

2008 Survey: The Unique Challenges Facing the IT Professional in K-12 Education

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Executive Summary

The Unique Challenges Facing the IT Professional in K-12 Education

As an information technology professional in K-12 education, you have quite a challenge...possibly one of the greatest challenges since the first computers were introduced to your schools. You are forced to manage this growing phenomenon of too much IT stuff without enough staff. Budget constraints, changing technology and board requirements impact the abilities of school IT staff.

The evidence is sobering:

- Nearly \$2.25 billion is spent annually on e-Rate, and this multi-year investment has resulted in exponential growth in the IT infrastructure asset base in schools. The program does not provide any additional funding to increase personnel to help with these new infrastructure and asset demands.
- The advancement of 1:1 computing as a “gold standard” in public education is another noble initiative, and this will continue to dramatically expand this asset base that the IT staff must manage. Institutions that pursue a 1:1 computing initiative, without addressing the need for additional personnel and funding to manage and maintain the new assets, could see the IT staffing crisis exacerbated by four times.
- The condition of the technology infrastructure is crucial to student-based outcome and performance, affects teacher retention and impacts the requirements set forth in NCLB. More so than ever, the technology infrastructure is inextricably coupled to the learning environment and has become mission critical.

Technology has helped fuel this crisis, but a multifaceted approach can help stem it. Many administrators who have faced this dilemma have successfully executed a four-step plan, which includes:

1. Improving the image and professionalism of IT operations

It is important to build a business process for your IT operations that improves communication, incorporates good process and feedback mechanisms, and clearly defines service level expectations.

2. Establishing a respected methodology

Your methodologies for IT capital renewal, software license compliance, help desk prioritization and other aspects to your operation must be communicated and be based on sound methodologies.

3. Educating the decision maker

The administration may not be engaged in your daily process. It is your responsibility to use data driven decision making to build a clear understanding of demand, capabilities and shortfalls. A proven business process coupled with reliable data will showcase: (1) staffing levels; (2) areas of highest demand; (3) recurring problems; (4) staff productivity relative to demand; (5) how the district compares to service standards outside education; (6) how your district benchmarks against peer districts.

4. Asking for additional resources

With a professional image, business process and data, the time is right to ask for additional resources.

We hope this research report is the first tool you can use to improve your process and educate decision-makers.

Sincerely,

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Key Findings

K-12 Information Technology departments continue to face many challenges. Key findings of the survey include:

K-12 Staff Levels

- Mean number of computers per technician is 612
- Mean ratio of students to technicians is 1,934:1
- Mean ratio of students to all technical support staff is 1,021:1
- Mean ratio of students per total IT staff is 491:1
- Close to half do not have any IT staff with the responsibilities of help desk managers, LAN or WAN engineers.
- When asked about additional FTE needs, the most common areas were for instructional technology staff, technicians and web specialists.

Staffing Issues

- 72% do not have enough staff to integrate technology into classroom instruction. This is an increase from 2007 when 65% reported that they do not have enough staff for this critical function.
- 71% do not have enough staff to implement new technologies. 69% feel their staffing level does not allow them to effectively support the needs of the district/school.
- 55% reported that 50-100% of their department's workload is spent reacting to technical problems.
- Fewer schools/districts are outsourcing IT staff this year compared to 2007. However, it is still a common practice with half of the participants reporting that some of its IT staff is outsourced.

Computer Assets

- The majority of respondents indicated that compared to last year, the number of computers increased but their IT staffing level stayed the same.
- Indicating a possible shift in the historical upward trend of computer purchases, one quarter of the respondents (26%) reported the number of computers in their school system stayed the same compared to last year.

Software and Systems

- 51% have a functioning software-based help desk.
- 41% have a functioning software-based IT asset management system.
- 38% have implemented and use a secure remote access system.
- Most (81%) have fully-implemented an enterprise level anti-virus solution.
- Just over half (55%) have fully implemented a web content management system.
- 37% have fully implemented a faculty intranet.
- Almost half (45%) have a fully-implemented student/teacher/parent portal.
- 47% use at least one Software as a Service (SaaS) application. Ease of deployment (cited by 72%) and the fact that these applications require less technical support (selected by 65%) remain the two most compelling reasons for adopting this type of application.
- Of those using a SaaS application, data security was seen as the biggest challenge (72%).

IT Funding

- Three quarters of the survey participants reported that the IT budget was less than they needed in order to meet the overall expectations of the school board/district leaders.
- 67% felt that their IT budget was less than they needed to support existing computer assets.
- 72% felt that not enough financial resources were allocated to invest in new computer assets to meet state requirements.
- As in 2007, IT funding was identified as the most important issue to resolve for strategic success in 2008.