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The World at Work: Jobs, Pay, and Skills for 3.5 Billion People, McKinsey Global Institute, June 2012

Innovating for the Global Campus

PeopleSoft □a□pus Solutions
□elps □i□□er education institutions
succeed in today's dyna□ic □lo□al
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Although the global economic shift has opened up opportunities for students and higher education institutions alike, it has also intensified and accelerated a more market-oriented environment for education. As the burgeoning demand for education around the world intensifies, colleges and universities are faced with the daunting challenge of quickly adapting to serve a fast-moving, hyperconnected, global knowledge economy. PeopleSoft Campus Solutions has emerged as the leader in fulfilling higher education's requirements for a comprehensive yet flexible student system that continues to enable the transformation of the global campus.

Overview

PeopleSoft Campus Solutions partners with higher education industry leaders around the globe to deliver the most modern technology solution designed specifically for higher education. Our investment in PeopleSoft Campus Solutions delivers:

- A global perspective supporting education and research without boundaries
- Support for varied models of instruction and business requirements
- The deepest and broadest set of capabilities to support the student life-cycle
- Innovative technology to enhance, strengthen and adapt capabilities and processes
- The ability to recruit, enroll and manage a flow of students seeking higher education across borders
- · Support for multi-institution, multi-currency, multi-campus, and multi-language operations
- Cloud, on-premise and other deployment options so each organization can choose the model that best suits their unique environment and requirements

Oracle's commitment to innovation and its leadership role in higher education is evidenced by its longterm, on-going investment to make PeopleSoft Campus Solutions the most complete, flexible and innovative student system available

Innovation to Succeed in Today's Global Education Climate

Success in today's dynamic higher education environment demands innovation. Innovative institutions are responsive, flexible and quickly adapt to support the delivery of new education models and programs to meet the expectations of their 'consumers'. In addition, they recognize technology as a key enabler to extend their reach, gain greater efficiencies and scalability, and improve their users' experiences with the institution. The higher education institutions that are achieving the greatest success have several characteristics in common; they:



Product modules included in the Campus Solutions Suite

- PeopleSoft Student □d□inistration
- PeopleSoft □a□pus Self Service
- PeopleSoft □rade□oo□
- PeopleSoft Student □d□inistration
 inte□ration Pac□
- PeopleSoft □ontri□utor □elations (□lu□ni Mana□e□ent and □undraisin□)

- Understand the value proposition of the institution—what their institution's role is in the community, the region, and, ultimately, the world
- Gain efficiencies by adopting administrative best practices so the primary focus of resources is on differentiating and distinguishing their institution and its offering from others
- · Offer flexible education delivery models and understand the learner profile for each of its offerings
- Think globally—look outside institutional and geographic boundaries to adapt its engagement and interaction patterns for a truly global impact
- Leverage technology and the use of strategic analytics to achieve objectives

Strength in Partnership with Higher Education

For more than 35 years, Oracle has been one of the world's leading technology innovators. Today, Oracle customers around the world are transforming their organizations on Oracle solutions. As a result, Oracle customers, regardless of the industry in which they operate, are out-performing the competition in areas of efficiency, customer satisfaction and time-to-innovate. For higher education customers, this means that the industry-specific products like PeopleSoft Campus Solutions are leveraging the vast resources of a \$4.5 Billion annual spend on research and development across the technology spectrum. Also, higher education customers have taken a leading role in the Oracle user group community and strategy councils by collaborating with Oracle and each other to influence development priorities and enhancements to the portfolio of solutions.

Oracle also invests heavily in the more than 25,000 partners who develop on Oracle. PeopleSoft Campus Solutions has taken advantage of this large ecosystem to deliver integration solutions so you can more easily and flexibly connect with learning management systems, human resources and financial systems, mobile platforms, analytics solutions and more. Additionally, adopting a modern, continuous release model more than three years ago has made it possible for Campus Solutions to deliver more new features or significant enhancements to its higher education customers. Oracle delivers these new features and enhancements as part of the core product which means customers can be "always current" with new capabilities and without application upgrades.

Finally, customers can benefit from all these innovations in whatever deployment model best fits their current IT infrastructure and their strategic IT direction. Campus Solutions provides a choice of deployment models, including on-premise, in the cloud, shared services and more. The added benefit of partnering with Oracle and Oracle's PeopleSoft Campus Solutions is that, as an Oracle customer, you have complete flexibility to move among deployment choices as your needs and IT strategies change or grow over time.

□ □ □ □ □ □ plete Solution for □ i □ □ er Education

Because much of the information an institution needs is about students, Oracle focused first on creating a comprehensive, functionally rich student information system (SIS): PeopleSoft Campus Solutions. PeopleSoft Campus Solutions provides institutions with support for the full student lifecycle from prospects through enrollment to alumni management. Today however, higher education institutions need more than an administrative student information system that keeps records and produces reports.



Supported Integrations

- PeopleSoft □□M and PeopleSoft
 □M for □i□□er Education
- PeopleSoft □u □ an □apital
 Mana □e □ ent
- PeopleSoft □inancials
- □racle □inancials (□racle E□
 □usiness Suite)
- □racle □i□□er Education
 □onstituent □ata □u□
- □racle Identity and □ccess
 Mana □e □ ent
- PeopleSoft Perfor□ance
 Mana□e□ent □ are□ouse
- □earnin□ Mana□e□ent Syste□s (various vendors □□o are IMS□ □onfor□ant)

Successful institutions in today's hyper-connected world need an innovative, scalable and sustainable ecosystem so they can navigate the complexities of transforming and managing the 'business' of education.

Most campuses have an ecosystem that includes a myriad of disconnected systems such as learning management, library, fund-raising, recruiting, human resources, financial systems, research grants, and more. Although all of these systems need to share information in some manner, most institutions do not have a robust architecture that connects them and provides useful information needed by campus constituents. As a result, information technology budgets on most campuses are heavily burdened by high costs to connect and maintain integrations between all these systems and the information they hold—money that could be spent on higher-value projects to support the institution's mission. To help reduce these costs, Oracle delivers many out-of-the box integrations between Campus Solutions and other critical business applications that colleges and universities use to manage their institutions—and plans for many more.

Customers' need for system flexibility is the driving force for today's modern system architecture. Campus Solutions solves this need through a combination of a Service Oriented Architecture (SOA) and a number of frameworks and constructs. This architecture benefits customers by enabling them not only to connect their ecosystem but also the flexibility to extend and configure Campus Solutions to support their unique business requirements in ways that will protect these connections from 'breaking' when future updates are made.

The team working on PeopleSoft Campus Solutions listens to higher education and its customers leading to a development strategy that incrementally modifies and enhances the Campus Solutions architecture and capabilities in a way that makes it easier for customers to adopt new functionality.

Summary

Today and tomorrow's successful higher education institutions must respond quickly and flexibly to a dynamic global education environment. The pent-up demand for higher education in the global economy is a tremendous opportunity and challenge. Oracle's vast technology resources and dedicated higher education development team partner with its education customers globally to deliver the most comprehensive and flexible functionality and modern, extensible architecture. Oracle's PeopleSoft Campus Solutions is the leading student management solution that enables customers to innovate and succeed in today and tomorrow's global economy.

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Transformative Student Lifecycle Management

Oracle Solutions for Higher Education



Keeping Up with Changing Technology, Changing Budgets, and Changing Times



Higher education leaders continue to grapple with transformational issues, including rising costs, globalization, technology advances, and regulatory compliance. Oracle's student lifecycle management means they always get top grades.

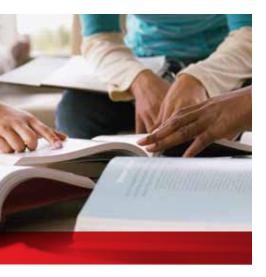
Higher education leaders, administrators, and researchers face a multitude of challenges that include the ongoing need to reduce costs; cope with global competition for students, faculty, and researchers; gain insight for more-informed decision-making and strategic planning; keep pace with the speed of technology advancements; link education and research programs to outcomes; and meet increasingly rigorous standards for accountability and regulatory compliance.

But many institutions are hampered by cobbled-together technology infrastructures; highly complex and fragmented networks of applications; and seemingly conflicting mandates for easier, mobile access to information and learning while providing a secure, stable environment.

Fortunately for teaching and research organizations around the world, Oracle has a long history of supporting education. Oracle is committed to simultaneously developing advanced solutions specifically designed to meet the unique requirements of education while offering immense flexibility in deployment so you can achieve the best fit for your precise needs.

FACT: One-third of all students change institutions at some time before earning a degree.

Source: "Transfer and Mobility: A National View of Pre-Degree Student Movement in Postsecondary Institutions," National Student Clearinghouse Research Center Signature Report, February 2012



WITH ORACLE SOLUTIONS FOR HIGHER EDUCATION, INSTITUTIONS CAN

- Share constituent data between PeopleSoft Campus Solutions and other systems where that information is required
- Increase the accuracy and reduce duplicates of person data
- Understand all the relationships an individual has with your institution
- Improve communications and the quality of interaction with all your constituents through more complete and accurate information about them

Oracle's Solutions for Higher Education

Successful higher education institutions know they need to focus on the complete student lifecycle—from the first contact with a prospective student, through enrollment and graduation, alumni pursuits, lifelong learning, and beyond. What's more, these colleges and universities understand that a student's interactions with their institutions go far beyond administration and transactional systems.

Today, highly effective education and research institutions are building a framework that supports the intersection of academics, administrative processes, and long-term constituent relationships to promote student success. They need solutions that adapt quickly to diverse and changing education models. They expect operational excellence and a natural, intuitive, real-time user experience that promotes productivity and supports learning through collaboration. Finally, they want every system that supports and interacts with students to be flexible and scalable enough to keep pace with the speed of technology.

Oracle is the only vendor serving higher education that has the vision and the capability to deliver the type of solutions that institutions need today—and to "future-proof" their investments so they'll meet the requirements of tomorrow.

Unlike other student solutions built on archaic infrastructures that support yesterday's education processes, Oracle's PeopleSoft Campus Solutions and other products for education have been purposefully architected to evolve with education institutions as they continue to transform learning delivery as well as institutional processes and policies. Oracle's student solutions are also extensible. This means that your institution can build on and extend the capabilities to differentiate your institution through unique programs of study, distinctive self-service, or other features without costly customizations. And Oracle's student solutions are built on open standards so they'll work in complex, multiplatform environments.

Constituent Management and the Student Lifecycle

Increasingly, colleges and universities want complete, current, and accurate information about each individual who interacts with their institutions. But many times, these relationships and interactions are complex because many people end up holding multiple roles over time. What if an applicant to graduate school is also an employee of the university? What if students' parents are also alumni? Does a change of name and address that the employee just submitted in the human resources system need to be updated in other systems' databases? When a student applicant is accepted and enrolled but then hired for a part-time position, is the institution able to see and manage the student's various roles or affiliations?

Oracle's student solutions make it possible for an institution to "share" an individual's data with all other organizational systems, saving time and resources and improving the accuracy of the information maintained.

The Student Lifecycle Begins with the First Contact

From the moment a prospective student or other individual connects with your institution—whether virtually, through a recruiting event, or via one of many possible inbound or outbound communications—your institution has an opportunity to nurture and grow that relationship over time.

But how do you communicate and share the information from this initial contact with the appropriate individuals in your institution? Can you ensure that the individual's information is not lost, but also kept secure? And how do you tie that initial contact information to the individual's subsequent application, enrollment, and giving history? Can you capture and track all the affiliations and relationships that an individual contact has in order for you to personalize communications and interactions? Will you be able to track that initial contact throughout the relationship lifecycle to know if the person applied for admission and enrolled and if she completed her program and graduated successfully? Finally, will you be able to measure the effectiveness of your recruiting and retention efforts from this initial contact?

PeopleSoft Campus Solutions has powerful recruiting and admissions capabilities that can be further extended when integrated with a customer relationship management (or CRM) solution from Oracle. However, because of its Web services and open standards design, PeopleSoft Campus Solutions can also be integrated with other vendor or custom-built CRM solutions already in use at your college or university.

Managing Student Finances and Funding Education

Financing a university education is becoming more challenging for students and their families. Around the globe, many governments are reducing their support for higher education and changing the mix of available funding. We see many countries introducing new student payment requirements such as student loan schemes or work and study programs. And students are looking to third-party sources of funding, such as foundations, scholarships, and corporate sponsors, as well as increasing the number of hours spent working to finance their education.



ORACLE CAMPUS SOLUTIONS

Oracle's PeopleSoft Campus Solutions family of products includes

- PeopleSoft Student Administration
- PeopleSoft Campus Self Service
- · PeopleSoft Gradebook
- PeopleSoft Student Administration Integration Pack
- PeopleSoft Contributor Relations

FACT: Only 57 percent of incoming freshmen to four-year programs will receive a degree or credential. For community college students, success rates are even lower.

Source: U.S. Department of Education, National Center for Education Statistics (2011). The Condition of Education 2011 (NCES 2011-033), Indicator 23.



"With its modular, open standards design, Oracle's PeopleSoft Campus Community has improved student administration and enabled us to freely exchange data with partner universities. The system will support our aim of becoming a globalized institution offering high-quality education."

Huang Der-Chen

Director, Computing and Information Network Center, National Chung Hsing University For institutions of higher education to respond to and manage this rapidly changing environment, they need a flexible and adaptable student information system that provides a variety of options for calculating and assessing student fees and tuition as well as myriad other payment options. PeopleSoft Campus Solutions provides exactly that.

The student financials module provides a wide variety of options for configuring rules for assessing enrollment-based charges and fees as well as options for invoicing and billing students or designated third parties. In addition, PeopleSoft Campus Solutions supports a variety of funding sources, including

- · Employer-funded education for working adults
- Government-sponsored programs
- · Installment payment plans
- Financial aid programs such as student loans and scholarships as well as U.S.-based government financial aid programs
- · Online payments such as credit cards and e-checks

Contributing to Student Success and Retention

Once a student is admitted to your institution, the opportunity for his or her continued success depends on many factors, including

- · Individual goals
- Academic success
- · Schedule flexibility
- · Positive user experience with university systems and processes
- Communications and feedback mechanisms
- · Advising resources
- Finances and funding

To support student and institutional success, colleges and universities need to be able to flexibly define programs of study to meet changing student and community needs and develop programs to define and support student success and retention.

Built on open standards, PeopleSoft Campus Solutions is the student system of record. It can interface with other systems so advisors, faculty, and administrators can gain the information and insight needed to retain students and help them achieve their goals at your institution.

"Using the software and the curricula provided by the Oracle Academy allows me to organize my lessons in a fast and effective way, taking advantage of the latest technology and the practical examples provided in the curricula. Many of my students have successfully taken the Oracle certification exams."

Geert Vera, Head of Information and Communications Technology Department, Universiteit Antwerpen

Merge Academics and Collaboration with Student Information

Higher education is an increasingly digital, distributed, and mobile experience. Students and faculty need real-time access to online learning, collaboration tools, and resources from anywhere in the world, on any device, and enhanced by rich digital media. The PeopleSoft Student Administration Integration Pack, for example, reduces the administrative burden on faculty members and allows an institution to connect enrollment data with its learning management system (LMS) and other academic support systems. With Oracle supporting the administrative functions, institutions can focus on their education missions.

Because Oracle partners with leading LMS providers, Oracle makes it possible for institutions to integrate and access student and class information for a personalized, comprehensive view of the learning experience. And Oracle technology enables integration with an institution's content management, portals, multiple LMSs, and other systems that interface with students, faculty, and the learning environment.

Provide a Holistic View Between Your Constituents and Your Institution

An individual's relationship with your institution is not limited to academic or administrative functions. Your constituents change roles and requirements for information and access over time. From obtaining a parking permit, to accessing research materials through the library, to purchasing books, joining a research team, becoming an employee, and so on—each role or activity requires a specific type of access to information. Because many of the systems supporting these functions have been built independently, creating a holistic campus environment requires them to be connected throughout your institution.

Oracle's higher education solutions help colleges and universities

- · Connect the entire campus community
- Integrate multiple, disparate systems throughout your institution
- · Improve the user experience and access to information
- · Enhance service to the campus community
- · Simplify and speed up access to information that users need
- · Secure access based on each individual's role and affiliations



"Oracle provides the solutions we need to handle our rapid enrollment growth. By leveraging Oracle's PeopleSoft Financials, PeopleSoft Campus Solutions, and PeopleSoft Human Resources, we have improved our operational efficiency, enhanced service delivery to students, and can provide timely and accurate information to key stakeholders."

Susan Garland

Executive Director, ERP Applications, Office of Technology Services, iStar Project, Lone Star Collect System Source: Oracle Corporation



"The deployment of an integrated student information system is a long-term investment and one of the large technology projects undertaken by the university in recent years. We have used PeopleSoft solutions to build a single, integrated student administration system that has streamlined the way we record and store information, improving the services we provide to students and staff."

Tommy Hor

Director, Computer Centre, National University of Singapore

Cultivate Continued Opportunity for Individual Growth and Lifelong Learning

Relationships with your institution do not end when a student graduates, achieves his or her goals, or leaves for other reasons. Continuing to cultivate and grow the relationship each individual has with your institution gives you and the former student an opportunity to deepen the relationship and pursue future opportunities for learning and engagement. Oracle solutions can help you

- Define academic models to support personal and professional learning activities
- Support flexible terms and lifelong learning
- Incorporate Web 2.0 content and social networking into your ongoing relationship management

Other Oracle Capabilities and Advantages

Oracle has the resources and capabilities to support all aspects of your institutional mission and operational performance. Oracle higher education customers can leverage the substantial resources and talent of the company's many acquisitions and more than 108,000 employees, 32,000 developers and engineers, and 20,000 partners to support all aspects of the operations of a successful institution in today's global markets. In addition, because Oracle can offer individual application licenses for on-premises deployment, optimized and integrated hardware and software, up to and including on-demand or in the cloud, colleges and universities can choose what will work best for them, not for the vendor.

Tap the Potential of Your Donor Community

Many institutions are reaching out and building stronger relationships with their alumni, friends, community, foundations, and corporate donors to cultivate additional sources of revenue and support. Through effective relationship management, you can improve your institution's ability to maximize the impact of your fund-raising appeals while deepening relationships with all your donors. Oracle's PeopleSoft Campus Solutions and PeopleSoft Contributor Relations help you do the following:

- Incorporate Web 2.0 content and social networking to personalize communications with donors and prospects
- · Effectively manage and measure fund-raising events, campaigns, and annual appeals
- · Continuously analyze progress to improve results
- Personalize communications and support multiple communications channels
- Enhance user experience so contributors can easily interact with your institution

Human Resources

Recruiting, managing, developing, and retaining quality staff and faculty are key to supporting the mission of your institution. While often considered a back-office solution, strategic human resource management is a critical component in enabling your institution to support the core mission of teaching, learning, and research. Only Oracle offers a complete portfolio of human resources solutions to support institutionwide and departmental-level needs from a single platform. And you can choose the deployment model that best fits your needs and resources—and make changes to your deployment without interruption of services to your constituents.

Financial Operations, Procurement, Strategic Planning, and Budgeting

Operational efficiency. Transparency. Governance. Compliance. Successfully meeting these many requirements and more is at the core of your institutional operations. Only Oracle offers a complete portfolio of financial, planning, budgeting, governance, and reporting solutions to support institutionwide and departmental-level needs from a single platform.

Supporting Grants Management and Research

As researchers and research programs have become more global and data intensive, it is increasingly challenging for higher education institutions to keep pace with the new demands. No longer are institutions able to manage discrete research projects within the confines of a department or even the institution itself. Cross-discipline and global collaboration, managing the deluge of data, securing access, and meeting the needs for data integrity and accountability are issues that research organizations face today—as well as building an infrastructure to meet future needs and expectations. Similarly, managing the financial aspects of a research project is becoming more challenging. Competition for grants and sponsored research funding is increasing, as are pressures to secure more grants and reduce costs. Principal investigators and research administrators must contend with increasingly complex program requirements, institutional review boards, conflict-of-interest requirements, and reporting requirements.



"At HWS, we are pulling in students who have the same expectations as those who go to larger institutions with bigger budgets. They are technology natives, and they expect that everything is available at their fingertips, online. They want to do what they want, when they want, not during office hours. Oracle's PeopleSoft applications help us to make this a reality."

Jeremy Trumble

Director, Enterprise Solutions, Hobart and William Smith Colleges "The emerging concept of social CRM combines traditional contact points with information derived from social networks and other new media in the decision-making process. Newer CRM software releases are far more robust and flexible than their predecessors at integrating this information."

Source: "Is Your CRM Solution Keeping Up with the Times?" IT Business Edge, 2011



"This new system not only achieves cost savings through economies of scale; it more importantly improves the student experience and allows our faculty, staff, and students to invest more time in the classroom as opposed to dealing with outdated technologies."

Dan Klaich

Chancellor, Nevada System of Higher Education

End-to-End, Full Enterprise Business Intelligence and Analytics

To meet the education and research goals of the institution and be nimble enough to adapt to changing requirements, colleges and universities need access to data about the institution that is timely and accurate. Comprehensive dashboards and reports must provide immediate access to the details of all aspects of the operation. Performance indicators must create a feedback loop between decision-making and institutional operations and provide insight into how resources should be utilized for maximum results and more-accurate planning. Oracle solutions offer user-friendly analytical tools for your provosts, financial officers, program directors, and other business officers so they can easily track trends and make adjustments. Besides increasing transparency and reporting capabilities, Oracle solutions allow institutions to build performance management programs to increase productivity and improve resource allocation.

Oracle's Commitment to Education

For nearly two decades, Oracle has worked to advance education with innovative technology programs that prepare students for life and for the workplace. Each year, Oracle Academy delivers more than US\$2 billion worth of software, curriculum, hosting services, and teacher professional development to serve 1.5 million students in 95 countries. Higher education institutions can integrate these resources into computer science and business programs to help students gain industry-relevant skills that prepare them for twenty-first-century careers.

Transformative Solutions for Changing Times

Oracle solutions for higher education are purpose-built so institutions can meet the complex and changing requirements of their students, faculty, staff, alumni, governing bodies, and other constituents today and far into the future. Because of the open standards—based design principles of Oracle technology, institutions can flexibly adapt to changing needs without disruption of services or access to information—reinforcing a positive user experience. As a result, higher education institutions can more effectively manage relationships and the student lifecycle, from first contact through graduation and beyond. Oracle's commitment to education and close partnership with leading education institutions around the world uniquely position it to deliver the solutions institutions need today.



CONTACT US

For more information about Oracle's student lifecycle management solutions, visit oracle.com/us/industries/ education-and-research/index. html, or call +1.800.ORACLE1 to speak to an Oracle representative.

OUTSIDE NORTH AMERICA Visit oracle.com/us/corporate/ contact/index.html to find the phone number for your local Oracle office.





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Hardware and Software Engineered to Work Together

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The Foundation for a Connected Campus

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- Pre confi ured to levera e est practices of leadin institutions
- Strea□lined approac□reduces ris□

Times are difficult for higher education. Uncertain budgets, shifting enrollment trends, increased competition for students, and the need to constantly adapt to changing and increasingly demanding regulatory requirements make it a struggle to keep pace. Yet, despite the uncertainty and conflicting priorities, your institution can only be successful if it can provide services and information conveniently, online, and in real-time to your students and prospective students. In response to the shifting education landscape, Oracle, now one with Sun, can offer institutions like yours a best-in-class, fully implemented student system at an economical fixed cost and significant savings.

The Foundation for a Connected Campus

Oracle is the only vendor to higher education that can make this complete offering to institutions that need a robust, modern architecture student system but don't have the resources to purchase, implement or support it. The foundation for a connected campus offering includes pre-loaded, pre-configured Sun hardware and storage, Oracle's PeopleSoft Campus Solutions suite, implementation services, and Oracle University training for your staff at an affordable, discounted price for higher education institutions.*

PeopleSoft Campus Solutions

Campus Solutions is a comprehensive software suite for higher education. Architected as an open, standards-based system, Campus Solutions provides the next generation technology, giving you the flexibility to more easily adapt to changing needs and requirements. Students and prospects can access the system anytime, anywhere, from any device. And you can configure the online environment to provide information in a format that best meets the needs of your institution and constituents while gaining measurable efficiencies to reduce costs.

With PeopleSoft Campus Solutions, information delivery is role-based, enabling students, faculty, staff, alumni, and visitors to access the information they need while protecting sensitive data.

Campus Solutions is comprised of several modules including:

- Academic advisement**
- Financial aid

• Student administration

- Campus self-service
- Gradebook**

• Student financials

- Contributor Relations**
- Recruiting and admissions
- Student records



^{*} Oracle, PeopleSoft and Sun products are licensed separately.

^{**} These PeopleSoft Campus Solutions products are optional either from an implementation services side or from both the implementation and the product cost.

Oracle and Sun—Better Together

- □apid ti□e to value
- □o□ ris□
- □o□ cost
- □i □ed price

Campus Solutions on Sun

PeopleSoft Enterprise Campus Solutions has been tested, tuned, and optimized on Sun's Solaris Operating System (Solaris OS) platform, and it leverages Sun's chip multithreading (CMT) technology-based servers to provide scalable Web services. With exceptional RAS, the robust Sun PARC Enterprise server M-series systems provide the necessary compute resources for the PeopleSoft database. Sun Open Systems enable universities to better control capital and operating expenses while providing an optimized server and storage infrastructure to meet performance and scalability requirements.

PeopleSoft Enterprise Campus Solutions leverages the power of Sun's highly scalable, multiprocessor servers, helping universities optimize investments in IT infrastructure and resources as well as improve administration effectiveness. Sun servers, storage, and infrastructure software provide the foundation for a highly secure, scalable, and available campus management and administration system.

Better Together

Because Oracle and Sun are one, you can take advantage of this cost-effective approach that reduces cost, risk, and the time it takes to implement and train. Your institution can now leverage the PeopleSoft and Sun best practices and optimized environment that other institutions worldwide have pioneered and achieved over the past decade.

The pre-configured architecture and fixed price of The Foundation for a Connected Campus not only reduces cost and risk, but also provides institutions with the inherent scalability and flexibility to adapt to changing demands that isn't possible with older, more limited student system solutions.

CONTACT US



PEOPLESOFT CAMPUS SELF-SERVICE



CONNECTING INFORMATION
TO ACTION IN SELF-SERVICE

- Improved navigation in the Student Center
- Enrollment Backpack tool for students to plan and manage their academics
- Advisors and administrators can see the student's personal view of the center to facilitate assisting the student
- Students can post external financial awards
- Personal data pages can be updated and managed by all your campus community
- Fundraisers and recruiters have instant access to information about prospects
- Intuitive navigation to engage guests or prospects visiting your site
- Information linked to appropriate action enhances the user experience and productivity

Student, faculty, staff, alumni and donor expectations for access to information, transactions and services over the internet continue to rise. All your institution's constituents want to go online to find the information they need to make decisions or perform tasks quickly, easily, and efficiently. By stripping processes of unnecessary administrative layers, you establish a self-service connection for people who expect to perform tasks themselves. And you free up administrative time and resources—valuable commodities at a time when higher education is under great pressure to reduce administrative costs and increase academic performance.

Meeting Expectations

Campus Solutions 9.0 builds on previous releases by increasing both the functionality and ease-of-use in self-service applications across all the modules in the suite. The new self-service features give your constituents greater insight and adaptability because they:

- Tightly integrate information to appropriate action
- Deliver an intuitive user experience
- Improve collaboration and interaction
- Offer many choices in how and to whom you deploy self-service features

We designed Campus Solutions 9.0 so you can achieve both your goals of improving user satisfaction and gaining administrative efficiencies. Here are some examples of how this new release will accomplish these goals for your institution.

The Student Center

First introduced with the last release, the Student Center structure is a personalized Web page through which the student can access all the information required to manage his or her campus life, academics, financial transactions, and collaborate with other students, faculty, advisors, and staff.

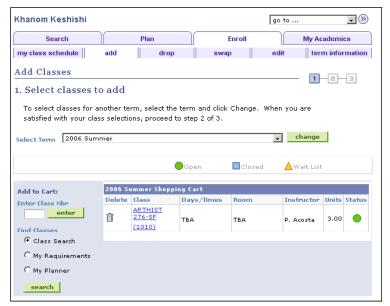
In addition to giving students access to class schedules, financial data, contact information, course offerings, announcements, planning tools, enrollment, and advisement; the student center links all this information directly to specific actions a student may need to take to complete a particular process.

For example, from the Center a student can search for classes, plan his course roadmap and view academic information. From each of these areas, the student is led to transactions such as add, drop, or swap courses so she can successfully complete her enrollment without opening new windows or going to another location on your website.



Another example of information leading to action in the Center is while a student is attempting to view his grades. The student can see his grades (including assignment grades) and academic standing unless service indicators such as overdue fees, library fines, or parking tickets are outstanding. In this case, the student is provided with a direct link to the action he needs to take to lift the hold on his grades.

A third example is the course catalog search and browse capabilities that allow the student to search by a combination of criteria such as a specified number of course credit units or for a particular class on a specific day at a specific time. Then the student can make his course selection, place his selection in his personal planner for a specific term, and save all his selections—including optional classes. The institution can alert the student when he is able to enroll, and he can complete enrollment directly from his planner.



Student Center enhancements provides the student with all the information needed to plan and manage his academic life, then links that information to an appropriate action or next required steps.

Another unique feature of the Student Center is that it allows an administrator, faculty member, or advisor to see the exact same view the student has of his personalized Center. This makes it much easier for them to help the student while he is in the process of trying to complete any task through self-service.

Enrollment Backpack

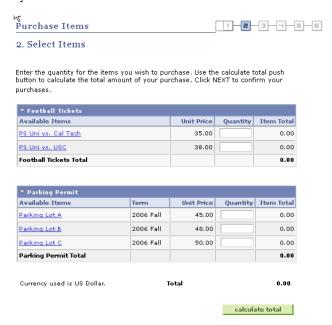
Enrollment Backpack is a powerful tool that students access through the Student Center to obtain extensive academic information, perform transactions, analyze and report his progress towards satisfying academic goals, and deliver the information he needs to make informed decisions about class enrollment. Additionally, the self-service planner feature provides convenience and flexibility for students to plan courses on a short- or long-term basis and directly enroll in planned classes as academic terms become available.



Self-Service Miscellaneous Fees

Most institutions have some sort of miscellaneous charges that they assess through the student receivables system. In many cases these miscellaneous charges are optional or triggered only when the student requests the service associated with the charge, such as purchasing a yearbook, a parking permit, or an athletic center membership. Because these items tend to be ad hoc in nature, administrative overhead is significantly reduced if students can select and pay for these items directly through self-service.

Now the student can select the item and be led through the process where she will be required to pay for the charge before completing the transaction. Once the student has completed the payment process, both the charge and the payment are posted immediately to the student's account.



Students can select and pay for miscellaneous charges through self-service.

Self-Service 1098T Forms (United States)

Institutions based in the United States are required annually to issue IRS Form 1098T to students so they can report tuition and fee amounts on their tax returns. With this new self-service feature, students can display and print their completed 1098T forms in PDF format via self-service, thereby further supporting your institution it its effort to reduce costs and streamline administrative processes.

Like all of PeopleSoft Campus Self Service, the Student Center, Miscellaneous Fees, and 1098T Forms features are configurable. You decide which content and links to add, so your students are just a click away from the information and transactions they access most often. Their satisfaction goes up, and your administrative support costs drop.

Managing Student Financial Aid Through Self-Service

Institutions are moving more and more financial aid processes online and putting them in the hands of the students through self-service. Oracle continues to build out



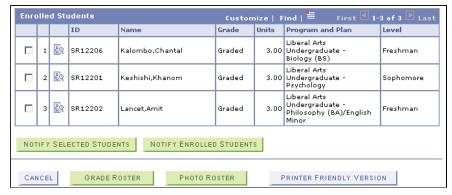
self-service features and added flexibility in the financial aid process so institutions can choose and configure the solutions to meet their needs and requirements.

Some of these unique features include:

- Students can report external awards through self-service which will immediately populate suspense tables so the institution can make adjustments to the previously offered financial aid package.
- Institutions can provide each student with the most current and accurate notification of the financial aid award package through self-service which the student can view and print.
- For institutions who would prefer the student select the lender for her financial aid, Oracle is providing that option through self-service.
- Financial aid administrators can use self-service tracking for compliance with required loan counseling for first-time student loan borrowers.
- Students can use self-service to authorize the institution to apply financial aid awards to a different term or ineligible charges.

The Faculty and Advisor Centers

The Faculty Center is the self-service hub for faculty and advisors. From a single site, faculty members can see class schedules and locations, view a dynamically updated class roster with a view of each student's photo, and post grades. They can instantly connect to one or all of their students by e-mail. Like the Student Center, this page is configurable. You can link to PeopleSoft Gradebook, learning management systems, and any other applications you wish.



Clicking on the icon displays the students picture and high-level academic information.

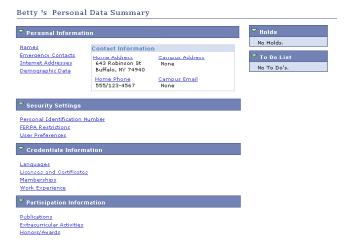
Advisors can access lists of assigned advisees and review individual class schedules, enrollment appointments, and to-do items. They can check for holds on student records, request unofficial transcripts and degree progress reports, find grades for a given term, and view their final examination schedule. Also, the advisor can see each advisee's Student Center and other pertinent academic information to facilitate dynamic advisement with the student. Advisors also have a one-click connection with their advisees via e-mail.



Campus Community Self-Service

PeopleSoft Campus Solutions Self-Service provides online directories and access to personal profiles. Campus community self-service means that students, faculty, and staff can update their own personal profiles and data online, reducing the possibility for errors and the need for administrative data entry.

The Personal Data Summary page is intended as the jumping-off point for all self-service information related to a person's bio-demographic and résumé-type information. Any person authorized by the institution can use this page, not just students. So your expanded community can include faculty, staff, alumni, prospects, donors, and others.



The personal data page contains résumé-type information.

You can also offer a choice of online services to prospective students by allowing them access to campus information, see how course credits will transfer, or submit an application through community self-service.

Contributor Relations

For fundraisers and recruiters, PeopleSoft Campus Self Service offers a relationship management tool that provides instant access to information about prospective contributors and students. Armed with this information, your institution can improve its outreach—building stronger, more lasting relationships with these groups.

Fundraisers and recruiters have online access to information about prospect assets, interests, relationships, giving history, ratings, contact history, and more. They can add, update, or view prospect strategies; link actions to those strategies; update and share contact reports; create and view to-do lists; and analyze prospect data to determine if strategies are on target.

Contributor Relations 9.0 delivers more intuitive navigation for a better user experience for guests coming to your website. And, as with the Student and Faculty Centers, your prospect managers will find links to action intuitively positioned on each page to help the user choose the next step she might want to complete next for each visitor or prospect.



Oracle's PeopleSoft Campus Self-Service Datasheet January 2007

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Higher education has embraced cyberspace as a learning delivery channel so the connection between learning or course management systems and student administration has become critical. Duplicate entry, redundant data, and parallel but disconnected processes waste time and resources while increasing the risk for inaccurate data and vulnerability to security and privacy breaches. Leading the industry toward more open, standards-based software, Oracle was the first vendor to higher education with a supported, standards-based solution to bridge the gap between the back office and the classroom.

□ □ at is t□e Student □d□ inistration □nte □ration Pac □□

Oracle's PeopleSoft Enterprise Student Administration Integration Pack (SAIP) is the first product in Oracle's new suite of solutions making it possible for higher education institutions to more efficiently integrate and manage their administrative and teaching and learning systems on campus. The suite, Academic Enterprise Solutions, intends to eventually integrate and extend all the systems that support the education experience including student systems, learning management, collaboration and communication, portfolios, analytics, identity management, library systems, parking systems, housing systems, and more.

Until now, integrations between applications within the academic enterprise have been brittle, complex and expensive. In some cases, when institutions have not had the resources to attempt integration, they have had to employ redundant and often manual processes to get the same information into different applications. At the same time, institutions that have invested in costly customizations and development to bring diverse systems and business processes into alignment find they need to re-invest in those resources with each upgrade or

Oracle's SAIP is different. SAIP is based on widely adopted technical and industry specifications and provides an open, standards-based integration from Oracle's Campus Solutions 9.0 to today's popular vendor-supplied and open source learning management systems. Oracle has partnered with Blackboard, Desire2Learn, Moodlerooms, and other vendors to make integration with these learning management systems less costly, more flexible, and extensible to future technologies, enhancements and upgrades.

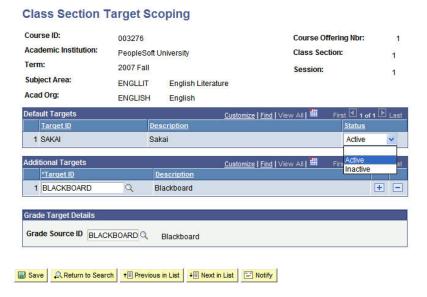
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Because Oracle's SAIP solution is open and standards-based, institutions are able to:

 Reduce the cost of supporting integrations by providing course information from Campus Solutions 9.0 to all the different applications that need to know what courses exist and the details about those courses including learning management systems, portfolios, wikis, and facility management systems.



• Choose solutions based on the needs of your constituents, not on the limitations of your applications or resources for integration. Every application that adheres to the same standards as SAIP will plug into it—giving you the flexibility to change solutions, vendors, processes, and support different processes within your institution. And upgrades of any of these solutions can be done independently because integrations are not so brittle. In addition, you can support the diverse needs of all your campus constituents because SAIP allows you to integrate with more than one LMS at the same time.



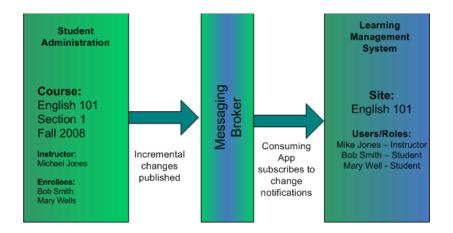
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- Enhance the user experience by provisioning course roster information to diverse systems such as eReserves, course evaluation systems, emergency alert systems, campus portals, book stores, Web 2.0 tools such as Facebook.
- Extend and expand the power of your student and learning management systems through
 publish and subscribe architectures and uptake of new technologies through the use of
 application programming interface (API) source code that is openly published for the
 community to use in building and integrating solutions.

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Oracle SAIP provides a web service-based interface for passing academic data from Campus Solutions 9.0 to other applications such as learning management systems. These web services create and maintain corresponding data in the other applications. For example, when a course is crated in Campus Solutions, the information is passed to the learning management system which would create a corresponding course site or virtual learning space. As students enroll in the course in the student system, their enrollment information is passed to the learning management system and they are listed as valid members of that course with all appropriate privileges. This approach eliminates the need for double entry or re-integrating the two systems every time an enhancement or upgrade is introduced into either system.





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There are four ways that SAIP ensures that the student and learning management systems continually share and update information:

- · Snapshot-based integration
- · Event-driven integration
- · Grade integration
- · Course mapping

Snaps □ot □ ased Inte □ ration

Sometimes you will need to port large amounts of data from one application to another, such as when you are initializing your learning management system for the first time or at the beginning or end of a semester, or whenever you want to resynchronize systems—however you want it to support your processes.

SAIP will take all your data—people, courses, enrollment—and make it immediately available to the learning management systems. You have the option of sending a full snapshot that will overwrite all previous data, or an incremental snapshot that will provide only the data that has changed or been added since the last snapshot was run.

Event driven Interration

Some institutions, based on the expectations of their constituents, will want to use the event-driven model. This process means that the student system publishes data to achieve near-real-time synchronization between the two systems. For example, if a student enrolls in a course in the student system and a corresponding course exists in your learning management system, that student is added real-time—no more waiting overnight to be granted access to information, course materials, or other content that the student needs.

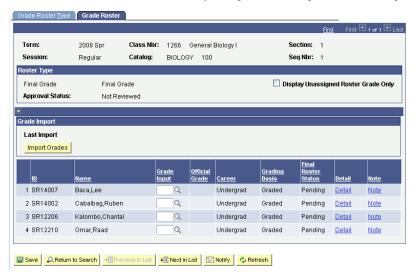
Triggers that would initiate synchronization are added to appropriate locations within the Student Administration system where data might be created, updated, or deleted. With Student Administration as the system of record, other applications are able to quickly and accurately reflect the real state of the data. Some of these triggers could include term, course, enrollment, grades, and biographical or demographic changes of an individual.

□rade Inte □ration

Getting final grades out of your course management system and into your student system is often a tedious, sometimes manual process. SAIP eliminates duplicate entry and allows you to



accept grades from your course management system whenever you need them. All of the standard checks and balances are still in effect just as they would have been if entered them by hand. You will still be able to review, verify, change, and control grades before final posting.

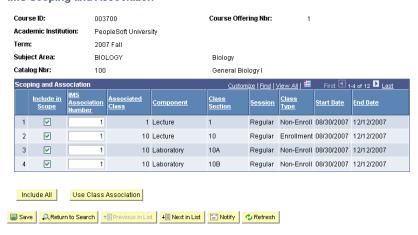


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□ourse Mappin□

Every institution, department and instructor has their own preferences about how they want courses organized in their learning management system. Sometimes there are multiple learning management systems being used. SAIP provides a simple wizard that allows you to map your course offerings and sections in Campus Solutions to the structures that exist at all those different levels and instruction preferences and styles without expensive, customized integration. You can define simple templates that can be applied throughout the organization or you can specify who has control of how students are organized within your learning management system. And you can control, at a class level, what information participates in the integration.

IMS Scoping and Association



□ou can □roup sections of a □ ulti ⊠ection course in any confi□uration to your □MS□



SAIP has the capability of mapping the most complex course configurations including:

- Multi-section courses
- · Cross-listed courses
- · Scoping courses by term, institution, academic organization, specific sections, or all inclus ive

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Oracle SAIP employs existing standards where available and participates in discussions to extend, modify, or create standards and specifications where none exist. This approach includes using IMS Learning Information Services (LIS) specifications and actively participating in IMS and other standards bodies to ensure that the materials developed serve and benefit the entire community.

The SAIP interface is constructed on the IMS LIS standard specification. This specification provides standard information models and protocols representing person, courses, enrollments, and outcomes.

Oracle is committed to open standards and will continue to build on existing knowledge, participate in the community of users and developers, and ensure future maintainability and extensibility of these solutions for higher education.

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Oracle is committed to developing practices and products that help protect the environment

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Hardware and Software, Engineered to Work Together



ORACLE HIGHER EDUCATION CONSTITUENT HUB (HECH)

KEY FEATURES

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- Interate all constituent data usin preuiltstandards copliant usiness services
- Support co on interation teconolo y usin precuilt adapters)

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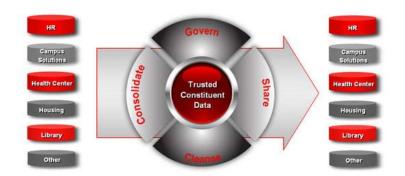
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- Enterprise class perfor□ance□ relia□ility and scala□ility
- Si□ple confi□uration and auto□ated up□rades

Higher Education Institutions face critical constituent data quality and duplicate management issues. The problem is compounded as the volume of this data continually grows and the number of disparate systems where this data is collected, tracked, and monitored, increases. Institutions need a way to maintain an accurate, single source of constituent data across the enterprise. Oracle's Higher Education Constituent Hub (HECH) enables higher education institutions to create a complete, authoritative, single view of their constituents including applicants, students, alumni, faculty, donors, and staff. It then feeds the numerous systems on campus with trusted constituent data.

Oracle's Higher Education Constituent Hub is built on the highly scalable and widely deployed foundation of Oracle's lead Master Data Management platform, Siebel's Universal Customer Master (UCM). Extended and significantly enhanced for Higher Education, HECH's comprehensive functionality enables an educational institution to manage information over the full Constituent lifecycle: capture, standardize and correct names and addresses; identify and merge duplicate records; enrich the Constituent profile; enforce compliance and risk policies; and distribute the "single source of truth" best version Constituent profile to operational systems.



A Consolidation Point For The Entire Enterprise

Constituent data is distributed across the enterprise among various systems (e.g. HR, Student Information, CRM, and Learning Management) across the Campus and all University locations. It is typically fragmented and duplicated across operational silos, resulting in an inability to provide a single, trusted Constituent profile to business consumers. It is often impossible to determine which version of the Constituent profile (in which system) is the most accurate and complete. The Higher Education Constituent Hub (HECH) solves this problem by delivering a rich set of capabilities, interfaces, standards compliant services and processes necessary to consolidate Constituent information from across the institution. This enables the deploying institution to implement a single consolidation point that spans multiple languages, data formats, integration modes, technologies and standards. Further, cleansed and standardized data can be synchronized across various systems on an as needed basis, in either batch or real time, significantly reducing expensive point to point integration between those systems.



Master Trusted Information: Constituent Profile Management

To construct the best version Constituent profile, HECH provides a prebuilt and extensible Constituent profile management process. This process manages the steps necessary to build the trusted "best version" Constituent profile: identification, registration, cleansing (including name and address cleansing/validation), matching, enrichment, and linking. The steps allow you to build and maintain the single authoritative source of constituent data through

- Unifying person data continuously across the institution's systems, such as one or more SIS, HR, CRM and other systems
- Rationalizing the person data to achieve the unique, complete and correct
 profile. This includes the ability to cross reference multiple records in
 various systems that point to the same individual, constructing a 'master'
 version of the record including a single linking ID across all systems
- Distributing the constituent data, such as campus ID, new address, name change, email updates, etc to all subscribing systems, such as Housing, Dining, Parking, Alumni, Financial Aid and so on.

The institution accrues many benefits from this single, authoritative source of truth about the constituent, beyond the obvious reduction in resources dedicated to integration of core constituent data. Using the more powerful searching capabilities within HECH, combined with the much broader population of constituents available to search against, the institution can reduce the number of duplicates added to any system; this is a significant time and resource savings for the institution. Other benefits that derive from a consolidated, accurate repository of person data include:

- Better service to constituents, through more accurate, complete and consistent information about them available in all campus systems.
- More success in communication and interactions with constituents, resulting in improved response rates, spanning the admissions to alumni/fundraising lifecycle.
- Lowered costs of managing multiple person directories and legacy 'hubs', eliminating manual processing of duplicate or overlapping records, and avoiding most point to point integrations which can be costly and unreliable.
- Improved security and regulatory compliance by feeding clean, consolidated constituent data to Identity Management systems as well as enabling compliance with statewide single ID mandates.

Cleanse: Enterprise Data Quality and Address Validation

Centralizing the management of constituent data quality has always been a goal of MDM solutions. Institutions choosing to deploy Oracle's HECH can choose between a data quality solution fully sourced from Oracle or a 3rd party. Oracle Data Quality solution comprises two preintegrated components: Oracle Data Quality Matching Server and Oracle Data Quality Cleansing Server. Using hybrid matching algorithms, Oracle provides a highly accurate matching server; Oracle's PeopleSoft Campus Solutions customers can easily leverage this matching server integrated with their existing Campus Solutions Search/Match capability. Dubbed 'extended search / match', this capability leverages the ability of the existing CS Search/Match to include an external repository, such as HECH, in the search / match process. The result is significantly enhanced fuzzy search and match across all systems. Customers can also take advantage of third party data quality management via pre-integrated adapters.

Oracle Data Quality Cleansing server provides the ability to do full Postal address validation with unprecedented support for more than 240 countries. This includes the ability to cleanse, standardize and enhance current and historical constituent addresses using postal directories. In the US, this also includes the ability to



construct CASS-compliant addresses. Similarly, several other country-specific standards are supported. This support varies based on the standards established the postal authorities of that country.

Govern and Share: Higher Education-specific pre-built Data Model

The HECH data model is modeled after the extended Person data model in Campus Solutions and HCM. This prebuilt data model includes:

- Support for multiple constituent types: students, employees, alumni, teachers, workers, etc.
- Support for multiple Name, Address, Phone, and Email Addresses, for each constituent including persistence of effective dates for many attributes
- Support for Affiliations which are assigned in Campus Solutions to indicate a person's role or roles within the institution.
- Extensible attributes, which are institution-specific. One of the many
 distinguishing characteristics of HECH is that such attribute extensions
 are configurations and not customizations. This becomes important when
 performing upgrades or updates to the HECH system in the future as such
 data model extensions are automatically preserved.

Once the institution has defined its policies around data ownership (governance), the next step is to define which systems are allowed to publish to the hub and which are recipients of updates to constituent data changes. At a more granular level, rules are defined to manage the survivorship of each data attribute from each participating system. The benefit of cleansing the data and managing the constituent profile in the hub is so you can provide that enriched, unified set of data to other systems in your campus ecosystem.

Lowered IT Operational Costs, Greater Agility

HECH can significantly reduce IT costs by helping to sunset legacy systems, such as legacy 'hubs'. Data management costs are lowered too, with HECH's data steward, auto matching, survivorship and cleansing capabilities. These capabilities reduce the need for manual review of overlapping constituent records. Integration costs are lowered as well since HECH supports the new Campus Solutions Constituent Web Service (CWS) and its underlying data model. This results in straightforward integration with Campus Solutions, leveraging Fusion Middleware, any other SOA integration stack, or even point to point integration with PeopleSoft Integration broker.

Finally, the HECH architecture ensures quick and inexpensive upgrades. HECH itself is declaratively defined, and the resulting metadata is stored in a central repository. This metadata includes the business object model and the data entity model, allowing existing objects and entities to be extended, and new objects and entities to be created and linked to those objects already in existence. A major advantage of this approach is that application upgrades are simpler to undertake and to deploy. Therefore, Higher Education institutions can add campus- or institution-specific data elements, web services and methods and business rules without worrying about costly maintenance and upgrades.

Scalable, Service Oriented Architecture

Over a decade, the platform underlying HECH has proven to scale to hundreds of millions of person records. Institutions can consolidate, cleanse, standardize and distribute data for many hundreds of millions of person records using this system. It is important to remember that while typical institutional enrollments range from a few thousand to a few hundred thousand, the person data in these institutions across all systems of record, can easily exceed 20-30 million records and this number grows continuously.

The HECH architecture and platform was designed to be object based, service



KEY BENEFITS

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oriented; and metadata driven. HECH includes SOAP/XML standards composite web services. These services enable HECH to better support end-to-end integration flows by eliminating effort required to build custom composite interfaces orchestrating multiple fine-grained web services. The Higher Education Constituent Hub provides over 100 prebuilt services, together with a set of adapters to support the most common integration technologies. Some of the prebuilt services include:

- Constituent Match/Fetch Services to enable powerful fuzzy search match from any system.
- Constituent Synchronization Services (including full support for the Constituent Web Service in Campus Solutions) to keep Constituent data in synch across all campus systems.
- Publish services to keep 'downstream' applications updates whenever changes occur in individual or sets of constituent records.
- Cross Reference Service to allow for the creation and use of system wide person IDs.

As more and more institutions embrace a full SOA-oriented approach to integration, where systems publish and consume durable and modular services, HECH's native Web Services support will drive down costs and improve overall IT systems reliability.

Deployment Choices - Integration with Oracle's Campus Solutions

Organizations have varying requirements when it comes to choosing how to deploy an MDM solution. The HECH is designed to support deployment in a heterogeneous IT environment – able to integrate with any Student or HRMS application; however, for those customers that want their Oracle Campus Solutions applications to be supported by these powerful data management capabilities, Oracle provides integration support between those two products. This support includes web services from Campus Solutions (CS), designed specifically to ensure constituent data is synchronized between the HECH and CS. Additionally, the Campus Solutions product supports the ability to search within HECH, directly from the CS application, so business users have a more powerful tool to detect and manage potential duplicate records. Finally, Campus Solutions and HECH support an extensible person attribute, called an "Affiliation" which allows the institution to define the roles an individual has within the campus; this Affiliation can be leveraged to feed downstream systems and processes, such as Identity Access Management.

Higher Education Constituent Hub

Oracle's Higher Education Constituent Hub enables higher education institutions to create a complete, authoritative, single view of their constituents including applicants, students, alumni, faculty, donors, and staff. As a result of cleansing the data and managing the constituent profile in the hub, you can provide an enriched, unified set of data to other systems in your campus ecosystem. The flow of higher quality data improves not only the personal interactions you have with your constituents but also enables a more robust integration infrastructure.



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It is a new and challenging era for education. Higher education institutions face increased global competition to attract and retain students. Student expectations for easier, more convenient access to information, self-service transactions, processes, and learning modes continue to accelerate—especially as tuition costs and other fees rise at unprecedented rates. Meanwhile, increasing regulatory demands place additional stress on administrators, researchers, and faculty to track, measure, analyze, improve, and report on the performance of their particular operational areas.

Solutions for □i □ er Education

In order to help higher education institutions effectively meet and adapt to the changing needs and expectations of all their constituents, Oracle works closely with a wide variety of types and sizes of colleges and universities, standards bodies, higher education associations, and education industry leaders to develop and deliver the most responsive and comprehensive student administration system available today. PeopleSoft Student Administration solution, part of the PeopleSoft Campus Solutions family of products, includes three modules that help you better manage all the processes involved in enrollment: recruiting and admissions, student records and academic advisement.

□ecruitin □ and □d □ issions

Higher education institutions continue to face increased global competition for students which requires more flexibility and insight to build relationships with prospects, monitor progress, and measure the effectiveness of multiple, complex programs and interactions with prospective and accepted students. With PeopleSoft recruiting and admissions you can more effectively plan recruiting and admissions activities, target independent recruiting programs to specific student populations, track progress towards enrollment objectives, manage external course credit transfer, administer changes in academic programs for new students, and continuously improve the integrity of your prospect and applicant database.

The variability and complexity of admissions applications throughout the world has led Oracle to introduce a new and transformative approach for addressing the fundamental requirements of configurability and flexibility to support the self-service admissions process. By implementing Admissions Applications Web Services (AAWS) as delivered with Campus Solutions, institutions have the ability to construct online applications with a technology of their choice while using delivered, standards-based web services that allow an online applicant to create, update, save and submit application data.

Because AAWS complies with World Wide Web Consortium standards, the services can be utilized through various end-user devices and are compatible with any enterprise application or other third-party software that integrates through standards-based design.

The AAWS is designed to support the deployment and capture of data online and provides a point of contact that allows the applicant to be assigned a user account and enter important



information such as personal data, intended academic area of study, residency, etc. Since applicants often start, stop and re-start the application process, it is important that they be able to save their application before finally submitting a completed application for further processing.

Applicants can:

- Create a secure user account to access an online application
- Create an unpopulated application for subsequent data entry and submission
- · Save an application and return any number of times until complete and ready to submit
- · Find an application previously saved
- · Provide attachments to an online application

Administrators can:

- · View, manage and track progress of an application before it has been submitted
- · Access a summary of all active admission applications in progress
- View and manage separately the person information and the transaction information
- Retrieve attachments to the application

Campus Solutions also provides a framework for colleges and universities that have different types of application and different processing rules for each type (e.g. undergraduate, graduate, international, etc.) This framework provides the flexibility needed to control how inbound applicant and application information is handled.



institutions can confi ure □ ultiple ad issions applications

The PeopleSoft Campus Solutions enrollment services modules also support the ability for recruiters and other administrators to capture and analyze recruiting information, configure transfer credit and application processing, and manage and analyze prospect and application data

□apture and □naly□e □ecruitin□ □for□ ation

- Capture information about prospective students through configurable self-service requestfor-information pages.
- Create prospective student records from test agency data loads with flexible and straightforward tools.
- Upload application information from search and testing agency and application partner databases.
- Maintain information about recruiters, including their role, the types of students they work with, service regions, and special interests.

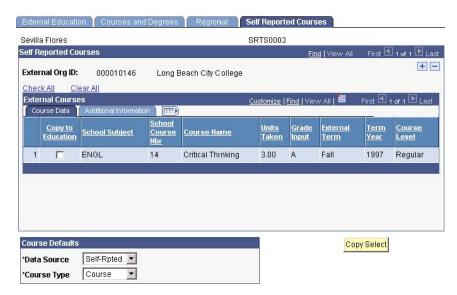


- Assign regions, categories, and recruiters to prospects based on bio-demographic data, address data, recruiting status, and recruiting center.
- Organize prospective students by geographic region, interests, extracurricular activities, their level of interest, and more.
- Coordinate recruitment events for programs targeting specific student populations.
- Develop tailored communication plans based on a prospective student's characteristics.
- Load and assign Enrollment Planning Service (EPS) market codes to external organizations to help focus recruiting activities.
- Collect and analyze recruiting activity data about college fairs, open houses, recruiting trips, interviews, mailings, and publications.
- Use Population Selection to easily cleanse prospect and admission applicant data, making it
 easier to manage recruiting and enrollment programs.

□onfi□ure □ransfer □redit and □pplication Processin□

- Load transcripts, tests, and applications from external agencies and central application services.
- · Allow student online access to transfer status and transfer credit modeling.
- Reduce complexity through user-friendly pages for administrative transfer credit data maintenance.
- Provide an integrated self-service option for the students to enter their external courses for transfer modeling with an administrative access to review, capture, and evaluate those same courses.
- Track external course grade changes and grade history during the transfer process.
- Maintain multiple applications for an individual applicant.
- Tailor admission requirements and processing for each academic program.
- Create admission rating schemes and criteria for automated evaluations.
- Automatically update evaluations and applicant status based on a program's individually defined criteria.
- · Allow applicants to track application status on self service.
- · Allow applicants to accept or decline admission and pay deposit fees online.
- Admit students without going through the formal admissions process using a Quick Admit/Enroll transaction.
- Increase administrative control of data using flexible methods to delete prospect or applicant records individually or in groups.





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Mana ☐ and ☐ naly ☐ Prospect and ☐ pplication ☐ ata

- Access an uncomplicated enrollment target and tracking structure.
- Display enrollment target results to track progress toward institutional recruiting efforts.
- View a list of people who meet the target selection criteria.
- Create a template from existing targets so you can easily copy information into a new target.
- Generate enrollment management reports of both target and actual enrollment levels.
- Analyze admissions decisions and patterns by examining enrolled applicants and length of time to graduation, admissions history for schools at which you recruit, and reasons applicants selected or declined to attend your institution.
- Adapt to changes in academic program and curricula that are no longer to be offered to
 incoming students yet maintain the ability to manage those same programs for students
 currently enrolled.
- Utilize flexible Population Selection tools to easily choose and cleanse prospect and admission applicant data, making it easier to manage recruiting and enrollment programs.

Student □ecords

Processing and maintaining student records is more than efficient automation of the management of student information. Institutions today are facing the complex and sometimes conflicting demands for more security around access to student data while, at the same time, improving a user's experience to access the information they need, when they need it. In addition, institutions are finding the need for more flexibility in the way they maintain and deliver records as well as mange access to student information and self-service in a fast-changing, competitive, global environment.

Oracle's PeopleSoft Student Administration continues to enhance student records processes such as improving rule-and role-based access control, enhancing the student user experience, and boosting the capability of an institution to effectively manage the critical student information processes.



Student and aculty enters Speed Enrollent Strealine cade ic Procress PeopleSoft Student Administration introduces Student and Faculty Centers to provide launch points for information and transactions related to enrollment, class schedules, grading, requirements, finances and financial aid, and admissions.

Student Center

- Enroll online in a virtual Student Center that provides a single entry point for enrollment transactions.
- Allow students to search for classes or courses, plan courses, enroll in classes, and view academic information using easy-to-access categories.
- Use navigation that leads directly to a specific action or transaction the student can execute to complete a desired task.
- View mid-term and final grades, academic standing, or any outstanding service indicators that would prevent the student from viewing this information.
- Search for courses using a wide combination of criteria including range of credit units, day, time, campus, etc.
- Use the Enrollment Back Pack to search or browse for courses and select, validate, and save for use whenever ready and able to enroll.
- Using a single launching point (My Academics), collect degree audit information, advisement what-if functions, transfer credit, course history, transcripts enrollment verification, and graduation information.



□□e Student □enter en□ances t□e student e□perience□

Faculty Center

- Access personal portfolio information for review and update.
- Use dynamically functional class rosters to view student information and send notifications to students on those rosters.
- · Access weekly class schedules or lists of scheduled classes.



- · View final exam schedule for each term in a list or in a weekly schedule.
- Conveniently link to View Advisee component dedicated to the support of advising process.



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En ance □ranscript Production □it □ □e □ □e □ranscripts

PeopleSoft has introduced a new, powerful transcript reporting capability that institutions can use to produce transcripts designed how they want them to look and delivered in a PDF format to administrators and students through self-service.

- Use a delivered component to select transcript data, location, and sequence and define all of the transcript types an institution requires
- Use delivered transcript templates to create transcript documents or use flexible reporting tools to design new templates.
- Easily assemble groups of students for transcript production using Population Selection tools.
- Process multiple transcript requests with multiple destinations.
- Process transcript requests for individual students or for a group of students.
- Request transcripts for release on future dates or in conjunction with future events.
- Generate and access transcript request history by student, alumni, and institutions, departments, employers, or other organizations where forwarded.
- · Allow students to securely order transcripts online.
- All students to order enrollment verification reports and specify the data to be pulled into these verifications.

Strea line te lass Enroll ent Process it le ile lass Per issions

A more flexible class permissions process means delivering better service to students while maintaining your ability to track, monitor, and manage the process.

- Specify conditions for class number override that include closed class section, requisites not
 met, required consent, career restrictions and time period restrictions or any combination of
 restrictions.
- · Record and track permissions and complete history.
- · Control permission-to-drop class only with academic override



Innovative IIIe IIIe Student □roup □reation

Colleges and universities like yours need to track groups or types of students for reporting and control purposes. But the types, groups, and communities of students you are required or want to track change from time to time. Oracle's PeopleSoft Student Administration lets you securely accommodate the creative ways in which student groups are used and accessed.

- · Assign multiple individuals to a selected group.
- Create a group, specify values, and easily run an assignment process.
- Easy-to-access student group view online with filters to select criteria.
- Increased security configurability to control access, view, and more granular specification of what student information can be viewed by each individual.

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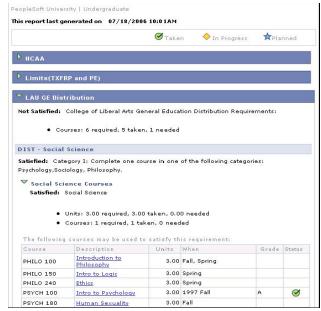
The key to student success is the attainment of academic goals in a planned and timely manner. This requires useful, and dynamic information to be provide to students and advisors to support critical decisions about academic progress. Improvements to the academic planning and advising in PeopleSoft Student Administration 9.0 include the Enrollment Backpack, new "what-if" capabilities, and enhanced usability in student self-service—all aimed at providing the student with accurate and timely information for planning and enrollment. These same features allow the advisor to see what each of his advisees sees and easily access degree progress, transfer credit and other academic information to better assist students in planning and managing their academic program. Also, the Program Guide option lets institutions offer students many of the Enrollment Backpack functionality if they choose not to implement the Academic Advisement module.

Enroll □ ent □ac □pac □My □cade □ ic □e □uire □ ents

The Enrollment Backpack is a powerful asset designed to deliver extensive academic information and transaction capabilities that provides a detailed analysis of the student's progress towards satisfying academic goals as well as deliver the information the student needs to make informed decisions about class enrollment. Intuitive, intelligent navigation enables the student to:

- View all academic requirements and courses that can be taken to satisfy them.
- Use convenient action buttons and hyperlinks to explore course content, examine schedule alternatives, and select scheduled class sections.
- Enroll directly from the same online, interactive display.





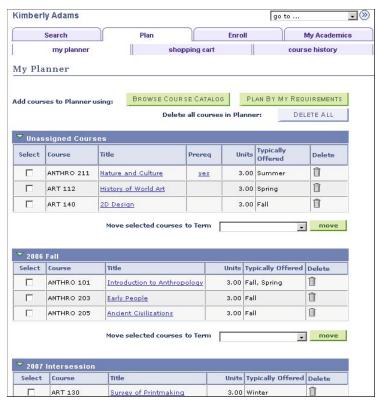
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Enroll □ ent □ac □pac □ My Planner

The planner provides convenience and flexibility for students to plan courses on a short or long-term basis and directly enroll in planned classes as terms become available. Intuitive self-service functionality empowers students to:

- Browse the course catalog.
- Identify requirements.
- View course information and follow hyperlinks to pre-requisite information.
- Determine when courses are typically offered.
- · Easily select courses and make changes.
- Save class selections for later enrollment and, when ready, enroll for the classes directly from the planner.
- Track course history showing courses the student is currently taking, has taken, transferred, and planned.





Enroll □ ent □ac □pac □ allo □s a student to easily plan t □eir courses □

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Because the Enrollment Backpack is such a powerful feature for students, PeopleSoft Student Administration 9.0 is offering The Program Guide as an alternative option to institutions who have not implemented the Academic Advisement module. The Program Guide will allow students to:

- · View course lists, requirements and descriptions.
- Choose courses for their planner or for enrollment.
- · View courses taken or planned.
- Use all the planning and enrollment features offered in the Enrollment Backpack (without the advisement or analysis functionality).

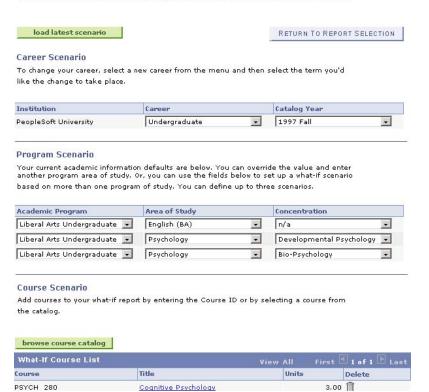
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Students not only need current academic information about their progress toward academic goals, but in many cases they also want to know how a change or addition to those goals might affect time towards a degree, workload, and other important factors that would influence their decisions.



Create What-if Scenario

You may create a What-if Report by changing you Career, Program and/or Class Scenarios.



 \Box e Student \Box \Box at \Box f feature lets students develop \Box ultiple scenarios so t \Box ey can \Box ore effectively plan t \Box eir acade \Box ic pro \Box ra \Box and e \Box plore options \Box

Using PeopleSoft's Student Administration students and administrators can:

- Let administrators create 'what-if' scenarios with multiple majors and concentrations and deploy them to students for access in self-service.
- Indicate specific classes and projected grades to include in the analysis.
- View online the analysis as well as the changes and additions made.
- Access a convenient hyperlink for viewing and making additional changes to the 'What-if' scenario.
- · Access reports previously prepared.
- Let students create new scenarios for up to three academic programs, plans, and sub-plans via the Student Center.



Supportin □t □e □dvise □ ent Process □nsi □ □t for □dvisors

Most institutions view the relationship between student and advisor as critical to academic success and retention. In order to give advisors direct information about their advisees' progress, plans, and other pertinent information, PeopleSoft Student Administration 9.0 has added a powerful new component dedicated solely to support the advising process. This information-rich area enables the advisor to:

- · View a full list of advisees, including photos.
- · Access extensive information on each advisee that includes advisor access to advisee student center, general information, transfer credit, and academic history.
- · View the advisee's My Academic Requirements and My Planner areas so the advisor has the same view the student has.
- Dynamically produce advising reports about individual students or groups of students as defined by the advisor.

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Hardware and Software, Engineered to Work Together



INFORMATION STREAMLINES

PeopleSoft Enterprise Gradebook





Enable online grading and assignments.

Deliver class-management tools to instructors anytime, anywhere.

Enhance online interaction between faculty and students.

INFORMATION STREAMLINES

Faculty responsibilities are multiplying. In most higher education environments, instructors not only have to teach more classes, but also have advisement assignments, committee duties, governance responsibilities, and more. As a result, they need tools and support to minimize the administrative burden associated with managing their classes. At the same time, students want online access to grades and assignments. To optimize communication between instructors and their students, you need a solution that makes grade and assignment information easily and immediately accessible to both.

Oracle's PeopleSoft Enterprise Gradebook meets this challenge. It's a secure internet application that combines flexible class management functionality for instructors with the instant delivery of class progress and grade information that students have come to expect.

PeopleSoft Gradebook integrates seamlessly with PeopleSoft Student Administration, letting instructors manage and track learning activities. Instructors can use the application to maintain their class assignments, calculate grades, and apply assignment and exam criteria—including weights, grading scales, and due dates.

1

Instant, Secure Information Access

PeopleSoft Gradebook inherits its powerful technology and functionality, including course and student information, from PeopleSoft Student Administration. With instant access from any browser, you can use the Web to deliver course- and grade-related service to your instructors, giving you an edge in the increasingly competitive higher education landscape.

Organized Class and Assignment Tracking

With PeopleSoft Gradebook, instructors can

- Define assignments for a course or class
- Track assignments and assessments
- · Record specific notes about individual students
- · Report midterm or deficiency grades
- · Report final grades

When you use PeopleSoft Gradebook along with PeopleSoft Campus Self Service, students can view

- Details about assignments
- Grades for each assignment
- · Personal notes from their instructors
- · Midterm and final grades

Quickly Update the Grade Roster

Use the update feature of PeopleSoft Gradebook to submit calculated grades directly and seamlessly to the grade roster. You eliminate the time-consuming process of transcribing grades from a paper grade book to an op-scan form and then submitting them to the registrar's office.

Set Up Assignments with Ease

For any given class, instructors can use PeopleSoft Gradebook to create any number of assignments in as many assignment categories as they choose. They can determine and apply assessment criteria for each assignment, and they can easily communicate detailed instructions about class activities and relevant dates to students. Best of all, instructors can copy or modify existing class assignments and grading setups, and then apply them to other classes.

Define Class Assignments

Most instructors need an easy and flexible way to establish and record assignment and assessment criteria for measuring student performance. PeopleSoft Gradebook makes this possible with a class assignments feature that uses powerful copying functions to streamline information entry.

- Assignments. Lets faculty define assignments at the class level, enter assignment
 descriptions for students to view, and define attributes such as due dates, point
 assessment, weighting, and whether an assignment is optional or required.
 Instructors can also establish assignments that correspond to class components
 such as labs and discussion sections.
- Category weight. Lets faculty group assignments by category, and apply percentage weights to each category to use in calculating class grades.
- **Grading scale.** Provides grading scales that your faculty can define for midterm and final grade calculations.

Track Course Activity and Progress

Instructors access this self-service component of PeopleSoft Gradebook to enter grades and track assignment submissions anytime, anywhere. Your faculty can pursue their other responsibilities while still keeping on top of class-management tasks.

- Class gradebook. Calculates average grade for each assignment and gives faculty an instant view of all students in the class and their grades for each assignment.
- Grade by assignment. Lets faculty record grades and submission dates for each assignment. Offers convenient links to update specific class assignments.
- Cumulative grades. Provides instructors with a snapshot of each student's progress by displaying category marks and calculated midterm and final grades. Instructors can override calculated grades, enter notes for each student, and designate whether each note is for instructor use only or available for display to the student. Simply clicking a button updates the midterm or final grade roster, eliminating the administrative burden of processing paper records.
- Import component grade. Lets instructors integrate grades from associated class components, such as labs and discussion sections, to use in final grade calculations. Instructors control and establish weights for imported grades just as they would for any other class assignment or exam.

Make It Self Service

PeopleSoft Gradebook is preintegrated with PeopleSoft Campus Self Service to extend the reach of your online enterprise. Use PeopleSoft Campus Self Service in conjunction with PeopleSoft Gradebook, and let instructors post grades, assignments, and class progress reports online in the special Faculty Center. Students can then access this information through their personal online Student Center.

Do More with PeopleSoft Enterprise Campus Solutions

PeopleSoft Gradebook is part of Oracle's PeopleSoft Campus Solutions, a comprehensive suite of software specifically designed for the changing needs of higher education institutions.

With PeopleSoft Campus Solutions you can learn how to manage the entire student lifecycle, drive operational efficiency, reduce administrative costs, and free resources to support your academic mission and institutional goals. In addition, you can

- Configure solutions to meet your institution's specific goals and way of doing business
- Improve efficiency throughout all your administrative processes
- · Lower costs and free resources for more profitable activities
- Build stronger relationships with all of your constituents

CONTACT US

For more information on Oracle's PeopleSoft Enterprise Gradebook, please visit **oracle.com/industries/education** or call **+1.800.ORACLE1** to speak to an Oracle representative.





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PEOPLESOFT CAMPUS SOLUTIONS WAREHOUSE FOR HIGHER EDUCATION



Increase student recruiting and retention rates.

Shorten time-to-graduation.

Monitor tuition awards and payments.

It is a new era in education today. Nearly everyone in your institution is feeling pressure to measure, analyze, and report on many aspects of your student population. And many are being asked to show the return to your institution on the operational costs of recruiting, course offerings, and financing programs for your students. Fragmented data, rising education costs, increasing global competition for students, faculty, and staff, and heightened regulatory requirements are driving the need for insight and analysis of the core business of education. If you are still responding to these demands with spreadsheets, query tools, or add-on point solutions, your institution is at risk of falling further and further behind as the requirements for information continue to accelerate.

Oracle's PeopleSoft Campus Solutions Warehouse captures detailed student-related information into a single environment, and combines it with complex analysis of your recruiting, admissions, student records, and student financials data. With this level of insight, you can make the right strategic decisions to maximize your student recruiting efforts, shorten time-to-graduation, improve retention rates, identify successful and unsuccessful courses and programs, analyze faculty workloads, and more tightly manage and track tuition awards and payments. This solution, which is pre-integrated with PeopleSoft Campus Solutions applications enables you to:

- Understand recruiting trends and the success of your programs to attract students to your institution.
- Clarify enrollment trends and the effectiveness of your course and degree program offerings.
- Gain visibility into the financial transactions with your students to better understand the source and application of tuition funds.
- Analyze historical and current data, drill down from summary analyses to detailed reports, and perform trending via time-series analysis.
- Implement closed-loop communication of critical information to your institutional operations.
- Automate, manage and track all student financials and financial aid processes.

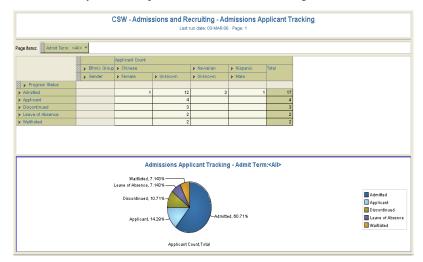
A Powerful Foundation for Institutional Decision-making

PeopleSoft Campus Solutions Warehouse provides a powerful foundation for making better, more strategic decisions about your recruiting efforts, course offerings, and student population. PeopleSoft Campus Solutions Warehouse is comprised of the following three content-specific data marts which, when deployed together, constitute a comprehensive, integrated analytic platform. These datamarts can also be deployed modularly to accommodate your specific business or budgetary requirements.



PeopleSoft Admissions and Recruiting Mart

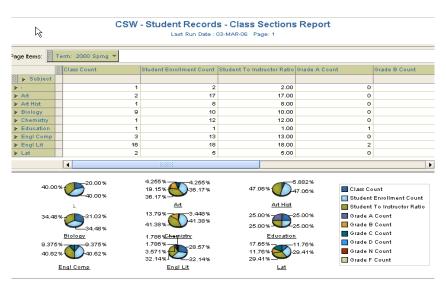
PeopleSoft Admissions and Recruiting Mart provides information about your recruiting and admissions lifecycle and the entire process from prospect to student. You can compare applicant rates year over year by academic program and know what percentage of applicants become students and in what programs they enroll. Multi-campus institutions are able to evaluate this information by campus. And you can track transfers by institution and degree program to give your advisors the information they need to help students shorten their time-to-graduation.



Determine your conversion rate from applicant to admissions by metrics and categories you pre-define and customize.

PeopleSoft Student Records Mart

PeopleSoft Student Records Mart captures information about student admissions, your course catalog, class scheduling, student career term records, and the enrollment processes to help you assess the effectiveness of your academic programs and student progress. You can determine average GPA by campus, career, and program as well as the average time-to-graduate. You are also able to track and analyze faculty workload, academic programs, and individual classes by metrics that you pre-define based on your institution's specific objectives.

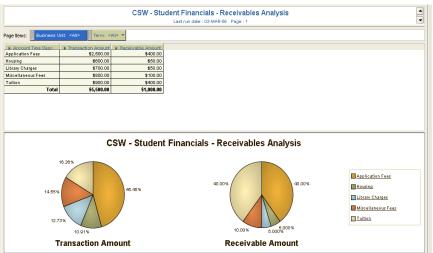


Understand class enrollment trends and other metrics you pre-define and customize.



PeopleSoft Student Financials Mart

PeopleSoft Student Financials Mart gives you the ability to reconcile student financial data with financial aid awards and general financial systems so you can track and analyze the source and real-time status of all student financial transactions with your institution. You can measure average tuition by accounting period, program, and fund as well as individual student awards and the amount. You can also understand the percentage of total tuition revenues that are coming from institutionally funded awards, lending institutions, and other funding sources. Being able to track this information and tie it back to student recruiting, enrollment, and time-to-graduation gives you greater insight into the impact of financial aid on student retention and success.



Achieve visibility and analysis of student transactions by type, amount, and balance due.

Flexible Information Access

With EPM 9, PeopleSoft Campus Solutions Warehouse delivers a security bridge to Oracle BI Standard Edition (Discoverer) and Oracle Business Intelligence Enterprise Edition along with role-based templates. These BI offerings greatly enhance PeopleSoft Campus Solutions Warehouse as an end-to-end analytic solution and reduce the total cost of ownership. PeopleSoft Campus Solutions Warehouse also supports third party BI tools, including those from Cognos, Business Objects, and Microstrategy.

With flexible information access tools and PeopleSoft Campus Solutions Warehouse, your recruiting and admissions officers, CFOs, CBOs, advisors, deans, and other officers of your institution can perform sophisticated analysis with ad-hoc querying and reporting, personalized scorecards and dashboards, multidimensional analysis and exploration, and formatted production-style reports.

Single, Analytics Framework

PeopleSoft Campus Solutions Warehouse is built on Oracle's PeopleSoft EPM Foundation, a single analytics framework that provides IT organizations with one platform and toolset from which to manage and support the warehouse. PeopleSoft EPM Foundation includes leading extract, transform, and load (ETL) tools, powerful metadata management tools, multi-currency and multi-language support, and built-in security features that enable unparalleled flexibility, openness, and modularity.



About PeopleSoft Enterprise Performance Management

PeopleSoft Campus Solutions Warehouse is part of Oracle's PeopleSoft Enterprise Performance Management (EPM) suite, an integrated suite of analytic applications that enables organizations to drive world-class performance by aligning the right information and resources to strategic objectives. PeopleSoft EPM helps managers formulate strategies to meet and align with institutional goals, actively monitor day-to-day operations, and collaborate across the academic enterprise.

Predefined Facts and Dimensions

PeopleSoft Campus Solutions Warehouse includes three data marts that deliver the following predefined facts and dimensions.

Admissions and Recruiting Mart

Facts

- · Recruiting and Admissions
 - · Prospect Count
 - · Applicant Count
 - · Application Count
 - · Recruiter Count
 - · Admitted Count and Percent
- · Pending Count
- Admitted Enrolled Percent
- Applicants Enrolled Count and Percent
- · Administrative withdrawal
- · Admission Revocation
- Defer Enrollment

- External Test Scores
 - Test Scores Average,
 Numeric, Percentile
- External Academic Summary
 - · Class Percentile
 - Class Rank
 - · Class Size
 - · GPA Converted, External
 - Units Attempted, Completed



Predefined Facts and Dimensions, cont.

Student Records Mart

Facts

- Term Enrollment and Institution Summary
- Full-time Student Count
- Part-time Student Count
- · Total Student Count
- Retention by Year, Term, Total
- Graduation Count by Year, Term, Total
- · Average Years to Graduate
- Allowable Exclusion Count by Year, Term, Total
- · Students on Leave
- · Students Matriculated
- · Student Withdrawals
- · Class Enrollment
- · Course Count
- · Class Count
- Units Earned
- Grade Points Units in Progress
- Primary Instructor Count
- Units taken, Grade Count by Unit (A, B, C, D, F, NP, NC)
- Student Count by Grade by Class
- · Leave/Return of Absence
- Suspension
- · Program/Plan Change

• Academic Program Detail

- Student GPA by Course, Term, Program, Average, Cumulative
- Units by Student Enrolled, Passed, In progress, Total Earned, Toward GPA, by Grade, Non-GPA, Transferred
- Maximum Audit Units
- · Maximum Non-credit Units
- · Wait Units

· Class Instructor

- · Faculty count
- Student to Instructor Ratio
- Assignment Percentage by Instructor
- Instructor Load by Week, Hour, Total Term



Predefined Facts and Dimensions, cont.

Student Financials Mart

Facts

Student Financial Services

- · Bill summary Snapshot
 - · Late Payment count
- · Overdue Bill Count
- Total Bill Amount
- · Total Paid Amount
- Pending Payments
- · Charge Amount
- · Payment Amount

Financial Aid

- · Award Summary
- · Accepted Amount
- · Authorized Amount
- Award Count to Student (total any status)
- · Disbursed Amount
- · Offered Amount

Student Financials Transactions

- Encumbered Amount
- Paid Amount
- Transaction Amount

- Award Disbursement by Student by Item Type
 - · Accepted Amount
 - Authorized Amount
 - Disbursed Amount
 - · Offered Amount

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PEOPLESOFT ENTERPRISE CAMPUS SOLUTIONS USER PRODUCTIVITY KITS



The following User Productivity Kit (UPK) Content products are available for Oracle's Campus Solutions product line. Purchase this content by product and receive all the tools you need to train your users in that product area. Each kit includes:

Browser-Based Player—a Web-based, zero-footprint tool that can be used for pre-golive training and post-go-live, context-sensitive performance support.

LMS Player—a version of the Player that can be loaded into a Learning Management System. These materials are AICC and SCORM 1.2 and 1.3 compliant.

Classroom Training Materials—documents that can be used to administer live classroom training.

Job Aids—quick-reference documents that can be used as performance support "cheat sheets."

Business Process Documentation—complete materials that outline an entire business process within the PeopleSoft application.

Test Scripts—robust materials that can be used to guide a tester through the application.

HTML Web Site—pure HTML content output. This output is Section 508 conformant.

Statistics Reports—reports that list all the content titles and total number of frames.

Output to TestDirector—documents that are suitable for exporting into Mercury TestDirector.

Use the UPK Developer to easily customize the content to match your organization's needs. The UPK Content products contain the following lessons:

Student Administration

Campus Community

Maintaining Biographic/Demographic Data

Maintaining Health Data

Maintaining Identification Data

Maintaining Participation Data

Using Communications

Using Comments

Using Checklists



Maintaining Organization Data

Maintaining Event Data

Maintaining Committees

Maintaining Service Indicators

Maintaining FERPA Privacy Control

Managing Patriot Act SEVIS Solution Visa Processing

Recruiting and Admissions

Managing Recruiter Records

Managing Prospects Records

Managing Applicant Records

Entering Supporting Information

Evaluating Applicants Manually

Admitting Applicants Manually

Managing Enrollment

Student Records

Introduction to Student Records

Managing the Course Catalog

Managing the Schedule of Classes

Activating Students

Processing Transfer Credit

Managing Enrollment Appointments

Enrolling Students

Tracking Attendance

Tracking Student Data

Grading Students

Graduating Students

Producing Transcripts

Running Reports

Academic Advisi ng

Generating an Advisement Report

Viewing an Generating Advisement Analysis and Tracking Reports



Financial Aid

Processing Financial Aid Applications

Processing Federal Financial Aid Applications

Using Institutional Financial Aid Applications

Verification Process

Managing Financial Aid Terms

Working With Student Budgets

Restricted Aid Processing

Awarding and Packaging

Authorizing and Disbursing Financial Aid

Special Cases in Packaging and Disbursement

Processing Loans Using CommonLine

Processing Direct Loans

Processing Return of Title IV Funds

Managing Student Employment

Processing Pell Payments

Using FISAP (Fiscal Operations Report and App. to Participate)

Using Forms Engine

Student Finance

Processing Self Service ePayment Transactions

Using GL Interface Processing

Maintaining Customers

Calculating Tuition and Fees

Maintaining Receivables

Administering Payment Plans

Billing Customers

Running Cashiering

Refunding Customers

Collecting Receivables

Managing Tax Reporting



Reporting Tools for Campus Solutions

PeopleSoft Query Basics

Defining Query Selection Criteria

Advanced Query Options

Crystal Report Basics

Creating Crystal Reports

Formatting Crystal Reports

Advanced Crystal Report Options

Campus Solutions Fundamentals

Navigating Overview

Navigating To and Within Pages

Using Keys and Search Pages

Working with Pages

Adding and Updating Data

Using PeopleSoft Workflow

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PEOPLESOFT ENTERPRISE UPK PRE-BUILT CONTENT FOR: CAMPUS SOLUTIONS 9.0



□racle's User Productivity Kit (UPK) is a
colla□orative content develop□ent platfor□ t□at
drives end user and pro ect tea productivity
t⊡rou□□out all p⊡ases of t⊡e soft□are o□ners⊡p
lifecycle□ UPK pre ⊡uilt application specific content
provides si⊑nificant additional ⊑enefit ⊑eyond t⊑e
UPK □eveloper for enterprises deployin□
PeopleSoft's Enterprise applications□

UPK Application Content: "As Delivered" System Process References

The value of UPK pre-built application content starts from the premise that implementation project teams can save substantial time and labor by leveraging UPK application content as baseline reference system process flows first and then iterating to capture specific business process requirements. The savings can be substantial – project team resources typically dedicated to the preparation of system test data, storyboarding, and process standardization can be greatly reduced.

Mirrors Oracle Application Development Methodology

Key to the value of UPK application specific content is the fact that it is authored in tight collaboration with the actual developers who wrote the code, thus creating content which accurately reflects industry best practices with detailed conceptual information.

Delivering Value Throughout the Software Lifecycle

The value of UPK application content has relevance in many phases common to software implementation projects. For example, early on in the project lifecycle, UPK play back capabilities allow implementation leads to educate themselves on the delivered system process flows (vanilla functionality) of the new application without having to actually configure a "sand-box" environment, mitigating costs associated with labor and hardware and reducing the new functionality 'learning curve.'

UPK application specific content created _y _racle is released in En_lis_ and updated _it_ eac_ are release of t_e application_ docu_entin_ _est practices for t_at release to _elp or_ani_ations ac_ieve faster __and __ana_e __no_led_e _ore efficiently and effectively_



Eliminate Dedicated Instances To Analyze Delivered Functionality

Once the delivered functionality and process flows of the new application are understood, the project team can use the UPK content as an aid to do the fit-gap analysis. For this phase of the project lifecycle, the functional expert visually moves through a UPK simulation – leveraging the application specific content - while noting in the test document the configuration and/or customizations necessary to achieve the desired business outcome.

Customizing Pre-Built Content

Over the course of an implementation or upgrade, the UPK pre-built content can evolve until it mirrors the final deployed application. The existing pre-built content can easily be modified using the UPK Developer to capture the configuration changes or steps in the new process. UPK's re-record feature also enables a guided recapture of screens and steps in the application so your UPK content reflects the final state of your application.

Use the UPK Developer to easily customize the content to match your organization's needs. The UPK Content products contain the following sections:

Campus Solutions Fundamentals

Navigating Overview

Navigating To and Within Pages

Using Keys and Search Pages

Working with Pages

Adding and Updating Data

Using PeopleSoft Workflow

Contributor Relations

Managing Constituent Data

Managing Prospects

Managing Planned Giving Prospects

Managing Initiatives

Managing Campaigns

Managing Membership

Managing Volunteers

Managing Events and Other Initiatives

Entering Commitments

Processing Commitments

Analyzing Giving History

Running Reports

Reporting Tools for Campus Solutions

PeopleSoft Query Basics

Defining Query Selection Criteria

Advanced Query Options

Crystal Report Basics

Creating Crystal Reports

Formatting Crystal Reports

Advanced Crystal Report Options

Student Administration

Academic Advisement

Generating and Purging Advisement Reports

Viewing and Generating Advisement Analysis and Tracking Reports

Campus Community

Maintaining Biographic/Demographic Data

Maintaining Health Data

Maintaining Identification Data

Maintaining Participation Data

Using Population Selection

Using Communications

Using Comments

Using Checklists

Maintaining Organization Data

Maintaining Event Data

Maintaining Committees

Maintaining Service Indicators

Maintaining FERPA Privacy Control

Managing SEVIS Solution Visa Processing

Financial Aid

Processing Financial Aid Applications

Processing Federal Financial Aid Applications



Using Institutional Financial Aid Applications

Verification Process

Managing Financial Aid Terms

Working With Student Budgets

Awarding and Packaging

Authorizing and Disbursing Financial Aid

Processing Loans Using CommonLine

Processing Direct Loans

Processing Return of Title IV Funds

Managing Student Employment

Processing Pell Payments

Using FISAP (Fiscal Operations Report and App. to Participate)

Using Forms Engine

Recruiting and Admissions

Managing Recruiter Records

Searching for Records

Managing Prospects Records

Managing Applicant Records

Entering Supporting Information

Evaluating Applicants Manually

Admitting Applicants Manually

Creating Alternative Program Offers

Managing Enrollment

Student Financials

Processing Self Service ePayment Transactions

Using GL Interface Processing

Maintaining Customers

Calculating Tuition and Fees

Maintaining Receivables

Administering Payment Plans

Billing Customers

Running Cashiering



Refunding Customers

Collecting Receivables

Managing Tax Reporting

Student Records

Introduction to Student Records

Managing the Course Catalog

Managing the Schedule of Classes

Activating Students

Processing Transfer Credit

Managing Enrollment Appointments

Enrolling Students

Tracking Attendance

Tracking Student Data

Grading Students

Graduating Students

Producing Transcripts

Running Reports

Using Process Scheduler

CONTACT US

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INFORMATION ADDS UP

PeopleSoft Enterprise Student Financials





Manage student finances and financial aid online.

Effectively monitor payments, bills, and student accounts.

Enable flexible application, need analysis, and awards processing.

INFORMATION ADDS UP

Meeting the financial needs of your students and managing their financial aid and student accounts are among your most difficult tasks. To be effective, you need reliable financial controls, flexible data collection, and easily accessible information. You also need a simple way to comply with the government regulations that mandate financial aid disbursements, refunds, accounting rules, and the tax reporting process.

Oracle's PeopleSoft Enterprise Student Administration Solutions includes two components, PeopleSoft Financial Aid and PeopleSoft Student Financials, to help you manage the financial needs of your students.

Together, these modules form the most comprehensive student financials and financial aid management system available for higher education.

1

Streamline Financial Aid Processes

PeopleSoft Financial Aid automates federal and institutional financial aid processing for a more efficient operation. It helps you manage financial aid activity for applicants and students, including applications, need analysis, packaging, disbursement, and loan processing. We've incorporated U.S. Department of Education regulations into the software to help you remain in compliance.

Leverage Built-In Flexibility and Integration

Flexibility is inherent in our design for PeopleSoft Financial Aid, so you can tailor it to your business rules and practices. It's built to integrate financial aid processing seamlessly and logically with PeopleSoft Campus Community, PeopleSoft Recruiting and Admissions, PeopleSoft Student Records, and PeopleSoft Student Financials.

- Define the boundaries of your awarding cycle to process up to three financial aid years simultaneously.
- Maintain timely federal compliance with annual regulatory updates for all Institutional Student Information Record (ISIR), Pell COD, Direct Loan, FISAP, and other federal updates.
- Share financial aid applicant data with Recruiting and Admissions by building prospective student records.
- Create financial aid processes that support your institution's academic constructs and goals, such as distance education programs and open entry/open exit coursework.
- Use the PeopleSoft Campus Community relationship management tool to track and manage student contact and communication automatically.
- Track activities like academic enrollment changes and ISIR corrections.
- Forward applicable financial aid awards as anticipated aid to a student's account in PeopleSoft Student Financials and accurately post financial aid to student bills.
- Collect required data for the U.S. Department of Education by using annual FISAP updates designed to support the regulatory process.

Access Student Financial Aid Information Instantly

With just one click you can determine a student's progress in the financial aid application process. Get complete contact history and application requirements for a given year and see a student's term, need summary, and award and disbursement detail so you can quickly assess and advise your students.

Process Applications Efficiently

PeopleSoft Financial Aid efficiently processes and tracks financial aid applications. Annual regulatory updates keep you in sync with government-mandated financial aid requirements.

- Choose to load and track either the College Scholarship Service (CSS) PROFILE application or your own institutional financial aid application.
- Control ISIR loading. For example, synchronize ISIR record loads based on a student's admission level.
- Maintain a complete audit trail of ISIR corrections with the PeopleSoft effective date construct.
- Correct ISIR data easily using our automated federal verification process or make direct changes to a student's ISIR data.

Enable Comprehensive Budget and Need Analysis

You can design your own cost-of-attendance assessment by defining budget categories, items, and formulas to meet your budget criteria.

- Create a student budget for one or multiple terms.
- Automatically generate a student budget with user-defined budget formulas.
- Match tuition and fee costs from the PeopleSoft Student Financials tuition rule groups to predict costs for financial aid purposes.
- Assign budgets online or in a batch process.
- Streamline both federal and institutional need analysis using the CSS Institutional Need Analysis System (INAS) program and calculation options.
- Calculate need analysis for an individual student record or in a batch process.
- Choose between federal or institutional methodologies for calculating students' needs.

Automate Awarding and Packaging

You can automate federal, institutional, and state financial aid packaging to meet the needs and requirements of your students.

- Create institutionally defined packaging plans.
- Build formulas for eligibility and award amounts at the packaging plan and award type level.
- Keep a comprehensive award history at your fingertips.
- Track financial aid eligibility when a student's financial or academic situation changes.
- Empower your departments to manage and award merit and departmental awards directly to a student's financial aid packaging using special awarding pages.
- Calculate federal Pell awards from the regular and alternative Pell Payment and Disbursement Schedules which are updated annually.
- Keep up-to-date with regulatory changes to the Pell COD. Financial Aid provides complete support from origination to reconciliation.
- Access federal-defined and user-defined lifetime and term limits to prevent over awarding.
- Customize financial aid notification letters.

Authorize and Disburse According to Requirements

PeopleSoft Financial Aid enables separate authorization and disbursement processes to support the requirements of financial auditors. The financial aid authorization process checks each pending award to ensure compliance with program eligibility and with your rules. Once the process authorizes an award, a separate disbursement process sends monies directly to a student's account.

Self-Service Information in the Faculty Center

Instructors can access class schedules, grade rosters or gradebooks, class sites, and class rosters—or even e-mail their students. With academic information always available, advisors can focus more time on each student's academic success.

PeopleSoft Enterprise Student Financials

View and Update Complete ISIR Information

From one page, you can find a complete view of a student's ISIR record, including all FAFSA information, assumption/school codes, and EFC/database matches/correction information. Instantly update and correct ISIR data and perform need analysis.

- Authorize a single student in real time or a group of students using a batch process.
- Run preauthorization against large groups of students to manage exceptions before disbursements.
- Run disbursement for a single student or groups of students using a batch process.
- Define award item types to ensure that award payments are applied to the appropriate charges on a student's account.
- Customize or override disbursements at the student level to meet special disbursement requirements.
- · Adjust disbursements by term.

Streamline Loan Processing

PeopleSoft Financial Aid brings efficiency to processing and tracking loan applications under the Federal Direct Student Loan Program (FDSLP) and Federal Family Educational Loan Program (FFELP), as well as under state, university, and alternative loan programs.

- Keep up-to-date with regulatory changes to FDSLP.
- · Manage direct loan processing from loan origination to reconciliation.
- Track and manage the loan application process, automating loan origination to the EFT for loans under the FFELP and alternative loan programs in accordance with the NCHELP CommonLine 4 and Common Record: CommonLine (CRC) standards.
- Participate in hold and release disbursement processing.
- Support and maintain your unique relations with your loan providers for FFELP and alternative loan application processing.
- Review and manage the loan application status using special inquiry pages and tools.
- Customize loan fees to each loan provider.
- Deduct loan fees calculated from awards. (These are appropriately applied to student bills automatically.)

Manage Student Financial Operations

With PeopleSoft Student Financials, you can manage and calculate student financial information, including tuition, fees, receivables, billing, payment plans, and refunds. The application supports and automates third-party processing by providing a seamless link to the payment posting process, letting you process both split and directed payments online.

Administer Financial Information

PeopleSoft Student Financials is an essential tool for managing student and external organization accounts.

- Define a campus, school, or program as a business unit with its own set of books.
- Create a student or third-party account automatically when the first charge or payment is posted.
- Activate student applicants automatically when they pay deposits.
- Use effective dating to determine in advance when charges and fees will become active.
- Allocate revenue and expenses automatically based on student course loads.
- Review receivables by term, program, or any other variable you choose.
- Create and send accounting entries for all types of transactions—receivables, cash receipts, write-offs, and more—to PeopleSoft General Ledger or your third-party general ledger system.

Maintain Accounts

Once you create accounts, it's easy to maintain and update them. PeopleSoft Student Financials lets you maintain account balances for external organizations, such as third-party sponsors. You can process financial transactions using online or batch processes, depending on your business needs.

Manage Loan Application Data

Track loan application processing from a single page. Identify loan application lenders and servicers, and adjust loan periods and request dates. You can also edit application errors, view detailed schedule of disbursements, and get status information for master promissory notes.

PeopleSoft Enterprise Student Financials

Track Account Activity Anytime, Anywhere

Instantly find comprehensive student or organizational account information and display detailed debit and credit activity. Staff can easily obtain information on an account at any time.

- Create a surcharge for students who exceed their maximum academic load.
- Generate refunds automatically for any eligible account.
- Honor your refund schedule, calculating percentages of balance to be refunded based on rules you specify.

- Accept charges and payments online or from any external system.
- Delegate entry of receivables and payments. Permit only authorized users to post these transactions.
- Defer a transaction to a future term or backdate a transaction.
- Get information on a student or third-party account, including current credit, debit, and collections activity.
- Assess late fees on delinquent accounts using aging rules that you establish.

Calculate Tuition and Fees

With PeopleSoft Student Financials, you can calculate tuition and fees for an individual student or for a group of students, based on criteria that you specify. It's integrated with PeopleSoft Campus Community, PeopleSoft Student Records, and PeopleSoft Financial Aid to support tuition calculation.

- Calculate tuition based on a student's demographic data.
- Calculate tuition based on academic load or anticipated load.
- Automatically calculate changes in a student's tuition from a dropped or added class.
- Create multiple groups of tuition rules, letting you charge tuition and fees to groups of students based on criteria you define.
- Calculate tuition based on your institution's academic calendar.
- Calculate tuition for courses with student-specified start and end dates.

Provide Integrated Cashiering Services

Give your students access to a cashier without the need for a separate point-of-sale system. The cashiering functionality provides instant access to student and external organization accounts, and offers you the option to post transactions in real time or in deferred modes.

- Check student account balances and target a payment toward specific charges or toward the overall account balance.
- Accept cash, check, or credit card.
- · Receive and account for departmental cash receipts.
- Accept tender in any currency and post that tender to the student's account in your base currency.
- Authorize credit card transactions via the internet in real time or deferred batch mode using integrated third-party service providers.
- Support cash drawer balancing, including recording of cash overages and shortages.
- Restrict certain transactions, such as voids, to control who can process them.

Employ Versatile Billing

PeopleSoft Student Financials offers a variety of options for billing.

- Create unique bills for each business unit.
- Generate bills for students or third-party sponsors.
- Set up multiple billing cycles based on calendars of your choosing.
- Decide whether or not anticipated financial aid amounts from PeopleSoft
 Financial Aid should appear on the bill and if they should be included in the
 student's account balance.
- Sort bills by several different attributes, such as campus, academic level, academic program, name, zip code, and more.
- Include charges from previous terms, the current term, and future terms.
- Correct billing errors by canceling and reversing a single bill or an entire billing run.
- Define messages that should appear on a bill for a specific student, third party, or transaction type, or when an account is past due.
- Specify a billing scan line to be printed if you use lockbox processing.

Streamline Payments with Integrated Student Account Information

Accept a student's payment in any tender—cash, check, and credit card. Links and icons provide easy access to details about a student's account, current academic status and enrollment, anticipated financial aid, and holds. You can easily review a student's total account balance and anticipated financial aid and you can target a payment toward a specific charge, such as tuition, or toward their overall account balance.

Manage Receivables

PeopleSoft Student Financials automates receivables management and logs payments quickly and accurately.

- Enter groups of charge and payment transactions manually, if desired, so you can post transactions immediately or by a deferred background process.
- Easily load charges and payments from third-party systems.
- Automatically suspend transactions that fail edits, allowing other transactions in a group to post.
- · Automatically route requests to approve payments and charges before they are posted.
- Age accounts by using aging categories that you define.
- Write off delinquent receivables to support your accounting year-end procedures.
- Easily import your chart of accounts from PeopleSoft General Ledger or your third-party general ledger system.
- Detect and report chart of accounts errors before entries are sent to the general ledger.

Tailor Payment Plans

You can create different payment plans to meet the diverse needs of students, parents, and your institution.

- Let students pay their tuition and fees in graduated parts.
- Create plans that defer due dates for students facing financial hardship.
- Administer payment plans for external organizations.
- Create and maintain third-party contracts.
- Automatically transfer charges to an active third-party sponsor and credit the student account.
- Reverse third-party credits to the student's account if the sponsor declines to pay for a student or is delinquent.

Support Collections Activities

We've designed the PeopleSoft Student Financials collections system specifically to help colleges and universities track and monitor delinquent accounts.

- Generate, send, and track collection letters automatically.
- · Access credit history online while placing a call to a customer.
- Track promises, correspondence, or other contacts.

Manage Third-Party Contracts

Get information about all students assigned to a third-party contract. Set the maximum amount that the contract will pay for each student. By adding a student to a third-party contract, all charges you specify as permissible are credited, and the charges are transferred to the third party's account.

- Create unique collection agreements.
- Create partial or graduated payment plans.
- Hold a student's diploma or transcripts until the student has paid any delinquent accounts.
- Assign follow-up activities to another collector.

CONTACT US

For more information on Oracle's PeopleSoft Enterprise Student Financials, please visit **oracle.com/industries/education** or call **+1.800.ORACLE1** to speak to an Oracle representative.





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INFORMATION BUILDS

PeopleSoft Enterprise Contributor Relations





Tap the potential of your donor community.

Cultivate lifelong relationships with your supporters.

Empower your constituents to manage their own giving.

INFORMATION BUILDS

Your institution's success depends on personal interaction with the alumni and other supporters. That personal relationship—the final and longest phase in the student lifecycle—is what will separate you from the many other organizations vying for contributions. And it is that relationship that will sustain donor loyalty over the years, and even over the generations.

Developed in collaboration with our higher education customers, Oracle's PeopleSoft Enterprise Contributor Relations streamlines your administrative tasks so you can focus time and resources on maintaining and cultivating personal, lifelong relationships with your constituents.

PeopleSoft Contributor Relations encourages your constituents to work together to advance the goals of your institution. Powerful functionality lets you manage donor relationships via the internet, track diverse constituents, process gifts and pledges, build member organizations, organize events, manage fund-raising campaigns, create strategies for use in the cultivation of prospects, evaluate volunteer activity, and track planned gifts.

1

Maintain Constituent Information

Your constituents include both individuals and organizations. You need to maintain complete and accurate information about them, and you need to organize and analyze that information. The Constituent Information module in PeopleSoft Contributor Relations puts the information you need about all of your constituents right at your fingertips.

- Track general information such as names, multiple addresses, and phone numbers.
- Store biographic information, including birth date, citizenship, and marital status.
- · Capture financial information about an organization.
- Track matching gift regulations such as minimum/maximum gifts and eligible/ineligible programs.
- Track information about contacts within an organization, including name, address, e-mail, phone, and contact type.
- Enter special handling instructions about constituents.
- · Relate constituents to other individuals and organizations.
- Track multiple categories of constituent involvement.
- Generate mailings with the appropriate salutation.
- Maintain a complete communications summary.
- Enter academic information including institutions, degrees, programs, majors and minors, dates, and reunion years.

Enter Commitments and Analyze Giving History

Evaluating and monitoring every commitment made to your organization is vital for your organization's future planning and constituent cultivation. The Gift and Pledge module enables you to accurately record and track commitments from your constituents so you can acknowledge and analyze them.

- Process gifts and payments, including gifts-in-kind, cash, and securities.
- Process pledges and set up pledge payment schedules.
- Process gifts made in other currencies.
- · Set defaults for posting, if desired, by department, college, or other business unit.
- Recognize donors through hard, soft, and vehicle credits.
- Split transactions among multiple designations.

Track Constituent Giving

Instantly retrieve comprehensive giving information for constituents. View lifetime commitments, open pledges, gifts and payment, and year-to-date and past giving. Links lead to detailed information about historical giving activity.

- Handle tribute and memorial gifts.
- · Track transactions to general ledger.
- Handle matching gifts, including automatic calculation of matching gift potential.
- Enter donors into the appropriate giving club automatically.
- Automatically generate and track acknowledgment letters.
- View commitment history for donors, including open pledges and expected matching gift amounts.
- View donors by designation.
- View a campaign's top donors.
- Generate the CAE (Council for Aid to Education) report.

Manage Prospects

The Prospect Management module gives you prospect information and planning tools so you can constantly monitor and revise your strategies.

- Assign resources to prospects.
- Track ratings, including vendor, staff, peer, giving capacity, and household income.
- Track personal assets such as real estate, securities, and personal property.
- Create strategies and actions, including cultivation steps, contact reports, and to-do lists for your staff, volunteers, and units.

Plan Events

With the Event Manager module, you can plan, implement, and analyze your organization's events, while effectively managing event goals.

- Track basic information such as event type, subevents, location, time, description, expected attendance, responsible staff, and required resources.
- Track budget and expense information.
- Create invitations, generate lists, track responses, and generate reminders.
- Track and manage attendance and registration.
- Create an event communication plan and define target audiences.

Manage Campaigns

Optimizing the effort that your organization puts into its fund-raising campaigns can reduce the burden on your staff and volunteer resources. Plan, manage, and analyze fund-raising programs of different sizes and with various goals with the Campaign Management module.

- Track basic information, such as campaign names, levels, phases, dates, assigned staff, goals, budget, target audiences, and related initiatives.
- · Create a full public relations plan, including messages, channels, dates, and more.
- Track commitments, outstanding commitments, progress against goals, and related events.
- Monitor assignments including volunteer, staff, and units.

Manage Volunteers

Track, monitor, manage, and evaluate volunteer activity with the Volunteer Management module.

- Track assignments by type and by staff assigned.
- Track responsible staff and board involvement.
- Track support information, such as action lists, prospect files, and contacts.
- Monitor progress and effectiveness.

Manage Membership

The Membership Management module lets you meet the needs of your members while you support, maintain, and enhance your membership programs.

- Track members, including benefits, types, levels, and dates of memberships.
- Manage membership campaigns, including goals, percent-to-goal, subgoals, budgets, and expenses.
- Track dues history and premium information.
- Establish defaults for dues posting.
- Process dues paid in other currencies.
- Track communications with members.

View Details About Each Constituent

PeopleSoft Contributor Relations lets you display a 360-degree view of a constituent on one "Person Profile" summary page. You can easily access biographic and demographic information as well as donor commitments and participation information.

Track Planned Giving

With the Planning Giving module, you can manage, track, and report on the planned giving information about your constituents.

- Track general information, including gift type, contacts, and assigned staff.
- Record financial information for trusts, pooled income funds, gift annuities, and bequests.

Generate Involvement

Giving your constituents targeted information about their relationship with your institution can make a lasting impact when they visit your Web site. PeopleSoft Contributor Relations gives your contributors anytime, anywhere access to information on their historical and current contribution activities, and lets them respond instantly to your campaigns with a credit card.

PeopleSoft Contributor Relations brings service, information, and transactions together in one view. Your constituents get the information they need, when they need it, and can act on it when they choose.

- Commitment summary. Lets users review lifetime giving and commitment
 totals, view their total annual contributions, confirm the number of years they
 have been donors, and verify the number of consecutive years they have made
 donations. Donors can also review annual pledge balances and recognition credits
 history, and see detailed account information describing their commitments.
- Membership history. Displays information about each constituent's membership history, including membership level and status.
- Giving club progress. Presents current and year-by-year information on gift club enrollment.
- Credit card payment. Lets your constituents use any Web browser to make authorized, authenticated, and secure online credit card gifts and pledge payments.

Extend Contributor Relations with Self Service

PeopleSoft Campus Self Service extends the functionality of PeopleSoft Contributor Relations so you can operate more efficiently. It integrates seamlessly, providing instant self-service functions to your development staff and letting them

- Add, update, and view campaign strategies; link actions to those strategies; and log results
- · Create individual staff to-do lists
- Display information about actions linked to certain donors and the status and results of those actions
- Access a wide variety of online reports such as interests, involvement, giving history, personal assets, and donor appreciation summaries

CONTACT US

For more information on Oracle's PeopleSoft Enterprise Contributor Relations, please visit **oracle.com/industries/education** or call **+1.800.ORACLE1** to speak to an Oracle representative.



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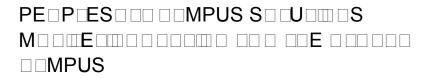
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- Enroll □add □and drop classes
- □ie □ classes □ ap locations
- □eceive notifications and ta □e action
- Monitor acade □ ic pro □ress



Students today expect immediate, personal, easy access to information they need when they need it—and on their mobile devices. They want mobile access to library systems, contact numbers and details, campus maps, class-related information, transactions, and more. To meet these demands, Oracle will roll out a continuing series of mobile enhancements specifically designed to meet the unique needs of higher education.

Although the mobile enhancements to PeopleSoft Campus Solutions will provide access via students' personal devices, Oracle is not simply redelivering the Campus Solutions experience on a mobile device. Rather, we are redefining how users interact with Campus Solutions. By redesigning the process, we are giving the system a more active role in the student experience and taking advantage of the multiple user-interaction gateways that mobile devices offer.

In addition, the framework upon which the new Campus Solutions mobile features are designed will allow institutions to easily brand, customize, and extend the Smartphone application to provide maximum value to students through their mobile devices.



Sprin □oard vie □ for t □e □a□ pus Solutions Mo□le □pp



Personal □En □anced User E □perience

The new mobile features allow a student to take action on and manage key processes through a native, secure, Smartphone application. These features will allow students with their mobile device to:

- · View class schedules, instructors and locations
- · Map campus locations in the student's class schedule
- · Receive notifications and view important events such as final grade postings
- · Search the schedule of classes using keyword search with filtering options
- Manage the enrollment backpack (shopping cart feature) to see all their enrollment options and choose to add or drop classes
- · Monitor academic progress and plan courses / classes



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The PeopleSoft Campus Solutions planned mobile features are designed and being built on a flexible, solid technology foundation using Oracle's Application Development Framework (ADF) Mobile. The ADF Mobile framework is a powerful toolkit that allows colleges and universities to easily extend the mobile application to include websites and other content the institution wants students to access from their mobile devices.

These technical features and their benefits to higher education include:

- Flexible deployment. Institutions can roll out mobile application to both iOS and Android platforms.
- Leverage established security features. Institutions will not need to create mobile-specific user identities, credentials, or other authorizations in the mobile solution but can uptake



those features already provided with Campus Solutions.

- · RESTful versions of enrollment web services. RESTful web services require lower overhead which lowers the bandwidth requirements for delivering data to mobile devices.
- · Entity profiling. The ability to create entity profiles means that we can deliver a mobile profile that will limit the amount of data delivered in enrollment web services to just the subset of data that is needed for campus mobile—again lowering the bandwidth requirements for data delivered to a mobile device.
- · Notification Framework. This framework allows SMS or email delivery of information. Our first planned use of this framework will be final grade posted notification. This notification will be particularly valuable at the end of a term when students are anticipating their final grades. The notification will be triggered when a grade is posted to the student's record. Students can choose their preference for how the notification is sent to them. Another delivered notification is to a student who has been on a waitlist for a class has their status changed to enrolled because a seat has opened up for them.

□ racle's □o□ □ it□ ent to □i□□er Education

Oracle's vast technology resources and dedicated higher education development team partner with its education customers globally to deliver the most comprehensive and flexible functionality and modern, extensible architecture. Oracle's PeopleSoft Campus Solutions is the leading student management solution and enables customers to innovate and succeed in today and tomorrow's global economy. Now, with Oracle's planned delivery of mobile functionality and platform for PeopleSoft Campus Solutions, higher education institutions can offer an even richer student experience and a more powerful foundation on which to roll out more information and functionality to their mobile users.

□ontact Us

□or □ore infor□ation a□out PeopleSoft □a□pus Solutions and its □o□le solutions for □ □□er education□visit oracle⊡co□ or call



Oracle is committed to developing practices and products that help protect the environment

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Hardware and Software, Engineered to Work Together



FUSION CAMPUS SOLUTIONS INTELLIGENCE FOR PEOPLESOFT ENTERPRISE



KEY BENEFITS

ROLE-BASED INSIGHT

 Access to dashboard pages is associated with user roles to provide intelligence and information that are secured and relevant to the job functions of individuals

CONFIGURABLE GUIDED ANALYSIS

Pre-defined hierarchies
 enable drilling from summary
 analysis to increasing levels
 of detail; reports can be linked
 together to guide users
 through a series of logical
 steps on a path of discovery

TIGHT INTEGRATION

 Delivered integration with PeopleSoft Enterprise Campus Solutions and Campus Solutions Warehouse for optimal user experience

LOWER TOTAL COST OF OWNERSHIP (TCO) & RAPID DEPLOYMENT

 Pre-built data extractions, transformations, security, and presentation layer maximize your previous PeopleSoft investments in the shortest time at the lowest cost

EXTENSIBILITY &

 Market leading BI technologies for superior configurability and flexibility across PeopleSoft and third party data sources Fusion Intelligence for PeopleSoft Enterprise gives you the power to extend your existing investments in PeopleSoft Enterprise

Performance Management (EPM) while putting you on the path to next generation technologies. By leveraging the robust dashboarding and ad-hoc reporting capabilities provided by Oracle's market-leading BI platform, Oracle Business Intelligence Enterprise

Edition, you benefit from a complete, end-to-end, integrated business intelligence and reporting solution.

Pervasive Insight for More Effective Actions, Decisions, and Processes

Educational institutions today are faced with pressures to continually increase efficiencies while meeting the challenges of declining funding. Rising education costs, increasing global competition for students, faculty and staff, and heightened regulatory requirements are driving the need for insight and analysis of the student population and the core business of education.

Oracle helps educational institutions meet these challenges through the analytic capabilities of PeopleSoft's Campus Solutions Warehouse product. Campus Solutions Warehouse comprises three data marts: Admissions and Recruiting Mart, Student Records Mart, and Student Financials Mart. Detailed student, faculty and course information is captured in these data marts and enables flexible analysis of trends and effectiveness in recruiting, admissions, retention and development of students. The insight from these analyses can help make the right strategic decisions to maximize student recruiting efforts, shorten time-to-graduation, improve retention rates, identify successful and unsuccessful courses and programs, improve faculty workloads, and more tightly manage and track tuition awards and payments.

To facilitate this analysis process, Oracle delivers an interactive dashboarding solution called Fusion Campus Solutions Intelligence for PeopleSoft Enterprise. This solution is built using the Oracle Business Intelligence Enterprise Edition platform technology, and is pre-integrated with the Campus Solutions Warehouse. Fusion Campus Solutions Intelligence enables you to:

- · Understand student application, matriculation, retention and graduation trends
- · Assess the effectiveness of recruiting centers
- Analyze course enrollment trends and the effectiveness of course and degree program offerings
- · Examine financial aid award disbursement trends



- Gain visibility into the financial transactions with students to better understand the source and application of tuition and other funds
- Analyze historical and current data, drilling from summary analyses to detailed reports and then finally back to the transactional system -- closing the loop to leverage insights from analysis into immediate actions

Role-Based Insight

Fusion Campus Solutions Intelligence for PeopleSoft Enterprise includes a Student Administration dashboard that provides an overview of key admissions, recruiting, and student information. Access to these dashboard pages can be associated with user roles, thus providing information and intelligence that are secured and relevant to the job functions of individuals. The Student Administration dashboard is comprised of the following pre-defined pages:

Student Administration Overview

The Overview page provides an at-a-glance analysis of trends in applicant levels, student retention rates, graduation rates, as well as financial aids and awards. This gives an overall indication of the institution's performance in various aspects of student administration processes.

Admissions and Recruiting Analysis

The Admissions and Recruiting Analysis page examines the performance of recruiting centers, applicant rates, as well as admission rates.

Student Records Analysis

The Student Records Analysis page reviews course enrollment trends and student academic standings.

Student Financials Analysis

The Student Financials Analysis page provides insight into financial aid and award disbursements, as well as student receivables.





Figure 1: Fusion Campus Solutions Intelligence Overview Page

Configurable Guided Analysis

Fusion Campus Solutions Intelligence for PeopleSoft Enterprise is designed to empower users in Higher Education Institutions with the information and intelligence necessary to gain valuable insight and facilitate decision making.

Pre-defined logical hierarchies in the metadata layer enable users to drill from summary analysis to increasing levels of detail within a given report. In addition, different reports can be linked together easily to serve as guided analysis, leading users through a series of logical steps on a path of discovery. These capabilities can greatly assist with root-cause discovery and facilitate timely corrective actions.

The pre-defined Student Administration Dashboard can be configured easily to follow institutional best practices, thereby propagating a common methodology throughout the institution and across multiple campuses.

Tight Integration with Transactional Applications

Fusion Campus Solutions Intelligence for PeopleSoft Enterprise is pre-integrated with Campus Solutions Warehouse through a pre-defined metadata layer. This metadata layer serves as the foundation for the dashboard as well as ad-hoc analysis, and has three main components:

- The physical model references the physical table objects and relationships delivered in all three data marts of Campus Solutions Warehouse.
- The business model defines how the physical tables are analyzed in order to support business rules and hierarchy drills. For example, a logical hierarchy is defined in the business model to support the drill path from Institution to Academic Career, Academic Program, Academic Plan and Academic Subplan.
 Derived metrics can also be defined through calculations using the basic measures provided out of the box.
- The presentation subject areas expose the business model definitions to the end



user for ad-hoc analysis. Security access can be defined for subject areas by user roles to help manage and secure appropriate viewing of any sensitive data.

Fusion Campus Solutions Intelligence for PeopleSoft Enterprise also provides seamless interaction with the PeopleSoft Enterprise Campus Solutions transactional system to drive insight to action. For instance, a hyperlink is provided on the Applicant Status Details report to drill from the dashboard directly back to the Application Maintenance component in the Enterprise Campus Solutions system. This drill-back enables a recruiter or an admissions director to take the insight derived from the dashboard analysis to drive immediate action to help an applicant resolve any pending issues in the application process, thus reducing cycle time and improving matriculation rates.

Lower Total Cost of Ownership & Rapid Deployment

Fusion Campus Solutions Intelligence for PeopleSoft Enterprise provides integration with the market-leading Oracle Business Intelligence Enterprise Edition (OBIEE) platform. The user-friendly dashboarding and ad-hoc reporting capabilities of OBIEE allow users to easily create their own dashboards and reports while minimizing administration and support costs. Through Oracle BI Answers—the dashboard authoring component of OBIEE—users can select relevant metrics and dimensional attributes from the metadata catalogue to create their own reports or dashboards. Oracle BI Answers also supports a wide variety of charting and display options, making the user analysis experience highly intuitive and flexible. Additionally, the underlying pure Web architecture provides a zero-install Web client platform that enables rapid deployment to thousands of users.

Fusion Campus Solutions Intelligence for PeopleSoft Enterprise delivers three data marts with pre-integrated analytic content that users can leverage to create or modify dashboards that meet their business needs. Pre-built data extractions and transformations in the Campus Solutions Warehouse ensure the highest level of data quality and integrity. The three data marts included in the release are:

Admissions and Recruiting Mart

The Admissions and Recruiting Mart provides key metrics and attributes to analyze the recruiting and admissions lifecycle. Applicant rates can be compared year over year by academic program to offer insight on the conversion percentage of applicants to students and the programs in which they are enrolled. External GPA and class percentile ranking can be tracked by institution and degree program to measure applicant academic excellence. The facts and dimensions for the Admissions and Recruiting Mart are:

Facts

- Applicant Count
- · Class Percentile
- · Application Count
- · Class Rank
- · Average Score
- · Class Size
- Enrollee Count
- · Converted GPA



- · External GPA
- Matriculation Count
- · Numeric Score
- Prospect Count

- · Score Percentile
- · Units Attempted
- · Units Completed

Dimensions

- Academic Career
- · Academic Level
- · Academic Load
- Academic Plan
- · Academic Program
- Academic Program Dual Academic Program
- · Academic Rank Type
- · Academic Subplan
- Academic Unit Type
- Admit Type
- · Application Center
- · Application Method
- Campus
- Day Application Completion
 Date
- Day Application Date
- Day External Test Date
- Day Last School Graduation
 Date
- · Day Recruiting Status Date
- Day Referral Source Date
- Degree External Degree
- · Document Details
- External Academic Career
- External Academic Level

- External Academic Summary Type
- External Academic View
- External Organization Last School Attended
- · External Term
- External Test Component
- · GPA Type
- Institution
- · Person
- Person Attribute
- · Person Recruiter
- · Program Action
- Program Action Reason
- Program Status
- Recruiting Center
- Recruiting Status
- Recruitment Category
- Referral Source
- Region for Campus Solution
- · Residency
- Term Admit Term
- Term Expected Graduation Term
- Test Data Source
- Year External Term Year

Student Records Mart

Student Records Mart captures information about course catalog, class scheduling, student career term records, and enrollment trends to identify the effectiveness of course and degree program offering. Average GPA



can be used to measure student achievement by campus, career, and program. Faculty workload can be analyzed to manage a balanced faculty to student ratio. The facts and dimensions for Student Records Mart are:

Facts

- Allowable Exclusion Count (7 years)
- · Class Count
- Course Count
- Current Grade Point Average
- · Degree GPA Points
- · Full Time Headcount
- · Grade Points
- Graduation Count (7 years)
- · Instructor Load Percentage
- Maximum Audit Units
- Maximum Total Units
- Maximum Units towards
 Non Grade Point Average
- Maximum Wait Units
- Minimum Total Units
- · Other Units
- Part Time Headcount
- Primary Instructor Count
- Repeat Count
- Retention Count (7 years)
- Student Enrollment Count
- · Assignment Percentage
- · Average GPA
- **Dimensions**
 - Academic Group
 - Academic Level End Term
 - Academic Level Projected
 - · Academic Level Start
 - · Academic Load
 - · Academic Organization

- · Student to Instructor Ratio
- Teaching Indicator Flag
 Count
- Term Enrollment Count
- · Total Headcount
- · Total Term Units
- · Units Earned
- Units in Progress
- Units in Progress for Grade Point Average
- Units in Progress for Non Grade Point Average
- · Units Passed in Progress
- Units Passed for Grade Point Average
- Units Passed for Non Grade Point Average
- Units Taken
- · Units Taken in Progress
- Units Taken for Grade Point Average
- Units Taken for Non Grade Point Average
- · Units Transferred
- · Week Workload Hour Count
- · Academic Plan
- Academic Subplan Term
- · Academic Program
- · Academic Standing
- · Admit Type
- · Award



•	Campus
---	--------

- Class Number
- · Class Rank Number
- Class Section Code
- Course
- Day Action Date
- Day Degree Conferral Date
- Day Enrollment Add Date
- Day Enrollment Drop Date
- Day End Date
- Day Fully Enroll Date
- · Day Start Date
- Day Withdrawn Date
- Degree
- Degree Honors
- Degree Status
- Document Details
- Enrollment Status
- Ethnic Group
- · Facility
- Gender
- Grade
- · Instruction Mode
- · Instructor Class Role

- · Instructor Load
- Location
- Person
- Person Attribute
- Person Primary Instructor
- Program Action
- · Program Action Reason
- · Program Status
- · Repeat
- Session
- SSR Component
- · Student Career Number
- Student Cohort
- Student Group
- Term
- Term Admit Term
- Term Completed Term
- Term Expected Graduation Term
- Term Requirement Term
- · Term Residency
- Year Academic
- Year Admit

Student Financials Mart

The Student Financials Mart enables analysis of financial aid amounts awarded to applicants, as well as the percentage of applicants not awarded. Student receivables from tuition and fees can be tracked by accounting period and program. In addition, you can understand the percentage of total tuition revenues that are coming from institutionally funded awards, lending institutions, and other funding sources. The facts and dimensions for Student Financials Mart are:



Facts

Financial Aid

- Accepted Amount (in base and additional currencies)
- Authorized Amount (in base and additional currencies)
- · Award Count

- Disbursed Amount (in base and additional currencies)
- Offered Amount (in base and additional currencies)

Student Financial Services

- Charge Amount (in base and additional currencies)
- Encumbered Amount (in base and additional currencies)
- · Overdue Bill Count
- · Late Payment Count
- Paid Amount (in base and additional currencies)

- Payment Amount (in base and additional currencies)
- Total Bill Amount (in base and additional currencies)
- Total Paid Amount (in base and additional currencies)
- Transaction Amount (in base and additional currencies)

Dimensions

Financial Aid

- · Academic Career
- · Aid Year
- · Award Period
- · Award Status
- Business Unit Student Financials
- · Currency Attributes
- Day Snapshot Date
- Dependency Status
- Disbursement

- · Document Details
- · Federal Aid Application
- · Financial Aid Item Type
- · Financial Aid Type
- Institution
- Person
- · Student Aid Attributes
- · Student Financial Aid Terms
- Term

Student Financial Services

- Academic Career
- · Academic Level
- Academic Plan
- · Academic Program
- Account Term
- · Account Type
- · Aid Year

- Business Unit Student Financials
- · Currency Attributes
- Day Actual Billed Date
- · Day Billed Date
- Day Disbursement Date Day Snapshot Date



· Day Transaction Due

Person

• Day Transaction Paid Date

• Term

• Date Document Details

· Year Academic

• External Organization

· Year Calendar

• Item Type

Extensibility & Scalability

Oracle Business Intelligence Suite Enterprise Edition (OBIEE) offers an integrated, comprehensive suite of open, standards-based business intelligence products and provides the best foundation for building enterprise-wide BI solutions. Utilizing the sophisticated business calculation and analytic engine within the Oracle BI Server, OBIEE provides a scalable and robust analytical platform that can handle both very large data sets and diverse user communities with unparalleled speed, power and extensibility. OBIEE delivers powerful, easy-to-use analytic reporting and intelligence across any data source or IT infrastructure investments you may already have.

Leverage Your Investment in PeopleSoft

Oracle is committed to continuously improving current customer investments, while simultaneously delivering innovative, next-generation solutions. Fusion Campus Solutions Intelligence for PeopleSoft Enterprise delivers on this commitment by integrating PeopleSoft Enterprise Performance Management with Oracle's market-leading BI platform, Oracle Business Intelligence Enterprise Edition. With Fusion Campus Solutions Intelligence for PeopleSoft Enterprise, you can drive more value out of your existing PeopleSoft investment while taking your first steps toward Oracle Fusion Applications.

Companion Documents

For more information on the PeopleSoft Campus Solution Warehouse, please refer to the *PeopleSoft Campus Solutions Warehouse for Higher Education* datasheet.

For more information on the Oracle Business Intelligence Enterprise Edition technology, please refer to the *Oracle Business Intelligence Suite Enterprise Edition* datasheet.

About PeopleSoft Enterprise Performance Management

Oracle's PeopleSoft Enterprise Performance Management suite belongs to Oracle comprehensive, market-leading set of analytic and business intelligence applications. Only Oracle delivers the full spectrum of analytic applications with capabilities such as corporate performance management, interactive dashboarding, and embedded analytic functionality for delivering insight pervasively across your enterprise. Open, pre-built, industry-specific business intelligence applications provide actionable intelligence for each business function and user role.



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KED DEDUCTES

- Si□plified □ccess □e□uest □it□intuitive and e□tensi□le user e□perience drives user productivity□increases user satisfaction and opti□i□es operational efficiency
- entrali ed and e tensi e access catalo to store and furter define usiness friendly definitions for oles
 pplications Entitle ents
- euests it approval or flos and policy driven provisionin oproves of efficiency en ances security and enales coopliance
- ole [ased access control [att] ole Minin [a
- □is□□ased□□usiness user friendly identity □ertifications □ closed loop re□ediation of access ri□ts
- □ontinuous □□ □udit Monitorin□ and □eportin□

KED DEDEDINS

- Increased security: Enforce internal security audit policies and eli□inate potential security t⊡reats fro□ ro⊡ue□ e⊡pired and unaut⊡ori⊡ed accounts and privile⊡es□
- Privileged Account Management:
 □Ilo□ users to □ain access to sensitive
 applications in a ti□ely □anner□□□Ile
 providin□ sufficient audit trails

- Reduced costs: □educe □□ costs
 t□rou□□ efficient□□usiness friendly self
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Organizations need to balance the requirements to provide users with quick and easy access to the systems they need to perform their jobs with the organization's risk and compliance obligation to ensure such access is as restrictive as possible. To achieve this balance, organizations need to deliver intuitive ways for users to request access to systems and applications, appropriate policies and processes to approve such access, simple ways for managers to confirm that such access is appropriate and finally, monitoring tools for managers and administrators to periodically check and certify that access is properly assigned to employees. Further, these systems need to apply to both standard user accounts and high risk, privileged accounts, which are often shared. Oracle provides a complete Identity Governance solution that enables organizations to efficiently balance the objectives of access, security, and compliance, while enabling user self services to reduce total cost of ownership.

□racle dentity □overnance

Oracle Identity Governance reduces the total cost of ownership for organizations by empowering user self-service, simplifying audit tasks and streamlining future version upgrades. By delivering a comprehensive platform for access request, role lifecycle management, access certification, closed loop remediation and privileged account management, racle is delivering a solution that both simplifies the process to address today's requirements and enables organizations to address emerging requirements.

Si plified □ccess □e uest

Organizations are eager to reduce costs and accelerate processes by empowering user self-service. Embracing this paradigm, Oracle Identity Governance solutions include out-of-the-box, shopping cart style access request interfaces that are designed to follow common practices popular on commercial e-commerce sites, such as "add to cart", "review cart", "chec out out" etc. ore to empowering end user self service is the expressive Access Catalog: a glossary that includes user-friendly names for all systems and resources to simply the user process of searching for the right system or business application. Further, this catalog also includes enterprise items such as sensitive, privileged accounts, roles and entitlements, necessary to drive roles-based provisioning. While the out-of-the-box access request system is designed to be robust, customers requiring customizations will also benefit from the ability to easily develop durable customizations, which can upgrade to future versions of the product, reducing total cost of ownership for future upgrades.



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In an effort to effectively managing the proliferating number of users, many organizations are leveraging roles to assign and manage rights and privileges. To support this approach, Oracle Identity Governance includes innovative and robust role discovery and lifecycle management capabilities, which both harvest roles as they are created and manage approval for entitlement changes against these roles, including real time impact analysis for role consolidations before changes are pushed to production. All role activities are fully audited and provide the ability to roll back changes, should it be necessary.

Strea ☐ lined ☐ccess ☐ rant

While driving self-service for access request simplifies processes, access grants must be approved by authorized entities. Oracle Identity Governance leverages standards-based approval workflows, which include enterprise capabilities such as delegating approval and including supporting attachments on workflow requests to provide additional detail on decisions. Finally, customers can leverage the Identity Connector Framework connectors that extend benefits both for account creation/reconciliation and also support privileged account management requests.

Privile □ed □ccount Mana □e □ ent

Within virtually every organization, there are sensitive, privileged accounts, such as Root Admin accounts. These accounts must be shared between multiple users and are frequently not managed securely. Oracle identity Governance enables organizations to extend core identity management policies to these sensitive, privileged accounts. Administrators, or super users, seeking access to these accounts can use the standard, access request interface and Access Catalogue to request access to these accounts. Standard approval workflows apply and organizations can leverage their existing Oracle identity manager connectors to manage passwords on these systems. By extending the existing identity management policies to privileged accounts, organizations have improved audit capabilities and can properly plug these accounts into a broader access certification processes.

Si plified dentity □ertification

As the number of applications to which employees have access increases, certifying access becomes imperative, especially for larger enterprise organizations. In order to efficiently scale and sustain, these processes need to be both automated and resilient. With advanced, risk-based analytics and easy to navigate dashboards, Oracle Identity Governance offers a robust set of identity certification features that streamline the review and approval processes to effectively manage risk on an ongoing basis. eyond understanding "who has access to what", in depth analytics can provide detailed, —degree views on how such access was granted and highlights outliers for individuals versus their roles. Finally, the solution offers closed loop remediation, which provides an automated way for reviewers to revoking improper access across target systems and includes alerts should remediation fail.

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Oracle identity Governance provides both policy-based audit monitoring and detailed and flexible reporting capabilities. Comprehensive dashboards enable both system administrators and delegated administrators to run reports on virtually any artifact of a user's access rights, access grants and the genesis of each. The Oracle Identity Governance Suite offers the ability to define and enforce detailed security policies both within and across applications. This enables intelligent monitoring to identify imminent violations typically caused by access grants following job changes or other HR events. Finally, decisions made to identity certification reports are always stored and archived for audit purposes.



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Hardware and Software, Engineered to Work Together



An Oracle White Paper Sep 2009

Buyer's Guide for Enterprise Single Sign-On



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Introduction

In a typical heterogeneous enterprise environment, there may be a number of applications running off a multitude of systems and machines a user may have to access on a daily basis. To create a user individually for all these applications takes up time for each system and the assigning of access control can be troublesome and repetitive. Moreover a distributed model means slower response time for helpdesk requests, unnecessary overheads in servicing these requests and inefficiency on the part of the users (user has to sign into multiple domains). This leads to poor user experience, extensive administration costs, lack of security and privacy for the users and lack of interoperability with other business systems as well as with other third party identity/security management solutions. These business challenges drive an enterprise to adopt a better Identity Management and Enterprise Single Sign-On (ESSO) solution

When evaluating ESSO solutions it is good to keep in mind how to enable a comprehensive solution for managing identity profiles and permissions throughout the entire identity lifecycle, thereby providing aids in regulatory compliance – including Sarbanes-Oxley and HIPAA, and simplified administration – how you can control password policies from a single console. An ESSO solution should help to improve your company's overall security.

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Business Drivers for ESSO

Here are the main business drivers for ESSO in any enterprise:

- Password Management There is a need within enterprise organizations to simplify
 the end user experience, to reduce password related help desk costs and enhance
 security by eliminating poor end user password management.
- Identity Management There is a greater need for integrated enterprise sign-on which is a key requirement for, and often a first step, of a complete enterprise identity management solution.
- **Strong Authentication** Extending strong user authentication to enterprise applications is a key requirement of a strong authentication initiative.
- Compliance Eliminate the hidden end user costs associated with compliance driven initiatives. Extend audit and reporting capabilities to include user sign-on data.

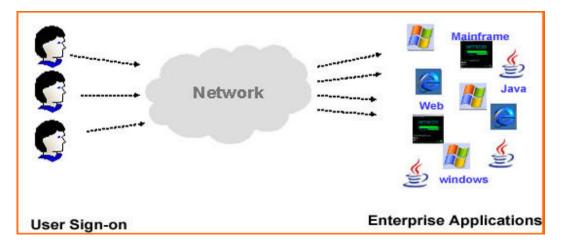
Benefits of ESSO

ESSO offers a number of important benefits to an enterprise:

- Maximizes productivity Allows users to gain quick and easy access from any location.
- Eliminates lost or forgotten passwords users have just one password to remember.
- Lowers user support costs virtually eliminates password-related support calls.
- Securely stores and manages all passwords eliminates the need to manually manage passwords.
- Improves network security prevents unauthorized users from accessing enterprise applications.
- Aids in regulatory compliance including Sarbanes-Oxley and HIPAA compliance.
- Simplifies administration enables control of password policies from a single console.
- Rapid Integration –Integrates with an existing Identity Management lifecycle management solution.

Overview of Oracle ESSO

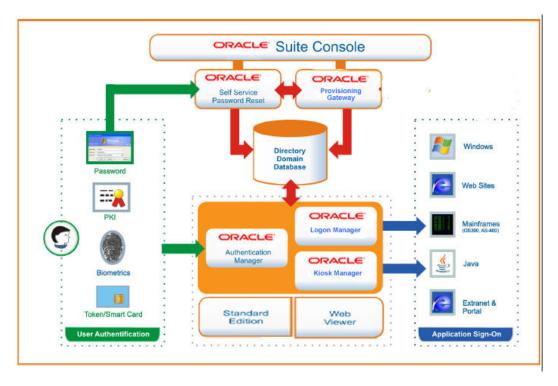
Enterprise users constantly have the need to access various enterprise applications, whether they are connected to the corporate network, traveling away from the office, roaming between computers or working at a shared workstation. Oracle Enterprise Single Sign-on (Oracle ESSO) lets users login to enterprise applications using a single password to access any password-protected application on the desktop, network or Internet.



User Sign-On to Enterprise Applications

The basic steps of operation using Oracle ESSO are as follows:

- User requests access to an enterprise application that can be windows, mainframe, web
 or Java applications
- Oracle ESSO Logon Manager Agent intercepts user request on his desktop
- The ESSO Logon Manager retrieves the user record, and then fills in the appropriate
 users credentials for the ESSO enabled application. The application specific username
 and password are sent to the application.
- User is granted access to the application



Oracle ESSO in Action

Solution Overview

Oracle ESSO supports an extensive list of directories and databases as a central repository for user credentials, application logon templates, password policies, and client settings. Oracle ESSO helps enterprises advance their identity management, compliance and authentication initiatives by simplifying, extending and securing enterprise end user sign-on.

Here is a list of exclusive features offered by the Oracle ESSO solution:

- Web-based access management SSO: This will include an SSO capability for Web-based applications. With Web-based SSO, the user supplies a credential. The Web server validates the password with a central credential server. If a match is found, the user is granted access to the Web-based application or system.
- Desktop/Mainframe/Host Applications access Management SSO: The ESSO solution should provide access to all desktop applications (ex: windows/Solaris) Mainframe applications (such as 3270, 5250), and Host applications (example Telnet). Provide users to use multiple emulators and multiple emulator sessions simultaneously.

Supports user needs to both logons and password-change for desktop applications and allows administrators to add mainframe/desktop applications and configure them and easily deploy them to users.

- Java Applications & Applets access Management SSO: Provide users access to AWT and Swing and standalone Java Applications and Applets
- **Credential Synchronization:** Provide a way to replicate the user's credentials (example username, password) automatically across all applications and resources.
- Event Logging: Provide ESSO administrator's logs and report on application usage.
 Provide network administrators comprehensive reports on password-related activity, showing who used passwords, what applications they accessed, where, and when.
- Enterprise-class Scalability: The Oracle ESSO solution is unique in its ability to scale to service the needs of enterprises of all sizes.
- Faster Deployments, Updates and Rollback: The Oracle ESSO suite Plus (ESSO Suite Plus) is an extension to Oracle ESSO that provides the advantage of eliminating traditional software installation allowing system administrators to simply host the ESSO product online for users to download. Users will download and run ESSO with a simple click of a button from a host website or a network file share. This offers true ESSO portability and also reaching a wider set of audience in an Organization like remote, mobile and temporary users, including partners, outsourcers, contractors and other non-employees.

Enterprise Single Sign-On Checklist

This section presents a baseline list of requirements for an ESSO solution. In each of the tables presented, the left column describes a requirement, and the right column describes how the Oracle ESSO Solution meets that requirement.

Enterprise Single Sign-On

Allows user to log on to networks, applications, and Web sites using a single password. The same password lets users access enterprise applications Windows Application SSO

Pre-configured for Microsoft Office, Adobe Acrobat Reader, FrontRange Goldmine, Interact Act!, PKZip, and many more types

▼ Web based application SSO

Pre-configured for accessing web applications on Microsoft Internet Explorer.

Also provides Support for Web pages including form based and popup sign-ons.

✓ Java Application and Applets Desktop SSO

Supports Java Runtime Environment (JRE) version 1.3 or later

V Host/Mainframe application Single sign-on

- Supports AS/400 (5250), OS/390 (3270), and Unix (Telnet)
- Pre-configured for most emulators including: Attachmate Extra!, G&R Glink, Hummingbird HostExplorer, IBM Pcom and Host On-Demand, NetManage Rumba, ScanPak Aviva, WRQ Reflection, Zephyr Passport, and many more
- Supports multi-screen logon/password change scenarios
- Supports multiple emulators simultaneously.

▼ Credential Sharing

Facilitates multiple enterprise applications sharing the same credentials for the user

Password Reset

Provides self service (GINA or Browser) or assisted password resets for users

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- Facilitates a way to provision users to ESSO desktop applications with the out-of-the box connector for Oracle Identity Manager
- This enables user provisioning to enterprise resources and enable ESSO for applications in the enterprise.
- Supports bulk import of user accounts.

Strong Multi-factor User Authentication

Provides multiple authentication modes for the user, including Windows login, LDAP, PKI, smart card, biometric or token-based authentication.

✓ User Access Modes

Provides multiple ways for the users to access enterprise applications, including desktop, offline, kiosk, or shared workstation

Support for Offline or Disconnected Users

- Oracle ESSO was designed to support all user work modes; Connected,
 Disconnected, Stand-Alone,
 Roaming, Mobile and
 Kiosk. As a result, Oracle
 ESSO is not directly
 dependent on a server in
 order to provide enterprise
 SSO.
- Supports
 Offline/Disconnected
 usage by keeping a locally
 cached encrypted copy of
 the user credentials on the
 local workstation. This local
 copy automatically
 synchronized at a record
 level when the user regains
 connectivity to the
 designated repository.
- The ability to enable the
 off-line cache is fully
 controllable by the
 administrator centrally. You
 can control these settings
 globally, by group/role or
 user and by specific
 machine in order to achieve
 the use cases desired by
 your organization.

☑ Enterprise Directory Integration

Fully supports roaming users, defined as users who move from workstation to workstation. Oracle ESSO can support this by either taking advantage of Windows Roaming profiles to supply the user with their SSO configuration and SSO credentials or preferably to utilize our Synchronization Support to use an existing Directory Server or a Network File Server to provide each user with access to their unique credential repository from virtually any workstation with connectivity to the Server.

Supports the following directories for synchronization; SunOne Directory, Novell NDS eDirectory, Microsoft Active Directory, virtually any other LDAP v2 or v3 directory or any available Network File Server.

Encryption Support

Protects each user's credential store using one of several selectable encryption algorithms. By default, Oracle ESSO uses the Microsoft CAPI supplied Triple DES (3DES) symmetric key encryption algorithm to secure all user credentials locally on the desktop and to remote directories or network drives. MS CAPI 3DES is certified to meet FIPS 140-2 requirements. Oracle ESSO also includes MS-CAPI AES 256 bit (FIPS 140-1), RC4, Blowfish 448, and Cobra 128 as administratively selectable algorithms.

Each credential is only decrypted on an as-needed basis and is never stored or cached in the clear. Oracle ESSO uses cryptography to confirm user authentication and to secure storage of user credential data.

Administrative Console

The Oracle ESSO Administrative Console is a GUI based, wizard driven configuration. It allows administrators to configure all of the Oracle ESSO agent settings.

- Configuring all application specific settings for single sign on
- Extending the schema for the directory
- Managing, adding and updating ESSO specific configuration settings across
- Updating Oracle ESSO application configuration templates
- Generating and publishing application templates to the LDAP/directory.

Authentication

Allows for a variety of Primary/Front End Authentication methods as it ships with authenticators for Windows Logon, Windows Active Directory/Domain Logon, LDAP, PKI Systems, Smartcards and Biometrics.

The authenticator allows users to prove their identity, whether through a Windows Domain Password, biometric or smart card. The authenticator takes the user's proof and passes it to the authentication service. The authentication service validates the credentials provided by the authenticator against either its store, own or a system authentication Service such as a Windows domain or a PKI.

Directory Synchronization

We synchronize with the directory based on intelligent activity, adding a logon, password change, starting up, logging off, a configurable timer, etc. Some companies synchronize data based on a fixed time interval, which can allow for data to get out of sync if it is changed, and for synchronization to occur from numerous machines when none is necessary.

Directory Schema Extension

Oracle uses an effective class schema extension, which leaves your base schema intact as delivered by your directory vendor creates a self-contained configuration object using our own object classes. Conversely, some companies make a base schema extension, which modifies your base schema, specifically the user object and appends SSO data to it. This causes you problems during directory upgrades, and directory replication (user object is always replicated).

Password Policy Management

Password Policy Management allows administrators to define a default global password policy, application specific password policies, as well as subscribing several applications to one password policy.

Password Management

Oracle ESSO can recognize a password expiration/password change request, and either prompt the user to compose a new password (forcing the user to comply with the password policy) or automatically (and transparently) generate random password that complies with password policies set by an administrator on behalf of the end user. Additionally, Oracle ESSO has the ability to monitor the age of a stored password and at a preconfigured time interval (30 or 60 days for example) initiate the password change process at the local application level.

Additionally, with Oracle ESSO, the administrator can specify:

- Maximum/minimum password lengths
- Maximum repetition of a character
- Number of times a character can be adjacent to itself
- Allow numeric characters
- Maximum/minimum occurrence of numeric characters
- Allow numeric to start password
- Allow numeric to end password
- Allow special characters (specify the characters to allow and exclude)
- Maximum/minimum occurrence of special characters
- Alpha usage (none, upper, lower, upper and lower)

Auditing Capability

Oracle ESSO can log all SSO system events; including credential use, credential changes, global credential events, Oracle ESSO events, and Oracle ESSO feature use. Oracle ESSO can also log specified fields. Events can be logged locally or to any external destination. These destinations can include a directory, an SNMP service, a Windows server (for viewing via the Windows Event log), or even a local XML log file for simplified parsing and reporting fields that administrators specify.

V Credential Use Events	Support for Logons, manual	
<u> </u>	password changes, automatic	

password changes

Credential Change Events Add credentials, delete

credentials, change credentials,

copy credentials, etc.

Global Credential Events Backup, restore, synchronize, etc.

Platform Events Startup, shutdown, etc

System Events

• Logon Manager, Settings,
Help, About, etc.

 Application name, Application username, Application third field, Date, Time, etc The Oracle ESSO simplifies the creation of audit reports from the event logging data provided by Oracle eSSO Logon Manager. Additionally, from the Oracle ESSO Administrative Console, the administrator can initiate a ESSO Usage report against the data stored in the central repository to export a report containing the credential usage information by user so that you can easily and quickly see which users have credentials for which applications and identify their usage and last change. Once logged, all ESSO events are permanently stored and become part of the overall audit record of computer use and policy control.

Oracle Enterprise Single Sign-On Anywhere (ESSO Anywhere)

Oracle ESSO Anywhere simplifies ESSO deployments for system administrators while also extending the benefits of Enterprise Single Sign-On to users who are remote and mobile. For organizations that have users who need access to ESSO from anywhere at any time, ESSO Suite Plus provides the ability to click and run ESSO on-demand from anywhere. Unlike any other product on the market, ESSO Suite Plus does not require a traditional installation to achieve ubiquitous ESSO access.

Centralized Deployment
Option

Provides one deployment package for all the ESSO software.

✓ "Click and Run" ESSO

Users will download and run ESSO with a simple click of a button from a hosted website or a network file share.

Auto Updates and Rollback

The deployment packages can be version controlled hence offers easy updates and rollback.

Updates can be set as required or on an optional basis. Forced updates can be set against a minimum version of the deployment package. Can also specify how frequently to check for updates such as every time the ESSO client is started, or on a weekly or monthly basis.

Conclusion

Oracle Enterprise Single Sign-On (ESSO) provides a way for a user in an enterprise the ability to access all applications through a single authentication event and do self-service password management as well.

Since Enterprise single sign-on (ESSO) systems are designed to minimize a user typing in their credentials to sign onto multiple applications, the ESSO solution automatically logs the users in, acts as password filler and avoids the user the need to know his password. This works well even when enterprises have to deal with different types of users for their enterprise applications like Suppliers Contractors, Resellers, Distributors, Agents and Joint Development partners. In addition to providing a single, secure sign-on to all enterprise applications, an ESSO solution enables strong authentication, improves compliance and accelerates cost savings resulting in high ROI for enterprises.

The Oracle ESSO Anywhere installation strategy speeds deployments by eliminating the need to perform system integration tests before deploying the software and then relying on desktop refresh or scheduled push procedures for installation. This helps avoid traditional installation problems, such as the need for administrative rights on the destination computer. In addition, it allows software updates and rollbacks to be applied automatically and managed from a central location.

The Oracle ESSO Suite is a proven solution that works with most enterprise applications without a lengthy and complex implementation effort. The Oracle ESSO Suite delivers huge usability improvements for end users, indirect cost savings from decreased employee downtime, and high ROI through direct savings in helpdesk costs, while providing vastly improved security for all the applications in the enterprise.



Buyer's Guide for Enterprise Single Sign-On Sep 2009

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□ □itness t□e rise of Mal□are□ Session □i[āc□n□□ □otnets□ Social En□ineerin□□
P⊑is⊑in□□P□ar□in□□and Key□oard □o□□in□□to na□e a fe□□ Security in today's
dyna□ic □usiness environ□ent □ust not only □e ni□□le enou□□ to adapt to t□ese
e⊑ternal t⊑reats ⊑ut it □ust also protect a⊑ainst internal t⊑reats as □ell□Passive
security and co□pliance □easures are no lon□er □ood enou□□ for todays̄ co□ple□
and ever c□an□in□ security cli□ate□Ulti□ately□□usinesses □ust □ave solutions t□at
proactively □iti□ate ris□ and actively co□ply □it□ current and future □easures and
re□ulations□
in t⊡s c□allen⊡n□ environ□ent□co□panies □ust develop a □olistic and proactive
strate⊡y □ased on ris□ □ana□e□ent principals□ □o□panies t□at use a reactionary
approac□ to security□ selectin□ different identity□ased solutions to protect □e□
applications □ □ost or client server applications □ □e□ services □ and federated or
partner ased applications □ill ulti ately fail □ eactionary approac es result in a
□rittle security infrastructure t□at is difficult to □aintain and □as a conse □uence of
inconsistent security policy □ ana □e □ ent □prone to data lea □s or □orse □
□oday□□any vendors offer access □ana□e□ent solutions t□at □o □eyond access
□ ana □e □ ent □asics providin □ analytics □das □oards □and forensic tools □Many of t□e
products offered today cover □ultiple aspects of access control□□a□in□it difficult to



select t⊡e ri⊡t security solution□ So ⊡o□ do you select an access □ana⊡e□ent
solution t□at is ri□□t for you□ □ ro□ust access □ ana□e□ ent solution s□ould not only
provide □asic access □ ana □e □ ent functionality □ut also provide □
Security fro dis to e access ana e ent solution you coose sould an all in one solution tat covers ultiple aspects of security ana e ent it sould a de a et provide solution for securin applications data di tal assets e services and cloud ased services
solution is opti i ed for scala ility perfor ance and ease of develop ent to an plu into an application security fra e or so different security ecanis so can explication security to a lifect of an application it is also scalate to expose susiness applications and data securely to a side variety of users includin resorted exployees custo ers and partners all across a setero eneous environ ent
□ ird party inte rations □ □ cood access □ ana □ e □ ent solution provides □ ut □ of t□ e □ o □ inte ration across various co □ ponents to si □ plify and strea □ line deploy □ ents □
Monitorin and ia nostics = e access ana e ent solution you coose sould ideally provide roust onitorin for larescale deploy ents tat allo syste and net or ad inistrators to proactively ana e i portant enterprise assets
Inte□rated user e□perience□□n effective access □ ana□e□ent solution ideally provides a co□□on user e□perience across t□e entire ran□e of products t□ere□y increasin□ user productivity and cost□effectiveness□
□□is □uyer's □uide □ill □elp you evaluate and develop a clear understandin □ of □ey features t□at fit your uni □ue security needs □ □usiness drivers and infrastructure re □uire □ ents □ no □ and in t□e future □ t□ provides a detailed list of product features and vendor capa □lities t□at □ any custo □ ers consider □ □en evaluatin □ t□e co □ ponents of an access □ ana □ e □ ent solution □



□usiness □rivers	
□lt □ou □ t □ere are □ any practical reasons to consider security solutions □it is □elpful to understand □o□ t □ey can positively i□ pact t □e □usiness □	
Security Si plified Security s ould e easy to ana e ensurin ti ely and effective deploy ents and creatin a unifor user e perience by esta is in a si plified approac to security to eusiness can e assured of titer control reduced operations costs and a ore consistent solution	
End to End Security Enterprises today are loo in to adopt solutions tat can provide end to end protection coplete solution ill protect sensitive data at every tier fro to end user facin applications and even esternal docuents tat leave to fire all	
Perfor ance for loud and E tranet ranications are increasinly loo in for their partner net or and the cloud to provide competitive advantate or to serve their customers it neminative services concess Manarement security ust all to perfor at loud or E tranet scale to serve the odern enterprise.	
ctive opliance Security solutions today out do ore to protect data to use also assist in attestin to various reculatory and coopliance needs cooprecensive occess Mana ent solution oill provide detailed audit and reportin data to not only ensure coopliance out also opliance coes Mana ent solutions out provide not only vision on one of the coes of the co	
□is□ Miti□ation□ □ it□ so □ any types of t□reats facin□ t□e enterprise□ a co□ plete □ccess Mana□e□ ent solution □ ust do □ ore t□an si□ ply lo□ ris□y or ano□ alous events□ t□ □ ust also proactively reduce ris□□ □y co□ parin□□ istorical data a□ainst current activity□ and □y auto□ atically learnin□ □ □c□ user □e□ aviors are nor□ al and □ □c□ are not□ or□ ani□ ations □ et e piece of	



□ ind and assurance t□at t□reats to t□eir intellectual property□t□eir □usiness operations□and t□eir user identity data are responded to in real ti□ e□
□olla orate and Protect □ata at its Source □ roanications □ant to sti□ulate colla oration □it in to eroanication out to ey □ant □ore control on oo to to data is some internally and esternally □
□usto□er Pro□e□s
□r□ani□ations today are focused on solvin□ a fe□ □ey pro□le□s in t□eir environ□ ents t□at involve access and aut□entication□
Authentication and Authorization: Description of aut Description and aut Description of automatic Description Description Description of automatic Description Descr
Identity in the cloud: it or ani ations under direct pressure to reduce operational costs and e pand revenue federation as e un ta e a central role in definin or ani ations identity arc itecture r ani ations need solutions to at can eet to perfor ance and scala lity require ents of internet aut entication a recate identity attricutes fro ultiple applications and sync roni e data et een on pre ise directory services and cloud ased identity services all in one solution
Identity Security: □r□ani□ations are faced □it□ a continually c□allen□in□ security environ□ent □□ere t□reats need to □e □ ana□ed internally and



e ternally □ □ey need an aut entication solution t at can store t e		
appropriate aut⊡entication attri⊡utes and policies needed to □a⊡e t⊡e		
relevant access decisions□ □r□ani□ations stru□□le □it□ creatin□ pass□ord		
policies for applications □ased on t□eir ris□ profile and □usiness needs□ □□ey		
need open solutions t□at allo□ t□e□ to respond to dyna□ic security t□reats		
□uic□ly and in a cost effective □ anner□		
Data Center Consolidation: □perational □ud□ets can consu□e up to □□□		
of an □□ □ud□et□ □r□ani□ations are loo⊡n□ for tools and proēcts to reduce		
t □ e cost of t □ eir data center □ □ □ is includes consolidation of tec □ nolo □ y and		
licenses as □ell as doin□ □ore □it□ less□ Perfor□ ance and servicea⊡lity are		
also □ey □usiness drivers in t□eir purc□ase of ne□ solutions□		
Collaboration: E□ ployees and partners re uire colla oration to stay in □		
sync□ and continue to innovate□ □□e e□ ployee and partner net□or□s are		
distri⊡uted □lo□ally and □or□ fro□ re□ote locations□ □□e portals□e□ail□		
calendarin \square \square \square and ot \square er colla \square oration tools need to rely upon one		
aut⊡entication source to ensure t⊡ey can lo⊡n and ⊡ave access to t⊡e ri⊡t		
tools□		
□racle □ccess Mana □e □ ent Suite Plus □vervie □		
□racle □ccess Mana□e□ent Suite Plus is t□e industry।s □ ost co□ plete end⊡to end		
$security \ solution \\ \\ \square providin \\ \\ \\ \square \ est\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $		
$docu \square ents \square and cloud \square ased services t \square rou \square \square an innovative co \square \square nation of fle \square \square e$		
aut⊡entication and sin⊡e si⊡n on identity federation ris □□ased aut entication □		
proactive enterprise fraud prevention and fine aut ori ation at also provides		
$t \boxdot e \ industry's \ \Box \ ost \ co \Box \ pre \boxdot ensive \ solution \ for \ securin \Box \ applications \Box \ data \Box \ \Box \ e \Box$		
services or S□□□ and cloud⊡ased services□ t □elps co□panies stren□t□en		
$application \square \ and \ \ data \ \ security \square \ prevent \ \ fraud \square \ satisfy \ \ audits \square \ and \ \ i \square \ prove \ \ user$		
$\verb e perience $		
□ odular arc itecture t ite tives custo ite tie fle i ility to deploy a co i plete		
solution □to focus on deployin □		



individual ☐ □ est of ☐ reed capa ☐ lities ☐ or to easily and ☐ uic ☐ y inte ☐ rate ☐ rd party security services into a sin ☐ e solution ☐ offered at a sin ☐ e price point ☐			
Key □o□ponents			
□racle □ccess Mana□e□ent Suite Plus includes□			
□ Oracle Access Manager, □□c□ delivers critical functionality for access control□sin□le si□n⊡on□and user profile □ana□e□ent centrali⊡ed session □ana□e□ent□and a□ent □ana□e□ent in ant□er □etero□eneous application environ□ent□			
☐ Oracle Adaptive Access Manager, ☐☐☐ provides real ti☐e and ☐atc☐ ris☐ analytics☐☐ ☐☐ analysis☐☐ ris☐☐ ased aut☐entication ☐☐ ec☐anis☐s and aut☐entication stren☐t☐enin☐ capa☐ilities☐			
☐ Oracle Entitlements Server, ☐☐☐ provides ris☐☐a☐are fine☐rained			
application and data aut⊡ori⊡ation□			
□ Oracle Identity Federation □□□ic□ provides cost effective □standards □ased			
federated sin ☐ e si ☐ n ☐ on ☐ federated identity ☐ ana ☐ e ☐ ent capa ☐ lities ☐ and t ☐ industry's si ☐ plest inte ☐ ration and deploy ☐ ent options ☐ ☐ also ena ☐ es			
secure identity infor ation e can e et en partners to significantly			
reduces need to □ana □e unnecessary t □ird party identities and lo □ers t □e cost of inte □rations t □rou □□ support of industry federation standards □			
☐ Oracle OpenSSO Fedlet, ☐☐☐☐ allo☐s or ani ations to ☐☐☐ and easily			
set up standards⊡ased federations □it□ service provider partners□create a			
standard inte⊡ration pattern for additional partners⊡and ac⊑ieve secure si⊡n□			
on across partners in a □ atter of □ours□			
☐ Oracle Enterprise Single Sign-On, ☐☐☐ ena☐es users lo☐in to enterprise			
applications usin a sin e pass ord or it stron er credentials includin □			
PK⊞S□ artcards□and □io□ etrics to access any protected application on t□e			
des⊡top⊡net□or□or internet□			



Oracle Web Services Manager □ □ic □ e tends identity driven security to
your □e□ services and service oriented arc□itecture□
Oracle Security Token Service □□□ic□ en□ances access □ ana □e□ ent and
${}^{}\Box dentity\; security\; \Box it \Box\; standards\; \blacksquare ased\; identity\; propa\; \Box ation\; and\; security\; to\; \Box en\;$
issuance and □ ana □e □ ent □

Oracle Access Management Suite Plus



Entitlements Server

- Entitlements Management
- · Fine Grained Authorization



Adaptive Access Manager

- · Risk-based Authentication
- Real-time Fraud Prevention



Identity Federation

- · Partner SSO & Identity Federation
- Fedlet SP integration



Security Token Service

- · Security Token Management
- Identity Propagation



Access Manager

- Web Access Control
- Single Sign-On

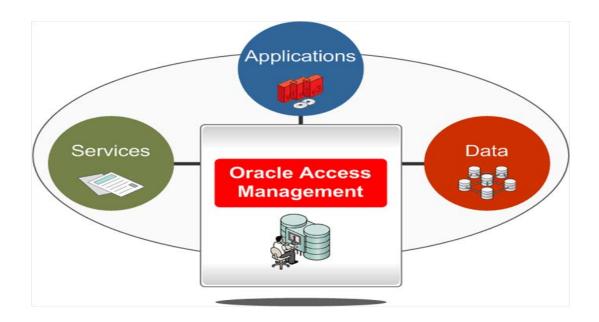


Web Services Manager

- Web Services Security
- Comprehensive Standards Support

1





Key □eatures

End-to-end Security: ccess Manace ent Suite Plus provides realitice riscanalysis end to end aut entication since sichon and fine rained application protection and celps alich and interate point solutions to provide contest across various infrastructure tiers to also provides stroncer security and less collective to a since suite of products to provides collected ers secure consuler applications internal collections appsicave appsicave appsical services and Sollections and also lets to custo er estend to a security seaclessly to federated cusiness partners.

Suite level integration: ccess Manace ent Suite Plus delivers ell'interated functional coponents to provide etter security and value to custo ers ccess Manace ent Suite Plus siplifies installation deploy ent and interation trou a unique odular arctecture tat cuilds upon te strents and capacilities of acces usion Middle are in addition encanced anaceacility superior dia nostics and



innovative features ensure a lo□er total cost of o□ners□ip and a si□ple□easier to □ ana □ e operational environ □ ent □ Innovative anomaly detection, transaction security, and multi-factor authentication: □ccess Mana □e □ ent Suite Plus provides a uni □ue layer of fraud detection and aut entication security on top of te e istin security features of ele SS□□federation□and application entitle□ents □ana□e□ent□ft provides stron□ yet fle i le protection for □usinesses and t □eir end users □y stren □t □enin □ lo □in processes selfservice pass ord ana eart flos providin ris ased callen e □ et □ods and □arnessin□ real ti□ e and □atc□ □ased fraud prevention □detection strate ⊑es □ccess Mana □e □ ent Suite Plus can also □elp evaluate t □e level of ris □ for eac□ individual access re uest or transaction ased on t le location device user □e□avior and ot□er factors□ □eatures suc□ as Kno□led□e □ased □ut□entication □ns□er □o□ic and □□P (□ne □i□e Pass□ord) □ny□□ere furnis□es e□tra layers of identity assurance for □e□ application access in an e□ceptionally costଢffective and user friendly □ anner□ Centralized Application Security and Authorization: □□e aut□ori□ation features of t cess Mana e ent Suite Plus centrali e security for enterprise applications and S□□ □y providin□ co□pre□ensive□ reusa□e□ and fully audita□e ris□a□are aut□ori ation policies □ it □ a user friendly ad □ inistration U □ custo □ ers can easily uild structured aut ori ation policies to fulfill t ost co ple application security use cases □ dditionally □t □ distri □ uted runti □ e policy enforce □ ent for applications si plifies □o□ enterprises secure diverse and □etero□eneous environ□ents suc□ as S□□□ EE applications pac a ed enterprise applications sensitive data stored in data □ases □or enterprise portals □ Lower operational costs and better IT agility: □□e Security □o□en Service si□pli□ fies t□e orc□estration of standards□ased and proprietary to□ens □et□een □e□ ser□ vices clients and providers □ena □lin □ □usinesses to a □stract security fro □ □e □ ser □ vices □□ccess Mana □e □ ent Suite Plus □elps i □ prove □□ a □lity □it □ t □e □edlet □□ □ic □ uic or a federated trust relations or a federated trust relation or a federated trust relations or a federated trust relati



Extranet Security at Cloud Scale: □□e □ccess Mana□e□ent Suite Plus provides
uni ue capa ilities t at allo or ani ations to levera t te innovation and services
fro□ t⊡eir partners and cloud service providers to □aintain co□petitive advanta⊡e□
Usin□ proven □est of □reed tec□nolo□y and standards□or□ani□ations can adapt to
□uic□ly c□an□in□ □lo□al environ□ ent and asse□ □le t□e services and applications for
its custo□ers□

Enterprise □ccess Mana □e □ ent □ □ec □ist

Suite □evel □nte □ration

Key Feature	Benefit
End to End Security	□ etter inte ration et een functional co ponents of te suite
□li ned □d□ in consoles	☐ onsistent ☐ ut ☐ entication ☐ d☐ inistration ☐ ☐ ent ☐ d☐ ☐ inistration ☐ raud Prevention ☐ d☐ inistration ☐ and ☐ ut ☐ ori ☐ ation ☐ d☐ inistration
□is□□ased □ut□entication	□□i□□ly usa□le c□allen□e □uestions □□ ne □i□ e Pass□ord via SMS□IM□e□ ail□voice □Plu□□□□a□le aut□entication fra□ e□or□
Mal□are □ P⊡s⊡n□ Pro□ tection	□dentity protection for custo □ er and enterprise users
Secure Pass□ord Man□ a□e□ ent	□ ut of t □ □ o interopera ility usin ris□ ased au t□ t□ entication Sin □ e source of trut□ for pass□ ord resets □ onsistent user e □ perience
Secure Self Service Pass□ □ord Mana□e□ent	□□M Suite interopera ility t at lar ely replace t need for elp des calls can save a lot of oney
Enterprise ready	Enterprise features li e policy si ulation syste snaps ots dia nostics trou es otin availa e
□ut of t□e □o□Suite□□ide security	Pretinte rated platfor Secure access y default



□raud Prevention and □is□Miti□ation

Key Feature	Benefit
Si□ plified Security □d□ in□ istration	Si□ plified strea lined flo for creation and an a e ent of co ple fraud policies via ric e inter face
□□P (□ne □i□e Pass□□ord) □ny□□ere	undd ris unased aut entication to SS and self ser vice flo s utili e any cell pone as a second factor ut enticate users out of and
Universal □is□Snaps□ot	Easily □ac□up and restore security confi□uration Mi□rate security confi□uration □et□een environ□ents
□ns□er □o□ic	□ dd □ □ usa □ e security to vulnera □ e self service pass □ ord reset flo □ s □ void unneeded □ elp des □ calls □ y allo □ in □ varia □ e for □ s of valid c □ allen □ e □ uestion ans □ ers
□ealti□e ris□analytics □ interdiction	□is□evaluation lo ic t at "fi ures out" t le level of ris□at a liven □o□ent lased on a □ultitude of data points □is□ased proactive actions can loc□fraud at te□pts in t leir trac s
□e□avioral Profilin□	□□e□aviors auto□ atically profiled in real ti□ e so an □ o□ alies are detected i□ □ ediately□□ero la□ti□ e so t□at t□e solution can ad ust □uic□y and spot fraud □it□ lo□er false positive and ne□ative rates
□evice trac⊡n□	□ evices used to access applications can □ e ta□ ed and trac ed t rou out a session to offer en anced protection fro treats suc as session iac in
□ocation intelli□ence	□ et □ or □ and □ eo □ rap □ ic location a □ areness ena □ es advanced ris □ analytics
Multiple □eploy□ent □p□ tions	□□ □M □□ative □□everse Pro□y □□istener □□atc□



□ut□entication

Key Feature	Benefit
Session Mana e ent	□□i□□ perfor□ ance access to distri□uted session data □Enforce session constraints □Persists session data for aut□enticated users in an e□ □edded □o□erence □rid
□ppSecure □ontrol □enter	□ entrali □ application protection □ Si □ plify on □ oin □ ad □ inistration □ y □ ana □ e □ ent □ creation □ ana □ e □ ent □ and dia □ nostics fro □ a central □ d □ in console
Si□ plified □pplication □ te□ration	□□e□t □eneration □rc□tecture □ava EE □ased server □□onsolidated SS□ arc□tecture □ac□□ard co□ pati□lity across □□M□□SS□
SS□ Security □ones	Prevents unaut ori ed access fro spreadin to ultiple applications Scopes encryption eys for data passed to an applic ation enforce ent point creatin security ones tat prevent unaut ori ed access fro spreadin to ultiple applications
Self⊡Service Pass□ord Mana□e□ ent	□ ives end users t□e a ility to create and reset t□eir pass ord it□out assistance to dra atically reduce □ lp des costs and □ elps to □ eep users productive
□entrali⊡ed Policy □d□in□ istration	Si□ plify policy creation □□ ana □e □ ent □and propa □atin □ security policies t □rou □□ a central □d □ in console

E⊡tranet Security at □loud Scale

Key Feature	Benefit
□edlet	□□□lity to create relations□ps □it□ service providers and test t□ose relations□ps in □ atter of □ours
□ proved SaaS inte□ration e □perience	□ ederate □uic □y and easily □it □ □oo □e and Sales □orce □ Use industry □est of □reed security standards li □e S □ M □ □□□ □ U □ □ and □ pen □□



Key Feature	Benefit
Secure Session □ontrol	Scale □it□ confidence to t□e cloud usin□ t□e □est of □reed session □ ana □e□ ent solution
□ederated □irectories	□□ or sea lessly □it□ racle □irtual □irectory to virtuali e your data in le acy applications □it out c□an □in□ code □□ so □ill allo□ you to □uic□y and easily asse □ □e ne services □it□ cloud or a partner
Support for industry standards	Support for industry standards S M S Sedera tion
Support for pen D	□□elyin□ party and □pen□□ provider □□□□□□P□□P confi□urations (□a□oo□□oo□e□□□□□□□□□□□□□□□□□□□□□□□□□□□□
Secure □ttri□ute E□□ c□an□e	□□P⊡for t⊡e applications to ɪpus□□attri□utes to and fro□ □□□

Scala ⊑ility and □i □□ □vaila ⊑ility

Key Feature	Benefit
Proven □eploy□ ents for Multi□ illion User Populations	Supports environ ents it ulti ulti ulti ulti ulti ulti ulti u
□lusterin□	Solution is deploya ☐e in a clustered environ ☐ ent
□oad □alancin□	Eac□ server side co□ ponent of t□e solution can □e load □alanced□□oad □alancin□ options include □ard□are□□ased and native
□yna□ic □ailover	Eac□ server side co□ ponent of t□e solution can □e setup for failover



□uditin □ and □o □□in □

Key Feature	Benefit
□eportin□□audit and co□ pliance	Provides □ot□t□e fra□e□or□and tools necessary to trac□report and verify all of t□e si□nificant events
□eports □enerated fro□	⊡ocally stores audit data so t□at reports do not
local audit data	re uire fre uent tar et resource accesses
□ata arc⊡vin□ tools	Provides auto□ ated tools for □ ana □in □ □ □
	volu□es of audit data and arc⊡vin□data into an arc⊡vin□data□ase
Suite inte□rated reportin□	Sin ☐ e console inte ☐ rates audit reportin ☐ across t ☐ e entire identity and access ☐ ana ☐ e ☐ ent suite

Secure □ e□ Services

Key Feature	Benefit
Standards □ased Security solution	ates or e can es security to ens and acts as a trusted autority tat an enterprise estructure ay use to enforce appropriate security to en policies across escrites providers and consuers
□ S⊞rust □o en service	□ acilitate secure identity propa ation and to en e □ can et et en es Services
Standard Security □o en support	ted Userna e Ker eros S M suppor suppor
Enterprise scala ⊡lity	□ eploya le as a lar on leloic or lassfis le EE containers Provides S □ rust protocol lased clients to access S S S □ s levera les SM as t le provider for S S ecurity and S Policy



□entrali□ed □pplication Security and □ut□ori□ation

Key Feature	Benefit
En⊡anced Security and □o□ pliance	Mana e security fro a sin le place Provides finer control over t e protection of all resources Separates security decisions fro application lo ic ffers ro ust auditin of events
Support industry protocols and standards	Supports OOMOOOOOOEOOOOO'sO
□entrali	☐ entrali ed ad inistration t rou te ES d in Server console on policy odel store for all tar et syste s
□i□□ Scala⊡lity □ □le⊡⊡lity	□ llo s for □ □ y distri uted environ ents □ ere policy decisions and enforce ent appen far a ay fro te actual policy ana ent Provide custo er □ it a ran e of deploy ent options
□usto□ and pac□a□ed application support	■ES can support custo □ □EE applications □ut can also support pac a ed applications li e S arePoint
□yna□ic policy c□an□es	☐ ES can dyna☐ ically c☐an☐e policies at runti☐ e☐ it☐out disruptin☐ applications☐ ☐ e a☐lity to i☐ ☐ ediately effect runnin☐ applications ☐ it☐out any sc☐eduled do☐n ti☐ e or ☐ aintenance ☐ elps lo☐er ☐ costs



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□cc pro	acle's □ccess Mana □e □ ent Suite Plus is t □e □ ost co □ pre □ensive suite of cess Mana □e □ ent solutions in t □e □ ar □et today □ t □is t □e only solution t □at tects access fro □ t □e end point to t □e cloud and provides □ it □ a co □ plete set products t □at include □
	Oracle Access Manager
	Oracle Adaptive Access Manager
	Oracle Entitlements Server
	Oracle Identity Federation □
	Oracle OpenSSO Fedlet,
	Oracle Enterprise Single Sign-On,
	Oracle Web Services Manager □
	Oracle Security Token Service
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Oracle is committed to developing practices and products that help protect the environment

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An Oracle White Paper May 27, 2010

Tackling Identity Management with Oracle Identity Manager (OIM) and Oracle Access Manager (OAM) in a Financial Services Organization

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EXECUTIVE SUMMARY

A large financial services company, with *over* 15000 employees and contractors and access to *over* 900 applications and systems, was looking to address a myriad of identity management challenges. The company was looking to offer seamless yet secure access efficiently and in compliance with both the company's and state & federal policies. Attestation (or access re-certification) of user access to demonstrate Sarbanes Oxley (SOX) compliance and complete auditability was a key business driver, as was the necessity to effectively shut down access for exiting employees and contractors. With the implementation of Oracle Identity Manager and Oracle Access Manager, the company was able to achieve all this and more. The company today has a compliance rate of 99% with a significantly improved security and compliance posture.

Introduction

Providing a diversity of brokerage, banking, and other financial products and services directly to individuals and investment advisors can only be supported by a reliable Information Technology (IT) infrastructure and a flawless internal organization

This document presents how a worldwide, market-leading brokerage meets its IT requirements to manage its internal workforce including employees and contractors to ensure that access to corporate resources is secure and policy compliant.

Identity Management Foundation

Understanding the challenges in corporate identity management, the company has a dedicated identity management team in the IT organization. It is this team that is responsible for ensuring that the right people have access to the right resources at the right time.

Specifically, the identity management team is responsible for managing corporate directory, a white pages application, attestation or access recertification processes, meta-directory technologies, identity administration, role management, and access control tools for corporate applications and web services.

Environment Background and Current Assets

Each member of the company's workforce is assigned a corporate identity, a Microsoft Windows identity, and a subset of the workforce requires a mainframe identity to allow access to some of the 900 available corporate applications

The current identity management implementation includes user provisioning, identity administration, and secure access control for all employees and contractors.

Provisioning

Following a carefully thought-out proof-of-concept and a diligent assessment exercise, the company selected Oracle Identity Manager (OIM) in 2006 from among eight different provisioning vendors.

Attestation (or access re-certification) was a key challenge the company was looking to address. Attestation is the process by which managers certify their employees' access on a periodic basis. Manual attestation makes the process cumbersome, time consuming and error-prone resulting **in** significant fiscal and audit challenges.

Oracle Identity Manager enables attestation process automation. Attestation activity can be initiated on a periodic or ad-hoc basis. Notifications are automatically triggered to reviewers. Based on the reviewer's role (a manager, an application owner, etc.), the reviewer receives attestation requests for users. Using a web interface, the reviewer can attest, reject, deny, or request for more information before taking any action. A reviewer can also delegate all or particular entitlements in an attestation task to someone else for review and so on. By bringing the attestation task close to the user, the company not only avoids rubber-stamping, but also streamlines operations. In the company's case, with delegated attestation, the company avoids creating 1850 individual attestation tasks, one for each manager as it did in the past. Instead, with Oracle Identity Manager, a total of 9 attestation tasks cover the whole reporting

hierarchy.

In the past, the company used an email-based home-grown tool to support attestation with an unsatisfactory compliance rate of 60%. With the implementation of OIM, the company's compliance rate now exceeds 99% (the compliance rate defines how many managers complete the attestation process). The results of the attestation processes are automatically time-stamped and maintained by OIM. So, come audit time, the company leverages this data and OIM's reporting capability to build custom reports as required.

Another key reason for deploying OIM was de-provisioning. Traditionally, a manager had to manually turn off access to resources for employees and contractors that were leaving the company. This involved two points of administration: managing departures in the HR system, and turning off access to resources via a request-based system. To avoid deprovisioning delays and potential security gaps, the company today leverages OIM to automatically trigger deprovisioning processes for users exiting the company as soon as that change is recorded in the HR system.

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