

# THINGS YOU SHOULD KNOW ABOUT... ITIL

## Scenario

For years the IT portfolio at North State University had been growing increasingly complex and difficult to manage. Although the central IT unit oversaw many of the information systems, the university's medical school and business school operated some of their own systems, including course catalogs and registration applications. The resulting mix of systems served each school well because they had separate academic structures and programs. However, the systems were poorly integrated with the central student services area, including admissions, financial aid, the bursar's office, and the registrar. For students who took courses from both the main university and either of the professional schools, the differences in how the several systems worked was confusing and frustrating.

Rather than developing a common system that all units would be required to use, university officials decided instead to use the ITIL framework to improve the management of IT services and create a better experience for end users. Working with academic officers and the business office, the central IT staff identified several components of ITIL that focus on design standards for IT services (such as registration) and on architecture management, to better integrate the systems with central IT. Staff from central IT and from the IT units in the medical and business schools worked together to adopt the selected ITIL best practices that allowed the disparate systems to function in a consistent manner, which alleviated the confusion among students. In addition, because the professional schools' registration systems were now more tightly integrated with the central student services system, students had immediate access to more information. The IT groups also implemented a feedback mechanism based on ITIL best practices to continually evaluate IT services and make improvements when needed.

By reorienting IT efforts to focus on services rather than on technologies, ITIL helped the university redeploy vital services in a higher-quality, more unified manner. Users of those services saw greater value in them, and, in the process of implementing ITIL, the university identified and eliminated applications that no longer provided value. The process cultivated stronger respect for IT from the university community, which benefited from a more integrated and useful set of services.

## 1 What is it?

The Information Technology Infrastructure Library (ITIL) is a framework for guiding the design and delivery of IT services. Developed in the late 1980s by the UK Office of Government Commerce (OGC), ITIL was a response to the large-scale decentralization of computing systems that often resulted in inconsistent processes for deployment and support of IT services. This decentralization coincided with a trend in which many core institutional services were migrated into electronic formats, making computing systems an indispensable part of the routine functioning of an organization. The OGC recognized that common processes could improve the quality of IT services and bring them into closer alignment with business processes.

In the same way that an organization might have standards for project management or information security, ITIL sets forth a set of best practices and recommendations for managing IT. Key to ITIL is the notion that what's at issue is not the delivery of *technology* but the delivery of *services*. In this way, ITIL serves as the foundation for IT service management (ITSM), an approach that focuses on the customer's perspective for how IT services support users' needs and organizational goals. Under this model, business needs drive the adoption of technology, resulting in tighter integration between systems and processes. The ITIL framework can be applied in total or in part and adjusted to local conditions.

## 2 How does it work?

ITIL began as a set of books covering different aspects of IT services, and in the ensuing years the set expanded to more than 30 volumes. In 2006, ITIL v2 grouped that collection into eight books, and ITIL v3, which is the current version, further consolidated the set down to five volumes: Service Strategy (understanding the portfolio of IT services and their prioritization), Service Design (detailing requirements and developing services), Service Transition (smoothly deploying services), Service Operation (overseeing the functioning and maintenance of services), and Continual Service Improvement (updating services to remain aligned with changing business needs). The last of these is important for understanding that the provision of an IT service is not an event but an ongoing process in which the service evolves over its life cycle.

ITIL is modular in nature, allowing an institution to implement the framework in stages, with no requirement to implement all of the parts. ITIL is also not sequential—organizations can implement any combination of processes in any order. Moreover, each section of ITIL is simply a set of best practices and recommendations; there are no mandates for how to undertake an implementation. ITIL does not replace institutional procedures, but it helps improve them and align them with business procedures. ITIL is vendor-neutral and agnostic with regard to software development strategy—ITIL describes processes for how best to develop,

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implement, and support IT services but does not dictate specific tools to accomplish those goals. ITIL can support compliance with governmental regulations dealing with financial and privacy requirements, and it can complement other best-practices frameworks such as COBIT and Six Sigma. IT staff can become certified in ITIL, though certification is not necessary to implement ITIL.

### 3 Who's doing it?

Since its conception, ITIL has been broadly adopted not only by governments but also by many large corporations across Europe. Government agencies and private-sector organizations from around the world—including NASA, HSBC, and Disney—have embraced ITIL in an effort to improve IT services and, in some cases, help meet a growing list of regulatory requirements. Adoption in higher education has trailed that of industry and government, but many colleges and universities—especially larger institutions—have begun investigating or implementing ITIL. New York University, the University of Wisconsin-Milwaukee, and Yale University, for example, have undertaken ITIL projects of varying degrees of complexity. While ITIL provides standard processes in many areas of IT, most implementations in the United States are focused on service management (SLAs, help desk, service catalog), helping to phase in different levels of maturity of those processes. As ITIL and its benefits become increasingly well understood, increasing numbers of smaller institutions are pursuing ITIL at a scale appropriate for their needs and resources. That said, for any institution that already has a strong service orientation within IT, the effort to adopt ITIL might outweigh the benefits.

### 4 Why is it significant?

ITIL brings structure and coordination to the increasingly complex task of delivering a fluid suite of IT services and aligning them with the organization's core mission. The ITIL approach to IT service delivery potentially brings a range of benefits: among the most-cited is improved communication, both within an IT organization and with other campus constituents. ITIL is designed to shift the focus from *system* management, which is concerned with technology tools and infrastructure, to *service* management, which considers the user's perspective on what those IT systems do. ITIL provides a means for IT staff to cultivate repeatable and standard procedures, building confidence in the process and the outcomes. Other possible benefits include improved IT services and increased user satisfaction, greater productivity, and reduced costs. ITIL can also provide audit trails for accountability to boards, accrediting organizations, and regulatory agencies, and the metrics that can be gathered from ITIL processes might support IT funding decisions. Because of its flexibility, ITIL can be valuable to virtually any type or size of institution.

### 5 What are the downsides?

For any organization, ITIL is a considerable undertaking. In its entirety, ITIL covers an enormous range of activities and functions, and the time, money, and other resources necessary to implement it can be daunting. Moreover, an IT organization that adopts ITIL at any level will likely need different in-house skills,

necessitating not only staff development but also a cultural change within the organization. Because an ITIL implementation affects staff and resources across the institution, not just in IT, a clear understanding among everyone involved and support from institutional leadership are vital for success. A broad ITIL implementation is a multi-year undertaking, and an organization committed to ITIL will need to proceed incrementally. Some contend that ITIL is needlessly complex and that there is a risk that an institution can become dogmatic about it, losing sight of the bigger picture. Similarly, because ITIL is a technology methodology, an effective implementation might depend on its being combined with a strategy such as Six Sigma to ensure adequate understanding of the relevant business processes.

### 6 Where is it going?

The developers of ITIL published *ITIL Small-Scale Implementation* to aid small organizations in evaluating and implementing ITIL. Such resources, as well as the experiences and lessons learned from large-scale implementations, will drive a broader range of institutions—including small colleges and universities, as well as small businesses and municipal governments—to explore ITIL. As more institutions pursue ITIL implementations, awareness will grow regarding the special considerations that higher education brings to the table and how best to apply ITIL in different contexts. A growing number of vendors offer products and services designed to facilitate ITIL practices, and this enables further adoption, as does the emergence of a cadre of individuals and organizations providing consulting services focused on ITIL implementation.

### 7 What are the implications for higher education?

The IT environments in higher education tend to be more complex and more distributed than those in either industry or government. Colleges and universities have a wide range of constituent groups, all of whom expect high levels of quality and availability of IT services, and the needs of these groups regularly change. At the same time, the budget constraints in higher education put considerable pressure on IT departments to be highly efficient in their use of resources. For these reasons, many colleges and universities are well positioned to benefit from ITIL. Because each institution has a unique culture and IT requirements, ITIL's flexibility and modularity make it an appealing model for many colleges and universities.

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