

# SOLUTION **ACCELERATORS**

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**Act faster. Go further.**

## **Microsoft<sup>®</sup> Operations Framework**

Cross Reference ITIL<sup>®</sup> V3 and MOF 4.0

Published: May 2009

For the latest information, please see [microsoft.com/mof](http://microsoft.com/mof)

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## Contents

<b>Management Summary .....</b>	<b>1</b>
<b>Introduction to This Document .....</b>	<b>4</b>
<b>Background to IT Service Management.....</b>	<b>5</b>
Comparing Frameworks .....	5
Paradigms that Matter .....	5
<b>Introduction to ITIL and MOF .....</b>	<b>10</b>
What is ITIL? .....	10
What is MOF?.....	11
<b>Alignment of ITIL and MOF .....</b>	<b>13</b>
Differences .....	14
Positioning.....	15
Terminology and Definitions .....	18
<b>Training and Certification .....</b>	<b>19</b>
ITIL Exams .....	19
MOF Exams .....	20
<b>Applying MOF and ITIL in Practice .....</b>	<b>21</b>
<b>Sources .....</b>	<b>22</b>
Literature .....	22
Further Information .....	22
Authors .....	22
Reviewers .....	22
Feedback.....	23
<b>Appendix A: Detailed Cross-Reference .....</b>	<b>24</b>
People .....	24
Process .....	24
Technology.....	25
Strategy, Tactics, Operations .....	25
Separation of Duties (SoD) .....	31
Plan-Do-Check-Act (PDCA) .....	31
<b>Appendix B: Mapping of Processes, Activities, Functions, and Other Elements .....</b>	<b>33</b>

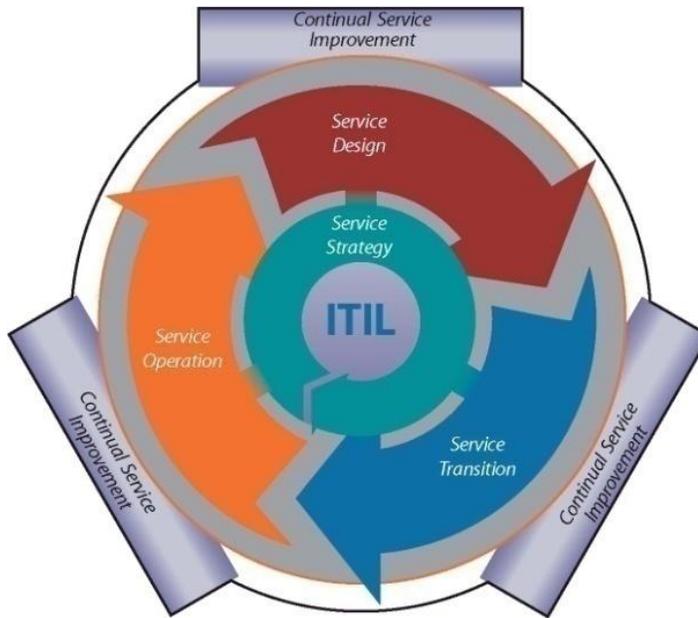


# Management Summary

*The Fastest Cars Have the Best Brakes...*

*(OCEG)*

IT organizations are continuously challenged to deliver better IT services at lower cost in a turbulent environment. Several management frameworks have been developed to cope with this challenge, one of the best known being the IT Infrastructure Library (ITIL).



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**Figure 1. The ITIL service lifecycle**

Microsoft® Operations Framework (MOF) is Microsoft's structured approach to the same goal. In this paper, the main similarities and differences between both frameworks are described.



**Figure 2. The Microsoft Operations Framework (MOF) 4.0 service lifecycle**

The analysis follows a number of management paradigms that have proven to be essential to IT Service Management: [1] Process, People, and Technology (PPT), [2] Strategy, Tactics and Operations (STO), [3] Separation of Duties (SoD), [4] the Strategic Alignment Model Enhanced (SAME), and [5] Deming's Plan-Do-Check-Act Management Cycle.

At the highest level, both frameworks follow a lifecycle approach, but these lifecycles are somewhat different. ITIL uses five elements for its lifecycle: Strategy, Design, Transition, Operation, and Continual Improvement, which brings it close to the PDCA model. MOF's lifecycle core consists of only three phases: Plan, Deliver, and Operate, with one underlying layer (Manage) covering the components that apply to all lifecycle phases.

Both ITIL and MOF use processes and functions as building blocks, although the emphasis differs significantly. ITIL labels most of its components as processes and activities (ITIL has 26 Processes and four functions), while MOF is almost entirely based on Service Management Functions (SMFs), each SMF having a set of key processes, and each process having a set of key activities. This rigid structure supports consistency throughout the framework.

In both frameworks, control of the lifecycle progress runs through a number of transition milestones. These milestones have been made very explicit in MOF's Management Reviews (MRs).

Both frameworks apply the PDCA improvement approach throughout the lifecycle. MOF, like ITIL, offers best-practice guidance that can be followed in full but also in part, for addressing a subset of local problems. The "ITSM language" is quite consistent between both frameworks, with only minor differences. But there also are significant differences between the two frameworks.

A remarkable difference is the way customer calls are handled: ITIL separates incident calls from operational service requests and change requests, and MOF combines several customer request types in a single Customer Service SMF.

ITIL and MOF also use very different role sets and role titles. This is largely due to the difference in starting points: ITIL works from the best practices documented in each phase, where MOF starts from a structured organization perspective.

An area of significant difference can be found in the approach the two frameworks take to technology.

A key element of ITIL is that it is both vendor- and solution-agnostic—meaning, the practices encouraged by ITIL can be applied across the board regardless of the underlying technology. The result is that ITIL focuses on the management structure that makes IT successful, rather than on the technology.

Distinctly different, Microsoft has created MOF to provide a common management framework for its platform products, although MOF can easily be used for other platforms.

Another difference is that ITIL is available in five core books that are sold through various channels, while MOF is available on the internet for free, offering practical guidance in various formats. As a consequence, ITIL copyright is highly protected, where Microsoft made MOF content available under the Creative Commons Attribution License, which makes it freely available for commercial reuse.

Finally, ITIL offers a complex certification scheme for professionals, where Microsoft currently limits its certification for MOF to just one MOF Foundation examination. At the time of this writing, plans for further certifications are under consideration, but no final decisions have been made.

The ITIL certification scheme is much more extensive, and, in effect, offers a qualification structure that can offer a potential career path for IT professionals.

Both frameworks show plenty of similarities and can be used interchangeably in practice. Both also have some specific features that may be of good use in a specific case. Main focus of ITIL is on the “what,” where MOF concentrates on the “what” as well as the “how.”

## Introduction to This Document

***“The new technology does not yet have a single established name. We shall call it information technology.”***

***(Leavitt and Whisler in Harvard Business Review, 1958)***

Awareness of the importance of IT services has grown fast in the last decade. As a consequence, several management frameworks have been developed, to cope with the challenges of providing adequate services. Since the late 1980s the field of IT Service Management has been dominated by ITIL, owned by the UK Office of Government Commerce (OGC). Before, as well as after the i of ITIL, several other organizations have also developed and practiced their own management frameworks to support the quality of their services. Most of these frameworks provide similar guidance as documented in ITIL, but none has taken a flight as high as ITIL.

To promote understanding about how these other frameworks relate to ITIL, a number of alignment papers have been published. Papers published so far cover alignment of ITIL with COBIT, ASL, and ISO/IEC 20000. This paper describes the relationship between version 4 of Microsoft Operations Framework (MOF) and Version 3 of ITIL. It is intended to support CIOs, IT managers, and IT professionals in understanding the main characteristics of MOF 4.0 and how it aligns to ITIL V3. The paper presents a short background analysis on the context of IT Service Management, a short summary of the latest versions of ITIL and MOF, and a detailed analysis of the similarities and differences between both frameworks.

# Background to IT Service Management

*I kept six honest serving men,*

*(They taught me all I knew);*

*Their names are What and Why and When And How and Where and Who.*

*(Rudyard Kipling)*

IT Service Management is the management of all people, processes, and technology that cooperate to ensure the quality of live IT services, according to the levels of service agreed with the customer. It is based on functions such as systems management, network management, application development and on process domains such as change management, service level management and problem management.

The essential concept here is “IT service”: the delivery of information processing capabilities in a defined quality (for example, capacity, performance, security, and availability), using a combination of hardware, software, networks, people, documentation and facilities. In practice, we use the term “IT service” at many different levels: not only for the ultimate end user-facing information processing function, but often also for infrastructural components of that service. Think of “network access,” or “workstation.” Full IT services can be subdivided into many contributing components, and all of these can be the subject of a specific service organization. But in the end, the only thing that matters is how the integrated functionality is made available to the end user.

To be able to deliver the IT service to the end user, all components need to be managed. This is the *raison d’être* of many functions and processes in the IT service organization. ITIL and MOF are two of the frameworks available to the IT service organization or department aiming for the highest quality at the lowest cost in a turbulent environment. Ultimately IT Service Management can become a business enabler.

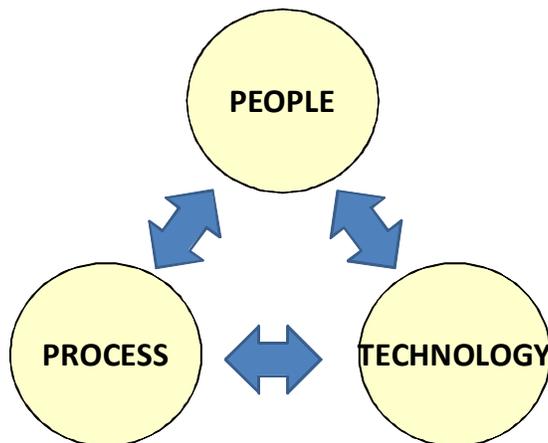
## Comparing Frameworks

When analyzing management frameworks, we can compare various characteristics, as addressed by G.M. Wijers in his paper “Analyzing the Structure of I.S. Development Methods: A Framework of Understanding” (SERC and Delft University of Technology, 1992). First of all, the **approach** is important: the way the framework is perceiving reality, the elements that are taken into perspective, and their coherence. Second, the **modeling technique** is of interest: the way reality is described in tangible structures (for example, IDEF0 schemes, process flows, practice documentation). Another important consideration is the **activation and implementation** of the framework: the way the framework is deployed, (for example, adopt or adapt, incremental, phased, step-by-step, big-bang). Finally, the **support structure** is of interest: the automated instruments available to support the method, such as schemes, tools, documents, and templates.

## Paradigms that Matter

A number of **management paradigms** have proven to be essential to IT Service Management. These paradigms are used in the comparison of ITIL and MOF.

## People - Process - Technology (PPT)



**Figure 3. The interrelationship of people, process, and technology**

A widely accepted paradigm for defining the core focus areas in managing organizational improvement is Process - People - Technology (PPT). When using IT Service Management frameworks for organizational improvement, each of these three areas should be addressed.

An important consequence of applying this paradigm is the separation of functions from processes.

A *process* is a structured set of activities designed to accomplish a defined objective in a measurable and repeatable manner, transforming inputs into outputs. Processes result in a goal-oriented change, and utilize feedback for self-enhancing and self-corrective actions.

MOF defines a *process* as interrelated tasks that, taken together, produce a defined, desired result. A *function* is an organizational capability, a combination of people, processes (activities), and technology, specialized in fulfilling a specific type of work, and responsible for specific end results. Functions use processes.

MOF doesn't offer a definition for function alone; rather, it defines the term *service management function (SMF)* as a core part of MOF that provides operational guidance for Microsoft technologies employed in computing environments for information technology applications. SMFs help organizations to achieve mission-critical system reliability, availability, supportability, and manageability of IT solutions.

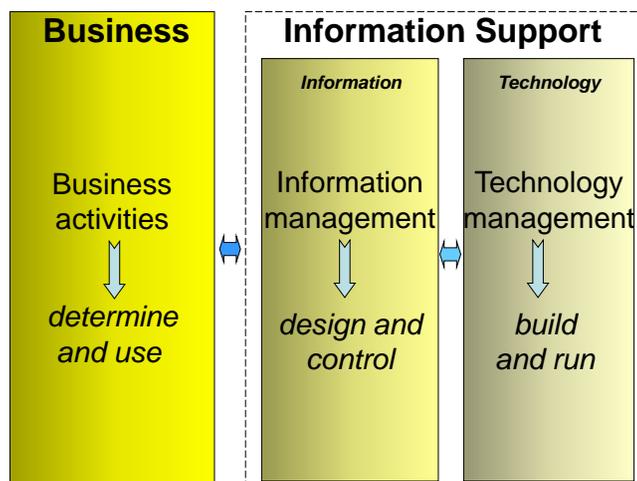
## Strategy - Tactics - Operations (STO)



**Figure 4. The interrelationship of strategy, tactics, and operations**

A second important and widely applied approach to the management of organizations is the paradigm of Strategy - Tactics - Operations. At a strategic level an organization manages its long-term objectives in terms of identity, value, relations, choices and preconditions. At the tactical level these objectives are translated into specific goals that are directed and controlled. At the operational level these goals are then translated into action plans and realized.

## Separation of Duties (SoD)

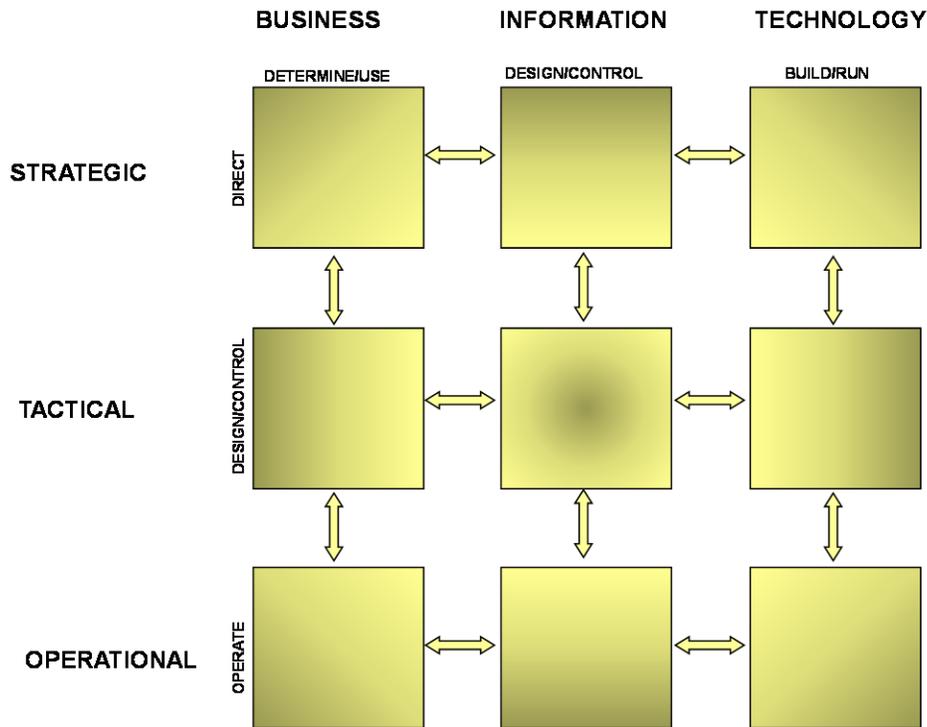


**Figure 5. Separation of Duties (SoD)**

Information processing systems have one and only one goal: to support the primary business processes of the customer organization. Applying the widely accepted control mechanism of Separation of Duties (SoD), also known as Separation of Control (SoC), we find a domain where information system functionality is *specified* (Information Management), and another domain where these specifications are *realized* (Technology Management). The output realized by the Technology Management domain is the operational IT service used by the customer in the Business domain.

## The Strategic Alignment Model Enhanced (SAME)

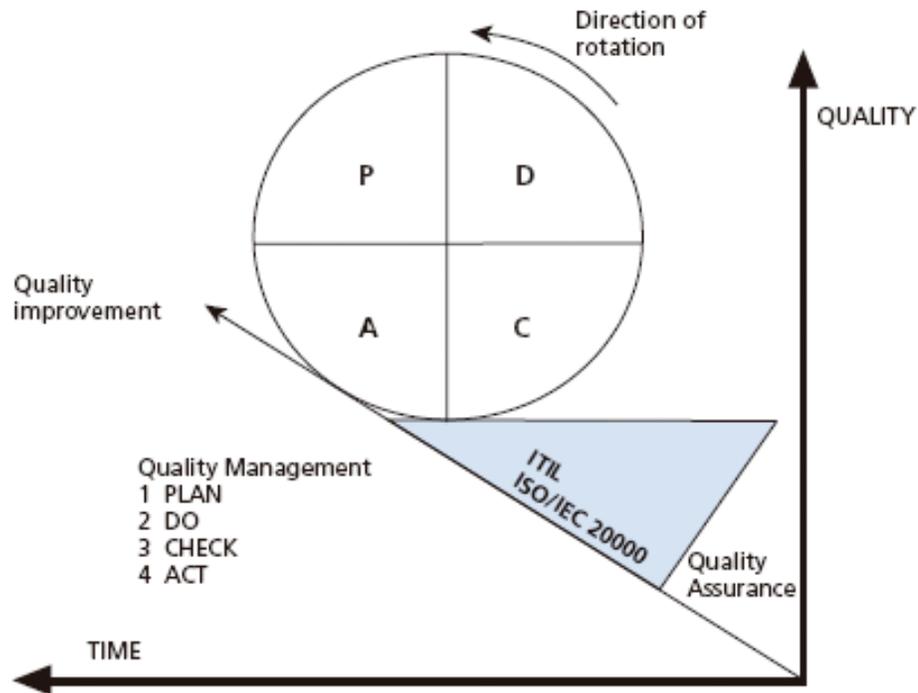
The combination of STO and SoD delivers a very practical blueprint of responsibility domains for the management of organizations: the Strategic Alignment Model Enhanced (SAME; Van der Hoven, Hegger and Van Bon, 1998; Van Bon and Hoving, 2007; Van Bon 2008).



**Figure 6. The SAME model**

This blueprint provides excellent services in comparing the positions of management frameworks, and in supporting discussions on the allocation of responsibilities—for example, in discussions on outsourcing. It is used by a growing number of universities, consultants and practitioners.

## Deming Cycle (PDCA)



**Figure 7. Deming's Plan-Do-Check-Act management cycle**

Since IT services are recognized as strategic business assets, organizations need to continually improve the contribution of IT services to business functions, in terms of better results at lower cost.

A widely accepted approach to continual improvement is Deming's Plan-Do-Check-Act Management Cycle. This implies a repeating pattern of improvement efforts with varying levels of intensity. The cycle is often pictured, rolling up a slope of quality improvement, touching it in the order of P-D-C-A, with quality assurance preventing it from rolling back down.

# Introduction to ITIL and MOF

*In theory there is no difference between theory and practice. In practice there is.*  
(Yogi Berra)

## What is ITIL?

ITIL offers a broad approach to the delivery of quality IT services. ITIL was initially developed in the 1980s and 1990s by CCTA (Central Computer and Telecommunications Agency, now the Office of Government Commerce, OGC), under contract to the UK Government. Since then, ITIL has provided not only a best practice based framework, but also an approach and philosophy shared by the people who work with it in practice.

## Main Structure: The Service Lifecycle

ITIL Version 3 (2007) approaches service management from the lifecycle of a service. The Service Lifecycle is an organization model providing insight into the way service management is structured, the way the various lifecycle components are linked to each other and to the entire lifecycle system.

The Service Lifecycle consists of five components. Each volume of the ITIL V3 core books describes one of these components:

- Service Strategy
- Service Design
- Service Transition
- Service Operation
- Continual Service Improvement

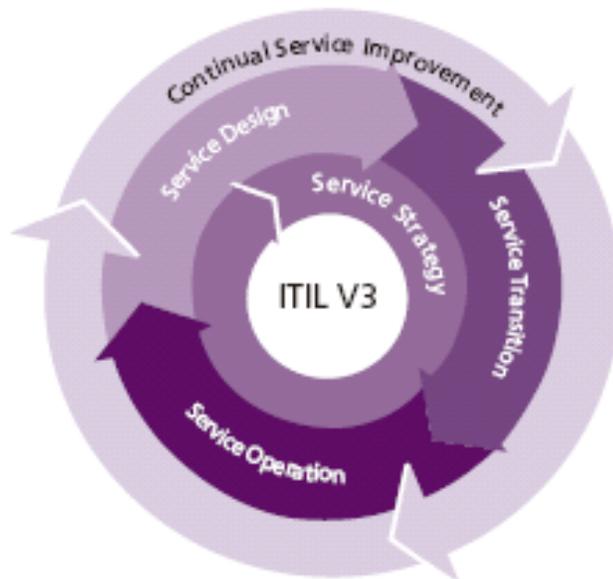


Figure 2.3 The Service Lifecycle

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### Figure 8. The ITIL V3 Service Lifecycle

Service Strategy is the axis of the Service Lifecycle that defines all other phases; it is the phase of policymaking and objectives. The phases Service Design, Service Transition, and Service Operation implement this strategy, their continual theme is adjustment and change. The Continual Service Improvement phase stands for learning and improving, and embraces all cycle phases. This phase initiates improvement programs and projects, and prioritizes them based on the strategic objectives of the organization.

## Main components

Each phase is run by a system of processes, activities and functions that describe how things should be done. The subsystems of the five phases are interrelated and most processes have overlap into another phase.

## ***What is MOF?***

First released in 1999, Microsoft Operations Framework (MOF) is Microsoft's structured approach to helping its customers achieve operational excellence across the entire IT service lifecycle. MOF was originally created to give IT professionals the knowledge and processes required to align their work in managing Microsoft platforms cost-effectively and to achieve high reliability and security. The new version, MOF 4.0, was built to respond to the new challenges for IT: demonstrating IT's business value, responding to regulatory requirements and improving organizational capability. It also integrates best practices from Microsoft Solutions Framework (MSF).

MOF offers practical guidance for everyday tasks and activities, and last but not least - its entire documentation is free for use, and even for reuse under the under the Creative Commons Attribution License.

## Main Structure: IT Service Lifecycle

The IT service lifecycle describes the life of an IT service, from planning and optimizing the IT service and aligning it with the business strategy, through the design and delivery of the IT service in conformance with customer requirements, to its ongoing operation and support, delivering it to the user community. Underlying all of this is a foundation of IT governance, risk management, compliance, team organization, and change management.

The IT service lifecycle of MOF is composed of three ongoing phases and one foundational layer that operates throughout all of the other phases:

- Plan phase: plan and optimize an IT service strategy in order to support business goals and objectives.
- Deliver phase: ensure that IT services are developed effectively, deployed successfully, and ready for Operations.
- Operate phase: ensure that IT services are operated, maintained, and supported in a way that meets business needs and expectations.
- Manage layer: the foundation of the IT service lifecycle. This layer is concerned with IT governance, risk, compliance, roles and responsibilities, change management, and configuration. Processes in this layer apply to all phases of the lifecycle.



**Figure 9. The MOF 4.0 IT Service Lifecycle, showing phases, SMFs and management reviews**

## Main Components

Each phase of the IT service lifecycle contains *Service Management Functions (SMFs)* that define and structure the processes, people, and activities required to align IT services to the requirements of the business. The SMFs are grouped together in phases that mirror the IT service lifecycle. Each SMF is anchored within a lifecycle phase and contains a unique set of goals and outcomes supporting the objectives of that phase.

Each SMF has three to six *key processes*. Each SMF process has one to six *key activities*.

For each phase in the lifecycle, *Management Reviews (MRs)* serve to bring together information and people to determine the status of IT services and to establish readiness to move forward in the lifecycle. MRs are internal controls that provide management validation checks, ensuring that goals are being achieved in an appropriate fashion, and that business value is considered throughout the IT service lifecycle.

## Alignment of ITIL and MOF

*People never have enough time to do work properly, but they always have enough time to do it over.*

*(Patrick O'Beirne)*

In terms of the **approach**, both frameworks use a lifecycle structure at the highest level of design. Furthermore, both use processes and functions, although the emphasis differs significantly: ITIL describes many components in terms of processes and activities, with only a few functions, while MOF is almost entirely based on Service Management Functions. This difference is not as severe as it looks at first hand, since ITIL uses the term “process” for many components that actually *are* functions.

ITIL follows a phased approach in the lifecycle, and most of the components described in one phase also apply, to a greater or lesser extent, to other phases. The control of the MOF lifecycle is much more discrete, using specific milestones that mark the progress through the various stages in the lifecycle. MOF components that apply to more than one of these three lifecycle phases are separated from the lifecycle phases and described in an underlying Management Layer.

Both frameworks are best characterized as “practice frameworks” and not “process frameworks.” The main difference is that ITIL focuses more on the “what,” and MOF covers both the “what” and the “how.”

The **modeling techniques** of ITIL and MOF are not that much different at first sight: both frameworks use extensive text descriptions, supported by flowcharts and schemes. ITIL documents its best practices by presenting processes, activities, and functions per phase of its lifecycle. MOF components have a rigid structure: each SMF has key processes, each process has key activities, and documentation on SMFs and MRs is structured in a very concise format, covering inputs, outputs, key questions, and best practices for each component. This rigid structure supports consistency throughout the framework and supports the user in applying a selection of MOF components for the most urgent local problems.

The **activation and implementation** of ITIL and MOF are not really part of the framework documentation. ITIL has been advocating the “Adopt and Adapt” approach. Supporting structures like organizational roles and skills are described for each phase, but implementation guidance is not documented. MOF, like ITIL, offers best practice guidance that can be followed in full but also in part, for addressing a subset of local problems. Both frameworks speak of “guidance,” leaving the actual decisions on how to apply it to the practitioner.

**Support structures** for ITIL are not really part of the core documents: although a huge range of products claim compatibility with ITIL, and several unofficial accreditation systems exist in the field, the core books stay far from commercial products and from product certification, due to a desire to remain vendor-neutral. MOF compatibility, on the other hand, is substantially established. Microsoft aligns a broad set of tools from its platform with the MOF framework. And although MOF is not exclusively applicable for these Microsoft management products, the documentation at Microsoft’s TechNet website provides detailed information on the use of specific products from the Microsoft platform.

## Differences

Although ITIL and MOF share many values, the two frameworks also show some significant differences.

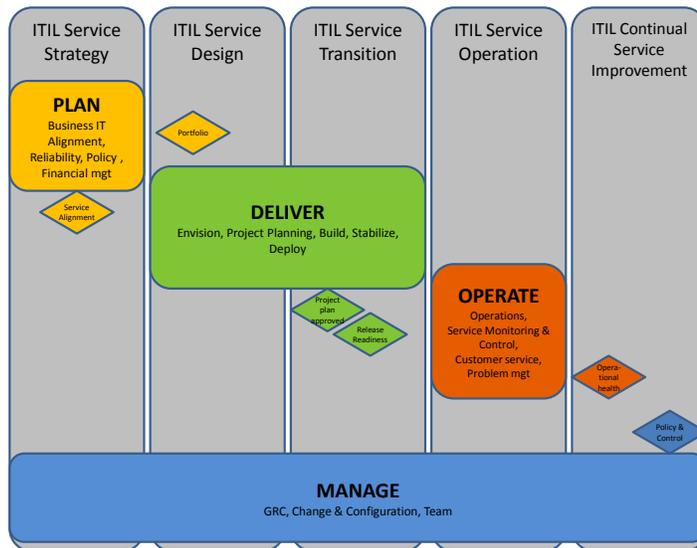
- **Cost:** ITIL is available in 5 core books that are sold through various channels, but MOF is available on the internet for free. As a consequence, ITIL copyright is highly protected, where Microsoft made MOF content available under the Creative Commons Attribution License, which makes it freely available for commercial reuse.
- **Development:** in the latest versions, both ITIL and MOF spent considerable energy on documenting the development of new services and the adjustment of existing services. In addition, ITIL is constantly reviewed via the Change Control Log, where issues and improvements are suggested and then reviewed by a panel of experts who sit on the Change Advisory Board. The ITIL Service Design phase concentrates on service design principles, where the Deliver Phase in MOF concentrates on the actual development of services. The approach taken in MOF is heavily based on project management principles, emphasizing the project nature of this lifecycle phase.
- **Reporting:** ITIL has a specific entity that describes Reporting, in the Continual Service Improvement phase, where MOF has integrated reporting as a standard activity in SMFs.
- **Call handling:** ITIL V2 showed a combined handling of incidents and service requests in one process, but in ITIL V3 incident restoration and service request fulfillment were turned into two separately treated practices. MOF on the other hand stays much closer to the ITIL V2 practice, combining several customer requests in one activity flow, for incident restoration requests, information requests, service fulfillment requests, and new service requests. If the request involves a new or non-standard service, a separate change process can be triggered.
- **Lifecycle construction:** Most elements of ITIL are documented in one and only one of the five core books, but it is then explained they actually cover various phases of the ITIL lifecycle. ITIL uses five elements for its lifecycle: Strategy, Design, Transition, Operation, and Continual Improvement, which brings it close to the PDCA model. MOF's lifecycle comprises only three phases: Plan, Deliver, Operate, with one underlying layer covering the components that apply to all lifecycle phases. As a consequence, a number of practices are applied all over the MOF lifecycle, but in ITIL these are mostly described in one or a few lifecycle phases. As an example, risk management is part of the Manage layer in MOF, but in ITIL it is mainly restricted to Strategy and Continual Improvement. The same goes for change and configuration management: throughout the MOF lifecycle but in ITIL these are concentrated in the Transition phase.
- **Organization:** ITIL describes roles and organizational structures in each lifecycle phase. MOF supports best practices for organizational structures by applying the Microsoft Solutions Framework (MSF) approach: throughout the MOF lifecycle responsibilities are documented and accountability is made explicit, and general rules are allocated to the underlying Manage layer.
- **Governance:** Both frameworks illustrate the difference between governance and management. ITIL describes governance theory and practice in the Strategy phase and in the CSI phase of its lifecycle, and refers to governance requirements in most other phases. MOF explicitly documents accountability and responsibility in all of its lifecycle phases and in the Manage layer, identifying decision makers and stakeholders, and addressing performance evaluation. MOF specifically addresses risk management and compliance in the Manage layer, supporting governance throughout the lifecycle. Explicit Management Reviews are used throughout the MOF framework as control mechanisms.

## Positioning

This section will show how ITIL and MOF are positioned in the main paradigms, as discussed before. Appendix A shows the differences in more detail.

## Lifecycle

On a high level, the lifecycles of ITIL and MOF appear to be rather similar, although the phases cannot be compared on a one-to-one basis.



**Figure 10. Comparing the lifecycles**

There are some major differences between ITIL and MOF lifecycles:

- ITIL lifecycle phases contain processes, activities, and functions that also apply to other phases. In MOF, the SMFs that apply to more than one phase have been filtered out and grouped in the Manage layer, supporting the entire MOF lifecycle.
- MOF lifecycle phase transitions are managed through several Management Reviews (MRs). These MRs serve to determine the status of IT services and to establish readiness to move forward in the lifecycle. ITIL also uses a number of readiness tests for progress control in the lifecycle phases, but these are less explicit.

## People - Process - Technology (PPT)

***80 percent of unplanned downtime is caused by people and process issues, including poor change management practices, while the remainder is caused by technology failures and disasters.***

***(Donna Scott, Gartner, Inc., 2003)***

Both ITIL and MOF have a strong focus on **processes**. Both frameworks document the activities that need to be performed to cope with everyday problems and tasks in service organizations. Both frameworks also use the same formal definition of “process,” based on widely accepted ISO standards. However, in both cases the framework documentation is largely presented in a mix of process, people, and some technology, and therefore in the format of procedures, work instructions, and functions. This is for good reasons, because it addresses the actual perception of what people experience in their daily practice. Readers looking for “pure process descriptions” or process “models” will not find these in ITIL nor in MOF. And although ITIL uses the term “process” for many of its

components, most of these components are actually functions. MOF uses the term Service Management Function throughout the framework.

**Organizational structures** are documented quite differently in both frameworks. Individual ITIL roles and MOF roles show some overlap, but both frameworks contain a long list of unique roles. This is largely based on the difference in viewpoint: ITIL works from its practices towards a detailed roles spectrum, and MOF works from a number of basic accountabilities: Support, Operations, Service, Compliance, Architecture, Solutions, and Management. MOF applies the MSF framework as a reference system for these organizational structures, supporting the performance of the organization. In larger organizations the MOF roles can be refined into more detailed structures, but in most organizations the roles are sufficient. The Team SMF of MOF is explicitly focused on the management of IT staff.

**Technology** is only covered at an abstract level in ITIL: the framework stays far from commercial products and only describes some basic requirements. MOF on the other hand is deeply interwoven with technology solutions. Although MOF has been defined in such a way that it is not technology-specific, the Microsoft technology platform highly aligns with the practices documented in MOF. The MOF website is embedded in the rest of the TechNet documentation on Microsoft products.

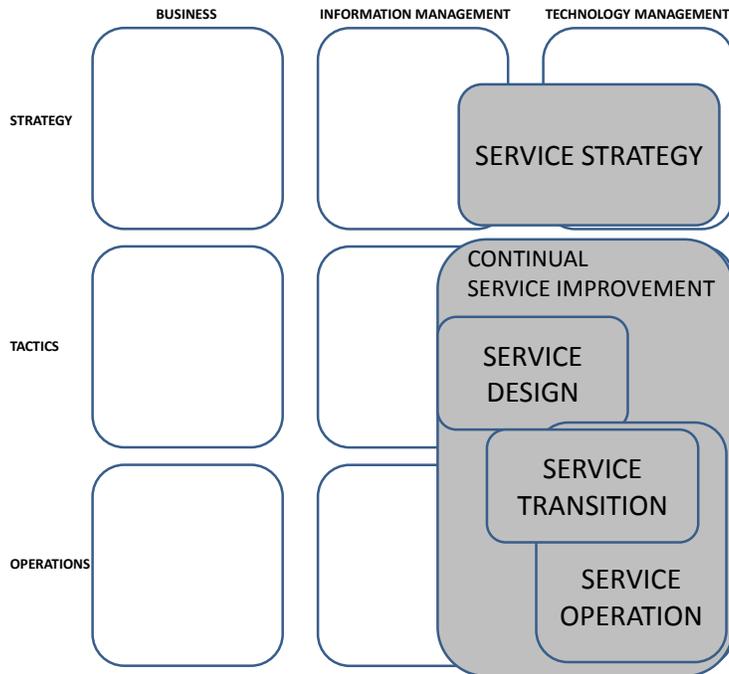
## STO and SoD, in SAME

**Strategic** levels are covered in both frameworks. ITIL documents its best practices on long-term decisions in the Strategy phase. MOF does the very same in the Plan phase, and supports this in the Manage layer.

**Tactical** levels are covered in a similar way: ITIL concentrates these in the Service Design and CSI phase, and MOF describes its tactical guidance in the Deliver phase, in the Manage layer and in the Operate phase (Problem Management).

**Operational** levels are covered mainly in a single phase in both frameworks; ITIL has its Service Operation phase, and MOF has its Operate phase.

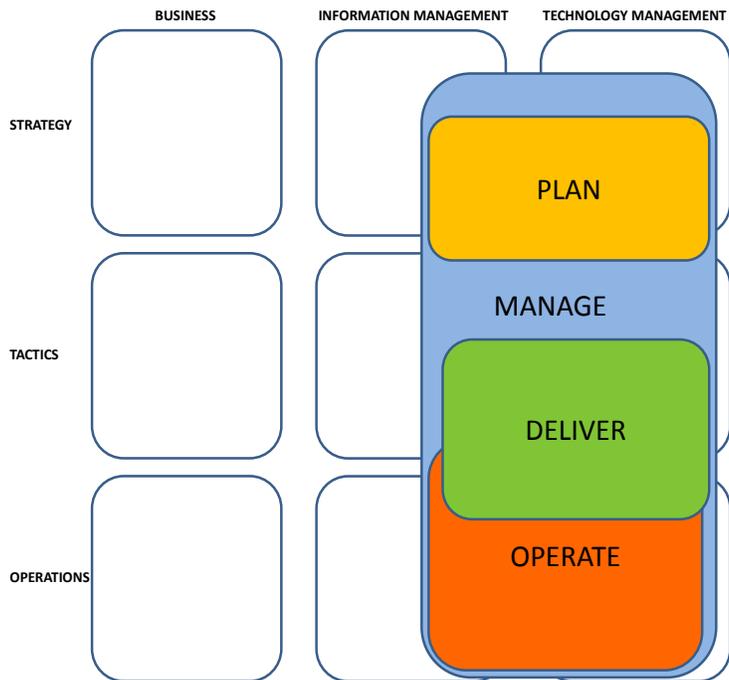
The ITIL lifecycle phases are positioned mainly in the **Technology Management** domain, emphasizing that ITIL explicitly supports the organizations that *deliver* IT services. The activities that relate to the *specification* of the service requirements and the management of enterprise data architectures are typically found in the middle column of the 3x3 SAME matrix.



**Figure 11. Positioning ITIL in the 3x3 SAME matrix**

This also applies to MOF. The MOF Plan phase is largely positioned at the Strategy level, but also concentrates on the Technology Management domain. The Deliver phase is positioned similarly, but then on tactical and operational levels. The Operate phase clearly works at the operational level of the Technology Management domain, except for the very tactical practice of Problem Management.

The Manage layer in MOF relates to all three management levels, but also concentrates at the Technology Management domain.



**Figure 12. Positioning MOF in the 3x3 SAME matrix**

As a consequence, both frameworks require that elements from additional frameworks like TOGAF, ISO27001, CobiT, M\_o\_R®, BiSL, FSM, and MSP™, are applied for managing the rest of the overarching Information Support domain.

## Plan-Do-Check-Act (PDCA)

ITIL **explicitly** follows Demings PDCA management improvement cycle, for implementing the CSI phase, for implementing the Information Security function in the Service Design phase and for the continual improvement of services, processes, and functions throughout the service lifecycle.

MOF does not **explicitly** list PDCA as a mechanism, but it follows its principles throughout the lifecycle, in all SMFs. Plan-do-check is elementary to the implementation of all SMFs, and various check-act points can be found in the very explicit Management Reviews throughout the MOF framework.

## ***Terminology and Definitions***

The “ITSM language” is quite consistent between both frameworks, with only minor differences. For example, where ITIL uses the term *Change Schedule*, MOF uses *Forward Schedule of Change*. Such small differences shouldn’t be a problem in practice.

Of course both frameworks use some typical terminology that illustrates some of their unique characteristics:

- The ITIL core terms *utility* and *warranty*, *fit for purpose* and *fit for use*, are not used in MOF, and neither are terms like *service package* – although MOF speaks of “packaged products” in general terms.
- Likewise, some explicit MOF terms, like *customer service management*, *stabilize*, and *issue-tracking*, are not used—or are used differently—in ITIL.

Both frameworks use the term “process” in a rather loose context. Many components in ITIL and MOF, labeled as a process, are in fact not described in process formats, but actually as functions, procedures, steps in a process, or activities.

More detailed information on the alignment between ITIL and MOF can be found in Appendix B.

# Training and Certification

*Cauliflower is nothing but a cabbage with a college education.*  
(Mark Twain)

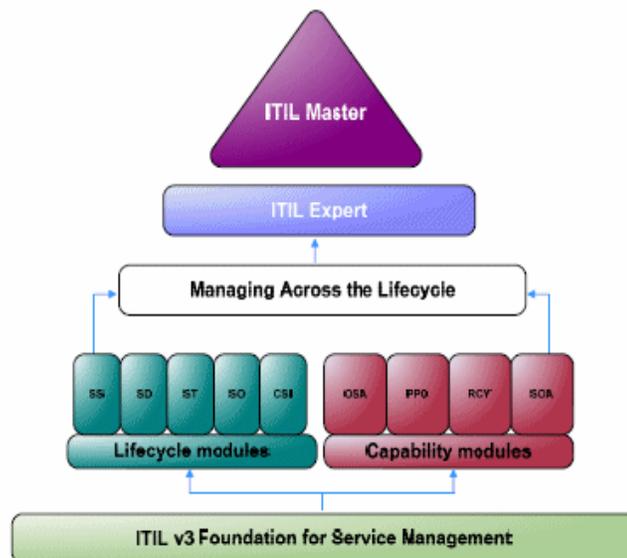
## ITIL Exams

In 2007 OGC appointed the APM Group (APMG) as the official accreditor for ITIL certification, and to run an accreditation, examination, and certification scheme. APMG launched a new certification scheme for ITIL, based on ITIL V3. The existing scheme on ITIL V2 will be maintained for a transition period..

The system of qualifications for ITIL v3 has four qualification levels:

- Foundation Level
- Intermediate Level (Lifecycle Stream, Capability Stream, and Managing Across the Lifecycle)
- ITIL Expert
- ITIL Master

The scheme is supported by a Foundation Bridging Course, to bring practitioners from ITIL V2 to ITIL V3.



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**Figure 13. The ITIL qualification scheme**

Professional qualifications based on ITIL are offered by Examination Institutes, accredited by APM Group through the ITIL Qualifications Board. Examination Institutes are permitted to operate an ITIL examination scheme through a network of Accredited Training Organizations, and Accredited Trainers with Accredited materials.

For more information about the ITIL V3 Qualification Scheme, see <http://www.itil-officialsite.com/qualifications>.

## ***MOF Exams***

Microsoft currently limits its certification on MOF to one MOF Foundation examination. The ongoing thinking and work about what an advanced certification might include is still in early stage.

Foundation-level MOF training is currently available through MOF training partners, through some MS gold partners, and through Microsoft Services. A foundation-level certification is available through EXIN Exams; see <http://www.exin-exams.com/>.

## Applying MOF and ITIL in Practice

*So much of what we call management consists in making it difficult for people to work.*

*(Peter F. Drucker)*

Both ITIL and MOF advocate the use of elements of the framework, if the full set is too much for an organization.

ITIL consists of five core publications, each covering a group of processes, functions, and activities. Training on ITIL starts with a focus at the lifecycle, then zooming in to the framework components. MOF offers all of its guidance at the TechNet website, offering access to the framework at any level required.

In practice, only very few organizations apply the full guidance of either framework. Most often, organizations start out with those components that address the biggest problems. This is no different for ITIL or MOF. Among the most popular content we find the guidance on change and configuration, on incident restoration/customer service support, on service level management and business/IT alignment, and on problem management. Published case material that proves the value of implementing ITIL or MOF is extremely rare. Business cases mostly involve factors like quality improvement, a rather intangible factor. Nevertheless, implementations of framework components can often be based on a business case approach. Measuring initial state performance metrics and comparing these to the situation after implementation, can then support the adoption of additional components of the framework.

Both ITIL and MOF are reference frameworks and not implementation models. The documented best practices can be used within the local approach of an organization, provided they have developed their own process model to support their organization and technology dimensions. An organization can develop its own model or use an out-of-the-box model available in the market.

When redesigning an organization, using ITIL or MOF and following the People - Process - Technology paradigm, a process model would most likely be the start of the project: organizations should first decide on *what* they want to do, then decide on *who* they need for the job, and then facilitate the organization with adequate technology to achieve these goals (the *how*).

Although processes may be expected to be standard throughout the IT services industry, standardized pure process models are hardly available in the market. In most organizations, the people dimension is unique, just like the technology dimension: most organizations differ in structure, culture, behavior, and history, and the supporting technology comes in many flavors. This way, each implementation project is influenced by a rather unique combination of local factors, and on top of that we hardly find any greenfield situations.

Given this situation, MOF supports implementation projects by making the framework components available in standardized structures, allowing implementation managers to pick the required components and add these to the scope of their specific project. The structure of the framework furthermore aligns firmly to common project management standards, allowing for an easy fit.

Implementing MOF is supported by ongoing evolution of MOF guidance, and by the support of the online MOF community at the TechNet website.

## Sources

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### Further Information

- On ITIL: APMG, TSO, and OGC manage the information on ITIL at <http://www.itilofficialsite.com/>.
- On ITIL certification: see <http://www.itilofficialsite.com/qualifications>.
- On MOF: Extensive documentation on MOF, and detailed guidance on the use of Microsoft platform products, can be found at <http://www.microsoft.com/mof>.
- On MOF certification: see <http://www.exin-exams.com/>.

### Authors

- Jan van Bon, the chief editor of numerous ITSM titles and CEO of Inform-IT, is deeply involved with the development of the IT Service Management discipline, ITIL and other management frameworks, since 1990. Since 1996 he has constantly worked for itSMF, as a project manager for several of itSMF's activities, as content manager for dozens of itSMF events, and as a professional managing editor for most of the itSMF publications. He has produced around 70 books on IT Service Management, some of them in up to 13 languages; in addition he has been the driving force behind several websites for the ITSM international community-of-practice.
- Jerry Dyer is a Senior Program Manager at Microsoft. Dyer was the content architect for MOF 4.0, which was released in April of 2008.

### Reviewers

This paper was reviewed by a number of well-known experts in IT Service Management, with deep knowledge of ITIL and MOF. We thank Rolf Akker (ICT Strategist at Gasunie and co-author of the MOF v2 pocket guide), Malcolm Fry (Independent Service Management Analyst at FRY-Consultants), Wim Hoving (CEO at BHVB), Paul Leenards (Principal Consultant and Practice Lead Service Strategy and Transformation at Getronics Consulting), and Gary Roos (Principal Operations Consultant at Microsoft) for their support.

## ***Feedback***

Please direct questions and comments about this guide to [mof@microsoft.com](mailto:mof@microsoft.com).

### **[Solution Accelerators Satisfaction Survey](#)**

We value your feedback. Please fill out this survey and help us build better guidance and tools, including the Microsoft Operations Framework Companion Guides.

## Appendix A: Detailed Cross-Reference

This appendix contains a more detailed discussion of MOF versus ITIL, along the paradigms.

### ***People***

ITIL and MOF use different role sets and role titles. This is largely due to the difference in starting points: ITIL works from the best practices documented in each phase, where MOF starts from the organization perspective. As an example, ITIL defines a Finance Manager responsible for the Financial Management process, and MOF knows financial managers, who in fact are the financial experts active in managing finances.

MOF also incorporates the results of the Microsoft Solutions Framework (MSF), covering extensive guidance on how to organize people and projects to plan, build, and deploy successful IT solutions.

A number of elementary roles are used in both frameworks—for example, process-based roles like Service Level Manager, Supplier Manager, Portfolio Manager, Change Manager, Change advisory board (CAB), Release Manager, Configuration Manager/Administrator, Incident Manager/Resolver, Problem Manager, Operations Manager, activity-based roles like Architect, Developer, Test Manager, Operator, User, and Customer.

Other ITIL roles, such as Service Catalog Manager, Service Design Manager, and Availability Manager, are not explicitly found in MOF.

Like ITIL, MOF uses some typical roles, determined by specific and unique MOF content, such as IT Policy Manager, Risk and Compliance Manager, Reliability Manager, Internal Control Manager, Customer Services Representative, Tester, Product Manager, User Experience, Solution Manager, Administrator, Technology Area Manager, Monitoring Manager, and Scheduling Manager.

Some roles are truly different. For example, ITIL uses the “project manager” role for the leader of a project, where MOF defines a project manager as someone with project management skills, but not necessarily the leader of a project.

Sometimes the difference is simply a matter of chosen words, such as where ITIL uses Business Relationship Manager and MOF uses Account Manager.

### ***Process***

ITIL and MOF follow the same definition of “process”:

- ITIL: A structured set of activities designed to accomplish a specific objective.
- MOF: Interrelated tasks that, taken together, produce a defined, desired result.

This definition is derived from a common ISO definition that can at best be taken as “A sequence of interrelated or interacting activities designed to accomplish a defined objective in a measurable and repeatable manner, transforming inputs into outputs.” Both frameworks apply this definition in a very loose context: many practices, activities, and functions are labeled “process,” but not documented as such. Instead these framework components are often constructed as organizational capabilities, composed from People, Process, and Technology elements.

Therefore, comparing ITIL “processes” with MOF “processes” is not very useful. Addressing all components as “practices” leaves the reader with a much better reference framework for comparing the two. This cross-reference, based on practices, is offered in Appendix B.

## Technology

Technology can take different shapes, ranging from workflow support systems and system management tools, to framework-typical supporting structures like a CMS or a Service Catalog.

ITIL doesn't provide much detail on supporting technology and tools. It offers chapters on Technology Considerations, but these are restricted to high-level considerations of the "what."

Distinctly different, Microsoft has created MOF to provide a common management framework for its platform products. And although MOF can easily be used for other platforms, the integration between Microsoft products and the MOF management framework is a core development target.

Like the practices in both frameworks, from a 10,000 feet viewpoint the framework-typical structures do not differ much. Both frameworks use structures like Service Level Agreements (SLAs), Operational Level Agreements (OLAs), Underpinning Contracts (UCs), Configuration Items (CIs), Configuration Management Systems (CMSs) and Configuration Management Databases (CMDBs), Definitive Software Libraries (DSLs), a Change Schedule (CS in ITIL) or a Forward Schedule of Change (FSC in MOF), Known Error Databases (KEDs), Service Catalogues (SCs) and Service Portfolios (SPs), Business Continuity Plans (BCPs), Business Impact Analyses (BIAs), Post Implementation Reviews (PIRs), Standard Operating Procedures (SOPs in ITIL) or Operations Guides (OGs in MOF), RACI, and use cases.

Of course some structures are mentioned specifically in one framework and not in the other: ITIL uses a Capacity Management Information System (CMIS), an Information Security Management System (ISMS), and MOF uses an Issue-Tracking Database.

## Strategy, Tactics, Operations

ITIL offers extensive guidance on Service Strategy, providing a theoretical base for strategic decisions, explaining the "what," but apart from the information in the first of the five ITIL core books, most of the other books focus at a tactical or operational level. MOF follows the same pattern, and focuses more at the practical everyday tasks and activities in service organizations. Most strategic components of both frameworks also have a tactical "load." Tables A-1 and A-2 show the elements at the Strategic/Tactical and Operational levels.

**Table A-1. Main Focus of MOF Framework Components at Strategic, Tactical, or Operational Level**

<i>SMFs, processes and management reviews</i>	S	T	O
<b>Business/IT Alignment</b>			
Process 1: Define an IT Service Strategy			
Process 2: Identify and Map Services			
Process 3: Identify Demand and Manage Business Requests			
Process 4: Develop and Evaluate IT Service Portfolio			
Process 5: Service Level Management			
<b>Reliability</b>			
Process 1: Planning			
Process 2: Implementation			

<i>SMFs, processes and management reviews</i>	<b>S</b>	<b>T</b>	<b>O</b>
Process 3: Monitoring and Improving Plans			
<b>Policy</b>			
Process 1: Determine Areas Requiring Policy			
Process 2: Create Policies			
Process 3: Validate Policy			
Process 4: Publish Policy			
Process 5: Enforce and Evaluate Policy			
Process 6: Review and Maintain Policy			
<b>Financial Management</b>			
Process 1: Establish Service Requirements and Plan Budget			
Process 2: Manage Finances			
Process 3: Perform IT Accounting and Reporting			
<b>Envision</b>			
Process 1: Organize the Core Team			
Process 2: Write the Vision/Scope Document			
Process 3: Approve the Vision/Scope Document			
<b>Project Planning</b>			
Process 1: Evaluate Products and Technologies			
Process 2: Write the Functional Specification			
Process 3: Package the Master Project Plan			
Process 4: Create the Master Schedule			
Process 5: Review the Project Plans Approved Milestone			
<b>Build</b>			
Process 1: Prepare for Development			
Process 2: Develop the Solution			
Process 3: Prepare for Release			
Process 4: Review the Scope Complete Milestone			
<b>Stabilize</b>			
Process 1: Stabilize a Release Candidate			
Process 2: Conduct a Pilot Test			
Process 3: Review the Release Readiness Milestone			
<b>Deploy</b>			
Process 1: Deploy Core Components			
Process 2: Deploy Sites			

<i>SMFs, processes and management reviews</i>	<b>S</b>	<b>T</b>	<b>O</b>
Process 3: Stabilize Deployment			
Process 4: Review the Deployment Complete Milestone			
<b>Operations</b>			
Process 1: Define Operational Work Requirements			
Process 2: Build Operational Work Instructions			
Process 3: Plan Operational Work			
Process 4: Execute Operational Work			
Process 5: Maintain Operational Work Instructions			
Process 6: Manage Operational Work			
<b>Service Monitoring and Control</b>			
Process 1: Define Service Monitoring Requirements			
Process 2: Implement New Service			
Process 3: Continuous Monitoring			
Process 4: Control and Reporting			
<b>Customer Service</b>			
Process 1: Record the User's Request			
Process 1a: Record the User's Contact Information			
Process 1b: Record Details of the User's Request			
Process 2: Classify the User's Request			
Process 2a: Categorize the User's Request			
Process 2b: Determine Supportability			
Process 2c: Prioritize the Request			
Process 3: Resolve the Request			
Process 3a: Resolve an Information Request			
Process 3b: Resolve a Request for an Existing Feature or Service			
Process 3c: Resolve a Request for a New Feature or Service			
Process 3c1: Filter the New Service Request			
Process 3c2: Handling a Standard Change New Service Request			
Process 3c3: Handling a Non-Standard Change New Service Request			
Process 3d: Resolve an Incident Resolution Request			
Process 3d1: Troubleshoot the Incident			
Process 3d2: Escalate the Request			

<i>SMFs, processes and management reviews</i>	<b>S</b>	<b>T</b>	<b>O</b>
Process 3d3: Apply a Fix or Workaround			
Process 4: Confirm Resolution and Close the Request			
Process 5: Ensure Good Service			
Process 5a: Service Desk Quality Assurance			
Process 5b: SLA Monitoring and Metrics			
<b>Problem Management</b>			
Process 1: Document the Problem			
Process 2: Filter the Problem			
Process 3: Research the Problem			
Process 4: Research the Outcome			
<b>Governance, Risk and Compliance</b>			
Process 1: Establish IT Governance			
Process 2: Assess, Monitor, and Control Risk			
Process 3: Comply with Directives			
<b>Change and Configuration</b>			
Process 1: Baseline the Configuration			
Process 2: Initiate the Change			
Process 3: Classify the Change			
Process 4: Approve and Schedule the Change			
Process 5: Develop and Test the Change			
Process 6: Release the Change			
Process 7: Validate and Review the Change			
<b>Team</b>			
Process 1: Identify Changes Needed			
Process 2: Align Responsibilities			
Process 3: Assign Roles			
<b>Service Alignment Management Review</b>			
<b>Portfolio Management Review</b>			
<b>Project Plan Approved Management Review</b>			
<b>Release Readiness Management Review</b>			
<b>Policy and Control Management Review</b>			
<b>Operational Health Management Review</b>			

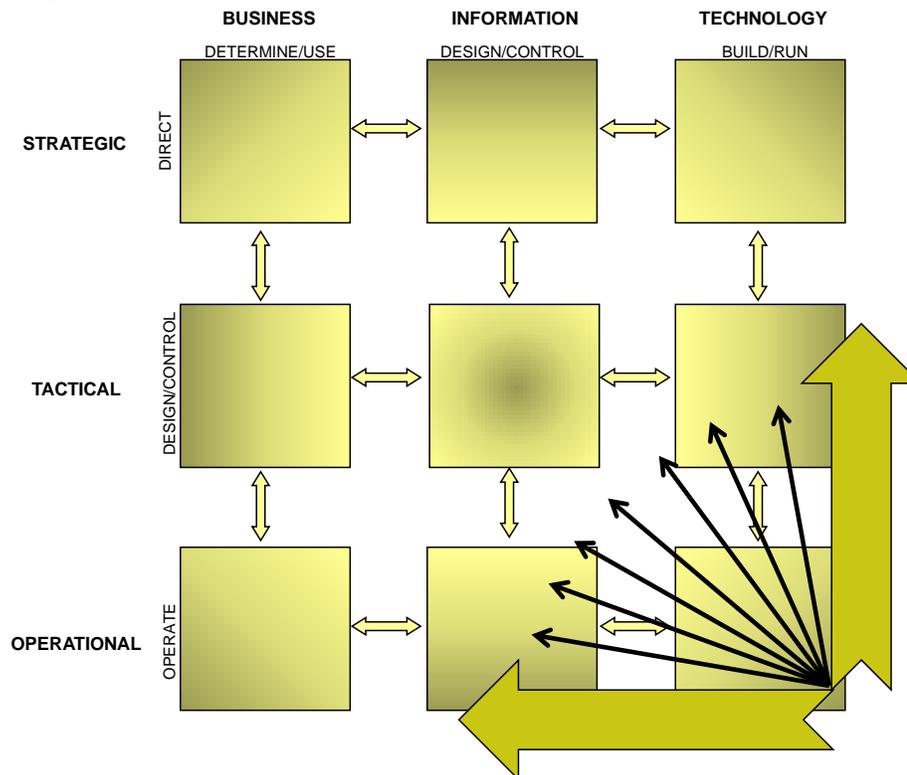
**Table A-2. Main Focus of ITIL Framework Components at Strategic, Tactical, or Operational Level**

<i>Processes, activities and functions</i>	<b>S</b>	<b>T</b>	<b>O</b>
<b>Service Strategy</b>			
Define the market			
Develop the offerings			
Develop strategic assets			
Prepare for execution			
Financial Management			
Demand Management			
Service Portfolio Management			
<b>Service Design</b>			
Service Catalogue Management			
Service Level Management			
Capacity Management			
Availability Management			
Security Management			
IT Service Continuity Management			
Supplier Management			
Requirements Engineering			
Data and Information Management			
Application Management			
<b>Service Transition</b>			
Transition Planning and Support			
Change Management			
Service Validation and Testing			
Evaluation			
Release and Deployment Management			
Service Asset and Configuration Management			
Knowledge Management			
Managing Communications and Commitment			
Managing Organization and Stakeholder Change			
Stakeholder Management			
<b>Service Operation</b>			
Problem Management			
Incident Management			

<i>Processes, activities and functions</i>	<b>S</b>	<b>T</b>	<b>O</b>
Event Management			
Request Fulfillment			
Access Management			
Server Management and Support			
Network Management			
Database Administration			
Mainframe Management			
Directory Services Management			
Internet/Web Management			
Middleware Management			
Desktop Support			
Storage and Archive			
Facilities and Data Centre Management			
IT Operations			
Monitoring and Control			
<b>Continual Service Improvement</b>			
7-Step Improvement Process			
Service Measurement			
Service Reporting			

## Separation of Duties (SoD)

When growing in maturity, organizations tend to start getting in control of the operational level before they master the tactical or strategic levels. Similarly, organizations tend to start working their way up from the Technology Management domain to the Information Management domain. This is illustrated in the development paths of ITIL and MOF, during their subsequent versions.



**Figure 14. The 3x3 matrix for information support, enhanced**

Both frameworks started out at the lower right side of the 3x3 SAME matrix, and are now stretching into the Information Management domain. Both now present more detailed guidance on managing business requests, on demand management, on requirements engineering, on use cases, and on handling functionality information requests. ITIL now also goes into details on sourcing strategies and Patterns of Business Activity (PBA). But although both ITIL and MOF now look into data management and functionality, the focus is still clearly on the service delivery organization.

## Plan-Do-Check-Act (PDCA)

Continual improvement is an underlying paradigm in both ITIL and MOF. At the highest level, both lifecycles are illustrations of the concept. Plan-Do-Check can easily be recognized in the structures of these lifecycles. The Act step is very explicit in ITIL, in the Continual Service Improvement phase, where MOF covers it one spade deeper in the system.

Several functions and processes in ITIL clearly follow the PDCA model in their documentation—for example, Security Management, Application Management, and the 7-Step Improvement process are very explicitly expressed as PDCA cycles. MOF does the very same in the process flow of the Reliability SMF, the Policy SMF, the Operations SMF, the Service Monitoring and Control SMF, and in processes like Establish IT Governance, Assess/Monitor/Control Risks, and Comply with Directives.

PDCA cycles are often applied in the implementation of specific functions: organizations plan a function at a certain stage of their development, they then implement the function in their organization, and finally check the results at various points to feed improvement initiatives. Continual improvement is elementary in service organizations that need to provide better services at less cost all the time, in fast changing environments.

Both frameworks make good use of the valuable principles in this management paradigm.

## Appendix B: Mapping of Processes, Activities, Functions, and Other Elements

The following tables present the mapping of MOF v4 versus ITIL V3. The section of the table shows the ITIL components and explains where these can be found in MOF. The second section shows the components that are exclusive to MOF, and illustrates where these can be found in ITIL.

**Table B-1. How MOF Covers ITIL Content**

ITIL	How MOF Covers ITIL Content
<b>Service Strategy</b>	
<b>Processes</b>	
Financial Management	Financial Management SMF (PLAN)
Service Portfolio Management (SPM)	Develop and Evaluate IT Service Portfolio (process 4) in SMF Business-IT alignment (PLAN)
Demand Management (DM)	Demand and Request Management (Activity in process 3: Identify Demand and Manage Business Requests) in SMF Business-IT Alignment (PLAN)
<b>Activities</b>	
Define the market	Not explicit
Develop the offerings	Not explicit
Develop strategic assets	Not explicit
Prepare for execution	Not explicit
<b>Key terminology</b>	
Utility and Warranty	Not explicit
Service assets (resources and capabilities)	Outcome Business-IT Alignment SMF (PLAN). MOF uses the term IT asset instead.
Service Catalogue	In process 5: Service Level Management in the Business-IT Alignment SMF (PLAN)
Accounting	In process 3: Perform IT Accounting and Reporting in the Financial Management SMF (PLAN)
Compliance	In process 3: Comply with directives, in the Governance, Risk and Compliance SMF (MANAGE)
Service valuation (provisioning value, service value potential)	Covered by Value Realization in process 3: Perform IT Accounting and Reporting, in the Financial Management SMF (PLAN)
Service package	Not explicit

<b>Service Design</b>	
<b>Functions and Processes</b>	
Service Catalogue Management	No separate process, but covered in the process Service Level Management in Business-IT Alignment SMF (PLAN)
Service Level Management	Process in Business-IT Alignment SMF (PLAN)
Capacity Management	In Reliability SMF (PLAN)
Availability Management	In Reliability SMF (PLAN); Availability in ITIL covers Confidentiality, Integrity and Availability: all three are elements of Reliability Management
IT Service Continuity Management	In Reliability SMF (PLAN)
Information Security Management	In Reliability SMF (PLAN), as an element of “continuity and security” with a focus on data security, in the Policy SMF, in the Service Level Management process of the Business-IT Alignment SMF, in the Project Planning SMF, throughout the Operate phase, et cetera. Also addressed in various MRs.
Supplier Management	Not explicit as a process, but MOF defines a Supplier Manager, a role that takes care of supplier management
<b>Activities</b>	
Requirements engineering	Define Service Requirements activity in all three processes of the Reliability SMF (PLAN); Establish Service Requirements process in the Financial Management SMF (PLAN); Write the Functional Specification process in the Project Planning SMF (DELIVER)
Data and Information Management	Not an explicit process in MOF, but covered in activities on data integrity, data security, data access, data encryption, data classification, data handling policies, data confidentiality, data availability, data backup, et cetera
Application Management	Applications are managed throughout the MOF lifecycle and in the Manage layer; explicitly covered by Envision, Project Planning, Build, Stabilize and Deploy SMFs (DELIVER)

<b>Key terminology</b>	
Service Requirements and Service Level Requirements (SLR) (both terms are used in ITIL)	Like in ITIL, both terms are used in MOF, in various activities, processes, and SMFs, like Reliability (PLAN), Financial Management (PLAN), Service Monitoring and Control (OPERATE).
Business requirements	Used in the Service Level Management process in the Business-IT Alignment SMF; in the Define Service Requirements activity in Process 1: Planning in the Reliability SMF (PLAN); and in MRs like Project Plan Approved (DELIVER), Service Alignment (PLAN)
Business Impact Analysis (BIA)	Covered at several positions, such as in the Business-IT Alignment SMF (PLAN), in the Reliability SMF (PLAN), in the Financial Management SMF (PLAN), in the Customer Service SMF (OPERATE), in the Problem Management SMF (OPERATE), in the Change and Configuration SMF (OPERATE).
Service Level Agreements (SLA)	In process 5: Service Level Management, in the Business/IT Alignment SMF (PLAN). MOF refers to SLAs throughout the framework.
Operational Level Agreements (OLA)	In process 5: Service Level Management, in the Business/IT Alignment SMF (PLAN). MOF refers to OLAs throughout the framework.
Underpinning Contracts (UC)	In process 5: Service Level Management, in the Business/IT Alignment SMF (PLAN). MOF refers to UCs throughout the framework, but seems to restrict these to legal documents, which is not as explicit in ITIL.
<b>Service Transition</b>	
<b>Functions and Processes</b>	
Transition planning and Support	Process 4: Review the Deployment Complete Milestone in Deploy SMF, Deliver (DELIVER)
Change Management	Seven processes in Change and Configuration SMF (MANAGE)
Service Asset and Configuration Management (SACM)	Change and Configuration SMF (MANAGE)
Release and Deployment Management	Three explicit processes in the Deploy SMF (DELIVER); Process 6: Release The Change in the Change and Configuration SMF (MANAGE); In a wider interpretation also covered by the entire Deliver phase
Service Validation and Testing	Covered by test and review moments throughout the Build, Stabilize and Deploy SMFs, and in the Release Readiness Review (DELIVER)

Evaluation	Process 4: Review the Deployment Complete Milestone in the Deploy SMF (DELIVER)
Knowledge Management	Not explicit as a process, but covered in the activity Creating knowledge management policies in Process 2: Create policies in Policy SMF (PLAN) and in the Customer Service SMF (OPERATE); Knowledge bases are often used in the Customer Service SMF (OPERATE)
<b>Activities</b>	
Managing Communications and Commitment	Not explicit
Stakeholder Management	Not explicit
Managing Organization and Stakeholder Change	Not explicit
<b>Key terminology</b>	
Service Design Package (SDP)	Not an explicit process, but MOF mention service packaging in the Business-IT Alignment MSF (PLAN)
Service Transition Plan	Covered in process 3 and 4: Master Project Plan and Master Schedule, in the Project Planning SMF (DELIVER). Transition is the responsibility of the Solution Manager role. Milestones are used for project phase transitions, such as in Test Plans.
Request for Change (RFC)	In the Change and Configuration SMF (MANAGE)
Change Advisory Board (CAB)	In the Change and Configuration SMF (MANAGE)
Emergency CAB (ECAB)	Not an explicit role.
Schedule of Change (SC)	In MOF this is called a Forward Schedule of Change (FSC) (MANAGE)
Fallback situation (remediation planning)	In the Change and Configuration SMF (MANAGE), in the process Conduct a Pilot Test of the Stabilize SMF (DELIVER), and in the Release Readiness MR. MOF uses the terms Backout and Rollback.
Post Implementation Review (PIR)	Process 7: Validate and Review the Change in the Change and Configuration SMF (MANAGE)
Impact Analysis	In the activity Analyze the impact of the change and identify reviewers, in the Change and Configuration SMF (MANAGE)
Configuration Item (CI)	In the Change and Configuration SMF (MANAGE)
Configuration Management System (CMS)	In Change and Configuration SMF (MANAGE)
Configuration Management Database (CMDB)	MOF only refers to this term once, and uses CMS in all other cases. In underpinning platform documents, the term CMDB is still used.

Configuration baseline	In the Project Planning, Build and Deploy SMFs (DELIVER), in the Change and Configuration SMF (MANAGE)
Release	In the Plan phase and throughout the Deliver phase, in the Change and Configuration SMF (MANAGE), in the Release Readiness MR.
Release unit/package	Not an explicit term, but MOF mentions the packaging or releases.
Building and test plans	Core elements in the Deliver phase.
Service release test	Pilot test, Release Readiness Test in the Stabilize SMF (DELIVER) and Review the Deployment Complete Milestone in Deploy SMF (DELIVER)
Pilots	Elementary to the Deliver phase, in the Stabilize SMF (DELIVER)
Release policy	Not explicit, but covered in the Policy SMF (PLAN)
Release and deployment plans	Elementary to the Deliver phase, in the Project Planning SMF (DELIVER)
Testing	Integrated in Build, Stabilize and Deploy SMFs (DELIVER)
Fit for purpose, fit for use	Not explicit MOF terms
Service Knowledge Management system (SKMS)	Not an explicit MOF term, although MOF uses a Risk Knowledge Base in the GRC SMF, and a Knowledge Base in the Service Monitoring and Control SMF, the Customer Support SMF and the Problem Management SMF (OPERATE)
<b>Service Operations</b>	
<b>Functions and Processes</b>	
Event Management	Not an explicit process. Integrated in the Service Monitoring and Control SMF (OPERATE)—for example, in activities like Analyze the Event, and Resolve or Escalate the Event. Also in the Customer Service SMF (OPERATE): request handling (service fulfillment request, New Service Request, Incident resolution request).
Incident Management	Not an explicit process. Integrated in the Customer Service SMF (OPERATE): request handling (service fulfillment request, New Service Request, Incident resolution request)
Request Fulfillment	Not an explicit process. Integrated in Customer Service SMF (OPERATE): request handling (service fulfillment request, New Service Request, Incident resolution request)
Problem Management	Problem Management SMF (OPERATE), defined as purely proactive

Access Management	Not an explicit process, but covered in Governance, Risk and Compliance SMF (MANAGE), in the Reliability SMF and the Policy SMF (PLAN). Additional supporting documentation in Microsoft Identity and Access Management Series.
Service Desk	A Service Desk or Customer Service Desk is an element in the Customer Service SMF (OPERATE)
IT Operations Management	Not explicit in MOF, but covered in the Operations SMF and the Service Monitoring and Control SMF (OPERATE), and in the roles of IT Manager, Operator, Administrator, Technology Area Manager, Monitoring Manager, Scheduling Manager, Operations Manager
Application Management	Not explicit in MOF, but covered throughout the lifecycle, and in the roles of Product Manager and Solution Manager
Technical Management	Not explicit in MOF, but covered in the same way IT Operations Management is covered
<b>Activities</b>	
Monitoring and Control	Covered in the Service Monitoring and Control SMF (OPERATE)
IT Operations	Covered in the Operations SMF (OPERATE)
Mainframe Management	Covered in the Operations SMF and the Service Monitoring and Control SMF (OPERATE)
Server Management and Support	Id.
Network Management	Id.
Storage and Archive	Id.
Database administration	Id.
Directory Service Management	Id.
Desktop Support	Id.
Middleware Management	Id.
Internet/web Management	Id.
Facilities and Data Centre Management	Id.
<b>Key terminology</b>	
Service Request	MOF uses the term Service Fulfillment Request, one of the user request types handled in the Customer Support SMF (OPERATE)
Event	Identical, in the Service Monitoring and Control SMF (OPERATE)—for example, in activities like Analyze the Event, and Resolve or Escalate the Event.
Incident	Identical, in Incident Resolution Requests

Problem	Identical
Known Error	Identical
Workaround	Identical
<b>Continual Service Improvement (CSI)</b>	
<b>Functions and Processes</b>	
The 7-step Improvement Process (also called 7-step Measurement Process)	Not a single process; incorporated in many elements of the MOF framework, such as the Service Alignment MR, the Portfolio MR, in various roles, throughout the Business-IT Alignment SMF, in the Reliability SMF (the Monitoring and Improving Plans process), all over the Service Monitoring and Control SMF (OPERATE), etcetera.
Service Reporting	In the Service Level Management process in the Business-IT Alignment SMF (PLAN), in the Service Monitoring and Control SMF (OPERATE), in individual processes and SMFs throughout the MOF framework, and in Management Reviews.
Service Measurement	Covered in individual SMFs and processes, in support of the reporting.
<b>Key terminology</b>	
Service Improvement Plan (SIP)	Improvement initiatives are managed throughout the lifecycle, and the term is explicitly used in the Operational Health MR, in the Service Monitoring and Control SMF (OPERATE), and in process 3: Monitoring and Improving Plans in the Reliability SMF (PLAN)
DIKW (Data-Information-Knowledge-Wisdom)	Not an explicit term
Benchmarks/assessments	Task in the IT Executive Officer role. Benchmarking is used in the Financial Management SMF (PLAN). Various internal assessments are used, such as health assessments and risk assessments.
ROI (Return on Investment, VOI (Value on Investment)	Used in measuring the value of IT services in relation to business outcome.
Business Case	An explicit element, such as in the Business Case Analysis activity in the Financial Management SMF.

**Table B-2. How ITIL Covers MOF Content**

MOF	How ITIL Covers MOF Content
Manage Layer	<p>ITIL actually has two phases that support the true lifecycle: Service Strategy is the “inner circle” and Continual Service Improvement is the “outer circle” in the framework. The elements in these two circles are different from the elements in the MOF Manage layer.</p>
Governance, Risk and Compliance (GRC)	<p>The elements of the GRC SMF in MOF are scattered over ITIL. Governance is mainly covered in the Service Strategy book, but also in organizational structures in various other phases. Risk is specifically addressed in Service Strategy, and in Continuous Service Improvement. Compliance is addressed throughout the ITIL service lifecycle.</p> <p>Conclusion is that in both frameworks, GRC is covered: explicitly in MOF, and more implicitly in ITIL.</p>
Service Management Functions (SMFs)	<p>SMFs are the main components in the MOF framework. ITIL describes a limited number of explicit functions: Service Desk, IT Operations Management, Application Management and Technical Management, but many more functions are described under the label of “process.”</p> <p>Conclusion: MOF follows a more explicit approach to functions, being organizational capabilities composed from People, Process and Technology.</p>
Management Reviews (MRs)	<p>MOF uses six explicit Management Reviews, controlling the transition to the next phase in the lifecycle, and several smaller “toll gates.” ITIL also knows a number of progress controls, in terms of acceptance tests, organizational readiness assessments, service operations readiness test, deployment readiness, etcetera, but these are described ‘deeper’ in the guidance.</p> <p>Conclusion: both frameworks offer a significant number of progress controls, but MOF has put these in a prominent position in the framework.</p>
Business-IT Alignment function	<p>Both ITIL and MOF address business-IT alignment as a core goal of the framework. MOF makes this explicit in one centralized Service Management Function, covering strategy, demand management, portfolio management and service level management. In ITIL these elements are covered in separate phases, functions, processes and activities.</p>

Reliability Management	MOF has grouped a number of service quality aspects in the term “reliability,” and grouped the responsibility for this in the Reliability SMF. In ITIL these service quality aspects are covered in various phases, processes, functions and activities in the lifecycle. Again, all components are covered in both frameworks, but the presentation and the approach towards management is rather different.
SMF checklists	All SMFs in MOF have checklists, enabling decisions on how to use the SMF, and supporting the assessment of the current state of the subject. ITIL also has checklists throughout the framework, but these are not standardized structures in the guidance on ITIL components.
Team SMF	Organizational structures are covered in both frameworks, but presented role sets are quite different. In ITIL, the organizational structures are handled in each phase, in the relevant functions, processes and activities. In MOF, these structures are also described in the components (SMFs), but there also is one central SMF in the Manage layer addressing the organization, documenting a single structured approach towards all roles in the framework. The approach presented by MOF follows the structures of the Microsoft Solutions Framework.
Policy SMF	Both framework use policies for all kinds of goals. Again, MOF has concentrated the approach in one SMF, where ITIL offers guidance in the relevant components.
Customer Service SMF	The Customer Service SMF in MOF covers the handling of all customer calls, where ITIL has split these over several functions, processes and activities.
Envision, Project Planning, Build, Stabilize, Deploy	In MOF the project that creates the new or adapted service is documented in a series of five SMF with two MRs. In ITIL the same activities are documented in Transition Planning and Support, Service Validation and Testing, Change Management, Evaluation, and Release and Deployment Management.