and profound, it is also a complex situation in which it can be difficult to discern the root cause of the problems observed. The purpose of this report then is not to assign fault for the current state, rather to objectively describe the current state as observed from an external perspective. In an attempt to separate findings resulting

from PUSD systems issues as opposed to IT issues, the findings fall into two categories; the **PUSD System** and the **IT Department**. It should also be noted that the Findings described herein are not an exhaustive list. The report focuses on key Findings that can act as leverage points for future changes. While some stakeholders were more restrained in their comments than others, the vast majority communicated the same themes. The most significant exception is the difference in perceptions between IT staff and the customers they serve.

In terms of the **PUSD System**, the Findings focus on the following interrelated, key areas:

A. **Budget** – lack of funding has created significant gaps in the ability to provide adequate professional development, technical support and equity of access to resources.
B. **Decision-Making Structure** – site-based decision making has led to a technology environment that has, created significant inefficiencies and support challenges.
C. **Culture** – the "Po-Way," as it was often referred to by stakeholders, seems to have created a culture in which PUSD staff may find it difficult to think critically about district practices and learn from others outside the district.
D. **Leadership** – lack of collaboration among some district and school leaders appears to have created separate "fiefdoms" in the district, resulting in a "win-lose" mentality, rather than a focus on doing what in the best interest of those being served.

There are also important **IT Department** issues that must be addressed. Some of these issues have clearly been exacerbated by PUSD Systems Issues:

A. **Leadership** – the lack of effective, strong collaborative and visionary leadership has resulted in the department being labelled the "department of no," rather than an important partner in district and school improvement initiatives.
B. **Culture** – the "Po-way" as it applies specifically to IT has resulted in a "we know better" attitude with regards both to other PUSD staff and external service providers.
C. **Organization & Staffing** – overall IT staffing is woefully inadequate for the size of district and scope of technology use in PUSD and current staff lack sufficient training.
D. **Process & Practices** – IT appears to lack clear, consistently applied processes and practices for problem-solving internally, as well as working with customers.

The following pages include the ***Findings*** gleaned from the Interviews and observations. In addition, the ***Impact*** of each is described, and where applicable, ***Recommendations*** are made.

PUSD System Findings, Impacts & Recommendations

Finding 1 Budget

It is widely understood that school districts across the US have suffered significantly in recent years due to deep budget cuts. The State of California has been hit particularly hard, and with that, so has PUSD. Given that 85-90% of the typical school district general fund (operating) budget is dedicated to salary and benefits, staff reductions are unavoidable in balancing a shrinking budget. While staff reductions are a "necessary evil," those reductions in school districts are typically deepest in management and other support staff. Particularly vulnerable are those positions that are "behind the scenes," as well as those that are not assigned to a specific school. Many IT positions fall into one or both of these categories. School district employees often perceive as valuable only those IT staff they interact with on a regular basis. It was common for those interviewed to acknowledge the lack of onsite technical support for schools and understaffed IT helpdesk, but they had little sense of how demanding, let alone important, those jobs are. One other area that was hit hard by budget reductions was training and professional development. Again, this is a common practice in school districts.

Impact

It is common for districts to target management and other support staff and PD first in times of budget reductions. However, given the growing reliance on technology for teaching, learning and for all aspects of district business operations, it is short-sighted to cut the very positions needed to support teachers, students, and staff and to keep the technology systems running. This is especially true given the value of the investment. There is no "best-practice" IT staffing model for school districts, but there can be no question that the PUSD IT department is woefully understaffed. The understaffing is apparent both in those positions that work directly in schools as well as the central office staff. The lack of funding for training and PD available for IT staff has a direct negative impact on the ability of the already over-taxed employees to meet the increasing demands of end users. Moreover, lack of PD resources for teachers, administrators and support staff has a multiplier effect. Not only are end users not receiving adequate PD so that they can be more independent and effective users of technology, but when they experience problems they don't have access to the IT support staff they need. When combined with the site-based decision making approach to technology (discussed in the following section – Decision Making Structure), you have the ingredients for a situation in which costly investments in technology are not having the desired impact upon achieving the District's mission as students are missing opportunities to use exciting new tools that are essential for college and career readiness. When general fund dollars are used to fund technology, and when parents at local schools raise funds for technology, the lack of support resources by the district is a serious problem.

Recommendations

More specific recommendations regarding staffing and professional development will be described later in this document. There are two general recommendations that apply system-wide. First, the support of technology end users and maintenance of systems need to be prioritized more highly by the District, as well as by school administrators and teachers. It is the rare district that can fill all of its needs, but if technology use is important to PUSD then funding adequate staff resources must be a commitment. Similarly, a larger budget commitment is necessary for training and PD, including specific goals and benchmarks to ensure that funding is targeted where it will have the most impact. If staff cannot be increased and if more PD cannot be provided then the district should consider limiting technology initiatives. It would be better to more fully utilize less technology than to continue to invest significant resources in new technology only to have it underutilized due to lack of support and PD.

Finding 2 Decision-Making Structure

Most school districts tend to have some range of centralized and site-based decision making. A few are highly centralized, such as Blue Valley USD; others tend more toward site-based. From the perspective of an external observer, PUSD site-based decision making structure in regards to technology acquisition and use seems to be problematic. It appears that principals can buy virtually any technology they want, particularly when the funds come from the local school parent group or foundation. Even principals, who highly value their autonomy, expressed time and again that they would like to see more coordination of efforts.

Impacts

There are profound negative implications for this deep level of site-based decision making and autonomy. The most significant impact is staggering inefficiencies in procurement, technical support and PD. Quantity and size count when it comes to procurement of technology. The already understaffed IT department is tasked with an impossible job. It is difficult enough for a technical team to keep up with a limited number of technologies, but the PUSD situation is untenable. A common refrain among those interviewed was that they thought of IT as the “department of no.” This is not to defend IT, but when principals can buy whatever technology they want, IT has to say “no” sometimes for survival. Time and again principals remarked that IT staff doesn’t seem to know the technology, just as IT staff said they never know what technology they are going to encounter next in the schools. No amount of training can remedy this. As for PD, there can be few system-wide efforts, and peer-to-peer learning is thwarted, due to the lack of consistency. The current approach to

technology buying and use also makes it very difficult to develop and implement a system-wide vision of how technology can be used in schools and what experiences every PUSD student should have as they matriculate through the system. Historically, decisions about devices (laptops, tablets, Chromebooks, etc.), for example, have lacked a thoughtful approach based on actual use cases and readily available industry comparisons. While it is still a new process, the "Re-Think," shows some promise, but it cannot be emphasized enough that if decisions are going to be based on preference, then those making the choices need to be well-informed with all of the necessary information.

Recommendations

a. Stakeholders need to develop a clear vision for how technology can be used in instruction and learning. This vision should describe how technology can improve instruction, facilitate instructional decision-making, personalize learning, empower students, and so on. It should not be specific as to which technologies or brands of technologies are used.
b. Stakeholders need to develop a map of technology experiences and skills that every student should have. This creates a baseline and once the baseline is met schools can go beyond the baseline in a way that meets the interests of their local communities.
c. In order to meet this baseline, standards should be set in terms of devices (computers, tablets, etc.), peripherals and software (including mobile apps). These standards should apply regardless of the source of funds. Stakeholders will eventually buy-in to some level of consistency when they realize its value. This also applies to where these technologies are purchased. The process to define these standards should be a collaborative process among stakeholders.
d. In determining which specific technologies are selected, there needs to be a process for considering industry data and research, as well as the input of stakeholders.

Finding 3 Culture – The "Po-Way"

All school districts, successful or not, tend to have their "way" of going about their business. Blue Valley has the "Blue Valley Way," Plano the "Plano Way" and Poway the "Po-Way." Businesses have the same thing. Many of those interviewed talked candidly of this.

Implication

This can be healthy for the culture of the organization. It can create a sense of pride. Many long-time Poway staffers mentioned the "Po-Way," as did most of the relatively new staffers. For the long-time staffers it seems like a form of acceptance; that is, "this is what

Poway is and we're not going to change." That is not productive, particularly when PUSD has much room for improvement with its technology services. It can also lead to a culture in which individuals do not look at their work critically and see how they can improve. Staffers relatively new to Poway commented about the overconfidence of the It department and the unwillingness to admit that the district does not have all of the answers, let alone learn from other districts. Culture is difficult to change, but from the 100 or so people interviewed it became clear that the "Po-Way" is not entirely positive. In and of itself this is probably not a huge issue, as it is common to most organizations, but when combined with an extreme level of site-based decision-making as discussed previously and ineffective IT leadership (described later) it makes for uncontrolled and inefficient decision-making.

Recommendation

If there is not already, there needs to be a deliberate and systematic approach to looking critically at decisions, programs and initiatives. Equally important, there needs to be similar efforts to looking externally to identify programs and initiatives that could be informative. Also, processes such as this external analysis can result in valuable insights.

Finding 4 – Leadership

The purpose of this study was not to critique district leadership, but a large number of interviewees commented on the perceived lack of cooperation between LSS and IT. Every organization has "creative tension" between different teams. This seems to go well beyond healthy friction. There was a widespread sense among those interviewed that IT and LSS leadership not only do not collaborate, but can appear to be working at odds with one another. Principals voiced their concerns and frustrations quite strongly. They see the lack of collaboration between the two groups as a significant barrier to progress.

Impact

Dysfunction among district leaders prevents collaboration and consistent vision. Evidence the approach to technology buying and use among schools. Without belaboring why this is problematic, it's sufficient to say that this is a problem. It's inefficient and prevents the system from moving forward.

Recommendation

There is no organizational reporting structure that can magically make individuals value one another's perspective and collaborate. Ultimately, it comes down to having the right leaders in place and having a common vision and goals, with a set of organizational norms and

expectations for problem-solving and working through issues. Having said that, school districts are often hierarchal in nature and thus "who reports to whom" matters more than it should. As such, IT should be a cabinet-level position reporting directly to the superintendent, particularly in a district the size of PUSD. Both IT operations and education technology should report to a Chief Information Officer (CIO). The Education Technology administrator should have an education background and should view the LSS administrator as their primary customer. The role of school CIO requires a unique blend of skills and experiences, including technical, education and business. CoSN's (Consortium for School Networking) Certified Education Technology Leader (CETL) program is a good source for understanding the unique mix of skills and expertise need by a school district CIO.

IT Department Findings, Impacts & Recommendations

Finding 1.0 Leadership

With rare exception, the staff interviewed expressed a negative view of the IT department in general and IT leadership specifically. The "department of no" was frequently used to describe IT, as well as "out-of-touch." Staff also quickly pointed out that IT has a number of "good people" and acknowledged that the leadership has been put in a difficult position with budget restraints and site-based decision making. Principals were asked if they viewed the CTO as a resource or partner in making technology-related decisions. They typically responded that they did not, or that they didn't want the district involved in their schools' decisions. The view of central office staff was somewhat less negative, with the exception of those from LSS. Feedback from IT staff members was mixed. They generally tried to be positive, but reading between the lines there appears to be a lack of respect for the IT leadership. Specifically, multiple IT staffers (and principals as well) mentioned that the CTO seems to lack the technical knowledge necessary for some decisions, yet no specific examples were given. Some principals mentioned a perception of favoritism by the CTO for some schools as an issue.

Impact

PUSD is well behind districts of similar size and demographics in terms of a coordinated, deliberate evaluation, selection, acquisition, implementation, and use of technology. Of course the most important impact has nothing to do with technology, but the fact that the students in PUSD are not benefitting from experiences with technology that the district is capable of providing, given effective leadership.

Recommendation

District leadership needs to take a hard look at IT leadership and the negative perceptions that exist, as well as why those perceptions came to be.

Finding 2 IT Culture

The "Po-Way" is evident in the IT department. This can be viewed from two perspectives. On one hand it can be seen in how the IT department interacts with internal customers, particularly those in schools. There is a strong perception that central office IT staff are condescending towards those in schools. On the other hand, many of those in schools have an inflated sense of their own knowledge of technology and are not particularly interested in the advice of IT. The "Po-Way" is also manifested in how IT handles development of custom applications. With an IT staff already overworked, it is curious that so much in-house application development is done in PUSD. In attempting to probe more on this issue, IT staff was evasive and the CTO seemed to be unconcerned. Finally, it is striking that there is not an IT stakeholder governance committee or system.

Impact

While the impacts of this culture are many, at the very heart of the issue is that it denies opportunities to students, underserves district staff, and results in inefficient use of resources. For example, principals and teachers are not fully qualified to choose the technology they buy for their schools. Technology selection is a very complex and technical issue that requires the input of several stakeholders. The inability or unwillingness of school staff and IT staff to collaborate is not productive or effective. Another example relates to the internal development of applications. When applications are developed in-house with no cost applied to the effort, district staff asks for IT to develop applications for "free" (or at no cost to them) rather than seek out and purchase applications. They then complain about the slow pace at which applications are developed or updated. IT sees this as a point of leverage and wants more developers. This is one area where schools or departments cannot go it on their own. Understaffed IT departments quickly find that they have more commitments than resources and their resources are focused on efforts that do not significantly impact the core business of the organization, teaching and learning.

Recommendations

a. PUSD needs to implement a stakeholder governance structure for IT. A technology advisory committee that provides input and that is involved in decision-making regarding key initiatives would go a long way toward developing a process for collaboration.

b. Clear lines should be defined as to which decisions are to be made at the district and which are made at the local school. This exists to some extent today, but telling schools that they can buy whatever technology they want with local school funds, but that IT won't support it unless it meets district standards is not a good practice. IT should consider applying costs to certain efforts, such as custom application development. This will be discussed more under Processes and Practices.

Finding 3 Organization & Staffing

As noted previously, IT is understaffed both in positions that directly serve schools, as well as central office IT staff who do much of their work "behind the scenes" to support the infrastructure. In general, IT staff is not properly trained and certified. A training and certification plan for all IT staff could not be identified. While the structure of the school "LANs" makes sense, the project management approach applied in central IT does not fit with the level of staffing or apparent lack of specialization among central IT staff. The project management approach requires staff with deep expertise in certain areas that project and program managers can turn to, but this is another area in which it was difficult to determine who was responsible for what. There seems to be a lot of overlapping responsibilities, as well as individual staff members who have responsibility for various different systems that require specialized knowledge to adequately manage. There is much talk in IT about "enterprise approach", but there is little about the IT staff or its processes that reflect an enterprise approach. There are promising prospects among the IT staff, but it is difficult to determine just how many due to the organization structure and the apparent lack of defined processes for IT troubleshooting.

Impacts

Simply put, the fact that IT is under staffed and under skilled results in inadequate support for district staff and students. Expensive technology resources are underutilized. The lack of staff and scheduling challenges leave times when IT support may not be available, such as early morning or late afternoon. These conditions also result in poor morale within IT and further the tendency among schools that they should just go it alone since the district is unable to support them.

Recommendations

a. IT needs additional staff. Without a detailed study of workload it would be only a guess as to what the actual staffing numbers should look like. At the very least an additional small number of LANs is needed, in addition to at least one other Helpdesk headcount. While people in IT insist that they need more application developers, this is not

recommended. If anything, some of that headcount could be re-deployed if the district lessens its reliance on in-house development.

b. The other issue that makes it difficult to determine what specific staffing numbers should look like is the lack of training and certifications among many IT staff. In some cases one well-trained technical professional can do the work of two or three lesser trained people. Of course those positions can cost more due to higher salary expectations, but cost savings can still be realized, along with better customer service.
c. Required IT industry certifications should be identified for all applicable IT positions and funds should be committed to ensure that staff stays current with those certifications. In addition, a training and development plan should be developed for all IT staff.

Finding 4 Processes & Practices

Very common themes from school and central office staff was that IT support is "catch as catch can," that the quality of support is highly dependent on which IT staffer one works with, and that perhaps the most effective way to get support is to establish a relationship with an IT staffer so you can go directly to him or her rather than working through the helpdesk, which is considered the best approach to customer support. These findings are indicative of an IT staff that has an inadequate number of employees, is under skilled, lacks clearly defined and communicated processes for accessing support , and that is not held accountable for following those processes. There also seems to be a vast disconnect between IT staff and their customers in terms of practices. IT staff insists that they rely heavily on remote support capabilities for efficiency, but school staff seem to be unaware of the practice. IT claims that they have a catalogue of software that can be installed or upgraded via Microsoft's System Center, yet others are unaware of this capability. Even something as simple as unblocking a website seems to be contentious. In addition, those customers who know whom to contact and how to work the system get support, while others may not. A simple example of this is the fact that LANs get assigned to schools based on the number of open helpdesk tickets. Some principals have figured this out and when a lab of computers is unable to print, for example, they submit an individual helpdesk ticket for every computer in the lab, while others submit just one ticket for the entire lab. It appears that IT managers are not reviewing helpdesk tickets and assigning priority based on the situation described. Assignments appear to be based solely on quantity.

Impacts

Defining and following process requires discipline, accountability and respect for the importance of the work of others. This applies both within the IT staff as well as with other district staff who are customers. Without good processes, resources are used less efficiently and the work of the department appears to be a fire drill, rather than a deliberate,

disciplined approach to problem-solving. This approach only exacerbates other issues already described in this report.

Recommendations

a. There needs to be clearly defined, communicated and applied processes for getting support and problem-solving. These processes should be defined with the input of end users.
b. District administrators, as well as the IT staff, need to be accountable for following these processes. A sense of urgency should not imply importance.
c. Self-service capabilities should be developed for end-users. For example, end users should have the ability to download and upgrade applications. This could take a great deal of burden off of IT. Greater standardization of technology will also have a significantly positive impact on this situation.
d. The district uses the Track-It helpdesk application. At least as implemented, Track-It is inadequate to meet the needs of PUSD. Alternatives should be researched that will enable the implementation of sound processes.

Conclusion – Next Steps

The problems found in IT operations and services are systemic and deeply-rooted. While the causes of these problems are many, ineffective IT leadership, uncontrolled site-based decision-making, lack of collaboration among district leaders and the "Po-Way" culture are issues that must be addressed. Lack of funding is certainly a significant contributing factor to the issues facing the IT department.

Given that the district has continued to invest in technology, schools have raised funds for technology, expectations for technology use are ever-increasing and new technology requirements must be met, such as Common Core online assessments, the District should carefully reexamine the allocation of district funds to meet the challenge of preparing each student for success in the future.

While the intended outcome of this external analysis was to have been a 3-5 year roadmap for technology services, operations, staffing and infrastructure, the approximately 100 people interviewed were so focused on the dysfunction that exists, such a forward looking exercise was impossible.

PUSD is an excellent public school district with talented and caring staff at all levels, but much work needs to be done in order to develop the quality of IT operations students and staff need and deserve. While it is clear that IT leadership is challenged, it must be made equally clear that even the most gifted CIO could not experience success working against the obstacles and challenges that exist today, in the district and within the IT department.
As for next steps, the recommendations included in this report are actionable. Some could be implemented with relative ease and others will require some significant system change. It would be natural to cherry-pick the simple ones and pass on the more difficult ones, such as limiting site-based decision-making on technology purchases, but that particular one is critical for future success.

Students and staff experience far more success when there is a coordinated, deliberate and thoughtful approach to technology implementation and support. Given the "Po-Way" and the situation that now exists in PUSD with regards to technology that change may be painful and there may be pushback, but it is change that is needed.

Appendix A: List of Staff Members Interviewed

**Names are listed in order of interviews.*

- Rich Newman, Director of Innovation
- Robert Gravina, Chief Technology Officer
- Jessica Wakefield, Director of Communications
- Andy Johnsen, Principal Valley Elementary
- Todd Cassen, Principal Westview High
- Stacey Campo, Technology Trainer
- Joe Erpelding, Principal Tierra Bonita Elementary
- Dawn Kale, IT Program Mgr
- Bob Rodrigo, Principal Sundance Elementary
- Ken Wall, IT Program Mgr
- Tim Purvis, Director Transportation
- Todd Gutschow, Former PUSD Board Member
- Joy Ramiro, Director Finance
- Ricardo Cecena, Principal Park Village Elementary
- Greg Mizel, Principal Del Norte High School
- Bruce Steel, Julie Lopez, Jim Sherer, Lee Raskin - HS Teachers
- Mel Robertson, Assoc Superintendent LSS
- Mike Tarantino, Director Facilities & Maintenance
- Bob Lowder and Mark Ludwig - System Engineers
- Vickie Crotz, and Kathy Rinehart - LSS Administrative Assistants
- Nenette Sauquillo, Gene Nelson, Diane Zimmermann, Julie Hoffman - Program Analysts/System Analysts
- Mike Mosgrove, Principal Westwood Elementary
- Ed Bachta, Linda Bradbury, Cyrus Shahidi, Dan Wetherington, Bryce Newall - Systems Administrators
- Lou Babre, Director Food & Nutrition
- Sonia Wrisley, Principal Design39 Campus
- Kathy Purcell, Director Special Education
- Millie Swain, web developer
- Sandi Burgoyne, Director Planning
- Linda Foote, Technology Trainer
- Kathleen Porter, Executive Director Career, Technical & Adult Education
- Patty Hurt, Assistant Principal, alternative programs
- Vicki Wahlsten and all LANs
- Tracy Hogarth, Associate Superintendent, PSS
- David Hall (HR), Dawn Zwibel, Steve Salvati (Risk Manager), Debbie Wulff (PSS & Risk Mgmt) Michelle Ackerman – HR Tech
- Casey Currigan, Principal Oak Valley Middle
- Candy Smiley - Poway Federation of Teachers
- Paula Rians, Payroll supervisor, Payroll Techs - Janet Crews, Lorrie Larsen, Janine Perez
- Dave LeMaster, Principal Rancho Bernardo High
- Kathleen Marshack, Rolling Hills Elementary
- Kathy Roberts, Director Pre-School
- David MacLeod, Principal Abraxas High School
- Sal Embry, Principal and Lynne Harvey Teacher Monterey Ridge Elementary
- Eric Lehew, Executive Director LSS
- Malliga Tholandi, Associate Supt BSS

- Linda Meloney and Testing Dept
- Phil Medved, Vehicle Maintenance Supervisor
- Terry Worthington, Principal Deer Canyon Elementary
- Noreen Walton, Director on Special Assignment
- Miguel Carillo, Principal Meadowbrook Middle
- Cliff Mitchell, Principal Mesa Verde Middle
- Cindy Venolia, Principal Highland Ranch Elementary
- Charan Karpalani, Principal Black Mountain Middle
- Cindy DeClercq and Kimberlie Rens, Exec Directors LSS
- Janay Greenlee, Director Purchasing
- Poway Federation of Teachers -Teacher Rep Council
- Scott Wild, Asst. Principal, Westview High School
- Mike Mosgrove, Principal, Westwood Elementry
- Maria De Ocampo, Admin Asst, LSS
- Phil Medved, Supervisior Transportation
- Debbie Wulf, Diretor, Personnel Commission Jolie Napier-Vea, Human Resource analyst, Personnel Commission
- Jeannie Dickinson, Principal, Garden Road Elementary
- Sandi Burgoyne, Senior Planning Analyst, BSS
- Mark Griffin, Program Manager
- Ed Bachta, Systems Analyst
- Laura Hatch, LAN
- Bryce Newall, Systems Engineer
- Sandi Burgoyne
- Rich Garcia, System Support Specialists
- Dianne Kodadek, Information Analyst
- Alexis Sharp, LAN
- Dawn Kale, IT Director
- Ivan Ramirez, LAN
- Steve Upson, LAN
- Stan Taylor, Communication Supervisor
- Gene Nelson, Programmer III

Appendix B: Professional Biography - Bob Moore, Analyst & Author

Bob Moore founded RJM Strategies LLC in January 2013. RJMS is an education technology strategy and advisory services company. He works with schools in the US and has a growing client base among American international schools. Some of his areas of expertise include IT operations, technology leadership, data systems, data privacy, IT staffing and client device selection. In addition to his work with schools, Mr. Moore works with Intel as the company's K12 CIO subject matter expert advising business development and marketing on market and customer strategy.

In recent years Mr. Moore has been heavily involved in education data privacy and security and is viewed as a subject matter expert on the issue. He is project director of CoSN's (Consortium for School Networking) Protecting Privacy in Connected Learning initiative. He has recently been selected as the director for a project funded by the Bill & Melinda Gates Foundation and the Michael & Susan Dell Foundation. The *Trusted Learning Environment* initiative will lead to the development of a privacy "seal" for K12 schools, including an audit process for determining eligibility.

Mr. Moore started his work in K12 schools in 1988 directly after earning a B.A. in International Trade and a M.S. in Management Information Systems, a preparation program for aspiring CIOs (Chief Information Officer). Both degrees were awarded by Auburn University. His first experience in schools was in Auburn City Schools (1988-94), a small school district with a very diverse population and a significant investment in technology.

In 1994 he was recruited to Blue Valley USD 229 in Overland Park, Kansas, a rapidly growing suburban school district with an extremely strong tax base and thus significant budget to invest in technology. For his first several years in Blue Valley he served as the Director of Information & Technology which consisted of education technology, library media and the district teacher resource center. During his time in that role the district he lead several nationally recognized education technology initiatives and programs.

In 2002, BVUSD's technology teams were consolidated under Mr. Moore's leadership in the CIO role. Under his leadership, the district developed a reputation for IT operational excellence, reliability and customer support. His innovative approach to staffing and aggressive IT staff training was recognized and published as a case study of best practice by Gartner. In addition to many leading edge technology implementations, Mr. Moore developed a detailed, annual technology purchase roadmap for the Board of Education and sought extensive, ongoing input from the Board technology advisory committee, as well as the Board finance committee. Stakeholder involvement in IT decision making was heavily encouraged, including district staff and community. During his 15 years in Blue Valley the district invested more than $120M in technology improvements.

During his time in BVUSD Mr. Moore became very active in CoSN. He was elected to the position of Board Chairman in his first year on the board and went on to serve on the Board for nine years. For more than 15 years Mr. Moore has been viewed as one of the organization's most effective leaders and ambassadors on a wide range of education technology issues.

In 2009 Mr. Moore joined Dell as the Director of Business Development for the company's nearly $4B global education business. During his time with Dell he managed a virtual, global team and led the development and launch of three new software and services solutions. His team was responsible for targeting, acquiring and managing strategic business partnerships and as well as high-value account acquisition and retention. CoSN recognized his work as the Private Sector Champion, an annual award recognizing the most effective private sector leader in education technology.

Mr. Moore's life's work has been focused on the most effective use of technology in all facets of teaching, learning and school operations. It is forever grounded by his tenacious commitment to vision, innovation, integrity and practicality.