

There's a new sheriff in town

IT Infrastructure Library can bring order to government processes

BY DAVID PERERA

Agencies have used enterprise architecture to align information technology with business needs since the Clinger-Cohen Act of 1996 required it. But now a new approach has caught fire at agencies, and it is calling enterprise architecture's dominance into question.

The Information Technology Infrastructure Library is a set of concepts and policies the British government developed in the 1980s. But it has only recently found followers on this side of the Atlantic. Its newness in U.S. government IT circles makes it exciting — at least relative to enterprise architecture, which has a reputation of being an es-

oteric compliance tool wielded by chief information officers.

Both disciplines claim to do similar things: Identify the IT resources an organization needs and deliver them as cost-effectively as possible. Therefore, it's logical to wonder whether an organization needs both or whether it could simply adopt one.

However, experts say adopting one would be a mistake because, like many aspects of IT, what appears on the surface to be the same is actually quite different. Rather than greatly overlapping, enterprise architecture and ITIL complement each other, and a growing number of agencies are choosing to adopt both disciplines.

Enterprise architecture essentially attempts to do what its name implies: create a blueprint of what an organization, or enterprise, does and how it does it. That blueprint helps ensure strategic acquisition of new technologies that support business processes and helps establish standards, thereby eliminating redundancy and incompatibility and ensuring that data flows unimpeded.

It also points the way to a future ideal enterprise and offers a plan for how to get there.

By comparison, ITIL also maps business operations to supporting technologies, but its emphasis is not the entire enterprise. Instead, it focuses on the IT services side of the equation. ITIL answers immediate questions about how to offer services that meet users' needs and an organization's budget.

In other words, enterprise architecture

Birds of a feather

Despite some overlap, the Information Technology Infrastructure Library differs from enterprise architecture in some key ways.

	ENTERPRISE ARCHITECTURE	INFORMATION TECHNOLOGY INFRASTRUCTURE LIBRARY
Maps technology to business needs	✓	✓
Strategic	✓	
Tactical		✓
Focuses on broad patterns in the computer assets needed to support business processes	✓	
Focuses on specific instances and the configuration of individual assets		✓
Focuses on identifying and resolving problems in IT operations		✓
Deals with data architecture	✓	
Governs the process of transitioning to the organization's desired system	✓	
Mandatory for federal agencies	✓	

and ITIL have different thrusts. “One is planning, one is execution,” said Gene Leganza, a principal analyst at Forrester Research who specializes in enterprise architecture and IT strategic planning.

Or to put it another way, “EA is breadth and ITIL is more depth,” said Rajesh Radhakrishnan, a senior IT architect at IBM Global Technology Services.

Others say enterprise architecture is strategic while ITIL is tactical.

Although some would argue that it’s possible to view everything the IT department does as a service and therefore in the domain of ITIL, others say that’s a moot point.

“EA is broader than just services and processes,” said Michael Jacobs, director of enterprise architecture and emerging technology at the Navy Department. “It’s about organizations. It’s about people. It’s about data architecture. It’s about a lot more.”

Even if ITIL practitioners could successfully define every IT department function as a service, they would find they still need architects, Leganza said. “Enterprise architects provide services that nobody else provides,” he said. “They’re defining architecture road maps, establishing the standards, adding discipline to the process.”

ITIL joins the Navy

Perhaps the most high-profile adopter of ITIL in the federal government is the Navy Department, which will use the approach to manage services provided through its Next Generation Enterprise Network (NGEN), including basic computer and network connectivity. NGEN’s still-active predecessor — the Navy Marine Corps Intranet — serves almost 700,000 shore-based users.

The Navy chose ITIL because it allows the IT department to deal with all phases of user needs, said Robert Whitkop, executive director of the NGEN System Program Office.

“ITIL...is more about, ‘Hey, I’ve got to deliver services. I’m going to design the services, I’m going to start delivering them, and I’m going to manage those services. And if there’s a problem with

them, I’m going to handle incidents as necessary,’” Whitkop said.

The Navy is also working on a departmentwide enterprise architecture.

Jacobs and Whitkop said they make an effort to work together, but creating the enterprise architecture and setting up ITIL for NGEN are parallel tasks with different goals. For one, it shouldn’t be the role of Navy architects to design network services because they lack the necessary expertise, Jacobs said.

ITIL services could be incorporated into one component of an enterprise architecture: the service reference model. But even then, developers would likely only use high-level descriptions of those services because operational details “are really specific to program management, and they don’t really impact other programs,” Jacobs said.

Enterprise architecture isn’t involved in designing systems or configuring and managing individual computers. “It’s at a higher level,” he said.

Services listed under ITIL and enterprise architecture models are different in nature, said Andy Blumenthal, chief technology officer at the Bureau of Alcohol, Tobacco, Firearms and Explosives, who did not speak on behalf of the agency.

“When we talk about services in an EA context, we refer to those that are used for mission and business purposes,” he said. “In contrast, ITIL-type services are underlying support functions to the customer, such as problem identification and resolution. An example of an EA service versus an ITIL service would be a document management solution versus a help desk or network management function.”

Also, enterprise architects don’t need the same kind of individual system identification and configuration detail that ITIL service designers do, said Keith Mangold, a principal consultant at Metastorm who specializes in enterprise architecture and IT service management.

ITIL needs a level of detail down to a server’s serial number, but enterprise architecture doesn’t. Simply knowing the make and model of a class of servers is typically sufficient.

“At the enterprise architecture level, it’s keeping track of patterns, not instances,” Mangold said.

Come together

However, despite the disciplines’ differences, it makes sense for enterprise architecture and ITIL teams to work together.

“It’s a waste of time and redundant to have two areas within IT wanting to get familiar with what the business strategy is,” Leganza said. For any activity related to documenting the business strategy in terms of how it applies to IT, “collaboration, I’d say, is practically a requirement.”

“It would be a good idea for someone on the architecture team to be ITIL-certified or at least know enough for certification,” he added.

The road between ITIL and enterprise architecture runs in both directions, Jacobs said. If the enterprise architecture incorporates high-level definitions of ITIL services into reference models, ITIL service designers must also be aware of technical reference model constraints, which in turn requires architects to have a mature process for updating standards, he said.

That sort of collaboration is mostly lacking. “I get the feeling that, like anything else, people were off doing their own thing without looking over their shoulder, and the left hand doesn’t necessarily know what the right hand is doing,” Leganza said.

And enterprise architecture’s reputation precedes it. “Traditionally, architecture efforts have been notorious for being an ivory-tower effort that results in shelfware,” Blumenthal said. ITIL proponents also tend to be squirreled away in data centers and not inclined to consult with architects.

A cultural shift is necessary, Blumenthal said. Enterprise architects in particular must become more user-oriented if they’re going to stay relevant in a changing technology environment. ■

David Perera is a special contributor to Federal Computer Week.