CoSN’s K-12 IT Leadership Survey 2013

Executive Summary

The Consortium for School Networking (CoSN) launched its first national IT Leadership Survey in the fall of 2012 in partnership with MCH Strategic Data, a leading compiler of business-to-institution (B2I) databases. The survey was distributed to over 2,500 School District IT Leaders with 250 responses received from across the country.

The purpose of the survey is to understand how education leaders are leveraging technology to achieve engaging learning environments, how this has changed over time, and how the choices we make today will shape tomorrow. CoSN intends to conduct the survey annually to capture technology trends, challenges, and priorities. Survey results will continue to inform the decisions CoSN makes to serve its members.

As of a decade ago, IT specialists created and managed a school district’s technology infrastructure ensuring that computers worked well, troubleshooting issues and stabilizing the technology environment. To fulfill their responsibilities and roles, IT Specialists of the past did not have to understand the education process, classroom technology or strategic planning. These skills were not major requirements of the job. However, this scenario is no longer valid for the K-12 education technology professional given the critical role that technology plays in all aspects of the educational environment. In the classrooms of today, technology is an integral part of how students learn and are assessed, how teachers teach and are evaluated, how parents are kept informed, and how an individual school is integrated into district and state enterprises.

The IT Leadership Survey presents a picture of school district IT Leaders today, including information on district size, salaries and budgets. The survey identifies key challenges faced by school district IT Leaders and highlights how these challenges change over time and within the education technology environment.

10 Key Findings from the Survey

- Crushing budget realities face those in charge of technology in school systems with 80% of school district IT Leaders predicting flat or declining IT budgets for the upcoming year. Budgetary constraints combined with the rapid change in staffing/knowledge structure of IT Leaders force CTOs to become masters at the ‘new normal’ of doing more with less.

- The Top 3 Priorities/Initiatives for 2012-2013 are:
  1) Bring Your Own Device (BYOD)
  2) Assessment Readiness
  3) Broadband Access
All three topics reflect the growing demand for enhancing the education and learning environment, particularly focusing on the federal initiative for online assessments and the need for schools and districts to prepare for these assessments by 2014. Despite the multifaceted nature of the CTO profession, IT Leaders did not identify any of the traditional business and administrative initiatives like payroll, as their most pressing priorities, reinforcing the focus by leaders on technology as a learning tool, a change from years past.

Three challenges facing IT Leadership when planning and implementing technology enabled learning environments:

1) Budget and resources
2) Changing the culture of teaching to student-centered
3) Breaking down silos within the district

The costly combination of the top priorities enumerated above coupled with static budgets and little or no federal funding for technology, created the biggest challenge identified by respondents: budget restraints and lack of resources, cited by 75.9% of respondents. The other common challenges, the changing culture in education to a student-focused BYOD environment (65.7% cited) and breaking down silos in the district (39.8% cited) illustrate that IT Leadership is clearly focused on the education and learning environment in a district despite the budgetary and fiduciary challenges.

Chief Technology Officer (CTO) or Chief Information Officer (CIO) are common titles for technology leaders, used in 42.9% of school districts. This marks a clear change from 10 years ago when CoSN first began using the term in its landmark work, “Framework of Essential Skills of the K-12 CTO” (www.cosn.org/Certification/FrameworkofEssentialSkills).

58% of school district IT Leaders report directly to the Superintendent, a best practice identified by CoSN in its “Empowering the 21st Century Superintendent” (www.cosn.org/Initiatives/EmpoweringSuperintendent) initiative. This direct report interaction with the district leadership team is a key factor in helping education technology initiatives to be cost effective and result in successful implementations.

Stable School District IT Leadership School Superintendents spend an average of 3.6 years in a district before changing jobs. However, technology leadership is substantially more stable: over 60% of CTOs report being in their positions for 6 or more years, and more than 28% of IT Leaders have been in their current position for more than 10 years. Stability and the chance to effectively plan and implement long-term programs are not only best practices but also result in significant cost savings.
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- **Administrative and Instructional Technology Alignment** Respondents report an overwhelming 80% of school district IT Leaders are in charge of both administrative and instructional technology in their district with both central and school based staff reporting to them. This practice leverages human capital with cost considerations, application alignment, and improved communications.

- **K-12 CTOs salaries lag behind business sector** 65% of the CTOs report a salary of less than $100,000 while the average reported salary in the business sector for a CTO is over $190,000. This raises the question, why do experienced K-12 CTOs remain in the education field?

- **CoSN is recognized as the Professional Home for School District IT Leaders** The Consortium for School Networking (CoSN) has been advancing K-12 Education Technology Leadership for over 20 years. CoSN serves nationally as the professional organization for CIO/CTOs, and more than 80% of survey respondents were at least somewhat familiar with CoSN.

- **CoSN’s Certified Education Technology Leadership (CETL) Program** is recognized by more than 50% of respondents. This is a strong showing for a program only a year old. Though there is little or no budget for CTO professional development, more than 70% of respondents indicated that the district would provide some type of incentive for those interested in pursuing a CETL program, including paid time off for classes and partial or full CETL tuition paid.

To find out more about CoSN and IT Leadership or to obtain a full copy of the report, go to [www.cosn.org/ITSurvey](http://www.cosn.org/ITSurvey).
Introduction
Technology plays an increasingly integral role in all aspects of school life. It engages students, connects teachers from across a district, streamlines administrative tasks such as payroll, conducts assessment testing, and efficiently communicates with parents and communities. But who oversees the all-encompassing technology initiatives in a school district?

Less than 10 years ago, a school district’s technology infrastructure was created and managed by IT specialists. These specialists were not required to possess knowledge of the education process or environment; rather, they were expected to make sure computers worked and to troubleshoot issues when they arose. This scenario is no longer applicable to current K-12 education technology professionals. Technology now plays a critical role in all aspects of the educational environment, including how students learn and are assessed, how teachers teach and are evaluated, how parents are kept informed, and how individual schools become integrated into district and state enterprises. Education IT Leaders are unique among IT professionals. They must not only know all the current and emerging technologies, but also must have a deep understanding of how this technology can be used to transform education.

Education-based technology has become more complex to meet current needs. Now school districts must rely on their Chief Technology Officers (CTOs) and IT staff to engage in the academic process and ensure appropriate technology is leveraged in every aspect of the district’s system. These leaders are expected to:

- Understand the complexity of the teaching/learning process and the importance of the educational environment.
- Work closely with the financial team to understand total cost of ownership and wise purchasing practices for the changing technological landscape.
- Know how technology enhances the student’s educational experience.
- Play an active role in the school district’s long-term strategic and operational goals.

The 2012 IT Leadership Survey paints a picture of school district technology leaders today using information ranging from how districts compare in size to individual leaders’ salaries and their districts’ IT budgets. The survey identifies key challenges faced by school district IT Leaders and discusses how these challenges change over time and within the environment.

Demographics
Over 95% of the respondents in the 2012 survey were from public schools and education service agencies representing public schools. While private schools, charters, and religious schools were invited to participate, the responses received this first year are not large enough to produce meaningful data.
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CoSN partners with School Dude on the K12 IT Staffing Survey and data received by School Dude shows similar results from public and private schools. More information can be found at School Dude (www.schooldude.com/itreport).

Leaders from school districts of all sizes participated in the survey: 42% of the districts responding had student enrollment of less than 2,500, while 17% had student enrollment of more than 15,000. The School Dude survey has similar results, with 42% of respondents having fewer than 3000 students enrolled in schools/district.

Free and Reduced Lunch (FRL) Rate is often used as an indicator of at-risk socio-economic conditions in a school or district. The survey sample had representation from all levels of socio economic and at-risk populations. The breakdown of these levels is as follows:

- 10% respondents have more than 80% students qualifying for FRL
- 26% respondents have between 60%-80% students qualifying for FRL
- 29% respondents have between 40%-60% students qualifying for FRL
- 35% respondents have less than 40% students qualifying for FRL

Your institution is primarily located in which of these areas:
Respondents from Rural (41.4% of total) Urban (20.3%) and Suburban (38.3%) districts were all well represented in the survey sample. Schools from all regions of the country were represented, with 60% of the responses coming from east of the Mississippi and 40% from the west.

**Budget and Resources**

Survey respondents reported budgets ranging from less than $100,000 to more than $1,000,000 across all regions of the country and all geographic types. One important trend was reported consistently across all demographic categories: budgets for IT in K-12 are being stretched beyond the limit. In four out of five of the reporting districts, IT budget projections for the upcoming year will be flat or declining. Districts are referring to this as the ‘new normal’ - doing more with less. Resources such as CoSN’s Smart IT and Designing Education Networks initiatives are helping to address these financial challenges.

The School Dude survey reflects these same budget findings. Likewise, IT funding was the number one issue to resolve for strategic success and 70% of respondents indicated their budget is less than required to support existing assets and invest in new ones.

**TOP Priorities**

The CoSN IT Leadership Survey identified the Top Three Priorities/Initiatives for the year as:

- Bring Your Own Device (BYOD)
- Assessment Readiness
- Broadband Access

These priorities reflect the growing focus on the Common Core State Standard initiative for online assessments and the need for schools and districts to prepare for these assessments. The recent Assessment Readiness Survey by Partnership for Assessment of Readiness for College and Careers
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(PARCC) (www.parcconline.org) found that 80% of schools will not meet the requirements for online assessments.

All three of these topics illustrate the growing demand for enhancement of the education and learning environment. Broadband access in particular has been highlighted by State Educational Technology Directors Association (SETDA) “Broadband Imperative: Recommendations to Address K-12 Educational Infrastructure Needs” and the National Broadband Plan (www.broadband.gov/plan) and is a key building block for the other two priorities listed above. IT Leaders did not identify any of the traditional business and administrative initiatives (like payroll or HR) among their most pressing challenges, reflecting the move in IT to a focus on the learning environment.

Key Challenges

The survey highlighted three challenges facing IT Leadership when planning and implementing technology enabled learning environments:

- Budget constraints and lack of resources
- Changing the culture of teaching to student-centered
- Breaking down silos within the district

The combination of the top three priorities coupled with static budgets and little or no federal funding for technology created the biggest challenge identified by respondents: budget restraints and lack of resources, which 75.9% of respondents cited. The other two top challenges, the changing culture in education to a student-focused BYOD environment (65.7% cited) and breaking down silos in the district (39.8% cited) show that IT Leadership is clearly focused on the education and learning environment in a district, rather than the business environment, despite their budgetary challenges.
Online Communities of Practice (COP)

IT Leadership identified LinkedIn (56.2%), Twitter (34.6%), Google (30.1%), and Facebook (26.8%) as the top online communities utilized for professional development by school district IT Leaders. Interestingly, IT Leaders did not consider education-specific sites to be as valuable as the more general sites.

More than 40% of the districts did not use online communities of practice for professional staff at all. An additional 37% indicated that they were in the exploratory stage, but only 5% indicated an existing district or state-wide professional online community of practice for staff. This low adoption rate of COP would explain why IT Leaders found LinkedIn, Twitter, Google and Facebook to be more useful.
While schools and districts are not taking advantage of online communities of practice, 62% of individual IT Leaders participating in the survey found at least some value in joining online communities of practice.

Participation in online communities of practice is one outlet IT Leaders have for furthering their own professional development. In a small district, there will often be only a staff of 1-2, and finding technical and specific professional development to meet their needs is difficult. Compounding this is the difficulty to stay current and technically proficient. The data indicates that almost 50% of the IT Leaders surveyed spend less than $1,000 per year on professional development for themselves. In a field that is constantly changing, lack of professional development opportunities and limited or no budget allocated to IT Leaders for building professional capacity could lead to costly mistakes and decisions that do not reflect best practice and advances in the field. CoSN’s initiatives (www.cosn.org) such as Smart IT, Designing Education Networks, Leadership for Mobile Learning and others are designed with the school district IT Leaders in mind.

**Staffing**

Almost half of the IT Leaders surveyed indicated that a small staff of 1-7 reported to them (47.8%); 14% represented a department of only one. Large departments of more than 21 employees accounted for only 13% of those surveyed.
The School Dude survey supports this finding with 70% indicating the size of IT staffs remained the same compared to last year. Additionally, most respondents were from small to medium sized districts and thus would have smaller staff than larger districts. Furthermore, the School Dude survey indicates respondents do not have enough staff to implement new technology and integrate technology into the classroom (similar to the tech readiness and BYOD initiatives).

More than 75% of those surveyed indicated central IT staff comprised fewer than 10 employees. A slightly higher percentage (84%) indicated fewer than 10 school based employees.
More than 55% of the IT Leaders in the survey indicated school based technology personnel report to the IT Leader, which illustrates the CTO involvement in the learning environment. Only 21% of those surveyed reported that school based technology personnel report to a school leader, and the remaining 23% indicated that the question was not applicable. In terms of the changing responsibilities and roles of a CTO outlined earlier, management of staff and human resources practices is yet another skillset that school district IT Leaders have had to master over last decade.

**Role of the Chief Technology Officer (CTO)**

Chief Technology Officer (CTO) or Chief Information Officer (CIO) are common titles for technology leaders, used in 42.9% of the districts. This marks a clear change from 10 years ago, when CoSN first began using the term in its landmark “Framework of Essential Skills School of the K-12 CTO” (www.cosn.org/Certification/FrameworkofEssentialSkill). While the acceptance of the cabinet-level concept and understanding of the value in CTO/CIO has grown significantly, 37.8% of the respondents still reported that the person overseeing all of the technology functionality in a district had the title of Technology Coordinator.
The survey finds that 58% of School district IT Leaders in school districts report directly to the Superintendent, a best practice identified by CoSN. This direct interaction with the district leadership team is a key factor in developing cost-effective solutions and successfully implementing programs. As technology reliance within a district increases, so does the need to strategically plan and budget for not only initial costs of a project but also the long-term and on-going expenses which are needed to sustain a new technology initiative.

Much discussion has occurred around the reporting structure of central and school-based personnel. An overwhelming 80% of School district IT Leaders who responded are in charge of both administrative and instructional technology within a district and have both school based and central IT staff reporting to them. This practice leverages human capital with cost considerations, application alignment, and improved communications. Coordination and alignment of human capital is increasingly important considering budgetary trends: 80% of IT Leaders predict flat or declining IT Budgets for the upcoming
year. These budgetary constraints are forcing CTOs to become masters at the ‘new normal’ of doing more with less.

What's your professional role?

IT Leaders estimated that technology management is their most time-consuming activity, filling 26.6% of a typical day. Strategic planning, project management and budgeting take 35.7% of the time, with duties such as staffing, teambuilding, working with stakeholders, training and professional development rounding out the typical duties of a CTO. The commitment to technology strategy is encouraging. IT Leaders need to have a voice at the school district cabinet level if districts want to leverage technology’s potential to personalize learning. This is similar to the evolution of school finance. Just a few decades ago, every school district had bookkeepers and accountants, but few had chief financial officers. Eventually, superintendents and school boards realized finance is a strategic initiative and personnel with those financial leadership skills are critical. We are now at a similar critical juncture with education technology, with CTOs primed to take on increasing responsibilities.

Background of the Chief Technology Officer (CTO)

IT Leaders most often come from a Technology/Technical background (45.2%) or an educational background (43.5%); a small number come from the Business/Management (6.8%) ranks.
More than 71% of the IT Leaders participating in the survey have a post graduate education, while 5.6% of those responding to the survey have a high school diploma or equivalent.

More than 72% of the IT Leaders surveyed have 10+ years of experience in K-12 education technology, while only 10% report having 1-5 years in the field.

Reports frequently indicate that Superintendents spend an average 3.6 years in a district before changing jobs. A recent report from the Council of the Great City Schools (CGCS), which specifically states that the average tenure of urban superintendents increased from 2.3 years in 1999 to 3.6 years in 2010, an increase of 56 percent. However, technology leadership is substantially more stable: over 60% of CTOs report being in their positions for 6 or more years and more than 28% of IT Leaders have been in their current position for more than 10 years. Experience in education technology is highly valued. In fact, only 10% of the respondents have fewer than 5 years of experience in the industry, while more than 72% having more than 10 years of experience. Stability and the chance to effectively plan and implement programs are not only best practices, but result in significant cost savings to a district.
Chief Technology Officer Salaries

30% of IT Leaders surveyed earn a salary of less than $70,000 a year, while 35% report a salary between $70,000 and $99,999 and 32% earn more than $100,000. Comparison of the CTOs’ backgrounds indicates the three biggest factors in determining higher compensation are: geographic region (rural, urban or suburban), educational background, and size of district. Large suburban districts hire IT Leaders with more post graduate education and compensate them accordingly. Salary levels for CTOs in business and industry are over $190,000 (http://www1.salary.com/Chief-Technology-Officer-salary), significantly higher than those in the K-12 arena. 65% of the CTOs report a salary of less than $100,000 while the average reported salary in the business sector for a CTO is over $190,000. This raises the question, why do experienced and highly educated K-12 CTOs remain in the education field?
CoSN and Certified Education Technology Leader

The Consortium for School Networking has been advancing K-12 Education Technology Leadership for over 20 years. CoSN serves nationally as the premier professional organization for CIOs/CTOs, and more than 80% of survey respondents nationwide were at least somewhat familiar with CoSN.

Certified Education Technology Leadership Program, which was designed around CoSN’s “Framework of Essential Skills of K-12 CTOs” and launched a year ago, was recognized by more than 50% of respondents, a strong showing for a program only a year old.

IT Leaders responding to the survey indicated there is little or no budget for their own professional development; however, these CTOs understand and value skills and expertise, as evidenced by the more than 70% of respondents who indicated that the district would provide some type of incentive for those interested in pursuing a CETL, CoSN’s nationally recognized CTO Certification (www.cosn.org/Certification). Potential incentives included paid time off for classes and partial or full tuition paid while financial support such as salary increases was not.
In summary, the first annual K-12 IT Leadership Survey gave us insight into many aspects of a successful CTO, the challenges they face today as well as awareness of the ever changing environment in which they operate. Over the next few years as CoSN repeats this survey, tracking the trends and changes will give us an even better picture of K-12 IT Leadership. Be sure to check back next year for the release of the second survey results at www.cosn.org/ITSurvey.