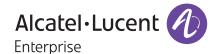# Higher Education:
A smart campus with a safe learning environment focused on students' success

Higher education IT managers, when asked about their priorities, say **student success, IT strategy** and **privacy** come first

(Source: Educause 2019 Top IT Issues List).

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For **students to be successful** and higher education to be sustainable, the university must attract both gifted students and faculty. However, universities are facing strong international competition when it comes to attracting students and staff. Therefore, the engagement with students must start long before they apply for admission.

Student digital engagement will continue during their stay on campus by providing an exceptional set of personal and educational services. Thus, it is crucial to provide strong digital engagement to digital native students in an IoT-enabled learning environment where Wi-Fi is expected to be available everywhere.

But the engagement will last long after their graduation. With alumni community support, universities enhance their reputation by ensuring easy access to internships or by improving the odds of finding a job after graduation through an ecosystem of private enterprises. Universities can also raise funds and provide interactive events with professionals such as round tables and forums and even continuing education courses.

And, by collaborating with other universities, they will co-create new courses and curriculum and even facilitate international student exchanges.

Alcatel-Lucent Enterprise performed detailed analysis as to what is key to student success: A **smart campus**, a **safe learning environment**, and **student centricity**. To be successful in these three pillars, there's a strong need to **connect** communities, to **connect** IoT, to **connect** artificial intelligence (AI) and integrate it all within education processes.

Alcatel-Lucent Rainbow™ CPaaS and its hybrid approach is a key component for digital engagement, community management and greeting solutions. It facilitates the development of campus services accessible by a campus mobile or a web application and can be integrated within a learning management system (LMS).

Smart campus

Secure, highly available and scalable infrastructures that enable privacy are mandatory foundation pieces, whether it is for communications handling or the support of connected objects, applications and processes.

In addition, new and adaptable commercial models are key components for planning since most education decisions are cost driven.

ALE has a hybrid approach for communications, collaboration, IoT enablement and notifications management. By addressing smart campus changes and adaptable solutions, with both a technical and commercial hybrid approach (CPE to Cloud, CAPEX to OPEX), ALE answers IT strategy concerns and helps its customers transition smoothly from one model to the next, at the customer's pace.

Lastly, privacy, system and data security are of outmost importance. The support of GDPR and ISO 27001 for data and information protection and security management, the native encryption provided by an Alcatel-Lucent Enterprise PBX, the solutions to identify or prevent hacking, and the ability to integrate with IT service management applications contribute to privacy and security.

Safe learning environment

Learning environments must be secure providing data privacy as well as protection for people and assets.

IoT enablement plays an important role in security and campus safety, which is an emotional topic due to the increasing number of attacks on campus. These connected objects, such as video surveillance cameras or intrusion sensors, can trigger notifications. These notifications can be handled by a local notification server or an IoT hub solution such as the Alcatel-Lucent Enterprise IoT Hub.

Scenarios can be built to notify the right group of people or to connect to a Rainbow bot for automated purposes.

However, there is also a strong need for emergency call points across a campus to notify the security team through different channels, provide location information and create ad-hoc conferencing. By correlating these notifications with connected object triggers, the operational team will make the best decision in a timely manner, limiting accidents and financial risks. These conferencing and collaboration capabilities increase the security teams' responsiveness.

Lastly, solutions that provide the right instruction to security teams, teachers and students in case of a lock down or evacuation are of utmost importance.

ALE invested in emergency management and mass notification solutions, complemented by Rainbow, to manage critical situations and easily inform of lock down or evacuation, depending on the location. Location based services (LBS) will be very important in these critical situations.

Student centricity

Let's not forget that the main goal of education is to help students be successful.

Students, just as in the work world, are well-adapted to social media, communities and mobility. They can learn from any place and from any device. The **learning process** must be adapted to these new norms. It needs to integrate communications and collaboration such that students can have meaningful discussions with their teachers, sharing knowledge between them or following up on projects.

Rainbow CPaaS can easily integrate within learning management systems such as Canvas, Blackboard or Moodle to improve teachers' and students' experiences.

Rainbow can also be integrated within a **campus mobile application** to provide a mix of personal and educational on-line services.

Help teachers and students in their daily life on campus by providing answers to simple questions such as:

> What's on the menu today?

> When is my next math exam?

> Where is the room for my next course?

Rainbow, connecting to a bot using natural language processing (NLP) technology, will easily answer these most frequently asked questions. Location based services will also simplify on-campus services by providing location and way-finding.

Diversity and inclusion are key to opening minds to international and multi-cultural exchanges. Facilitating **communities' collaboration** will be of great help and support because communities are so important to campus life, such as a theater company, country or language community, and sports teams. Individuals will be able to share information within the community, ask for support for a project and organize an event.

And lastly, as mentioned before, **alumni and educational communities** enable student success and serve the educational process with a better connection between teachers, researchers, private enterprises or other universities.

Since universities are a place for innovation, students must develop their creativity and expand their skills during university projects or through business internships. To help address those needs, Alcatel-Lucent Enterprise has created a specific **partnership program for universities.** Click here.

We are Alcatel-Lucent Enterprise.

Where Students Connect to interactive, engaged learning.

Where Faculty Connects to create inspirational learning experiences.

Where Educators Connect to empower the next generation.

Where Education Connects with technology that works, for your school, college or university.

With global reach and local focus, we deliver secure networking and communications, for the education sector that enable secure, reliable collaboration between your faculty and students.

Alcatel-Lucent Enterprise solutions

ALE provides a wide set of solutions ranging from typical **greetings** to more disruptive **digital engagement**, by any medium (IM, voice to video), using any device, at any time and from anywhere.

ALE provides a comprehensive set of solutions for **better mobile and collaborative workplaces** that simplify daily life of the staff (telephone sets, DECT, VoWLAN, UC&C, Rainbow). We also provide APIs to integrate within business applications such as learning management systems (LMS), student information systems (SIS) or even within information technology system management (ITSM).

We provide **proactive maintenance and security solutions**, leveraging the increased use of IoT devices (connected objects), used within a building or across the campus. We can connect to any algorithm or artificial intelligence that leverages analytics to support and accelerate human decisions.

We provide highly available and resilient architecture ensuring data and media security, protection and privacy (GDPR and ISO 27001 compliancy) while being future-proof and cost effective with simplified operations and new business models to accompany the cloud wave.

Rainbow UCaaS / CPaaS: The perfect mix for creating a strong link with your communities

Rainbow UCaaS is a good tool for exceptional collaboration between staff, providing service delivery in various educational environments.

However, today's hyper-connected students and teachers expect the same mobile experience on campus they have at home and in commercial enterprises.

Digital tools, like Rainbow, help bring this eco-system together and ease communications for building a connected social community. Digitization can also improve overall safety thanks to IoT and artificial intelligence integration, enhanced notification speed and shortened emergency response time.

Rich media and voice communications come to life in our suite of communications hardware and software that make enterprise collaboration second nature. Click here

Greetings solutions:

Visual Automated Attendant provides a professional image with a virtual receptionist available 24/7, delivering a quality response to our customers

OmniTouch Contact Center Standard Edition, A scalable and reliable contact center solution for up to 7,000 agents.

Notification solutions:

Emergency Notification Server handles emergency responses so you can focus on making critical decisions. This is a powerful emergency communications solution that optimizes coordination and ensures safety.

Visual Notification Assistant leverages your installed base of IP desk phones and uses them to broadcast alerts and audio notifications, provides IP multicast and one-way conferencing to completely cover a company, and coordinates emergency forces on- and off-site via a conference bridge.

Alcatel-Lucent OpenTouch® Notification Server, Location Based Services and the IoT Hub framework* perfectly complement Rainbow CPaaS to integrate objects-based communications.

Connect to Rainbow

*The IoT Hub framework is an on-demand solution by ALE Professional Services.

Watch Videos

Education: Alumni Communities – Connex Web Series : EN

Connex Web Series : EN

Education solution playlist : EN

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