



# TEAMQUEST AND ITIL AN INTRODUCTION TO ITIL

Part 1 – Introducing ITIL

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## **SUMMARY**

The ITIL framework is a proven set of guidelines for IT managers to maintain control and optimum efficiency within their data centers. No matter what part of the world or what type of organization, the principles of ITIL can help ensure that IT services are delivered in the best possible way in order to serve the overall goals of the organization. This paper provides a brief introduction to ITIL and summarizes the IT processes that ITIL addresses.

## WHY ITIL?

Everyone agrees that IT staff should follow best practices in their operations. Not only does this make good business sense, but it is especially crucial given recent regulations such as Sarbanes-Oxley and HIPAA. While a consensus may have been achieved on the fact that best practices should be followed, two questions remain: what constitutes a best practice and how does one implement it?

Originality might be desirable in restaurants and rock bands, but that's not what you are looking for in a professional practice. You want a doctor who is certified by the State Board and who follows the usual standard of care. You want an attorney who has passed the bar exam and who follows the law as interpreted by the Supreme Court, not one who follows his own preferences for what the laws should be.

The same level of standardization is also desirable in the IT profession, but has been broadly lacking up to this point. Instead, many companies have developed their own methodologies, experienced IT staff has their own routines, trade groups issue certifications in their specialties, and vendors publish their own recommended procedures, but these are limited to their operating environments, training or specific products. They don't broadly cover the entire enterprise infrastructure, nor do they survive technology or personnel changes.

To address this undesirable situation, there is a movement to standardize IT practices. Information Technology Infrastructure Library (ITIL) provides structured, scalable and common sense best practices for IT processes. Organizations should adopt and adapt these best practices to fit their own environment.

## WHAT IS ITIL?

ITIL is one of the most widely utilized sets of best practices for the IT community. It was originally developed in the late 1980s by Britain's Central Computer and Telecommunications Agency (CCTA), now known as the Office of Government Commerce (OGC). At that time, the CCTA worked with both government IT staff and outside consultants to develop a framework for IT best practices. Although it has its roots in the British government's efforts to improve its own service levels and cut costs, ITIL has also found widespread adoption in the private sector.

Rather than a rigid set of rules, ITIL provides a framework that companies can adapt to meet their own needs. Organizations may not implement every process, just those that make sense and fit into the way the organization wants to do business in the future. Some processes may be abandoned later when post-implementation reviews show limited value, while others may be implemented as gaps are uncovered or needs change.

ITIL breaks down IT functions into discrete, full-function components that span the enterprise, called services. These services have been designed in a building block manner so they can be provisioned easily either internally or through the use of an external service provider. In each case, best practices for the delivery of the service are identified and they are addressed at three different levels:

- **Strategic — Long term goals of the particular service and high level activities needed to accomplish them.**
- **Tactical — Specific processes that guide the tasks and activities needed to perform and provision the service.**
- **Operational — Actual execution of the processes to provide the service to the customer and end users. Successful completion of the Operational tasks means that Strategic goals are accomplished within the expected time frames.**

The current release, ITIL version 2, is delineated in a set of seven volumes. An eighth describes how to implement ITIL. Each of these volumes is described in more depth below. A ninth volume, Business Perspective Volume 2, is scheduled for release later this year. Version 3 of ITIL will begin development in the fall.

In addition to publishing ITIL, OGC, together with international IT certification provider EXIN, develops certification training and testing programs which are administered locally by third-party firms. A list of the training and testing authorities are listed on the OGC website ([www.ogc.gov.uk](http://www.ogc.gov.uk)).

There are three levels of ITIL certification:

- **Foundation Certificate — This is the lowest level certificate and gives people a familiarity with the best practices delineated in ITIL and the terminology used. It is a prerequisite for progressing to the higher levels, but it is also appropriate for those who need an understanding of ITIL, but who will not be directly implementing the best practices.**
- **Practitioner's Certificate — This certificate covers each of the segments of IT Service Management in depth, treating each as a specialty. Unlike the Foundation Certificate, this one is geared toward the implementation of ITIL, not just understanding of the concepts, and is designed for those who directly apply ITIL best practices. The Foundation Certificate is a prerequisite, as well as experience in IT Service Management.**
- **Manager's Certificate This level is for experienced IT managers. The Foundation, but not the Practitioner's Certificate, is a prerequisite. The candidate must have five years general IT experience and two in IT Service Management or supervision.**

The difference between these last two levels is illustrated by the type of tests they take. While the candidate for the Practitioner's Certificate takes a one hour multiple choice exam, the managers need to write two three-hour papers.

## SEVEN SERVICE SEGMENTS

As mentioned earlier, the current iteration of ITIL breaks down IT services into seven components. These are:

1. **Business Perspective,**
2. **Service Delivery,**
3. **Service Support,**
4. **Application Management,**
5. **Security,**
6. **ICT Infrastructure Management and**
7. **Software Asset Management.**

Let's take a more in-depth look at what each of these areas covers.

### BUSINESS PERSPECTIVE

IT's activities have value only to the degree they support the organization's business goals. This area covers the interaction between Business and IT and how business requirements are gathered and translated into IT resource requirements. Business Perspective owns the processes that ensure all work performed by IT has been reviewed, approved by management and prioritized. The major disciplines in this area are:

- **Business Relationship Management**
- **Supplier Relationship Management**
- **Liaison, Education and Communication**
- **Planning, Review and Development**

### SERVICE DELIVERY

Service Delivery breaks down into four major sub-disciplines:

#### Service Level Management

Perhaps the most important set of processes in ITIL, Service Level Management (SLM) processes establish clear service delivery standards, providing the means to objectively measure how well IT is meeting business requirements. The major components of

SLM are the Service Catalogue, Service Level Agreements (SLAs) and Operational Level Agreements (OLAs). The foundation of SLM is the Service Catalogue, which defines each service provided by the IT organization, including the deliverables, the limits of service, and how service delivery performance is measured. The Catalog services form the basis for generating the SLAs and OLAs, and provide the foundation for building the infrastructure services.

#### Capacity Management

Once an organization has defined the services it needs, it can then begin calculating exact items it needs to achieve those service levels. This leads into the next area: Capacity Management. Together with the business units, finance, and service support, the capacity planners build the annual infrastructure growth plan. Capacity planning gets involved very early in the application life cycle to assist in determining the implementation and ongoing support costs of applications or releases. Activities in this area are proactive rather than reactive. The discipline is further broken down into three areas following the Strategic/Tactical/Operational model:

- **Business Capacity Management — Looks at understanding future business requirements and growth, and how they impact SLAs and infrastructure resources. (Strategic)**
- **Service Capacity Management — Looks at applications and the business processes they support from an enterprise perspective, examining resource consumption patterns and cycles to ensure services can meet SLAs. (Tactical)**
- **Resource Capacity Management — Looks at resources from an individual infrastructure component perspective. (Operational)**

#### Financial Management for IT Services

These processes are directed toward the financial aspects of running the business of IT. This includes:

- **Budgeting — Short- and long-term planning of the expenditures needed to maintain and improve services that align with business plans.**
- **IT Accounting — Cost analyses of future projects, gaining approval of expenditures and staying on budget.**
- **Chargeback — Recovering costs from Customers for services provided.**

#### Availability Management

This area reviews business requirements for availability of business systems, catalogues them and ensures proper contingency plans are in place and tested on a regular basis to ensure business services are restored as quickly as needed in the event of an IT infrastructure component failure. It includes establishing high-availability, redundant systems to support mission critical applications, but not overspending on less-critical systems.

### SERVICE SUPPORT

Another major discipline in Service Management is supporting those services that were established by the Service Delivery crew. This includes:

#### Help Desk or Service Desk

These best practices guide those on the front lines of IT, acting as the liaison between IT and the business units or end users. They are responsible for logging problem reports or service requests, forwarding them to responsible services, tracking progress, reporting status to requesters and management escalation if necessary, and closing requests when the work has been completed.

#### Incident Management

This set of processes address the identification of service anomalies and restoration of application or systems functions as quickly as possible to mitigate the impact to the business and bring the services back up to the levels outlined in the SLAs and OLAs.

## Problem Management

While the Help Desk service relates to the interaction between users and IT, these processes describe what the IT staff does in resolving the problems. It includes the recording, management and escalation of service problems, as well as preventing future problems by analyzing historical data to identify and eliminate the underlying causes.

## Configuration Management

These processes are concerned with the recording and management of all operational data relating to the setup and operating parameters of individual IT infrastructure components.

## Change Management

Following these practices avoids future problems by ensuring that no changes are made without proper testing, risk assessment and scheduling.

## Release Management

The close cousins of Change Management, Release Management processes govern large-scale projects such as installing the latest Windows version or a new enterprise application.

## APPLICATION MANAGEMENT

The fourth ITIL service describes an approach to the Software Development Lifecycle. It covers creating the application specifications; designing the application; writing and testing the code; deploying the application; routine operation of the application; and, finally, reviewing the application once it is in operation to determine ways to improve its efficiency and cut costs.

## SOFTWARE ASSET MANAGEMENT

This service overlaps Application Management and most of the other services in the ITIL. Software is a major asset for a company when looking at its cost, and an even greater one when looking at its ability to forward business objectives. But, when outdated, misconfigured or unpatched, it can also be a huge liability. This service covers

processes to maximize software as an asset while minimizing its risks.

## SECURITY

Security has become a key concern of everyone in the IT field and there are many organizations and consultants offering their opinions on best practices in this arena. What sets ITIL's Security processes apart from others is that it is part of an overall management scheme covering the IT enterprise, rather than a set of isolated practices. This makes it easier for security experts to interface with others in the IT area. ITIL Security practices outline a continuous improvement process to identify risks to information and the processing infrastructure, establish security processes and procedures to mitigate them, communicate them to the affected areas in the organization, train people how to use them, monitor them, report anomalies for enforcement/corrective activities and review existing policies and procedures for improvement.

## ICT INFRASTRUCTURE MANAGEMENT (ICTIM)

The final service, ICT Infrastructure Management, lies at the opposite end of the spectrum from Business Perspective. It forms the bridge between Service Management and Technology. The goal of this area is to use proven, repeatable processes to provide a stable operating environment for all IT functions. The four areas that make up this service are:

### Design and Planning

This process guides the development of technology plans including the frameworks and technologies to be employed in delivering IT services, including specifying a centralized Enterprise Architecture.

### Deployment

While Service Support handles the deployment of application upgrades, ICTIM covers the rollout of technological changes such as a new wireless network or SAN.

## Operations

This set of processes covers normal day-to-day computer operations such as job scheduling, backup and recovery, network and systems management, and hardware maintenance.

## Technical Support

These processes cover the actions of the highly trained technology specialists who provide technical assistance and problem resolution to other IT service areas.

## ITIL BENEFITS

Most organizations are implementing ITIL best practices to improve service, however organizations cannot help but enjoy cost benefits as a result of streamlining work processes and thus improving productivity. When fully implemented, ITIL processes ensure repeatable, high quality service. Services become more focused on the business than technology. There are other benefits to embracing ITIL best practices:

## IT COSTS BETTER MANAGED

People are more productive because only authorized work is performed. Because of improved service quality, there are fewer service anomalies to distract staff from their normal duties, so more work of the business is performed. Trade-offs between costs and levels of IT service are better understood, fostering a much closer partnership between business and IT. Built-in continuous improvement processes ensure that business applications are reviewed for efficiency and where improvement opportunities exist, work is commissioned to implement them.

## BETTER UNDERSTANDING

Adopting the Business Perspective best practices means IT services and the resources needed to support them are better understood by the business; and IT better understands the day-to-day business processes it supports. The IT organization is structured with an enterprise view so it is easier to understand services from an end-to-end business perspective rather than an individual IT infrastructure component view. Meaningful and measurable service metrics to gauge IT service performance are in place and well communicated.

## MORE EFFICIENT ORGANIZATION

IT has a well-defined structure with clearly defined roles and responsibilities, resulting in a more efficient organization. Clearly defined processes and procedures simplify IT change management and provide common points of reference for internal communications. All IT processes are standardized. Integration points and hand-offs are well documented and understood.

## GETTING STARTED WITH ITIL

The place to begin is by purchasing the ITIL volume Planning to Implement Service Management and following the steps contained therein, including following the three-level training and certification structure.

Before embarking on the switch, certain preparatory actions must be taken. You must ensure you have Executive Management Champions for the work and you must document the reasons for implementing ITIL best practices. Next comes inventorying. This includes the tasks performed, services rendered and what tools you have which can carry you to the future or which ones need to be retired and replaced. You can then use this data to determine your desired view of the future organization and determine how much change needs to occur. From there, you determine if the

implementation should take a staged or a big-bang approach.

Next develop a road map for implementation. Gather a team of internal specialists to build the high level structure (road map per se), identifying the organization, interactions, and the work flow structure. As part of this, develop a comprehensive communication strategy to keep everyone informed of reasons for the change and progress reports. It is critical that everyone know that implementation is mandatory, not optional. Using the high-level roadmap, build small teams to flesh out the details and document the processes.

After laying out the road map, it is necessary to train those responsible for its implementation. Develop a series of training programs covering the entire organization so that each unit is well-versed in their own set of processes, as well as processes for the areas with which they interact.

Now it is time to begin implementation. Set an implementation schedule making sure it permits sufficient time to deal with gaps before continuing to next step. IT infrastructure is complex with a lot of moving parts, touch points, and hand-offs. There will be gaps, so you must anticipate the unexpected and have processes in place to handle the gaps when they appear. Also, remember day-to-day operations need to continue to support the business in uninterrupted fashion while all the changes occur. During and following implementation, it is vital to shut down the informal network. Work must be driven through the new processes to be authorized, scheduled, and completed; otherwise, the organization will be thrown into a series of time-consuming conflicts over in-scope and undocumented out-of-scope work priorities.

Finally it is time to review the results. 30-90 days after implementation, each service unit should be interviewed, progress assessed and a scorecard filed with the process maintenance team. Develop a plan to implement further aspects of the ITIL, eliminate actions that don't meet your requirements, or correct those which failed to meet expectations.

## IN CONCLUSION

ITIL implementation is not a quick fix, nor is it easy. It takes a lot of thought, commitment and hard work to successfully change the way an IT organization does business. There will be things that you do today that you will not do afterwards and vice-versa. Most people will continue to do what they do today, but they will become more productive as a result of using more repeatable processes.

Remember that ITIL is a framework, so it is designed for creativity to be built around the base set of best practices. One will not employ them all, just those that make sense and fit into the way the organization wants to do business in the future. Some processes may be abandoned when post-implementation reviews show limited value, and others may be implemented as gaps are uncovered and solutions found.

Implementing ITIL will improve service delivery by improving and building business partnerships as a result of changing to an enterprise business focus. Processes and procedures will be streamlined to ensure consistent, efficient services are delivered to the customer. IT will use cost-effective, easy-to-use tools to automate processes, directing staff energies to focus on problem areas and performance improvement opportunities. Meaningful and measurable metrics will reveal IT service performance.

The bottom line is that ITIL improves functions throughout the enterprise. Customers will be delighted with the improved quality of IT services through execution of consistent, repeatable processes. IT staff will welcome the improved organizational efficiency through use of ITIL processes and well-defined roles and responsibilities. Finance will value the lower unit costs achieved by leveraging efficiencies to improve productivity of IT staff and infrastructure resources. And management will appreciate finally having meaningful and measurable metrics that gauge IT service performance in business terms.

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### Web Pages:

OGC Official ITIL Webpages -  
<http://www.ogc.gov.uk/index.asp?id=2261>

ITIL and ITSM World -  
<http://www.itil-itsm-world.com/>

ITIL Community Forum -  
<http://www.itilcommunity.com/>

Applications Service Library -  
<http://www.aslfoundation.org/>



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