Move Student Information Systems (SIS) to the Cloud

Increase Operational Efficiency, Improve Student Outcomes, and Boost Your Institutional Standing

ORACLE®

Forward-looking colleges and universities are re-engineering legacy processes and replacing on-premises student information systems (SIS) with modern cloud alternatives. Cloud technology can help these higher education institutions deliver exceptional educational experiences marked by individualized services. The new solutions are easy to use, integrate, and adapt. They deliver control to users while significantly reducing the cost and effort needed to deploy, manage, and support the environment. Read on to learn how your institution's human resources, finance, and student-focused offices can build a future-ready institution that follows a practical path to the cloud to enrich the teaching and learning experience.

THE OPPORTUNITY: DIGITAL TRANSFORMATION

Student information systems have evolved quickly in recent years, but most of the advances have been restricted to isolated functions. Typically, applications handling HR, talent management, and financials remain sundered from applications handling registration, financial aid, and student achievement. With no integration—and no single system of record—critical processes are disconnected, and vital data is left untapped.

As analysts at Ovum report, the higher education industry is experiencing a period of historic disruption, driving colleges and universities to consider new operating models, seek out innovative ways to engage students, and deliver targeted education services. The SIS has a pivotal role to play in whether or not institutions are successful in these endeavors, but established approaches and many existing solutions may prove insufficient to meet the rising expectations of students for more personalized, frictionless, and proactive services."[1]

Modern, cloud-based SIS solutions are the answer. They are intelligent, easy to use, and provide a consumer-like experience for faculty, staff, and students. Guided insights help users make good academic choices, construct a solid curriculum, maximize financial aid, track academic progress, and orchestrate a smooth transition to graduation, and beyond.

Moving core SIS applications to the cloud is a major undertaking. Without professional guidance and careful planning, you're likely to end up with a cobbled-together solution that doesn't fulfill the objectives of the institution. Thus for many colleges and universities, the path forward involves gradually investing in new cloud-based solutions. This incremental approach allows them to consume cloud applications at their own pace.

By following this strategy, you can unify formerly disparate processes while adding easy-to-understand analytics—and create a higher education cloud platform with superior adaptability. A new student information system can anchor a larger digital transformation initiative centered around three major higher education goals: *optimize operations*, *boost institutional standings*, and *improve student outcomes*.

"With technology embedded into teaching, learning, research, and business operations, it must be embedded into the overall institutional strategy and business model as well."

Top Ten IT Issues, 2019
EDUCAUSE Review[2]

"More than one-quarter of all higher education students are now enrolled in at least one online course. The cloud can help eliminate both virtual and physical barriers to access, delivery and collaboration so students can succeed with online learning. For academic research, the cloud provides access to extraordinary scale and compute capabilities, and enables global collaboration."

Patrick Mungovan
Group Vice President, U.S. Higher Education, Oracle Public Sector

[1] "Intelligence Will Transform Student Information Systems" (30 October 2017)

[2] https://www.educause.edu/research-and-publications/research/top-10-it-issues-technologies-and-trends/2019

Increase Operational Efficiency

Cloud technology has proven its ability to reduce capital investments, increase institutional agility, and making better use of scarce IT resources. Cloud-based business processes can simplify many operational processes, from closing the books at the end of each quarter to dispersing financial aid to recruiting top faculty talent. The best cloud systems align common processes to ensure consistency. Innovation is constant, allowing colleges and universities to continually add the functions, applications, and workflows that enable them to adapt and thrive.

Raise Institutional Standing

Recruiting and nurturing top faculty talent is an important part of improving a university's industry rankings. Most schools strive to differentiate themselves with focused research endeavors and unique academic programs. Having complete information allows them to better tap into their alumni pool to expand participation and maximize the value of referrals. A complete, integrated database can also differentiate academic programs, manage grants for workforce development, and connect the curriculum to the surrounding employer community.

Improve Student Outcomes

Few aspects of higher education have gained more attention than the importance of retaining students and helping them achieve their educational goals. Fiscal sustainability remains supremely important—and yet it is progressively more difficult to achieve as retention rates drop to around 40 percent at many institutions. Improving student outcomes is the quickest path to revenue stability, and cloud-based student information systems (SIS) make this possible.

Improving student outcomes means not only retaining students but also helping them achieve their academic goals. While higher education provides cultural and intellectual enrichment, most students aren't merely looking for an ivory tower experience; they also expect to see a direct monetary return on their investments—as measured by better job opportunities, sustainable careers, and higher salaries. Other students have become life-long learners, who expect flexibility and convenience for their continuing education. Ensuring positive student outcomes is the key to student retention and positive enrollment trends.

THE TECHNICAL ADVANTAGES OF CLOUD

There are many advantages to having a unified cloud platform. For example, cloud applications have virtually no scalability limitations, and the vendor can add new capabilities all the time—from the latest mobile-computing extensions to artificial intelligence and machine learning functions. Unlike the tedious on-premises upgrade cycles of the past—where major software updates were required to keep applications current with the latest advancements—cloud solutions are continually updated with new technology and capabilities—all handled and maintained by the SaaS vendor. Finally, deploying SaaS applications in cloud data centers is more secure than operating most on-premises applications, thanks to dedicated teams of security experts, rigorous policies for regulatory compliance, and automatic security patches.

MAXIMIZING CAPABILITIES FOR THE ENTIRE INSTITUTION

Here are some things you should look for as you consider migrating core SIS applications to the cloud.

Integrated Data

Faculty and staff members need to have the right data at their fingertips to advise students, guide them down the right learning paths, apprise them of work/study opportunities, and promote

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Increase Operational Efficiency

- Intelligently optimize operations to better manage enrollment, student achievement, and financial aid
- Enable fiscal and academic sustainability by balancing tuition discounting and fundraising
- Eliminate complex IT procedures and eliminate the expense of maintaining hardware and software
- Drive institutional performance while breaking down silos between departments

Raise Institutional Standing

- Intelligently facilitate faculty recruitment and talent management
- Differentiate the institution by maximizing research and academic programs with limited resources
- Tap into the alumni pool to maximize participation and expand referrals
- Differentiate academic programs by managing grants and supporting workforce development throughout the employer community

Improve Student Outcomes

- Encourage responsible borrowing and help students find the optimal mix of financial aid funds
- Support life-long learners with flexible and convenient programs for continuing education
- Simplify administrative tasks with modern mobile, social, and web interfaces to campus resources
- Enhance student services with chatbots and digital assistants to answer finance, billing, and logistical questions

responsible borrowing. Unfortunately, most universities maintain separate applications for recruiting, talent management, financial aid management, financial planning, budgeting, and other core functions. While some campus applications are now delivered as SaaS apps, many core functions still reside in separate, on-premises systems. Not only are vital operational functions hampered by a lack of integrated data, but many essential activities are not performed efficiently. With no integration—and no single system of record—it is difficult to share insights or obtain a complete view of cross-functional activities.

Integrated cloud applications allow personnel in human resources, finance, and many other departments to share data and insights. These applications do more than just simplify finance and HR processes. They also supply integrated data to help universities meet long-term academic and administrative goals.

By more effectively engaging students, fostering research, and leveraging workforce insights, colleges and universities can create an engaged and collaborative culture that attracts top talent, improves student experiences, and optimizes internal operations. Sharing data among departments empowers employees across administration, academia, research, and IT to make better decisions.

Easy to Use Applications

User-friendliness has not been a hallmark of on-premises student information systems, with true "self-service" the exception rather than the norm. Most of these legacy environments require faculty and staff members to jump from one module to another as they deal with everything from recruiting to enrollment to retention analysis. Lacking a complete picture of each student's progress, grades, financial standing, and academic goals makes it difficult for advisors to provide knowledgeable guidance, let alone help students achieve productive learning outcomes. Whether it's financial aid, academic achievement, housing, or registration, each core business activity tends to be isolated from the others.

A complete, cloud-based SIS combines data from every corner of the institution and every aspect of the student lifecycle. It presents that data via intuitive, easy-to-use interfaces tailored to each employee's role, with social media capabilities to encourage collaboration, and responsive design techniques to optimize the experience for all types of computers, tablets, and phones. Each employee can customize the interface to reflect the way he or she would like to analyze and visualize information—personalizing and configuring screens, hiding or highlighting fields, and changing the layout of tabs to suit individual needs.

Intelligent Business Processes

A unified cloud helps you break down data silos, so that information flows automatically across departments and teams. Each department gains visibility into pertinent activities and insights from other departments. By using scarce resources more effectively, institutions can maximize key funding sources, including tuition, grants, and alumni gifts. AI, machine learning, and digital assistants can help faculty and staff assess conditions, analyze data, find answers, and suggest next steps within automated workflows. Predictive analytics can be used to forecast scenarios and prepare for disruptions.

Ideally, these unified cloud services power a productive and engaging user experience that is inherently social, mobile, and data-driven. Automated workflows enable applications to recommend likely responses based on previous interactions, while AI simplifies repetitive and mundane tasks. Interactive reports and easy-to-read dashboards provide seamless access to real-time information, while predictive analytics let managers model outcomes. For example, automated recruiting procedures can analyze thousands of data points to match candidates to roles, making it easier to find the best employees and fill open positions.

"In 2019, after a decade of preparing, colleges and universities stand on a threshold, eager to enter a new era of using technology to unlock our ability to apply data to advancing our missions."

Top Ten IT Issues, 2019
EDUCAUSE Review
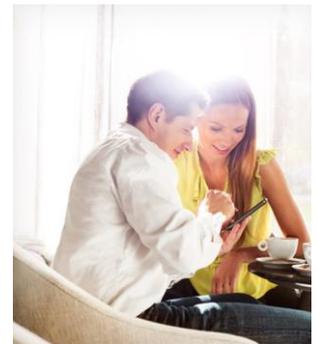
Leading institutions look to the cloud as the quickest path to digital transformation. Here's why:

- Automate routine workflows and re-engineer legacy business processes
- Connect data throughout the institution, and use advanced technologies to uncover hidden patterns
- Gain insight to make better, faster institutional decisions
- Deliver student outcomes that exceed student and employee expectations

A SIS Built for the Future

A modern SIS needs to support traditional term-base students as well as continuous education for life-long learners. This implies seamless support for four-year degree programs, workforce-development initiatives, and professional certificates and credentials. For example, a software engineer might return to school to obtain a certificate in agile development, while a supply chain planner might pursue a project management certificate.

Finally, the SIS must have a modern user interface. Today's college students grew up using their phones to access information and communicate with the world around them. Once they get to campus, they expect to be able to also use their phones to tap into academic and administrative resources at every stage of their university experience.

Beware of "Hosting Only" Cloud Providers

While some institutions opt to migrate their existing on-premises information systems into a cloud environment, perhaps hosted by Amazon or Microsoft, these simple "lift and shift" strategies rarely deliver the complete benefits of an integrated suite of applications that has been designed first and foremost for the cloud. Such migrations may reduce IT infrastructure costs, but they don't typically lead to greater innovation, or transform an institution's core business processes.

The best higher education applications are designed first and foremost for the cloud—and are hosted by the same cloud vendor that created those applications. Selecting a single cloud provider for cloud applications (SaaS), cloud platforms (PaaS), and cloud infrastructure services (IaaS) avoids integration problems associated with using multiple vendors. This makes it possible to embed intelligence not only into the higher education applications, but into the database platform as well. Security spans the entire technology stack—from the servers and storage devices to the applications and database.

INTRODUCING ORACLE STUDENT CLOUD

Oracle Student Cloud offers a comprehensive approach to managing the student lifecycle, communications, and relationships—from recruiting through alumni and donor management. This popular SaaS application includes six interconnected modules:

- Student Financial Planning
- Student Management
- Student Recruiting
- Student Engagement
- Student Support
- Student Advancement

Each module works with the others and shares pertinent data to streamline essential activities. From managing employees and assigning instructors to managing student accounts and providing easy payment processing during the enrollment process, these applications work together to provide you with all the tools you need to run an efficient operation.

For example, the Student Financial Planning module optimizes financial aid sourcing and packaging to keep students on a path to success—from ISIR processing to financial planning to disbursement. It helps administrators spend less time on paperwork so they can become true advisors for students—from making sure each student obtains the best possible aid package to ensuring they make the best possible use of their funds.

Of course, a student information system is only one element of a larger technology deployment. That's why Oracle Student Cloud is fully integrated into the larger Oracle Higher Education Cloud. Many colleges and universities also deploy Oracle Cloud applications for human capital management (HCM)

"The next generation of best-in-class SIS solutions will integrate AI technologies in deep, meaningful ways, ultimately transforming the delivery of key institutional processes such as course registration, advisement, and financial aid."

Ovum
"Intelligence Will Transform Student Information Systems"

"In their drive to improve student outcomes, institutions are increasingly focused on individual students, on their life circumstances, and on their entire academic journey. Leaders are relying on analytics and technology to make progress."

Top Ten IT Issues, 2019
EDUCAUSE Review

and enterprise resource planning (ERP). These integrated solutions for higher education enrich the teaching and learning experience, improving student success and automating institutional activities.

THE PATH FORWARD

To remain competitive with other institutions and continually relevant to students, today's colleges and universities must optimize operations, boost institutional standings, and improve student outcomes. Interconnected business applications—powered by integrated data—hold the keys to success.

With on-premises student information systems nearing the end of their useful lives, and cloud-based systems reaching maturity, perhaps the time is ripe for moving *your* core SIS functionality to the cloud. Many institutions approach this process incrementally. For example, they may begin with SIS or financial aid or talent management, and then gradually add core HR, financials, procurement, budgeting and planning, and other cloud modules to form a unified system. Having a single system of record and a rapid deployment model helps ensure a successful implementation. Oracle offers a practical path to the cloud, with a range of choices to help you get started right away. You can deploy cloud services incrementally on Oracle's robust public cloud and gradually build a unified higher education platform that encompasses all these functions.

To learn how you can launch your own cloud SIS initiative, visit oracle.com/industries/higher-education/student-cloud.html

"With Oracle Student Cloud, we will have the tools we need to improve student success by delivering a more transparent and effective financial aid experience."

Pete Williams
CIO, Butler University

Integrated Cloud Solutions for Higher Education:

Oracle Student Cloud

Comprehensively manage the student lifecycle, from recruiting through alumni and donor management.

Oracle HCM

Simplify the process of hiring and retaining top faculty and staff. Recruit, grow, and retain employees with integrated talent acquisition, learning, and performance management systems.

Oracle ERP

Unite disparate accounting systems, improve project profitability, and streamline payment processes through automation and social collaboration, while controlling costs.

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