The 2014 Enterprise Application Market in Higher Education
Room Scheduling
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What You Need to Know

From facilitating student success through the elimination of scheduling conflicts and bottlenecks to lowering energy costs through maximizing resource utilization, today’s room scheduling systems are a cornerstone of institutional efficiency and effectiveness. Most institutions have been realizing the benefits of these easily integrated, out-of-the-box systems for several years. As shown in figure 1, room scheduling systems are the oldest and least customized of the top changing system areas.

*Rate of change is an indicator of how rapidly a system area is changing. It is a composite score based on year of current implementation and on plans to implement new systems or replace existing ones. Systems with the highest rate of change typically have been implemented recently or are expected to be implemented or replaced soon.

Figure 1. Characteristics of core information systems
Despite their age, these systems rank sixth in terms of rate-of-change due to recent and planned implementations. Of the 91% of institutions with room scheduling systems in place, 15% plan to replace their systems in the next three years (figure 2). Among those that have no plans for replacement, nearly one-third (27%) implemented a new solution within the past three years. Institutions without room scheduling systems are implementing as well: Of the nearly one-tenth (9%) of institutions that still do not have a dedicated room scheduling system, one-third (33%) plan to either start or complete an implementation within the next year.

Figure 2. System provision and plans for change for room scheduling systems
Market Share

With three-quarters of the market (77%) using a solution from one of the top 3 vendors—CollegeNET, 34%; Dean Evans, 24%; and Ad Astra, 19%—the room scheduling system market is fairly homogeneous (figure 3). Additionally, about a third of “Other” responses include student information or enterprise resource planning systems that could act as front-end systems for any of the top 3 vendors.

There are few differences between the products from the top 3 vendors. All are easily integrated with student information systems, and all offer event and classroom scheduling, although the focus on event-scheduling functionality versus classroom-scheduling functionality varies. A 2013 post to the EDUCAUSE CIO Constituent Group Listserv asserts that “Ad Astra is a great class scheduling system that also does event scheduling, while [Dean Evans] EMS is a great event scheduling system that also does class scheduling.”

Figure 3. 2014 room scheduling system market
Management Strategy

Although most institutions (72%) still opt for an in-house implementation, 14% have a SaaS implementation, which may provide benefits such as cost savings and scalability. Of the top 3 vendors (listed in order of market share in figure 4), CollegeNET is most likely to have a SaaS implementation (29%).

Figure 4. Management strategies in use for top 3 room scheduling solutions
Deployment Strategy

Mobile access to room scheduling systems is critical for confirming room availability and making last-minute reservations; about one-fourth of institutions (23%) are using systems with responsive web design. Flexible, operating system-agnostic access to room scheduling systems is critical to supporting a broad user base; 15% of institutions are using application virtualization. Of institutions using one of the top 3 vendors (listed in order of market share in figure 5), those with Dean Evans EMS are most likely to have implemented responsive web design or application virtualization. Other methods of deploying room scheduling systems are emerging, however—among users of products from the top 3 vendors, more than half (53%) of institutions use another deployment strategy, typically traditional client-server or web applications.

Figure 5. Deployment strategies in use for top 3 room scheduling solutions
Case Study: Optimizing Space Utilization at the University of Puget Sound

Change fosters new opportunities, and that’s the case with the University of Puget Sound (Puget Sound). The university analyzed its 2012 PeopleSoft ERP purchase holistically to determine how the new system could enhance other institutional processes. A prime candidate: room scheduling. The room scheduling function for Puget Sound’s legacy ERP was very manual and time-intensive, whereas the CollegeNET Series25 solution integrates directly with PeopleSoft ERPs. Upon further product evaluation, the university decided to bundle Series25 into its ERP purchase. Implementation is under way, and planned applications include:

- **Academic room scheduling**: The university registrar manages room scheduling centrally and will use Series25 to allocate class/learning spaces for each semester’s courses based on various parameters: faculty needs, special course requirements (e.g., lab), class size, technology needs, etc.

- **Special-event planning and meetings**: Event management is highly decentralized at Puget Sound; different departments manage various spaces around the campus. Series25 will coordinate several disparate scheduling functions: reserving appropriate event spaces, managing approval processes via workflow, and arranging catering and media support as needed. Built-in approval rules—e.g., bond- and grant-funded rooms’ ineligibility for for-profit events—prevent inappropriate room bookings.

- **Space utilization analytics**: With a dedicated, more fully featured room scheduling solution, the university can consider space requirements more strategically. Operationally, the analytics can promote judicious investment by enabling the university to ask questions such as, Does the university need to construct a new building? What type of space does the campus need? How can the university manage space most effectively during peak demand periods? Academically, the analytics can foster student retention by helping university administrators project long-term room demand gleaned directly from student information via Series25’s PeopleSoft ERP integration. For example, if today’s freshmen will need to take a specialized course in three or four years to graduate, the institution can anticipate that, thus encouraging students to take all their courses and complete their degrees at Puget Sound.
Puget Sound’s Technology Services area originally planned to host Series25 onsite. But over time the group realized that maintaining this specialized system locally would divert IT resources from more strategic technology initiatives. “So we changed our strategy, opting for a cloud-based solution instead,” stated William Morse, chief information officer and associate vice president for technology services. “The cloud solution works perfectly and integrates the same way with our PeopleSoft ERP. My vendor fees will increase, but it is worth it to me to free up my staff so that they can work on projects that provide specific benefit to Puget Sound.”

Technology Services’ experiences highlight important implementation practices. One is to compile an accurate and complete inventory of all campus spaces and their characteristics in order to optimally match course/event requirements with the appropriate space. To accomplish this, Technology Services worked closely with Facilities Services to document this information in a spreadsheet that’s loaded into Series25. Facilities Services catalogued all spaces and their characteristics: room type and size, people capacity, and other setups—e.g., a lecture podium. Technology Services added each space’s technology configuration.

A trickier task is removing politics from the room scheduling process, such as when too many faculty members prefer the same classroom because they can use its technology proficiently or when a department books a particular space regularly because of its location. In both cases, these concerns may impede space optimization—the room might be too large for the usage, for instance, despite the appeal of its location—and resolving these issues can become political. Technology Services approached this challenge in a couple of ways. First is technology consistency. The area is in the midst of a multiyear initiative to configure each classroom similarly so a faculty member can use any classroom’s technology proficiently, which obviates technology-driven preferences.

To address subjective requests not based in technology preference, governance is the answer. Rather than develop arbitrary protocols for room scheduling, Technology Services asked the cabinet to convene a new Series25 governance committee of university stakeholders in the fall of 2015 to collaboratively create scheduling rules and priorities. “People should not use the software as a solution expecting it to resolve operational issues,” explained Morse. “You need to address the operational issues through the committee, so everyone understands their roles and responsibilities.” The community involvement builds stakeholder ownership and institutional buy-in, too. The governance
committee has functional leads both for classrooms and for special events. With this, Technology Services is finding that classroom scheduling governance is straightforward. It is relatively centralized, involving the registrar—the classroom functional lead—and associate deans. Special-events governance, on the other hand, is more complicated due to its decentralized structure and varying priorities and rules throughout the year. This functional lead is still undetermined.

To underscore the importance of governance, despite the fact that Series25 could be technically ready for production very quickly, Technology Services cannot commit to an implementation date until the committee finalizes the scheduling rules and priorities. Hopes are that the system can be in use by summer 2016. However, the ultimate timeline depends on the work of the special-events functional committee. Morse and his team anticipate the system’s benefits. “Series25 transforms a very manual process into something that is almost instantaneous,” stated Morse. And these significant time savings are bound to ripple throughout many university activities.
Conclusion

With increased pressure to reduce budgets and time to degree, institutions must make efficient use of the space they have rather than increase capacity. Room scheduling systems that are linked to student information systems can assist in identifying needs and overcoming bottlenecks in room utilization. In addition to academic advantages, institutions realize operational efficiencies from coordinating event space utilization across decentralized departments. Whether for academic activities or special events, optimizing space leads to more efficient use of utilities, resulting in lowered energy costs. Additionally, analytic insight gained from tracking space utilization can inform strategic campus planning. As the University of Puget Sound found, institutions may even realize additional cost savings by using a cloud-based room scheduling system.

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Note

1. Vendor-hosted options include infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS).

About the Enterprise Application Market Series

The Enterprise Application Market report series from the EDUCAUSE Center for Analysis and Research focuses on data from the EDUCAUSE Core Data Service (CDS) to better understand how higher education institutions approach various information systems. Market share and system rate of change are among the metrics highlighted in this series. Information provided for this series was derived from Module 8 of CDS, which asked several questions regarding information systems and applications. For reports in the 2014 series, responses from 560 institutions were analyzed. Only U.S. institutions are represented in this series.