



MITEL

Education Solutions

Communications for Next-Gen Students

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How “Technology-ready” Are Your Students?

“Project-based learning, student teams working cooperatively, students connecting with passionate experts, and broader forms of assessment can dramatically improve student learning. New Digital multimedia and telecommunications can support these practices and engage our students.”

*George Lucas
The George Lucas Educational Foundation*

Students have evolved in the way they communicate. They are permanently connected, using multiple media and devices at the same time to create and nurture complex social networks. As students have become more sophisticated, so too have their expectations for personalization, integration and immediacy in the delivery and completion of school curriculums.

Profile of Next-Gen Students

Imagine a high school student in the year 2015. She has grown up in a world where learning is as accessible through technologies at home as it is in the classroom, and digital content is as real to her as paper, lab equipment, or textbooks. At school, she and her classmates engage in creative problem-solving activities by manipulating simulations in a virtual laboratory or by downloading and analyzing visualizations of real-time data from remote sensors. Away from the classroom, she continues to collaborate with her classmates in virtual environments that allow not only social interaction with each other but also rich connections with a wealth of supplementary content. Over the next decade, convergence technologies will develop a range of cost-effective applications and devices. These solutions on their own will not meet the requirements of educational institutions and their students. However, if coupled appropriately with education-centric applications and services, these converged solutions can offer the potential of both very significant cost reductions and dramatic process improvements.

The desired process improvements stem largely from opportunities to communicate more effectively across campus boundaries – to your administrative employees where they are working across the campus, to your partner organizations and to your faculty/students. Mitel believes that over time – just as with the mobile phone or search engine – consumer-targeted solutions will drive the “learning curve” in education. That being said, educational institutions have unique requirements not shared with the consumer context. Some of these requirements are driven by education-related applications and work/teaching patterns (faculty-student interaction; campus-wide, multi-location ring/pickup groups; call centers, etc.), while others (softphones, wireless VoIP, teleworkers, instant messaging) are “industrial strength” versions of their consumer counterparts (security, control, resiliency).

To realize these opportunities today, educational institutions face two key challenges. The first is the maturity of consumer technologies. The second is how best to meet the institution’s operating requirements with consumer components that address today’s needs and tomorrow’s requirements. The aim of unifying communications is to provide a consistent user experience whereby everyone can access information and communicate without interruption. The value to an educational institution in unifying communications is to improve productivity and efficiency, ultimately leading to better student outcomes and improved accountability.

The ABCs of SOA

Shrinking education budgets are making it increasingly difficult to manage and maintain legacy communications systems that can continue to meet the rapidly evolving demands and needs of today’s more techno-savvy students. Deployment of unified communications solutions based on service-oriented architectures (SOA) can help bridge the gap by allowing institutions to migrate to more advanced services using their existing infrastructure. Loosely coupled IT services are used to support business processes and users. These services are less dependent on dedicated, fixed platforms, and are better able to provide a flexible IT environment that can be adapted to meet your institution’s changing needs – and budget.

Using IP communications platforms and applications as part of a service-oriented architecture supports and enhances an organization’s ability to sustain growth, drive efficiency gains and enhance the learning experience. By implementing a long-term vision and migration strategy maximizing available funding and budget forecasts, educational institutions can avoid expensive, high risk “fork lift” upgrades and enjoy a range of benefits from more streamlined delivery of educational services and communications with parents, students, administrators and faculty, to improved staff productivity and efficiency, to increased campus security.

Need	Objective	Mitel Solutions
Save Money	<ul style="list-style-type: none"> • Improve business processes • Reduce operational costs • Generate new revenue • Migration strategy to protect communications investment 	Unified Communications Solutions
Stay Connected	<ul style="list-style-type: none"> • Enable anytime, anywhere access and communication • Leverage distributed workforce • Reduce mobility costs 	Mobility Solutions TeleCollaboration Solutions
Excel in Customer Service	<ul style="list-style-type: none"> • Improve service levels • Attract, retain students • Meet regulatory compliancy requirements 	Customer Interaction Solutions Managed Services Solutions
Be Green	<ul style="list-style-type: none"> • Reduce energy costs • Minimize carbon footprint 	



Portfolio Guide for Schools and Campuses

Mitel's portfolio of Education Solutions delivers advanced communications and a number of deployment options that enable real-time campus communications; provide value-add residence hall communications; enhance campus safety and security; and exceed the expectations of the mobile student. The foundation of these solutions starts with Mitel's open-standards, IP-based communications platforms and applications that can be tailored to meet the specific challenges and needs of educational institutions. With the emergence of IP communications and next generation networks, open standards like Session Initiation Protocol (SIP) are further improving compatibility between systems, networks and devices to provide users with more choices.



Mitel 3300 ICP (10-65,000 users)

The Mitel 3300 IP Communications Platform (ICP) has a unique architecture to support traditional and IP communications, fixed and wireless, allowing customers to benefit from IP communications while protecting their investment in traditional telephony. The 3300 ICP has a range of embedded features including voice mail, auto attendant, recorded announcements, call recording and MOH to provide a simple, easily managed solution.



Mitel SX-200 ICP (up to 600 users)

The Mitel SX-200® IP Communications Platform is an expandable, feature-rich communications platform with the flexibility to add features and functionality as your requirements change.



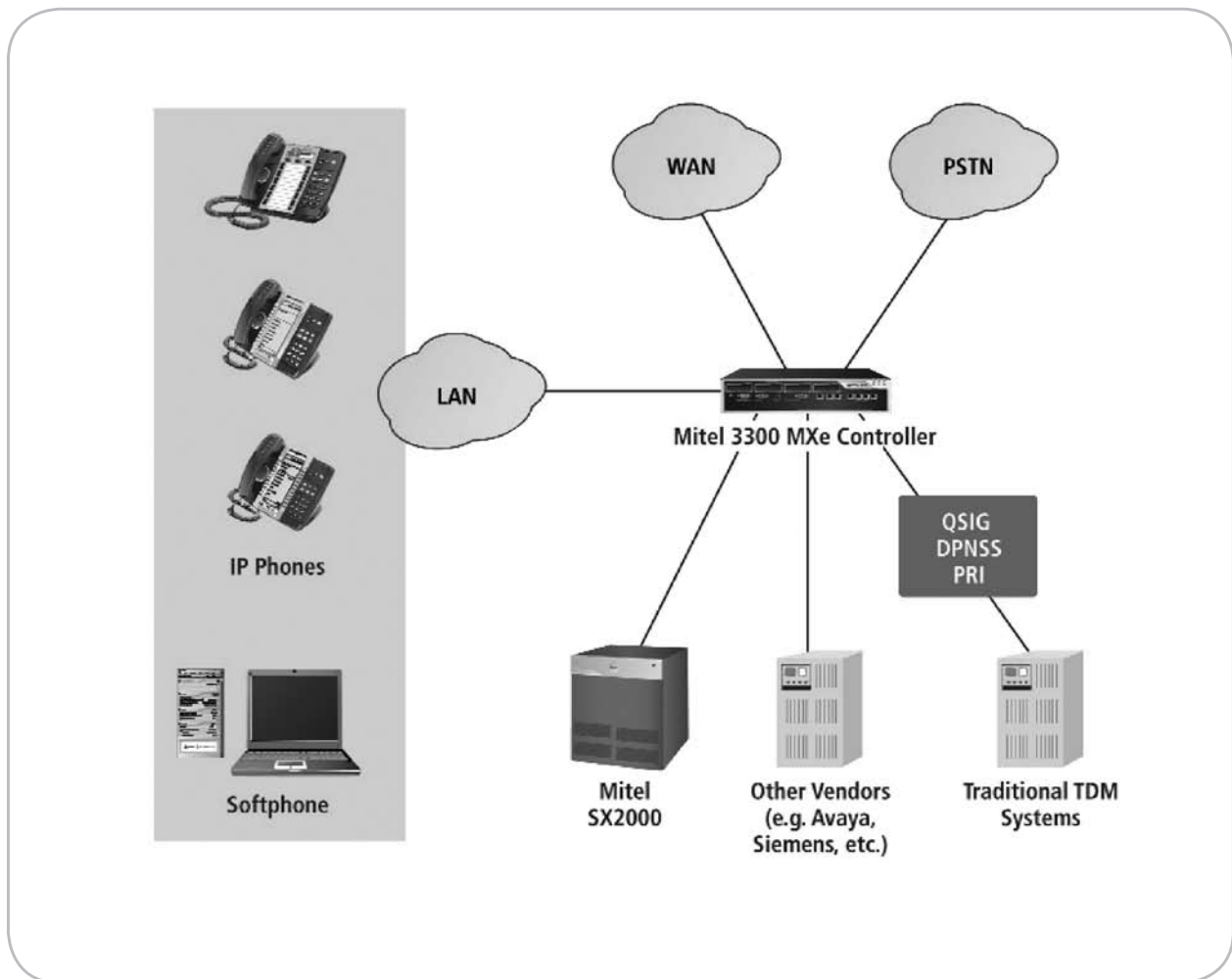
Mitel 5000 Communications Platform (up to 250 users)

Offering advanced multimedia communications capabilities and substantial cost savings for educational institutions with up to 250 users, the Mitel 5000 Communications Platform (CP) is based on open architecture interfaces and standard protocols, giving you the flexibility to tailor a system to suit your dynamic needs.

Where school districts and campuses have separate voice and data infrastructures, there is an opportunity to improve communications, simplify management and reduce costs by converging voice, video and data on the Wide Area Network (WAN). IP networking is a more efficient and flexible way to transport voice and data traffic, especially where MultiProtocol Label Switching (MPLS) is employed. MPLS delivers the Quality of Service (QoS) needed for real-time voice and video.

This can be done by swapping out the whole voice infrastructure (big bang), or deploying network gateways (progressive migration). Mitel's innovative architecture allows the Mitel 3300 IP Communications Platform (ICP) to support legacy and IP pure communications "in the box," making it ideal for deployment as a network gateway. School districts and large, distributed campuses can progressively integrate voice and data onto a single IP network without a fork lift upgrade.

System Migration / Integration



Converging voice onto the network provides for enhanced flexibility and mobility. As voice becomes an application, it can be centrally managed anywhere on the network. Using Mitel Enterprise Manager, network managers benefit from a single-system view of all users, sites, equipment, features and services. Tasks such as managing and changing student and employee information can be performed more easily and cost-effectively.

Challenge 1: Build a 21st Century IT Infrastructure

Need	Mitel Solutions	Solution Benefits
IP communications	<ul style="list-style-type: none"> • Mitel Communications Platforms • Mitel Managed Services • IP Gateway • Mitel Applications Suite • Digital and IP desktop devices 	<ul style="list-style-type: none"> • Scalable architecture supporting converged analog, digital and/or IP telephony with expandable, embedded features and functionality • Leverage/integrate with existing infrastructure • End-to-end communications services including hardware and software; data networking solutions; managed network services; financing and service options; and third-party solutions • Eliminate communications-related financial risk; simplify planning and budgeting • Software upgrades and guaranteed rates of expansion keep your costs down, even as capacity and functionality grow over time • Select from a set of starter applications packages best suited to your needs • Capital expenditure savings over a “rip and replace” approach • Eliminate Centrex line charges • Eliminate intra-district long distance charges (calls and faxes) • Eliminate cost of maintaining old and disparate equipment • Leverage existing wiring (Cat5/6) to cost effectively deploy phones in classrooms • Leverage WAN for inter-campus and central campus voice traffic
Wireless communications	<ul style="list-style-type: none"> • SpectraLink NetLink phones 	<ul style="list-style-type: none"> • Seamless integration with Mitel IP platforms • Increased accessibility anywhere within the main or extended campus locations and/or school district • Lightweight, durable handsets • No monthly airtime or usage charges
Simplified system administration and management	<ul style="list-style-type: none"> • Mitel Managed Services • Mitel Applications Suite • Mitel Enterprise Manager • Remote Management 	<ul style="list-style-type: none"> • Single-point-of-contact for complete management of your communications infrastructure • Access to multiple sites and systems from a single interface, lowering costs and increasing staff productivity • Reduced time and cost reduction associated with initial deployment and on-going management overhead • Dual bus architecture provides connectivity between TDM and IP devices and PSTN without added delay • Single, centrally managed district-wide voice solution • Decrease service costs by reducing engineer site visits • Improve response times in resolving issues • Automatically forward system alarms to specific service providers • Simplify district-wide telephone Moves, Adds and Changes (80% to 100% savings over CPE TDM solutions)

Challenge 2: Enhance School/Campus Safety and Security

Need	Mitel Solutions	Solution Benefits
Emergency response	<ul style="list-style-type: none"> • Mitel 5300 Series IP Phones • Emergency Response Advisor • IP Duress Alarm • Zone-based Paging and Mass Notification • 5300 HTML Emergency Broadcast • Emergency Meet-Me Conference • Report-It Hotline • Malicious Call Tagging • Security Call Box • Record-a-Call • SpectraLink Wireless Telephones 	<ul style="list-style-type: none"> • Integrate the features and functions of emergency call, security, wireless communications and telephone services into one solution • Place campus or district-wide alerts • Notify emergency response personnel of an emergency, regardless of location at time of the event • Pinpoint exact location of 911 calls to improve response times in an emergency • Send instant alerts to classroom phones (rings phone in a different cadence, message appears across phone display, teacher acknowledges receipt of notification by pressing a key) • Provide staff with the ability to generate silent alarms requesting security assistance • Disseminate critical operating information to designated safety officials during an emergency • Record, schedule and deliver simultaneous messages to all or selected phones and speakers across multiple sites • Develop customized HTML screen applications that interact directly with information systems databases • Record, retrieve and archive threatening incoming calls • Leave anonymous messages concerning a potentially threatening situation • Comply with E911 legislation
Call recording	<ul style="list-style-type: none"> • Mitel Secure Recording Connector 	<ul style="list-style-type: none"> • Implement call recording solutions without having to sacrifice the added security of voice encryption • Record, retrieve and archive calls for documentation and follow-up
Network security	<ul style="list-style-type: none"> • Mitel Managed Services • Remote Management • Mitel Management Access Point 	<ul style="list-style-type: none"> • Full system replacement in case of disaster • Notification for alerting service provider of alarm changes • Screening of in-bound modem calls based on originating phone numbers • Screening of Internet VPN tunnel connections based on originating IP addresses • Inability to sniff, capture, or replay passwords • MS-CHAPv2 forced for highly secure VPN connections • Restriction of LAN access to select Mitel devices and ports • Tracking of configuration changes during privileged connections

Challenge 3: Increase Efficiency and Productivity

Need	Mitel Solutions	Solution Benefits
Mobility	<ul style="list-style-type: none"> • Mitel Dynamic Extension • Mitel Teleworker Solution • Mitel Unified Communicator Mobile • Mitel Multi-Protocol Border Gateway • Cordless Handsets • Mitel Cordless Headsets 	<ul style="list-style-type: none"> • Use any brand and type of mobile phone without additional client software or hardware • Hot desk to any device, even those external to the campus network • Make and receive calls from one extension, no matter where you are • Connect to any network, even third-party legacy networks • Twin to any number, device and network • Keep your existing legacy architecture (no rip and replace) • Reduce roaming charges by pushing calls to other devices without interrupting the conversation • Route all calls through the campus network • Increase mobility support without the need for an additional server • Switch devices, networks, or communication methods with just one button • Maintain one voice mail box for up to eight devices • Leverage wired or wireless high-speed Internet access to deploy WiFi handsets
Streamline communications	<ul style="list-style-type: none"> • Mitel Unified Communicator • Mitel Applications Suite • Mitel Contact Center Solutions • Mitel Attendant Console • Mitel NuPoint Unified Messaging • Mitel Enterprise Messaging • Mitel 5300 Intelligent Directory • Mitel 5300 Intelligent Directory Presence Option 	<ul style="list-style-type: none"> • Give staff immediate visibility into the status of their colleagues, anywhere on the network • Centralize call services • Reduce misrouted calls by enabling staff to properly handle and route inquiries • Provide transparent communications for remote locations, teleworkers and mobile employees • Handle incoming communications from multiple sources, including phone calls, e-mails, faxes, multi-media resources • Searchable onscreen directory of both campus and personal contacts

Challenge 3: Increase Efficiency and Productivity cont.

Improve decision making and collaboration

- Mitel TeleCollaboration Solution
- Mitel Audio and Web Conferencing
- Mitel Unified Communicator
- Mitel Unified Communicator Advanced
- Mitel Live Business Gateway
- Dual Forking with Remote Call Control
- PC-to-Phone
- Easy to use, scalable, cost-effective conferencing tools
- Allow employees in geographically dispersed locations to communicate more effectively
- Enable highly interactive online meetings, training and presentations
- Conduct conference calls "on the fly"
- Click-to-dial, incoming caller ID pop-up, PC-based missed calls and speed calls list
- Integration with leading office productivity tools like Microsoft Exchange®/Outlook and Office and IBM®/Lotus Notes®

Classroom access

- 5300 Series IP Phones
- Mitel NuPoint Unified Messaging
- Superset 4001 Digital Phones (if Cat3 wiring exists)
- XML Toolkit
- Improve communications with parents, within the school, within the district
- Dual port IP phones reduce wiring costs
- Create and send instant messages to IP phones (rings phone in a different cadence, message appears across phone display, teacher can acknowledge receipt of notification by pressing a key)
- Minimize classroom disruptions from overhead paging systems



Mitel IP Desktop Applications

The Mitel 5300 Intelligent Directory provides a simple, intuitive on-screen searchable directory of both campus (Microsoft® Active Directory®) and personal contacts (Microsoft Outlook®), and includes presence information for the entire directory list right on the phone's display.

Challenge 4: Improve Service Levels

Need	Mitel Solutions	Solution Benefits
Improve parent/teacher communications	<ul style="list-style-type: none"> • Mitel Applications Suite • Mitel NuPoint Unified Messaging • Mitel Unified Communicator Advanced • Auto Attendant with Multi-Language Support • Customized Interactive Voice Response (IVR) • Auto Attendant Emergency Override 	<ul style="list-style-type: none"> • Simplified management of information flow • Option of pre-selected package of solutions to fit your needs • Customized service portals using IVR and speech-enabled directories • In-bound and out-bound services to distribute announcements from a central database (e.g., school closures, upcoming events, appointment reminders, etc.) • Parents from different ethnic backgrounds can call for recorded messages in their language of choice • Notify parents of student absenteeism • Record homework assignments, event reminders, etc. • Alert callers of real-time changes to school or district operating information (e.g., school closures, health alerts) • Compatibility with third-party solutions
Dormitory/Residence services	<ul style="list-style-type: none"> • Mitel 3300 Communications Director • Mitel IP Phones • Mitel NuPoint Unified Messaging • Benbria Blazecast 	<ul style="list-style-type: none"> • Provide students with one phone number so they can be reached anywhere, anytime on all devices • Single voice mail box for receiving, storing and responding to messages • Access and respond to voice mail from a shared/common area phone (complement or alternative to phones in dorm rooms) • On-premise alert notification and IP paging system to reach thousands of recipients through phone, e-mail, SMS, loudspeaker paging, desktop computers and compatible Mitel IP phones • Centralized contact management, administration, broadcast controls and reporting
Options for instruction and professional development	<ul style="list-style-type: none"> • Mitel TeleCollaboration Solutions • Mitel Audio and Web Conferencing 	<ul style="list-style-type: none"> • Conduct virtual field trips, collaborate with other classrooms locally and/or globally • Enable interactive distance learning, tutoring, mentoring, etc. • Accommodate professional development activities while minimizing classroom disruptions and reducing/eliminating travel time • Optimize teacher/instructor resources

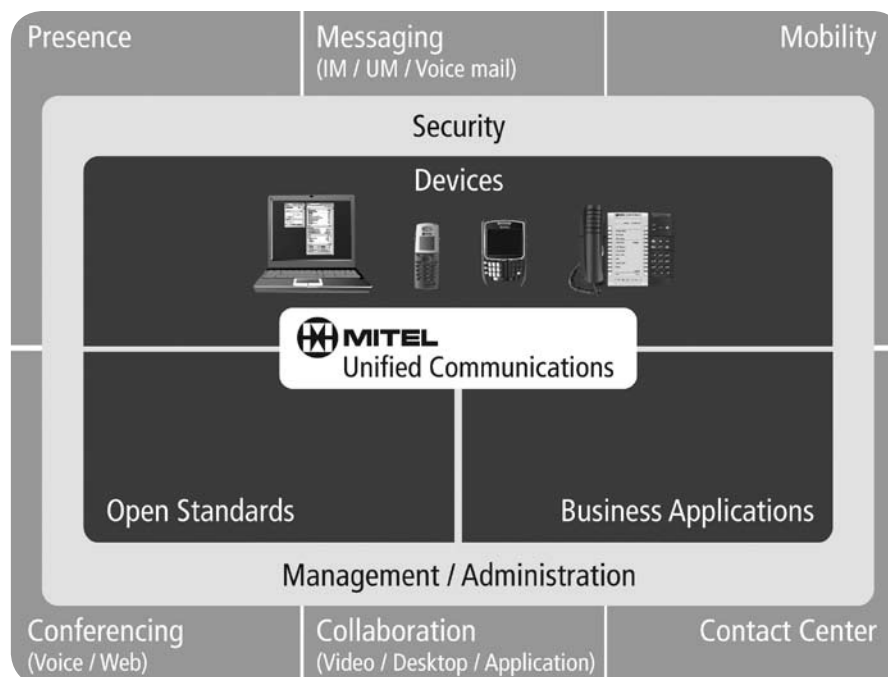
Challenge 5: Reduce Operational Costs

Need	Mitel Solutions	Solution Benefits
Reduce communications costs	<ul style="list-style-type: none"> • Mitel Managed Services • Mitel Dynamic Extension • Mitel Mobility • Mitel Applications Suite • Mitel TeleCollaboration Solutions • Mitel Call Accounting 	<ul style="list-style-type: none"> • Reduce carrier and network services costs, including long distance, international charges, per-user minute conferencing charges, etc. • Significantly reduce mobile phone costs • Reduce need for and expenses related to travel • Reduce/eliminate high costs of outsourced services • Track, report and control telecommunication costs • Improve ROI with hosted solutions
Automate basic business processes	<ul style="list-style-type: none"> • Mitel Contact Center Enterprise Edition • Mitel Auto Attendant • Customized Interactive Voice Response (IVR) • 5300 Series IP Phones • Mitel Business Dashboard • Mitel Call Accounting 	<ul style="list-style-type: none"> • Customized integrations for customer relationship management (CRM) and workforce management (WFM) • Create customized on-hold messages • Reduce/eliminate hold times with customized IVR greetings and menus • Enable DIY services for student account management • Provide 24/7 access to student account and other personalized information • Track effectiveness of marketing and recruitment campaigns • Monitor phone usage and establish call patterns for departments and work groups • Perform cost recovery and carrier bill reconciliation
Monitor and maximize resources	<ul style="list-style-type: none"> • Mitel Contact Center Solutions • Mitel Business Dashboard • Mitel Call Accounting 	<ul style="list-style-type: none"> • Extensive custom reporting options for real-time visual of business performance • Skill-based and labor cost scheduling tools for more efficient, cost-effective staffing • Support for distributed, multi-site, virtual deployments • Optimize use of both employee and system resources • Monitor employee performance and identify opportunities for improvement • Identify opportunities for cost savings
Create new revenue opportunities	<ul style="list-style-type: none"> • 3n National Notification Network Hosted Solution • Embedded Messaging • Embedded Recorded Announcement-Device (RAD) 	<ul style="list-style-type: none"> • Generate dormitory revenues from local business advertising via phone and/or links at the desktop based on revenue model • Charge students a monthly service fee to receive campus event notifications, course cancellations, course scheduling announcements via wired/wireless phone, e-mail, text message

Challenge 5: Reduce Operational Costs cont.

Reduce energy costs, be green

- Sun Ray™ Unified IP Client powered by Mitel
- Mitel Teleworker Solution
- Mitel TeleCollaboration Solutions
- Mitel IP Phones
- Consolidate mission critical voice applications such as messaging, mobility, conferencing and Microsoft® Office Communications Server 2007 in the data room environment
- Significantly reduce power consumption with need for fewer servers, and a combined 9W required to power the Sun Ray Thin Client and Mitel IP phone compared with 80W PC/60W laptop and 10W IP phones
- Reduce the need for unnecessary travel and related costs
- Decrease facilities overhead by enabling employees to telecommute with full access to voice mail, conferencing and other features of the office phone system
- Manage all communications from one application with presence, instant messaging, telephony, video and messaging
- Manage electricity costs by providing telephony control to building lighting



Making the Grade with Best-in-Class Communications

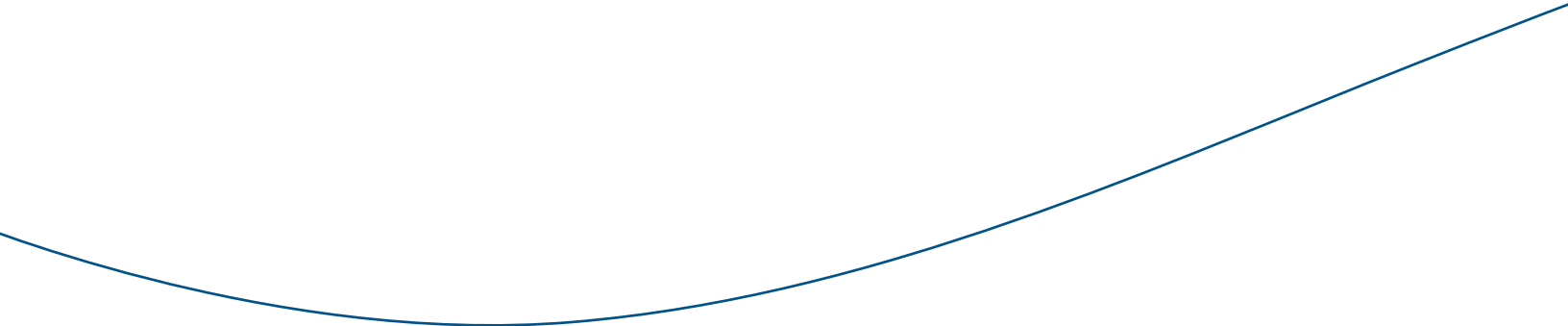
Educational institutions bear unique challenges, not the least of which is the need for well defined and managed communications. Whether across a school district comprised of K-12 school buildings or an expansive college campus, the needs of staff and faculty to stay connected across the institutional landscape are vital to maintaining a high degree of service and attention to the end user: the student.

The need for institutions to enhance the classroom experience in response to the changing face of the “new student;” to seek out new means of operational efficiency despite financial limitations; to ensure a safe and secure environment for students; to maintain optimum performance and communications during a crisis; and to be competitive in order to sustain growth, all speak to the need for enhanced solutions which enable increased collaboration and efficiency at all levels.

The delivery of education and its related services through communications technologies bodes well for the state of education overall and begins to present an optimistic vision for the U.S. education system within a global paradigm. What better motivation to explore institution-impacting solutions than the opportunity to change the world?

About Mitel

Mitel delivers flexibility and simplicity in smart unified communications solutions and applications for organizations of all sizes. Combined with a full range of managed services that include voice and data network design and traffic provisioning, custom application development, and attractive financing options, Mitel is reinventing how successful organizations gain competitive advantage by easily collaborating and communicating over distance and time with customers, colleagues and partners. Mitel’s (www.mitel.com) global headquarters is in Ottawa, Canada, with offices, partners and resellers worldwide.



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