

An Introduction to

IT Service Management ITIL and MOF

by David Pultorak

Imagine that all your suppliers, partners and internal staff have a common sense of purpose, processes and terminology. You'd then have a fighting chance of aligning all those moving parts. That's the promise of IT service management—industry alignment—and with the increasing worldwide adoption of IT service management, that alignment may be here sooner than you might think.

This article introduces two of the most popular IT service management frameworks: the IT Infrastructure Library (ITIL®) and Microsoft® Operations Framework (MOF).

ITIL Defined

ITIL is the IT Infrastructure Library, a set of publications providing descriptive (i.e., what to do and why) guidance on IT service

management. ITIL has become the international *de facto* standard guidance for IT service management. ITIL was created in the late 1980s by and for a United Kingdom government agency and later expanded for use in all organizations.

ITIL was formed with two objectives in mind: 1) create comprehensive, consistent and coherent codes of best practice for quality IT service management promoting business effectiveness in the use of IT, and 2) encourage the private sector to develop ITIL-related services and products (training, consultancy and tools).

Taken as a set, three features make ITIL unique:

- ITIL is vendor-neutral, best practice guidance. ITIL is a synthesis of ideas drawn from international practitioners—not academic theory of how things should be or a vendor's view of how to operate its products.
- ITIL is non-proprietary. While the ITIL publications aren't free, anyone can apply ITIL concepts freely in their organization.
- ITIL is comprehensive and consistent. Rather than providing isolated advice, ITIL attempts to describe every key process in IT service management, and to use a consistent, common sense set of definitions and distinctions across each process.

ITIL in Print

The core ITIL publications, *Service Support* and *Service Delivery*, provide descriptive guidance on the one function of IT operations (Service Desk) and the 10 fundamental processes, as shown in table 1 (see p. 15).

Anyone interested in implementing ITIL should have these books, along with the *Security Management* publication (*Service Delivery* refers to but does not include this content). The *itSMF ITIL Pocket Guide* presents the *Service Support* and *Service Delivery* content in capsule form and is a very popular reference in the ITIL community.

Although *Service Support* and *Service Delivery* receive the most attention, there are additional publications, including:

- *The Business Perspective*: Business Continuity Management, Partnerships and Outsourcing, Surviving Change and Business Transformation
- *ICT Infrastructure Management*: Network Service, Operations, Systems, and Local Processor Management, and Computer Installation and Acceptance
- *Applications Management*: Software Development Lifecycle
- *Planning to Implement Service Management*: ITIL benefits and how to achieve them

ITIL Industry and Training

ITIL has become much more than a set of publications; it is an entire industry consisting of adopters, a user group, tool and service providers, and training and certification.

Worldwide, more than 10,000 companies have adopted ITIL, including Procter & Gamble, the Internal Revenue Service and Boeing. There are about 40,000 certified ITIL professionals, with about 7,500 more added annually. Europe has been big on ITIL since its inception, especially the U.K. and the Netherlands. Since the adoption of ITIL by Microsoft, Hewlett-Packard, and IBM, American ITIL adopters are springing up across the United States.

Why the fast growth? Ask the IT Service Management Forum, which is the IT users group. This independent forum for ITIL users, formed in

1991, promotes the exchange of information and experience to help IT service providers manage IT service delivery and supports chapters worldwide. Its recent study reported 97 percent of organizations using ITIL had derived benefits from ITIL. Procter & Gamble claims to have saved more than 6 percent in operating costs in one department as a result of its ITIL initiative.

IT support package vendors and service firms are scrambling to include ITIL-based language and features (see www.tools2manage-it.com for matrices of service, application, and infrastructure management tools). Some firms that offer both products and services have created their own extensions of ITIL, like Microsoft (Microsoft Operations Framework) and Hewlett-Packard (the HP IT Service Reference Model).

ITIL training and certification are available at three levels: Foundation, Practitioner and Masters, as shown in table 2 (below).

Foundation-level training is appropriate for all IT professionals, Practitioner only for

those who are maybe going to concentrate on a certain area, and Masters after a few years experience applying foundation-level concepts (it represents a substantial investment of time and money). Visit <http://www.itilexams.com> for information about North American ITIL training providers. In North America, you can also take a computerized ITIL foundations exam with instant results at any Prometric Testing Center for \$125. Register by telephone at 888.249.3702. Prometric Testing Center locations in North America can be found online at www.prometric.com.

MOF Defined

The ITIL philosophy is to “adopt and adapt,” and that’s just what Microsoft did when it created Microsoft Operations Framework. MOF is a set of publications providing both descriptive (i.e., what to do and why) and prescriptive (i.e., how to do) guidance on IT service management.

Note that MOF is an extension of—not a replacement for—the generally accepted industry best practices spelled out in ITIL. Microsoft built MOF on the “common sense” language and guidance of ITIL, promoting industry alignment. While MOF provides guidance specific to Microsoft products and technologies, it is a model that IT practitioners can use across the entire enterprise, and across the distributed and heterogeneous IT infrastructures and services.

Microsoft published the first elements of MOF in 2000 for customer, partner and internal use. Microsoft created MOF with the following objective in mind: “Create comprehensive operations guidance to help customers achieve mission-critical production system reliability, availability, and manageability on the Microsoft platform.”

Like ITIL, IT practitioners from around the world developed MOF where the practitioners were focused

Table 1 10 Fundamental Processes of IT Operations

Service Support (User Facing)	Service Delivery (Customer Facing)
Incident Management	Availability Management
Problem Management	Capacity Management
Change Management	Financial Management
Configuration Management	Service Level Management
Release Management	IT Service Continuity Management

Table 2 ITIL Training and Certification Levels

Level	Description	Structure	Audience
Foundation (Essentials)	Basic understanding of the ten ITIL Service Delivery and Service Support processes and the Service Desk function	2-3 days training, 1 hour multiple choice exam	All IT professionals
Practitioner	Deep understanding of one ITIL process. Foundation certificate is a prerequisite	2-3 days training, 2-hour essay style exam	IT professionals with process specialties
Masters (Service Manager)	Deeper understanding of all ten ITIL processes and the Service Desk Function. Foundation certificate is a prerequisite	2-3 weeks training, two 3-hour essay style exams	IT professionals teaching or consulting on ITIL

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largely on operating Microsoft-centered products and technologies: Microsoft's customers, partners, internal IT groups and service businesses.

The core MOF publications are the *MOF Executive Overview* and *Process, Team, and Risk Model* white papers which can be downloaded from www.microsoft.com/mof. Microsoft has also developed a series of prescriptive MOF-based operations guides for key products including Windows 2000 and Exchange 2000.

MOF extends the ITIL process model with new organizing concepts and content, and adds Team and Risk models to complement the Process Model.

MOF's Extended Process Model

The MOF Process Model includes all of the modules in ITIL, as well as the Workforce Management process and all of the processes in the MOF Operating Quadrant. The workforce management process is a nice addition over ITIL, as it highlights the fact that operations excellence is impossible to attain if you can't attract, retain and develop good people.

The Operations quadrant contains all the processes listed in table 3 (at right).

Many IT practitioners believe these (the "real" IT operations processes) should be represented in the core ITIL publications. While one could argue that the processes in table 3 are common to most systems, ITIL views these as proprietary and prescriptive, and since its design point is to be vendor-neutral and descriptive, purposefully leaves them out.

The MOF process model is organized around the release and life cycle of a particular service solution (e.g., a particular developed application or deployed infrastructure) where ITIL focuses at the level of IT operations as a whole. This is a significant innovation of MOF because sharing the same central "unit of work" facilitates better alignment between operations and development. Both ITIL and MOF view IT operations processes as concurrent. But where ITIL defines two broad categories of operational processes (Service Support and Service Delivery), MOF segments operational activity into four quadrants. And while ITIL recommends reviewing operational activity, MOF builds review of

operational activity explicitly into its process model. Last, MOF places all processes on a single diagram. MOF "keeps it simple," as overly complex models are difficult to implement in real-world operations environments.

Team and Risk Models to Complement the Process Model

Team Model

The inclusion of a Team Model in MOF makes an important statement: Regardless of how well-defined your processes are, you can't succeed in operations unless you know how to team. The MOF Team Model describes:

- Best practice role clusters to structure operations teams
- The key activities and competencies of each role cluster
- How to scale the teams for different sizes and types of organizations
- Which roles can be effectively combined
- Guiding principles that help run and operate distributed computing environments on the Microsoft platform

You can think of the MOF Team Model as the "usual suspects" of roles and perspectives that typically are brought to bear in making

Table 3 Processes of MOF Operations Quadrant

Security Administration
System Administration
Network Administration
Service Monitoring & Control
Directory Services Administration
Storage Management
Job Scheduling
Print/Output Management

good decisions in the day-to-day work of operations. The team could be brought to bear on a decision, e.g., around a change or a problem, in a hallway conversation, an e-mail thread, a meeting or a series of meetings. The important thing is that the right perspectives are consistently brought to bear by the organization when decisions are

made. The six roles of the MOF Team Model are shown in table 4 (below).

Where ITIL identifies roles for process owners for each IT operations process, it does not identify roles commonly associated with clusters of related IT operations activity. This is the contribution of the MOF Team Model—a clearer mapping of roles, not just to processes, but also to common sets of operations activity.

Risk Model

The Risk Model makes another important statement: Regardless of how well-defined your processes are, you can't succeed in operations unless everyone in operations is managing risk in their day-to-day jobs.

The MOF Risk Model is a framework for managing risks in an operations environment. Microsoft included the Risk Model in MOF to provide a tool to ensure that:

- Proactive risk management practices are embedded into every IT operations role and process
- IT operations staff applies proven risk management techniques to the problems they face every day.

The five steps in the Risk Model are shown in table 5 (p. 17):

Where ITIL embeds a discussion of handling risks in each IT operations process description, MOF elevates the management of risk to its own process model. This is meant to encourage IT operations managers to consider risk assessment an ongoing process, not a one-time event, and to integrate risk management into the day-to-day work of the IT operations staff.

MOF's Evolution

Like ITIL, MOF is becoming much more than a set of publications. For example:

Table 4 6 Roles of MOF's Team Model

Release
Infrastructure
Support
Operations
Security
Partner

- MOF is being discovered by more Microsoft customers and partners every day, many of whom have decided to adopt the framework in their operations. Notable adopters include Cox Communications and British Petroleum.
- Microsoft recently released Microsoft Operations Manager (MOM), a service management tool to help implement MOF. As with ITIL, more training and tools that include MOF terminology and functionality can be expected.
- Both of Microsoft's service organizations, Microsoft Consulting Services and Premier Services, and some

Table 5 5 Steps in MOF's Risk Model

- Step **1** identify
- Step **2** analyze
- Step **3** plan
- Step **4** track
- Step **5** control

Table 6 MOF Course Offerings

Level	Description	Structure	Audience
MOF (Essentials)	Basic understanding of the MOF process, team, and risk models	2-day training	All IT professionals operating Microsoft products
MOF Changing Quadrant	Deep understanding of Change, Configuration, and Release processes. MOF Essentials is a prerequisite. Additional quadrant courses are in development	4-day training	IT professionals specializing in change, release and configuration management for Microsoft products

Microsoft Certified Partners offer MOF-based services including operations assessments and process improvement consulting.

- An introductory-level training course, MOF Essentials, is currently available and a specialized course focused on the Changing Quadrant is in the offing (see table 6 (above)).

MOF Essentials training is recommended for all IT professionals in whose environments Microsoft Technology is central to everyday work, and Quadrant-level training only for those whose work is concentrated on the processes contained in the quadrant. Many of the same vendors who offer ITIL training in the U.S. offer MOF training as well.

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Sources: Pultorak, David. "Microsoft Operations Framework." Jan von Bon, ed. *World Class IT*

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