The 2014 Enterprise Application Market in Higher Education
IT Service Desk Management Systems
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What You Need to Know

As institutions become more customer-centric, they are transitioning from a focus on systems to a focus on IT service management (ITSM). With this transition comes a change in process from simple trouble-ticket and support-request management to a more holistic integration of incidents, service requests, and change management. To support this new mode of business, institutions are stepping away from homegrown and help desk ticketing systems and implementing more robust ITSM systems, which typically provide functionality for multiple service management processes, including asset management, change management, problem management, and IT service desk management. This change puts the IT service desk management system market at the number 4 spot in terms of system area rate of change (figure 1).

Figure 1. Characteristics of core information systems

*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.
IT service desk management systems are the systems most likely to be replaced in the next three years (26% of institutions with this system). If no change is planned, this may be due to a recent replacement; of those who aren’t planning to replace their solution in the next three years, one-third (35%) have implemented a solution in the past three years (figure 2).

Figure 2. System provision and plans for change
Market Share

With just over half of the market (59%) using a solution from one of the top 7 vendors—BMC, 27%; ServiceNow, 9%; SolarWinds (MacsDesign Studio), 8%; HEAT (FrontRange), 6%; and Dell KACE (KBOX), Best Practical Solutions, and Cherwell Service Management, all 3%—the IT service desk management system market is fairly heterogeneous (figure 3). With the exception of SolarWinds, all of the top vendors provide IT service management solutions.

Figure 3. 2014 IT service desk management system market
Market Shift: 2011–14

From 2011 to 2014, shifts in the market space also reflect trends toward employing IT service management solutions (33% in 2011, 39% in 2014), moving away from solutions that are narrower in scope. This is most clearly seen in the shift away from BMC’s Track-It! and an increase in share for BMC’s Footprints. Changes in share for SolarWinds Web Help Desk may be due to its provisioning of slightly more service management functionality than a typical help desk solution, while changes in share for HEAT Service Management may be due to its providing fewer service management functions than a typical service management provider.

Figure 4. 2011–14 IT service desk management system market (top 5 solutions and homegrown)
Management Strategy

Although most institutions (79%) still opt for an in-house implementation, one-sixth (18%) have a SaaS implementation, which may provide benefits such as cost savings and scalability. Of the top 5 solutions (listed in order of market share in figure 5), ServiceNow is most likely to have a SaaS implementation (71%).

Figure 5. Management strategies in use for top 5 solutions
Deployment Strategy

For an effective and responsive customer experience, users and service owners alike need to be able to interact with IT service management processes while on the go. About one-third of institutions (30%) are using responsive web design. Other common mobile deployments include mobile-specific websites (13%) and mobile applications (12%). Of institutions using one of the top 5 solutions (listed in order of market share in figure 6), those with ServiceNow are most likely to have responsive web design or mobile applications.

Figure 6. Deployment strategies in use for top 5 solutions
Case Study: Implementing ITSM at Carnegie Mellon University

Like many institutions, Carnegie Mellon University (CMU)—through its Computing Services Division—recently adopted an ITSM organizational approach. A major aspect of this transformation was replacing existing toolsets with a singular enterprise-focused tool that is aligned with the service-based approach found at the heart of the ITSM philosophy. To support this vision, Computing Services

- developed a divisional ITSM Roadmap in 2012;
- convened an ITSM Steering Committee, also in 2012, to maintain the roadmap, govern service portfolio content, and provide ongoing ITSM direction;
- defined a service portfolio of 30 offerings; and
- began development of a more streamlined, service-oriented user experience by taking advantage of selected parts of the ITIL² framework of organizational capabilities, processes, and practices.

Given this broad view, Computing Services considers its ITSM system an “enterprise resource planning (ERP) system for IT”—in the same vein as a student information system or a finance system—and manages it accordingly with governance, change management, and organizational change support.

With these parameters in mind, Computing Services set about with its ITSM system implementation, which mirrored a “typical” ERP implementation in some ways:

- First came product definition, wherein service stakeholders defined product requirements, studied vendor solutions’ differentiators, and defined the initial implementation’s scope. Computing Services used a consultant’s tool and market knowledge to accelerate the process.
- The next step was selection. Computing Services narrowed the choice to two alternatives, and after a series of demos, benchmarking, and testing exercises, the division selected ServiceNow, a cloud-based solution. Important selection factors included the solution’s ability to grow as CMU’s needs mature; vendor relationship and product development input; and cost.
- After product selection came process design—not an easy task, especially since ServiceNow replaces at least two different tools. Again, an outside consultant facilitated design for the initial processes, holding workshops with relevant staff to design the ITSM system’s underlying nuts and bolts—e.g., incident workflow, roles, and priority calculations.
- The final step was implementation. This process involved four waves: requirements definition/validation; core system setup; application configuration and design reviews; and testing, training, and launch.

When looking back on the process, several facilitating factors came into play:
• **“ERP for IT” mentality:** Computing Services recognized early the complexities involved with matching its ITSM vision and solution. By thinking about its ITSM system as an ERP, it opened the door to establishing strong governance and following ERP implementation protocols. In addition, the division hired consultants as necessary to augment its local capabilities, which helped keep the project timeline on track. The result: smoother system implementation and management.

• **Cloud-based solution:** Past experience with cloud-based solutions reduced Computing Services’ concerns about implementing a cloud-based ITSM. But there was still one area of impact: data. The university avoids storing personally identifiable information (PII) in its ITSM system.

• **Customization:** CMU recognizes that it is an outlier compared to many institutions with respect to its interest in customizing systems, as well as the resources it has available to do that customization. That said, Computing Services considered any ITSM system customization carefully—especially given the cloud-based configuration—with an eye to potential future system maintenance/upgrades.

• **Community involvement:** Computing Services strived to create a system “by the people and for the people,” tapping both internal and external resources throughout planning and implementation. For example, Computing Services completed a design review with relevant areas halfway through the implementation. “This slowed our development down, but it was critical to getting buy-in for what came out the other side,” explained Karen Van Dusen, ITSM program manager. In addition, EDUCAUSE and Common Solutions Group’s peer benchmarking and hands-on experiences helped create realistic support and maintenance expectations for CMU’s ITSM project executives and the team.

Overall, Computing Services is satisfied with its ITSM service. The consensus is that it promotes transparency and engagement. Although the ITSM system was initially designed as an internal tool, other CMU areas have noticed and expressed interest. So Computing Services scaled its ITSM service for university partners including the human resources department and the Eberly Center for Teaching Excellence and Educational Innovation.
Case Study: ITSM “Lite” and Multitenancy at the University of Connecticut

Sometimes less is more, as the University of Connecticut discovered during its ITSM system implementation. A few years ago, the university developed a new ITSM strategy to improve customer service quality. This strategy included the consolidation of its disparate incident ticketing systems into a single university-wide solution and the adoption of the ITIL service management framework. It chose BMC Software’s Footprints to support this new direction.

Along the way, however, plans changed. The envisioned robust ticketing system did not meld with institutional actualities. The implementation uplift proved much larger than planned. Over time, University Information Technology Services (UITS) scaled back its ITSM goals and pared down the Footprints system to a smaller, much lighter implementation. “Any ticketing system is only as efficient as the people who know how to use it,” stated Michael R. Mundrane, vice provost for information technology and CIO. “When you put customers into a complicated interface, it just does not work.” But the lighter ITSM system still offers ample functionality, tracking not only resolution time but also the entire ticket lifecycle—creation date, first action date, and ticket life per individual. All of these functions help UITS’s remediation of the IT support process’s weaker links.

UITS manages a single instance of Footprints that it shares across UConn’s decentralized environment; multitenancy promotes campus-wide ITSM adoption. The benefits include sharing the costs of software development and maintenance with all users. Multitenancy also simplifies system maintenance—UITS has to upgrade only the one instance because there are no others on the campus. Department users—also known as tenants—may have customization options. For example, some UConn departments want their support queues to be invisible to other areas. Without good multitenancy, this is not practical. “Some simpler ITSM systems are not multitenant, meaning you have to set up multiple systems for different groups,” explained Mundrane. “This defeats part of the purpose of simplifying your management.”

Today, ITSM is truly a university-level solution. In addition to multitenancy, UITS manages its own customer response queue and separate queues for other IT groups that prefer not to run their own ticketing system. The university’s Department of Human Resources is the latest campus group to migrate to this centralized ITSM approach.

UITS plans to extend its “less is more” strategy to the end user in support of UConn’s university goal for a richer self-service experience. This approach affected the ITSM system design and experience in a major way because students, faculty, and staff can easily submit and track their service ticket status. It required central IT to rethink the ITSM system’s front-end versus back-end experience. The group decided to separate the two, and it plans to develop or purchase an even lighter, external-facing wrapper for the community with very simple customer views. Thus, this single ITSM instance continues to meet the growing needs of a diverse university community.
Conclusion

As institutions shift their focus of operations to customers—students, faculty, staff, alumni, parents, and others—they need tools to support a seamless customer experience. They need systems that go beyond simple ticket tracking to ones that can complement their implementation of IT service management. They need systems that do more than just resolve a current issue but instead look deeper into the issue to determine whether a systemic problem exists. And, in an Amazon.com world of “you might also like…,” they need systems that facilitate richer customer experiences at the point of contact. IT service management tools help provide this type of experience, and institutions know it.

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Notes

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

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.