



# ITIL: The International Repository of IT Wisdom

*The struggle to keep our IT ducks in a row (or even, some days, to find the wretched fowl!) gets tougher and tougher as infrastructures become more complex. As in the spaghetti code our programming teachers scolded us about, we touch one spot, and something wiggles in an unexpected place across the room.*

Oops. The server is disconnected? That wasn't supposed to happen.

Come to think of it, how can we even go about documenting the infrastructure so everyone is on the same page? How do we control those unexpected changes? And how do we keep the waterfowl afloat in a cost-effective manner?

It's a formidable task, but we can always turn to that tried-and-true mainstay, industry best practices. But where can we find them?

## The Infrastructure Library

Almost thirty years ago, some folks in the British government asked these same questions and set out to document how the best organizations handled IT service management. By the late 1980s and early 1990s, their collection of

industry wisdom had grown to more than 40 volumes, and was christened the IT Infrastructure Library, commonly known as ITIL.

Completely non-proprietary (the Crown has retained copyright to make sure no enterprising vendor hijacks it), ITIL is now a mainstay in many of the best-run IT shops, including Procter & Gamble, Microsoft, HP, and governments all over the world, and is baked in to products such as BMC Remedy, HP ServiceCenter, and CA Unicenter.

Beginning in the mid 1990s, the books were refined and condensed into nine core volumes, offering guidance on how best to provide IT services to business customers. That was ITIL version 2, the "flavor" most commonly used today. However, driven by industry change, in

Lynn Greiner

## Business: the 8th layer

2004 yet another revision was begun, culminating in ITIL version 3 (aka V3), released in June of this year. V3 pares the paper down to five main volumes, plus an introductory book, and rearranges the processes to reflect the IT service lifecycle.

The differences between V2 and V3 reflect changes in business focus over the years. For example:

- Where V2 talked about business and IT alignment, V3 emphasizes business and IT integration.
- Where V2 talked about value chain management, V3 emphasizes value network integration.
- Where V2 talked about linear service catalog, V3 emphasizes dynamic service portfolios.
- Where V2 talked about collection of integrated processes, V3 emphasizes holistic service management lifecycle.

We toss the word “service” around a lot. So what exactly constitutes “service,” from an ITIL point of view?

The definition, for ITIL’s purposes, goes like this: “A means of delivering value to customers by facilitating outcomes customers want to achieve.” Basically, we’re making sure the IT infrastructures we supply and maintain are making our business users happy and productive. The email keeps flowing, for example, and the network quality of service meets their needs.

And what, pray tell, is the IT service lifecycle? According to V3, it encompasses the following:

**Service Strategy:** This is where you look at your market, whether that means internal business units of your company or external customers (or both), and figure out what it needs and how you can best serve it in a cost-effective manner. In the words of *The Official Introduction to the ITIL Service Lifecycle*, “Service Strategy provides guidance on how to view service management not only as an organizational capability, but as a strategic

asset...Service Strategy is about ensuring that organizations are in position to handle the costs and risks associated with their service portfolios, and are set up not just for operational effectiveness but for distinctive performance.”

**Service Design:** Here’s where the strategies turn into designs, with business objectives in mind. You decide what services you will offer (for example, email, or computers, or a network, or an application to keep track of 12 models of widget), and determine how to deliver them, what infrastructure you will need, how to manage service levels, and how to ensure business continuity.

**Service Transition:** A transition is simply a change from one state to another, and service transition is the phase in which, in a controlled way, new systems and services are rolled out into production, existing systems are improved, and obsolete systems are decommissioned. You look at risk management, and change management, and even asset management.

**Service Operation:** This is where the rubber meets the road—Service Operation provides guidance for day-to-day operations, including the use of the Service Desk (a helpdesk on steroids).

**Continual Service Improvement:** This is the final phase of the lifecycle, in which you look at what you’re doing in the other phases and, via the Deming Quality Cycle of plan, do, check, act, hone, and enhance the offerings. And then, since this is a cycle, it’s back to Service Strategy and off we go again.

We all know the real world doesn’t operate in tidy cycles, and so do the folks who wrote the ITIL books. They’re meant as guidance that can be adapted to suit your environment.

What ITIL provides is a common vocabulary—invaluable in these days of mergers and acquisitions and global corporations—and it provides common processes and philosophies of operation that can bridge the gaps between IT organizations.

It also provides much-needed discipline, especially in areas such as change management

(raise your hand if you've ever suffered outages caused by a failed change). It's all too easy to make a seemingly innocuous change that takes others hours to figure out and undo because the strand of spaghetti it was attached to broke something. The processes around change management in ITIL prevent that sort of fiasco.

## No More Tangles

Underlying the processes is something that untangles the spaghetti so you actually know what affects what and where: the configuration management database, or CMDB. It consists of one or more connected databases that contain all anyone would ever want to know about the organization's IT assets, be they hardware, software, or services.

Yes, you'll find the usual asset management data, such as configurations, serial numbers and license numbers, but the CMDB also holds information on the resources used by each service and their dependencies. If you want to make a change, a quick look in the CMDB will show you which strands of spaghetti are attached to the altered asset or service, and what they will wiggle if tampered with. Couple this information with a risk assessment and proper change management controls, and you have a much more stable infrastructure.

The CMDB is also home to records of all of the changes made to each asset, and all of the incidents or problems it has been involved with. An incident, in ITIL-speak, is an unplanned interruption to an IT service or reduction in the quality of an IT service. Failure of a configuration item that has not yet affected service is also an incident—for example, failure of one disk in a RAID set. A problem is the unknown cause of one or more incidents.

Particularly in large organizations, where dispersed teams may be supporting these contraptions or services, that level of detail can be

invaluable. If the records in the CMDB are kept up-to-date (typically via the helpdesk software—when a ticket is updated, so is the CMDB), anyone can pick up a call and see exactly what has been done. This helps enable “follow the sun” support, where the support team takes calls during the day from anyone in the company, and can pass issues on if need be when their shift ends.

## Getting Certified

As you've probably guessed, there's a lot of process involved in an ITIL implementation, and a lot of documentation. It helps to have ITIL-friendly helpdesk software that understands the links between incidents and problems and changes and so forth, and knows how to generate the required workflows. It also helps to have some staff who have achieved at least the Foundation level of ITIL certification, so they understand the concepts.

That's right—there's a whole certification process around these best (or at the very least, good) practices. And testing for certification is managed by a body independent of the authorized trainers, to make sure the certs are truly earned. V2 has a mature structure, beginning at Foundation and culminating with a Manager's certification. While V3's Foundation is now solidly entrenched, higher levels are still under development.

Be careful, however, that the trainer you select is an authorized trainer. Some companies may try to feather their nests by offering training that may not have sufficient breadth to earn you the certification—the exams are tough!

Once you've decided to look at ITIL, you're not alone. The IT Service Management Forum (itSMF) has chapters worldwide, and is a great source of peer support and expertise.

You may never have to go duck hunting again! ~

PERMISSION TO MAKE DIGITAL OR HARD COPIES OF ALL OR PART OF THIS WORK FOR PERSONAL OR CLASSROOM USE IS GRANTED WITHOUT FEE PROVIDED THAT COPIES ARE NOT MADE OR DISTRIBUTED FOR PROFIT OR COMMERCIAL ADVANTAGE AND THAT COPIES BEAR THIS NOTICE AND THE FULL CITATION ON THE FIRST PAGE. TO COPY OTHERWISE, TO REPUBLISH, TO POST ON SERVERS OR TO REDISTRIBUTE TO LISTS, REQUIRES PRIOR SPECIFIC PERMISSION AND/OR A FEE.  
© ACM 1091-556/07/1200 \$5.00

---

**Lynn Greiner is a Toronto-based freelance writer who untangles her spaghetti the old-fashioned way, with a fork, despite her admiration of CMDB.**