



TO: Members of the Board of Education
FROM: Darryl LaGace via W. Kowba *W. Kowba*
DATE: December 9, 2011
RE: Gartner, Inc. ITSS review and recommendations

This memo is to inform the Board of Education of the findings and recommendations from Gartner, Inc. (Gartner) from their review of key District technology programs and plans, the ITSS department structure, and budget.

In July 2011, the Board approved a review by Gartner of the District's five-year ERP and SIS software plan and other key IT initiatives including i21 sustainability, District data center solutions, and IT organization and budget needs as it relates to these initiatives. On August 31, 2011, the District entered into an agreement with Gartner for a two-year term to: (1) provide research and analysis services for IT related projects (2) review key RFPs needed to execute some of the projects, and (3) pre and post services during the RFP process.

During the past three months, the ITSS department has engaged with Gartner analysts providing them with detailed information about the ITSS department's operations, plans being reviewed, the organization's structure, and operating budget information. The ITSS staff also attended several conference calls and meetings with Gartner's subject area experts to provide additional background information and answer follow-up questions about specific topics.

In November, Gartner team members participated in a three-day onsite visit to the District as part of their review process. During this time, Gartner met with District ITSS department staff as well as other District and site administrators. Their review included school site visits to several classrooms at three schools to observe the district's i21 initiative and the Learning-on-the-Go program.

Gartner also met with District staff from Facilities Planning and Construction to clarify information about the District's Data Center plans and to further discuss the immediate risks and options for the District.

Enclosed is the final report. District staff recommends that these findings be incorporated into the District's long-range strategic planning and current budgeting processes.

Enclosure

Gartner

Review of San Diego Unified School District Technology Programs and Plans

November 2011



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Executive Summary

In November, 2011 Gartner, Inc. conducted a high level review of six areas of the San Diego Unified School District (SDUSD) technology effort in four categories: (1) SDUSD data center operations; (2) the i21 instructional program; (3) the enterprise software Financial and Human Resources, business intelligence and student information; and (4) the SDUSD Department of Technology organization and budget.

Overall, Gartner found that the current operation and future plans developed by SDUSD for the data center, the instructional program and the enterprise software categories were well-thought out and in concert with similar efforts or plans of public school districts of similar size and complexity. Specific comments and recommendations are found in the body of the report and summarized here:

- The i21 program is a high value proposition and should be considered in the forefront of instructional practice in the digital world. The threat to the program is not the relevance of the curriculum alignment or the pedagogy but in the will of SDUSD to sustain i21 technology funding.
- A question has been raised about how San Diego Unified School District should proceed with regard to the planned data center construction at the Serra High School? Gartner believes that the construction of the proposed data center is a better fit for SDUSD than the outsourcing options. At the school district's option, acquiring and deploying the full complement of premise hardware and equipment can be deferred to reduce the immediate cost of the data center.
- SDUSD should consider the proposed PeopleSoft Financial and Human Resources (FN/HR) upgrade as a prudent measure given the features and functions of the software, the prior investment of development and training in the solution, and to avoid the disruption caused by a complete change in two critical data systems at the same time.

- The business intelligence (BI) and data warehouse proposal should be considered an essential step in providing real time data from a number of disparate information sources. The BI tools will provide SDUSD business units with the platform from which decisions will be made on the basis of information and not intuition.
- Replacing the Zangle student information system (SIS) is critical. The future development of the solution to include the features and functions of the top tier SIS solutions is, at the very least, doubtful due to the end of the original vendor as a business entity and unclear intellectual property rights for the product.
- District funding for technology is on the extreme low end of the fiscal resources provided education, in general, and K-12 education specifically. Lack of investment in technology typically results in greater costs to other business units and to the user community. In SDUSD, it threatens the sustainability of technology support for critical instructional and non-instructional efforts.

The technology organization is understaffed in comparison to education organizations, in general, and K-12 agencies specifically. The prospect of a reduction in force (RIF) for technology puts the sustainability of the IT effort in question. Under current seniority rules, SDUSD will lose employees with significant technical and business skills should a RIF be applied to the technology organization.

Gartner delivers the technology-related insight necessary for our clients to make the right decisions, every day.

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Instructional Program: i21

The technology-based i21 instructional program implemented in the San Diego Unified School District provides one of the best learning environments that Gartner has witnessed over the past decade. The deployment and configuration of the technologies is impressive, but overshadowed by the alignment to the standard curriculum and a student-centric learning environment, the ongoing professional development program provided school staff and careful attention paid to providing an appropriate and equitable access to learning activities for all students at home as well at school. This is an outstanding program and other school districts should consider emulating all or some of i21 to address the learning needs of their students.

Gartner Observations:

- **i21 Technology.** A 1:1 computer to student ratio exists in all i21 grade level classrooms. Additionally, over 3,000 middle school students are issued a SDUSD-owned personal computing device that is used at home and at school as a component of the Learning-on-the-Go program. Access to appropriate online resources is provided through the district network extended to wireless access points in each classroom. Students also have access off campus, and security measures assure that the student devices access only the SDUSD network when using their computing devices away from school.

The classrooms are equipped with instructional sound systems and interactive whiteboards. Gartner observed those technologies – as well as the student devices – used extensively in a variety of classroom activities. All devices were on the network concurrently by students and used to access instructional resources as well as to communicate with the teacher and classmates as part of the prescribed learning activities.

- **i21 Curriculum Alignment and Learning Environment.** The program is aligned to the standard curriculum and classroom activities are centered on the attainment of the learning objectives by students. Unlike many technology-based programs observed in similar one-to-one technology deployments, the technology provides the platform for learning. The i21 classroom is student-centric and marked by a high degree of student engagement and students and teachers alike get immediate feedback on progress toward learning objectives. Students are grouped and re-grouped to concentrate on remedial study, practicing for mastery or advanced skills based on formative data provided to the teacher through the online assessment of student responses. Home study is made possible, and the concept of the flipped classroom – i.e., students are instructed online at home and work with the teacher and classmates to secure full attainment of the content or skills – is supported. The students appear motivated and enthusiastic and, refreshingly, so do administrators and teaching staff.
- **Professional Development.** The professional development program begins with providing teachers six months prior to the distribution of the technology to the students and is an ongoing program of support for the teaching and administrative staff. A digital lead teacher program is

underway to ensure each elementary, middle and high school has at least one teacher especially trained to work with the technology and fellow teachers. The high schools will have two such teachers. The lead teachers extend the capacity of the Education Technology staff to provide ongoing professional development and support.

- Equity. All students in SDUSD, regardless of the family ability or willingness to provide technology, are immersed in the digital world through the i21 classroom. Teachers have the flexibility to stay within the guidelines of the written curriculum and adjust the classroom activities to address the specific needs of the students in their classroom.
- Vision. The i21 program is built on the curriculum alignment and a student-centric approach to learning activities. Pedagogically, the i21 program is in the forefront of the nature of school in a digital world, and the value of the program in terms of student participation and engagement provides value beyond the capital investment in hardware and software, whatever the cost. Teachers, in particular, appear to have taken ownership of the program and that bodes well for a program that can provide value to all SDUSD students year over year.

Gartner Comments:

Gartner is truly impressed with the planning and implementation of this program, and the cohesion of effort between and among administrative, curricular, instructional and technology staff. There is no doubt that this is an instructional program that leverages the digital environment. Unfortunately, too many school districts attempt to create a 21st Century classroom – our definition is that of a classroom that reflects the students world and the world of work – fall short as the technology is deployed in the hope that student achievement will increase because of the technology and not because the program is designed on strong instructional principles, ongoing staff development and technology support and maintenance.

In particular, Gartner sees:

- Educational Best Practices. The i21 classrooms are a leading example of where public education is headed as school districts learn to harness the potential of technology to enhance student achievement through an engaging student-centric approach that mirrors the digital world in which they live rather than the industrial age of the past century. Moreover, it provides students who would not ordinarily have the resources to participate in a digital environment an equal footing with their peers who may come from better circumstances. The professional development program is well thought out and teachers have essentially taken ownership of the i21 classrooms. The i21 classrooms are built on the standard curriculum but have enable the teacher to spend more time teaching and coaching than monitoring and grading papers. Gartner sees the potential of programs such as i21 to leverage the teaching staff over a greater number of students without sacrificing attention paid to individual student needs and learning styles.

- **Sustainability.** The technologies deployed to support the i21 classrooms will need to be refreshed periodically if SDUSD is to continue to realize benefits from the program. In one sense, the program is worth the investment – whatever the cost.

The current price point of the SDUSD laptops is greater than \$400. Gartner expects that the price point of student held devices will steadily fall into the sub-\$400 range, and SDUSD will be able to select viable devices in the \$300 to \$350 range. Refreshed on a four year cycle, that puts the capital cost of placing a 21st Century learning tool in the hands of every student grades 3 through 12 for \$75 to \$90 per year per student. Gartner expects that within the foreseeable future – in this case before the next 4-year cycle is complete – the standard student device will be a tablet (e.g., iPad or iPad-like), and that the devices will likely be a catalyst for the migration from print to digital textbooks. As that is possible, the cost per text should decrease and free resources that can be applied to various components of the i21 program. The SDUSD projection of approximately \$7M per year, including repair and replacement costs) is realistic and not overly optimistic.

The investment in the interactive whiteboards and teacher-held technologies is included in the i21 sustainability plan. As the plan unfolds, the interactive whiteboards will require routine maintenance and some degree of replacement. The SDUSD projections in those areas are reasonable. Teacher technologies are budgeted at \$1000 per device, and as the i21 program moves forward, that price point is likely to fall, although at this time SDUSD should not expect the cost of teacher-held devices to fall much below the \$1000 projection as staff will require more powerful technologies to address lesson plans and other instructional resources and to address data analysis and other managerial needs.

At \$9.7M per year to sustain the classroom technologies, the typical per student cost is less than \$100 per year, based on the participation of 105,000 students enrolled in grades 3 through 12. SDUSD would be well served to find cuts in other areas to put a learning tool into the hands of every student at \$100 per year per student.

Gartner Recommendation:

The i21 program is a high value proposition. Although the sub-\$100 per year per student represents the refresh and incidental replacement costs and not the total cost of ownership, it is a relative bargain in that it leverages the potential of technology to provide a student-centric learning environment that frees teachers to coach and mentor and students to participate in learning activities at home as well as in school. From the observation of the program in the schools and from the i21 documentation provided Gartner, this is a well-conceived and executed program, is not cost prohibitive going forward and an example that many other school districts should consider in their strategic plans.

Serra High School Data Center Site

The San Diego Unified School District (SDUSD) has a State of California and a SDUSD Board of Education approved plan to construct a data center to replace the current facility located in the Normal Street central office building. The current data center facility has reached the limit of its capacity to meet the instructional and business needs of the school district. A business case supporting the plan has been completed. The Governing Board members have questions about the approach and would like to know the viability of having the district's data center needs met more cost effectively through current commercial cloud computing solutions.

Gartner's observations:

- The instructional program, i21, is dependent upon a strong and reliable infrastructure to deliver instructional activities directly to the student desktop. The program is currently deployed to roughly 75% of the student body.
- SDUSD will respond to requests for school district stakeholders and extend online access to information for staff, teachers and parents through a business intelligence initiative in conjunction with a general Human Resources and Financial software upgrade. The updated approach will result in additional connectivity and data access demands.
- The current data center is at capacity and will be outstripped by the educational and business technology needs of the school district as planned educational and business improvements are implemented.
- SDUSD does not have a Disaster Recovery/Business Continuity (DR/BC) facility; the educational and business needs of the school district are single-threaded through an aging and inadequate data center hub.
- The plans for the Serra High School site have been approved by the required state agencies and by the Board of Education.
- Funding for the Serra High School site has been identified and will come from the Capital Budget and Prop S.
- The Normal Street location of the current data center is slated for sale to non-SDUSD concerns within the next three years, necessitating a change in providing data and technology services to the school district.
- Regardless of the current or future location of the SDUSD data services, the bargaining unit that staffs the data center is protected from layoffs or reduction in force resulting from contracting out or subcontracting of work.
- There is agreement that the current data center must be replaced.

Gartner Comments:

- Gartner believes that the cloud-based solutions for data center operations are not appropriate for organizations that have multiple software requirements beyond major administrative and other business solutions. Furthermore, the current crop of available cloud services does not

provide the reliability required for organizations that are dependent upon availability to conduct business without interruption.

- The i21 instructional program is in the vanguard of true 21st Century instructional strategies, leveraging educational technologies aligned to the standard curriculum and made available for students for learning at home as well as for classroom activities. The program puts SDUSD ahead of school district peers that have distributed classroom technologies but struggle with curriculum alignment, teacher professional development and buy-in, online instructional resources and the equitable distribution of similar initiatives across all student demographic groups. The software components and streaming video resources are essential to the program. The availability of the curriculum aligned instructional software components and the ready availability of the streaming video resources is questionable in a cloud-based solution. Foremost among the difficulties will be the need to provide adequate access to the cloud by establishing a larger internet pipeline to each school. Should that be accomplished, there is still the issue of the availability of the software as a cloud offering – the wide range of software used in i21 is not necessarily available in the cloud.
- The plans for the Serra High School site have been approved by the required state agencies and by the Board of Education. The business plan supporting the initiative was well developed and vetted through an independent engineering review and by Gartner. School district planners have exercised due diligence, including soliciting community input and support for the project currently on the table.
- Gartner is not aware of any large urban school K-12 districts that have outsourced the data center to the cloud. High profile (non-cloud) outsourcing efforts such as seen in the Detroit Public Schools and the Cobb County (GA) Public Schools have not proven to be successful. Large school districts such as SDUSD are able to spread the overhead infrastructure cost over a greater number of users and are hard pressed to provide the same level of service at the same cost by outsourcing. Gartner school district clients of similar size and complexity to SDUSD have expressed a desire to become a provider, not a consumer, of infrastructure services to less capable school districts.
- SDUSD must develop and implement a Disaster Recovery/Business Continuity plan. With the educational and business needs of the school district dependent upon a single-threaded aging and soon-to-be inadequate data center hub the district is living on the edge of an educational, business and political disaster. For example, if SDUSD is unable to complete a payroll or adequately respond to mandated accountability or student audit requirements, whatever goodwill or positive image that the school administration may have will be largely dissipated through press reports of incompetence and poor planning.
- The Normal Street location of the current data center is slated for sale to non-SDUSD concerns within the next three years, necessitating a change in providing data and technology services to the school district. The opportunity now exists to build and implement a replacement at the Serra High School site and use a cloud-based solution for the needed DR/BC solution for critical business and administrative suites.

- The business case for a SDUSD owned and operated site outweighs the case for an outsourced solution. The current proposal of a \$15.8M SDUSD for the facility and equipment as opposed to approximately \$6M per year outsourcing cost. Under those conditions, the SDUSD facility pays for itself within three years. Since the bargaining unit that staffs the data center is protected from layoffs or reduction in force resulting from contracting out or subcontracting of work, they will remain on the job whether the hardware and software is staged at a SDUSD facility or hosted somewhere in the cloud, the labor costs are a wash. Furthermore, the owned facility will come out of the Capital Budget while the outsourced solution will be paid for year over year by the district's Operating Budget. That will inflate the non-discretionary portion of the Operating Budget, limiting flexibility to fund other initiatives.

Gartner Recommendations:

Overall, Gartner believes that the best interests of SDUSD will be served by building and operating a data center at the Serra High School site. Our view is: (1) the available cloud solutions do not offer the menus of software options required by the school district nor do they offer the reliability required for an instructional program dependent upon always available connectivity; (2) SDUSD and other school districts of similar size and complexity of have the capacity to own and operate their own data center, and the costs spread over the projected life of an owned data center are lower than the outsourced costs; (3) committing the school district to an ongoing operating expense of at least \$6M limits the capacity of SDUSD to fund discretionary initiatives going forward; (4) the projected outsourcing costs do not include the engineering and data transport costs associated with provisioning a direct high bandwidth pipeline to each school campus and office location; (5) outsourcing contracts typically allow small (often start up) organizations to avoid investing in labor and hardware, offsetting the additional cost of the outsourcing contract – in this case there is not labor savings; (6) SDUSD should plan and implement a DR/BC plan as soon as practical; (7) a SDUSD owned facility will enable schools and office campuses to access those cloud-based software solutions and services as appropriate to instructional and business needs and (8) the potential of disrupting i21 - a leading edge instructional program that is dependent upon providing students safe and secure access at home as well as at school .

We offer three options beyond proceeding with the current Serra High School site.

- Option 1. Proceed with the current plan modified by deferring the acquisition and deployment of the full complement of hardware and related equipment. Use the difference in cost (estimate to be up to \$3M) to implement a cloud-based DR/BC solution for the district. Put the DR/BC solution in place while the Normal Street data center is in operation. Even if the original Serra site plan is adopted, phasing in the servers would be a recommended practice.
- Option 2. Modify the current plan by eliminating the student classrooms. This option is open if the approval process for changing the building plans do not seriously interrupt the schedule or unacceptably increase the costs of relocating the data center well in advance of the anticipated closing of the Normal Street campus. Cost savings (if any) should be applied to a cloud-based DR/BC plan. The classroom plan had merits and was endorsed by the Serra High School community, so

removing the classroom from the facility may be a political liability as well as the loss of the opportunity to enhance the education opportunities at the campus.

- **Option 3.** Modify the current plan to provide minimum data center footprint and anticipate a data center build out when the Normal Street central office operations are relocated. Use the reduced footprint data center as the DR/BC site. This option still requires the ramping up the minimal data center prior to the close of the Normal Street operation. If this option is taken, SDUSD would be prudent to have built and operated a data center in another school district facility prior to dismantling the current the current data center.

Bottom Line:

The outsourced data center solution offers more risk and greater expense than an owned facility. There are no labor savings and the year over year expense will have a negative impact on the district's Operating Budget. Moving the entire data operation to the cloud will require reengineering the access of each SDUSD facility to the Internet and paying for the increased bandwidth – a cost that is not included in the approximately \$6M per year cloud-based data center cost.

San Diego Unified School District Enterprise Resource Planning Initiatives

PeopleSoft Upgrade

Gartner Observations

- Oracle will end support of the current version of PeopleSoft in December 2012.
- As the current PeopleSoft version approaches the end of Oracle support, the question of upgrading the PeopleSoft solution to a version that will be supported by Oracle through 2020 or going to the market for a replacement Finance/Human Resources (HR/FN) solution has been raised.
- SDUSD has provided training for central office IT personnel, staff development for the user community and configured the software to meet the business requirements of the school district.

Gartner Comments:

- PeopleSoft remains a top tier FN/HR solution for school districts of size and complexity comparable to SDUSD.
- The PeopleSoft HR/FN solution is fully capable of meeting the current and anticipated business needs of SDUSD. The addition of absence management and contract pay modules in the upgraded version is a potential cost recovery opportunity for SDUSD.
- PeopleSoft has been deployed in SDUSD since 2003 and the change process for selecting, deploying and retraining personnel on a new FN/HR solution will impact the school district's capacity to pursue the critical SIS replacement.
- The long standing business relationship with Oracle/PeopleSoft provides the IT Department with keen insight into how to manage the vendor relationship.
- The cost estimates for migrating to the next version of PeopleSoft appear to be well founded. Gartner is available to assist SDUSD in the contract process for the software migration.

Gartner Recommendation:

- Replacing the solution with available options will not necessarily provide additional features and functions, so SDUSD should not consider opting to replace PeopleSoft with a similar product as a clear opportunity to improve the FN/HR technology-based solution.
- Avoid replacing two major administrative/managerial suites in the same time period. The SIS is at a critical stage and should take precedence.
- Given the investment in training, the staff experience and the configuration of the solution to interface with other IT-based solutions, proceeding with the PeopleSoft upgrade offers is a prudent choice for SDUSD.
- SDUSD should take advantage of the current service agreement and Gartner will review the contract for cost and terms and seek the optimal pricing arrangement.

Oracle Business Intelligence Tools**Gartner Observations:**

- Business intelligence (BI) tools are an integral part of the education ecosystem and in line with the realization that internal and external education stakeholders require pertinent information to make professional and personal decisions. BI tools are used to turn the data collected through solutions such as SIS and HR/FN into actionable information.
- SDUSD leveraged the Oracle relationship to develop role-based dashboards that provide SDUSD business units within appropriate information. The development process also resulted in business knowledge transfer from Oracle experts to SDUSD personnel.
- The SDUSD dashboards appear to provide essential data at the high level while providing individual users the opportunity to drill down into greater levels of data granularity.

Gartner Comments:

- The BI dashboards that Gartner observed were clean and easily navigated. The design provides access to pertinent information without flooding the screen with data, and invites further inquiry by the user based on top level reports.
- The BI tools that were developed with Oracle's assistance will provide instructional, administrative and managerial staff with data from which decisions can be made on the basis of information rather than intuition or legacy thinking and process.
- This issue goes hand-and-hand with the FN/HR decision on PeopleSoft. SDUSD has successfully leveraged the potential of the relationship to obtain the value-add contribution of Oracle assistance with the development of the BI solution.

Gartner Recommendation:

The BI solution is at the very least on a par with similar efforts among leading school districts known to Gartner. Associated with the PeopleSoft upgrade, the BI tool initiative should be completed and followed with professional development for users so that SDUSD has appropriate information at the fingertips of decision-makers.

Student Information System Replacement

Gartner Observations:

Zangle, the current student information system (SIS) is beyond end of life. In The Gartner MarketScope for K-12 Student Information Systems in the United States, Zangle was not included among the solutions offered for review, due to the comparatively low market penetration and the momentum displayed among other providers in the space. San Diego Unified has begun the process of replacing the solution by issuing a request for information (RFI) from SIS providers. The responses gathered have, for the most part, come from vendors that Gartner recognizes as having both the ability to execute and the vision necessary to be considered for adoption by SDUSD.

Gartner Comments:

Replacing Zangle is overdue based on the available features and functions, as well as the tenuous - if not unlikely - prospect for further development of the solution and the unresolved questions regarding ownership and intellectual property rights of the product. The investigation begun by SDUSD to identify viable replacements through the RFI process, is a model Gartner considers a best practice. The next step is to develop a request for proposal (RFP), and Gartner is prepared to provide SDUSD with sample RFPs and representative scoring models, both of which are included in the existing service agreement with the school district. Note that Gartner has been engaged by the Bill and Melinda Gates Foundation to provide an independent, third party market report on SIS.

Gartner Recommendations:

Gartner recommends proceeding with the SIS replacement as soon as practical. Gartner - as part of the existing service agreement - will upon request review subsequent RFP and contract documents, and advise SDUSD through the selection and deployment of the SIS replacement.

SDUSD Technology Organization and Budget

Gartner Observations:

- SDUSD has a reported student population of 133K and with a total budget in excess of \$1.37B.
- The total IT budget for instructional and non-instructional purposes is \$21.4M. The budget is \$2.3M less than the \$23.5 M FY2010 budget and \$9.5 M less than FY2009.
- The IT organization supports all significant instructional and business units within SDUSD, including: (1) supporting the technology-based i21 instructional program that expands instructional opportunities for all SDUSD students and leverages the skills of the instructional staff to understand and meet the individual learning needs; (2) replacing the student information system; (3) upgrading or replacing the FN/HR software solution; (4) implementing business intelligence tools that provide SDUSD internal and external stakeholders with access to information that informs instructional, administrative and managerial practice.

- The IT organization is comprised of 113 FTEs. Overall, SDUSD has 13,857 FTEs.
- The IT organization is distributed along functional lines and has strong leadership at the CIO level and at the director level for educational technology. The director position for non-instructional technology (IT infrastructure, operations, support, etc.) was eliminated in budget reductions last year.
- The IT organization has realized a reduction in force over the past several budget cycles. SDUSD is obligated to retain non-certificated employees within any job title on a seniority basis.

Gartner Comments:

- Gartner believes the IT organization budget is low compared to a median IT budget of 2.6% of revenue for K-12 organizations, and certainly when compared to a budget of 4.5% of revenue for education organizations overall. Using those figures, the budget shortfall ranges between \$15.7M and \$40.4M.
- SDUSD IT staffing is not at a level commensurate to the degree of responsibilities and best practice planning and implementation. Education agencies that are satisfied with limited IT services and maintain – but not changing – outdated solutions typically have more IT staff than SDUSD.
- The IT organization appears to be understaffed based on two measures (1) a median IT staffing ratio of 18.3 FTEs per \$100M of total budget for K-12 organizations and (2) an IT staffing of 4.8% of total organization FTEs for all education organizations (K-12 and Post-secondary). Those guidelines would dictate a staff of between 251 to 665 FTEs for the SDUSD IT organization. The median ratio of 18.3 FTEs per \$100M of budget and the 4.8% of total organization FTEs are, in the case of SDUSD, somewhat inflated. The scale is off because small organizations have the same baseline staffing needs as larger entities, effectively representing a larger ratio of budget or percentage of all FTEs.
- The first in – last out policy for employees with the same job title is not uncommon in education. In difficult budget times the practice universally results in the loss of critical IT talent when staff reductions or bumping occur in tight budget years.
- Total cost of ownership studies have shown that underinvestment in technology and related IT staff results in (1) additional (and typically unrecognized) IT direct and indirect spending by other business units. Underinvestment also threatens the sustainability of instructional and non-instructional IT services – in SDUSD the greatest risks are to the i21 instructional program and the migration to new or improved administrative and business software solutions.

Gartner Recommendations:

- SDUSD should take a realistic view of the IT budget given the value provided by the i21 program and the called for replacement and improvements for the administrative and business software solutions. An IT budget increase of \$15M to \$40M, while it would place SDUSD on a par with IT funding typically provided by education organizations, may not be feasible. The school district should consider an increase in the IT budget over each of the next five or more budget cycles as

a prudent measure. Short term, consider a 2% of revenue budget for FY2013 – funding IT at \$27.4M. At the very least, the school district should stop the bleeding.

- Gartner believes that the IT organization is understaffed but stops short of recommending an increase to 250 FTEs. Overall, SDUSD should consider an IT organization that has three director level positions reporting to the CIO – one for administrative and business applications, one for infrastructure and one for educational technology. Over the next five or more budget cycles, fill out each division with FTEs as needed to sustain current programs and initiate new or improved solutions in each area. Let the business needs dictate the number of staff required, and consider employing contractors for short term projects until the IT staffing level is adequate to transfer the required business knowledge to internal staff.
- At a minimum, do not continue to reduce the number of IT FTEs. In the short term, identify one or more employees with significant technical and business skills and consider a new job description with elevated lead responsibilities.