

# EMC SOLUTIONS FOR ELEMENTARY AND SECONDARY EDUCATION SERVICE

## Leveraging information technology to enhance teacher effectiveness and improve student performance in times of change

### ESSENTIALS

EMC solutions can help you use information technology to transform the overall learning process, enhance student success, improve efficiency, and reduce costs.

- IT consolidation and virtualization are fast becoming top priorities for education IT directors and CIOs
- Cloud computing models are being considered an attractive way to reduce the IT burden and use a “pay as you go” model for IT operations
- To facilitate new models of teaching, schools must use technology that can handle all types of digital data and support mobile learning
- By moving to a consolidated information management infrastructure, staff and students can more easily access their information anytime, anywhere
- Unified, integrated systems support greater levels of collaboration and improve flexibility for using new tools and new models to deliver educational instruction

Education is at a critical juncture: the convergence of information technology and teaching methodologies will revolutionize the way students learn, and this will drive both students and teachers to higher levels of creativity, performance, and accountability. There is a major movement away from dated, digital communications structures toward more unified, integrated systems. These systems will be able to support greater levels of collaboration, and enhance flexibility for using new tools and new models throughout the educational journey.

At the same time, schools around the globe are under extreme budgetary pressure. Costs are rising as student enrollments continue to grow, yet economic strains have reduced local and regional tax bases, thereby impacting funding levels for some individual schools, schools districts, and educational programs. Families and educators have expectations for education. All stakeholders want better schools for the students, enhanced delivery of educational services, and more readily accessible academic resources. At the same time, educational programs need to control costs and optimize resources. Through these initiatives, schools and school districts hope to attain their biggest imperative: to improve student performance.

These are the key challenges that the education community at large must deal with. In certain areas, government funding sources (grants, stimulus packages, etc.) have offset some of the budgetary constraints, but in general, educators are still looking for ways to bridge the gap. EMC’s perspective is that information technology can play a key role in transforming the overall learning process and help enhance student performance.

For most educational institutions, technology can serve two primary purposes. First, as a means to drive efficiency within the overall organization, and second, as a tool to support the teaching/learning process. Today, the first imperative has become almost expected: to run a school or school district, you must use technology to improve operations. This includes determining what systems and tools should be used, and what technologies can be deployed to eliminate redundancies, automate processes, and leverage existing infrastructure investments. The second imperative focuses on using technology to drive innovation, improve teacher effectiveness, and enable learning beyond the walls of the institution. Initiatives around distance learning, virtual classrooms, and “education clouds” can facilitate how students and teachers interact with one another and collaborate more effectively—all of which will help achieve greater academic results.

EMC provides a wide range of solutions for elementary and secondary education which can help organizations and districts improve their operations, manage their data growth, enhance teacher effectiveness, facilitate better student performance, and construct innovative methods for delivering academic services in the 21st century.

## IMPROVE OPERATIONS

Improving operations should always be a key consideration for educational organizations at any level. New technologies are being considered in schools and education departments worldwide. In addition, educators are looking at opportunities for applying existing technologies in new ways, so they may continue to leverage existing IT investments.

IT consolidation and virtualization are fast becoming top priorities for education IT directors and CIOs. The opportunity to consolidate operations and run IT as a Service can offer huge benefits in terms of cost savings, as well as provide operational efficiency, flexibility, and scalability. Cloud computing models are also being considered as an attractive way to reduce the IT burden, and use a “pay as you go” model for IT operations.

Other options for improving operations include digitizing content and automating processes so that educators and administrators are no longer dealing with paper trails, but are now able to manage digital information—tracking it throughout its lifecycle, sharing it as needed, and retiring information once it is no longer necessary. Employees are able to access student records in seconds rather than hours, and forms processing becomes a simple task, rather than a week-long process. This reduces the burden on IT resources and increases administrative productivity. By easing the challenges of day-to-day operations, educators and administrators are able to direct their attention where it is needed most: with the students.

## MANAGE DATA GROWTH

Data growth is not a challenge that is specific to the education industry. Public and private organizations are dealing every day with an influx of digital content from any number of sources. As schools start using more digital technologies to deliver student and teacher services, it becomes increasingly challenging to manage this data growth.

While managing the growth of data is a challenge, it is also an opportunity to acquire and make positive use of more information about your students and your operations. By storing data and understanding it, schools and school systems can better track the progress of individual students and determine who may need special attention. This improves a school’s ability to further support the development of their students. Instead of being “lost in the shuffle,” students receive the education they deserve and improve the opportunity to reach their full potential.

There is more good news. Managing digital data is simpler—and more cost effective—than managing paper. EMC has helped thousands of customers move to a digital system of collecting, managing, and storing their information. EMC has helped schools around the globe improve their student services by moving to a consolidated information management infrastructure, enabling staff and students to more easily access their information anytime, anywhere.

## ENHANCE TEACHER EFFECTIVENESS

Student enrollment is increasing each year, while teacher hires remain flat or are in decline, therefore the importance of teacher quality is greater than ever.

To enhance teacher effectiveness, it is essential that educational institutions find ways to help their staff share ideas, collaborate, and become more effective at delivering student services. Studies have shown that instructors who are involved in professional development have a positive impact on the academic achievement of their students. In the past few years, much of this professional development has been geared toward technology enablement. In the U.S., technology products in 2011 and 2012 will average almost 50 percent of the non-teacher total spend (the other 50 percent represents instructional materials, textbooks, etc.). Teachers are being prepared for innovative teaching methods such as blended classrooms (a combination of in-person and virtual learning), the use of digital devices such as laptops and mobile devices, and the use of digital content and Web 2.0 tools.

To facilitate these new models of teaching, schools must use technology that can handle all types of digital data, and support mobile learning. EMC® solutions can easily capture, store, manage, and protect multiple types of data. This enables institutions to manage the data they receive from classrooms and student mobile devices, as well as remote information created when students access school networks from their homes or other offsite areas. Other technologies, such as EMC Avamar®, can be used to deduplicate information before it's transmitted to a central repository, thereby increasing storage capacity and driving greater cost savings.

## NEXT-GENERATION LEARNING METHODS

The convergence of IT and teaching methodologies has already begun to drive both students and teachers to higher levels of creativity, performance, and accountability. The implementation of new technologies such as virtual desktops, cloud computing, and Web 2.0 technologies have given students broader access to both their teachers and instructional materials.

These and other technologies are helping teachers become more effective in their roles—they can track student achievements online, identify students that may need additional support, and intervene to help those individuals meet their potential. Unified, integrated systems support greater levels of collaboration and improve flexibility for using new tools and new models to deliver educational instruction. School systems are using online, collaborative tools to help faculty interact with one another to share lesson plans, offer advice, and work together to improve student performance.

It is clear that the education industry is at a crossroads. While most elementary and secondary institutions are addressing substantial challenges such as aging equipment, tight budgets, and retention of top personnel, they are also presented with great opportunities in terms of technology leverage. These technologies have the potential to cut operational costs, increase efficiencies, and enhance collaboration and teacher effectiveness, as well as improve overall student achievement. The next generation of teaching and learning is here, and EMC is ready to take you to the next step.

### CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at [www.EMC.com](http://www.EMC.com).

EMC<sup>2</sup>, EMC, Avamar, the EMC logo, and where information lives are registered trademarks or trademarks of EMC Corporation in the United States and other countries. All other trademarks used herein are the property of their respective owners. © Copyright 2010 EMC Corporation. All rights reserved. Published in the USA. 12/10 Solutions Overview H8547