

## White Paper



### Business - Technology Alignment

#### A Fundamental Consideration for ITSM Tool Selection

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Shraddha Tilloo

#### Abstract

IT Service Management (ITSM) is evolving as a crucial component in aligning Business and Technology. Implementing ITSM successfully requires appropriate technology support. While there is no shortage of technology toolsets in this space, selecting the toolset appropriate to your specific requirements and building a case to justify the investment is a fairly challenging exercise.

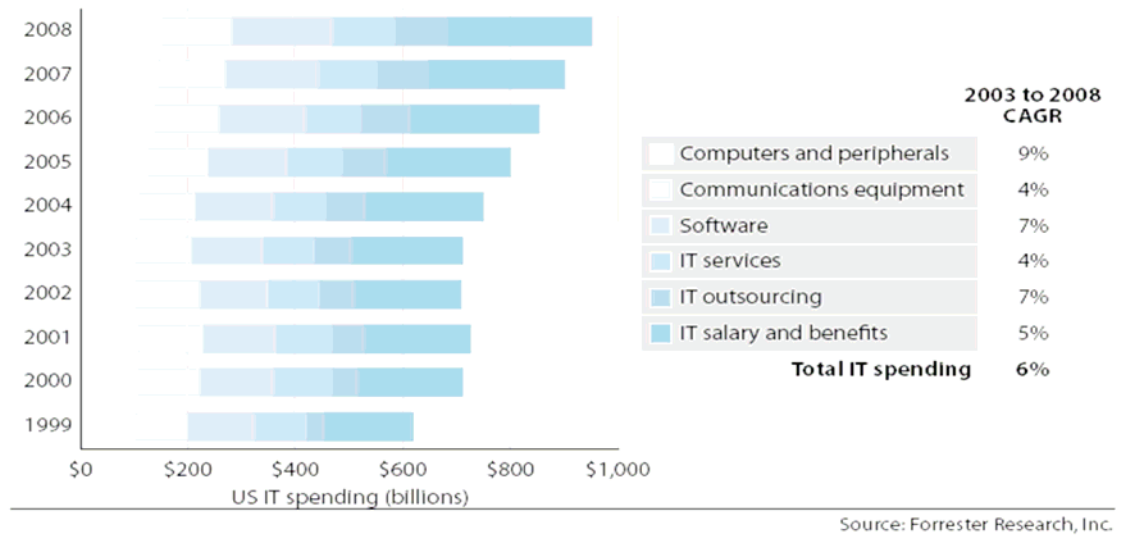
The environment in which organization operate is changing rapidly. To keep up with the change, the technology needs to have an optimal combination of scalability, flexibility and serviceability, keeping in mind the requirements and stakeholder expectations. A sure road to failure is to consider tool deployment as a stand alone task, without understanding the need, impact and benefits from business point of view.

This paper presents an [ITSM Technology Adoption Framework \(ITAF\)](#) based on practical steps and techniques for properly leveraging and optimizing various IT resources that play a critical role in achieving Technology and business alignment. This paper highlights a collection of tools, techniques and best practices that Infosys deploys for ensuring right alignment between ITSM Technology and ITSM requirements of organizations.

## The biggest challenge for CXOs today is justifying IT investments

A Society of Information Management (SIM) survey of 300 senior IT leaders found that the successful alignment of business and IT was the top management concern for all of them. 80% of companies lacked means to confirm, measure, and optimize benefits delivered from their technology programs.

Despite the seeming non-visibility of benefits of IT investments to business, as a recent Forrester report<sup>1</sup> (See chart below) points out, Technology spending by US companies and governments would continue to grow by annual growth rates of 6% from 2003 to 2008 (Exhibit 1)



How do we bridge the gap between the perception and reality? How do we ensure that business doesn't view ITSM technology investments as a goal just as a "cash sink" but sees it as a "Business enabler"? The ITAF framework from Infosys is intended to bridge this "Perception Divide".

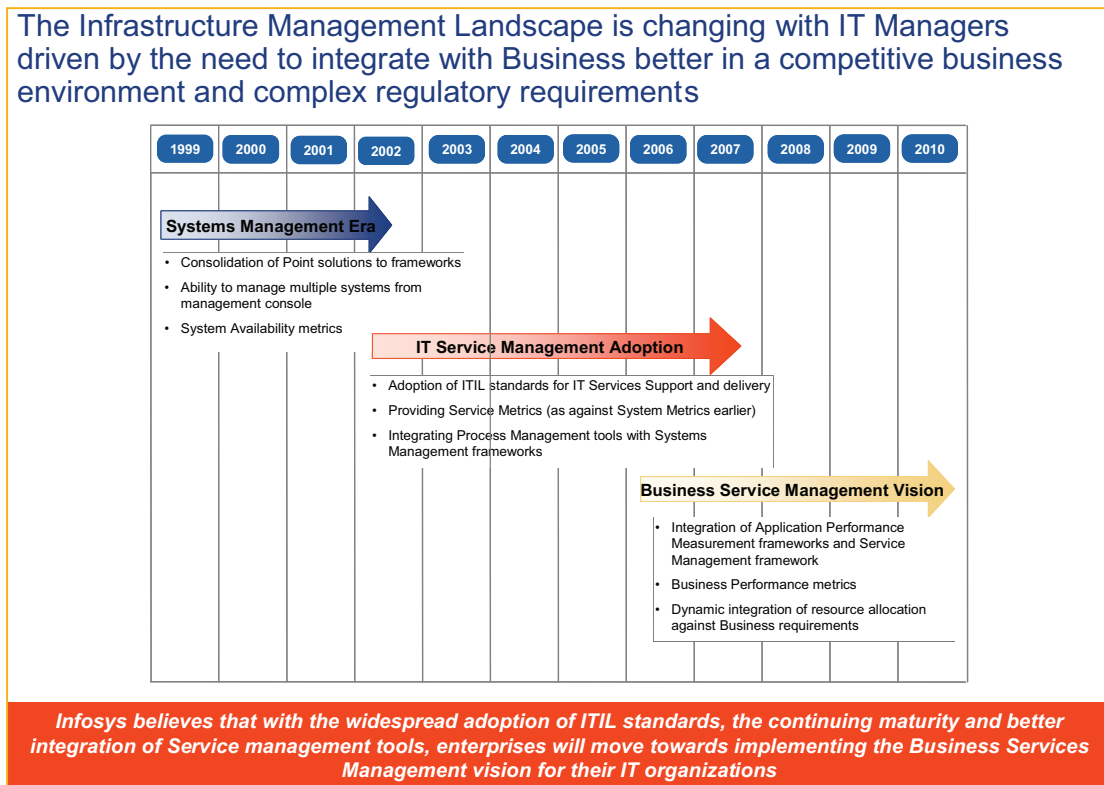
In our experience, when it comes to ITSM technology investments, the issues with current technology adoption approach in most organizations can be categorized into:

1. Lack of accurate and credible business cases for the ITSM technology investments
2. No system to determine the potential value (both direct and intangible benefits) and priority of the various ITSM process improvement initiatives
3. Lack of adequate communication to business partners regarding the financial value of these investments.
4. Lack of a participative requirements gathering process (Decisions taken based upon IT teams' perception of what the tool should look like versus what the client really needs)
5. Inefficient investment decision-making process (Non-rational decision making that is not based upon requirements but upon other factors such as Vendor relationships etc.)
6. Lack of defined roadmap for enhancements and maintenance on the ITSM tool deployment.
7. Inadequate emphasis on vendor on-going support capabilities (viewing it as an one-time investment activity)

## Successful Technology Adoption “mantra”

The “Mantra” of a successful technology adoption lies in quantifying, communicating, and realizing the complete value of technology investments.

(\* mantra – Sanskrit word for an incantation/exhortation to achieve a desired objective)



### ITIL and Tool Investments

Various standards and frameworks such as ITIL (IT Information Library) have been advocating the need to align business requirements with the technology capabilities. While selecting a tool for an organization the important guidelines in the decision making process have been described by ITIL as given below (exhibit 2)

From a technology adoption point of view, ITIL has described some best practices requirements for the right technology selection for an IT environment.

- To begin with, technology should satisfy current business requirements and should have sufficient scalability for future business requirements.
- The tool should have interfaces with system management tools and be able to interface with various business processes
- The functional and mandatory requirements should be based on defined ITIL processes and should be carefully evaluated before selection.
- As a thumb-rule, the technology should provide minimum 80% compliance for all operational requirements as per OGC guidance.

Based on these thumb rules, there are three basic guiding principles for a meaningful ITSM technology deployment

1. **Conceptualization:** No technology deployment is successful unless the goals of the deployment program are aligned with the business goals.

- a. To begin with - conceptualize the goals, strategies and tactics of a technology deployment.
  - b. Next - identify the important stake holders into the program; generate a buy-in among all the stake holders about the new technology being considered. The concept should be well understood by all the participants of the ITSM process improvement program even before the deployment plan is initiated.
2. **Justification:** A strong business case justifying the need of the ITSM technology investments is the next most important step towards a successful deployment. Collect all the business, operational and technical requirements to substantiate the business case. In addition, a Cost Benefit Analysis to satisfy financial queries will dramatically increase the probability of the new technology being accepted by the business.
  3. **Realization:** Defining a detailed deployment plan, with due consideration to various factors like schedule, impact and usability will result into positive and quicker realization of the technology outcomes. A good project plan includes evaluation of technology options, standard based deployment approach, measurements and optimization techniques and a continuous improvement roadmap.

In summary, careful selection of technology, a focused deployment approach and established measurement systems helps in delivering IT services of right quality, at the right time and at the right cost.

## Infosys ITSM Technology Adoption Framework (ITAF)

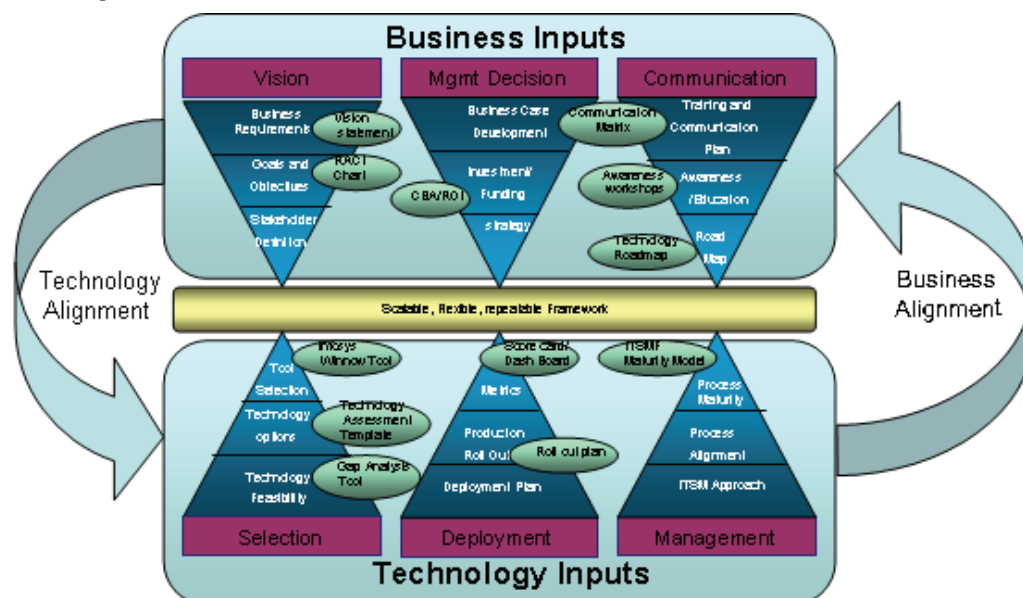
Based on organizational experience (of Infosys) in guiding Fortune 500 organizations in their ITSM Implementation journey, we (at Infosys) have developed the ITAF framework to assist organizations in their ITSM journey and reduce the uncertainties involved in their transformation efforts.

In order to best align business requirements with the technology plans, firstly these two different sides of the coin need to be understood separately. ITAF incorporates this duality of approach and delves into each of these categories with specific tasks and tools elaborated and tied up into a comprehensive, customizable and adaptable framework for technology selection for an organization.

Inputs under the business category are oriented towards helping organizations articulate on the vision, strategy and goals for the technology deployment. Emphasis is also laid on a structured method for management decision-making and stake holder participation into the program along with awareness and communication techniques for a technology initiative. ITAF also stresses upon the importance of executive sponsorship, business ownership and collaborative partnership between different units of the business for the all round success of an ITSM technology deployment initiative.

Technology inputs of this framework cover tool selection, tool deployment methodologies, ITSM process deployment and maturity assessment for the long term benefits. In this category the emphasis is more on the right choice of the technology based on the most accurate assessment and gap analysis of the current state of the technology environment.

Figure 3 below depicts this framework which has components of business and technology. The following sections will touch upon each of these components in more detail.



## Business Inputs

This part of the framework has three main components namely,

- Vision
- Management Decision
- Communication

## Vision

*“The first step is always the most difficult step in a journey “*

Developing a vision is one of the initial steps for a technology adoption journey. It is derived after completing following activities:

**Business Requirements.** To understand what business wants and then translate it into the right tool deployment strategy is the crux of any technology initiative. The first step in all such initiatives should be to determine the business requirements in detail. The drivers for these requirements may be:

- Staying one step ahead of the constant rate of change occurring throughout the IT environment
- Tracking, controlling, and making cost-effective use of the ever-growing and ever more complex mix of IT assets
- Streamlining the daily activity workflow of the IT staff to allow for proactive work
- Achieving centralized management and control of the IT environment
- Managing business users' expectations of IT services and
- Improving service quality within the constraints of the IT budget

**Goals and Objectives.** Once the business requirements are collected, the objectives and goals of the initiative should be framed in such a way that helps in aligning the technology deployment with the business needs. It is a good idea to have a vision statement for the program which gives a long term visibility and purpose to the whole initiative.

**Executive Sponsorship and Stakeholders.** To begin with, ITSM initiatives need to have senior management buy-in and sponsorship. The initiative should be considered as a major organizational change effort, with management willingness to champion and intervene throughout the initiative. Stakeholders need to be identified and they should participate at all key stages including articulation of the objectives, goals, strategy and vision statements for the initiative. By defining clear roles and responsibilities for all the stakeholders, execution and monitoring of technology initiative becomes easier. ITAF suggests use of Responsible Accountable Consulted Informed (RACI) charts for this purpose.

## Management Decision

The management decision of “go” or “no-go” on a technology adoption initiative depends upon following:

### Business case building and Cost Benefit Analyses (CBA)

Presenting a strong business case is often a crucial and difficult task to complete in the initial phase of an initiative. Many technology initiatives, though having excellent benefits and advantages, fail to get management buy-in due to poor articulation of a business case. Six-Sigma methodologies are very useful (and recommended) in building a measurable and “Voice of Customer”-driven business case. Upon acceptance of the business case and identification of stake holders, it is recommended that CBAs and ROI calculations be built for all stages of the initiative. This helps in getting sustained funding and also helps in designing a “Pay As You Go” funding model. Having a “Pay As You Go” funding model helps in ensuring a sustained support for the initiative and can outlive common interruptions, such as organization reshuffle, that tend to destabilize even the most well-thought out programs. Key aspects of the “Pay As You Go” funding model include:

1. Savings or benefits from the initiative on one-time basis as well as recurring on a long term basis
2. Major capital and operational expenditure associated with implementation of the initiative
3. Acceptable charge-back model from Business Units for the ITSM initiatives

## Deployment Strategy

A strategy document typically outlines a 2-3 year investment strategy directing the use of new technology to achieve competitive advantage and facilitate business strategies. The IT strategy process looks to identify technology requirements stemming from future business and architecture strategies. The outcome of a deployment strategy document is a collection of business drivers, trends, scope of the new initiative and migration plan defined to achieve the identified business and technology strategic goals.

## Communication

A well designed and focused communication and training plan is the cornerstone of a successful technology implementation.

### Training and Communication Plan

Best-practices around communication and training plans include:

1. Defining a communication matrix which captures the type, content, frequency and recipients of the communication (Figure 4).

Deliverable	Audience	Messenger	Behaviors	Content (Objective)	Design (Vehicle)	Timing (Frequency)
Strategy, Implementation and Communication Review	LOB: VPs Business Units	Program Manager	<ul style="list-style-type: none"> <li>Understand Business impact</li> <li>Risks are understood and agreed upon</li> <li>Understand Risk mitigation and implementation plan</li> </ul>	<ul style="list-style-type: none"> <li>Cost benefit analysis of risks</li> <li>Risk mitigation plan</li> <li>Implementation &amp; communication</li> </ul>	<ul style="list-style-type: none"> <li>E-mail</li> <li>Memos</li> <li>Results in shared DB</li> </ul>	Once
Business line engagement communication	LOB: VPs SVPs Business Units	Program Owner	<ul style="list-style-type: none"> <li>Risk Monitoring Process Overview</li> <li>Risk Re-assessment</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring and reporting mechanism</li> </ul>	<ul style="list-style-type: none"> <li>Program monitoring</li> </ul>	Weekly
Steering committee Meeting	Steering Committee	Program Owner	<ul style="list-style-type: none"> <li>Any major decisions</li> <li>Understand Plan</li> <li>Understand Risk</li> <li>Provide Direction</li> <li>Ensure Compliance/ Policy Standards</li> </ul>	<ul style="list-style-type: none"> <li>Strategy and planning</li> </ul>	<ul style="list-style-type: none"> <li>Meeting</li> <li>Conference call</li> </ul>	Bi Monthly
Project Team Meeting / Status Update	Manager / Project members	Program Manager	Project tasks update	Gather information about each task associated with project and timely follow-up	<ul style="list-style-type: none"> <li>E-mail,</li> <li>Meetings</li> </ul>	Weekly

2. The important point is that right message should be conveyed to the right audience through various communication channels like:

- Awareness workshops
- Offsite meetings
- E-mail memos
- Brainstorming sessions

Leverage these avenues to address different segments of audience.

3. Segment the audience and design dedicated customized training plans to fulfill specific needs. Some change enabling communities that could be considered are:

- Management committees
- User community
- Operational staff
- External partners
- Business enabler groups

## Technology Inputs

This part of the framework also has three main components namely,

- Selection
- Deployment
- Management

### Selection

This process involves:

#### Assessment of current infrastructure and processes

As the saying goes, “*A fool with a tool is still a fool*”. Technology should be evaluated not just upon its technical merit but also on its ability to meet ITSM process requirements that are required to support the desired business objectives. A larger involvement from key technology stakeholders and business partners is recommended to obtain a 360 degree view of the current state of affairs on the process front.

ITAF recommends the itSMF maturity assessment model that helps in ranking the maturity of each process and helps establish gaps and areas for improvement. Improvement initiatives need to be identified to bridge these gaps. These initiatives could be prioritized and bound into a mutually acceptable timescale with the business. Typical service management roadmaps run on the 3-5 year timescale. The ITIL PMF (Process Maturity Framework) Model is shown in figure 5

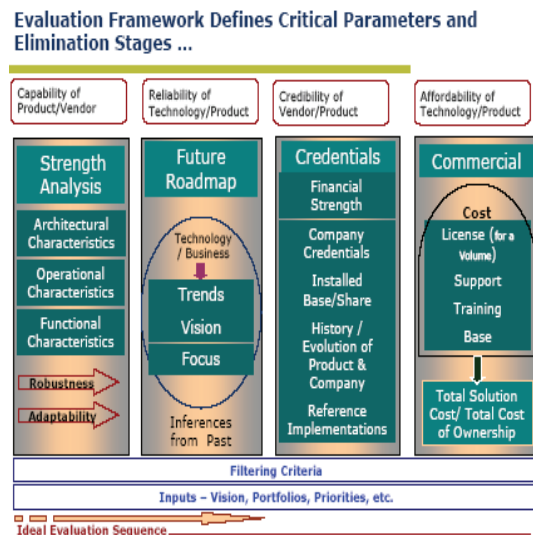
<b>Optimized</b>	The process has now been fully recognized and has strategic objectives and goals aligned with the overall strategic business and IT goals. These have now become 'institutionalized' as part of the everyday activity for everyone involved with the process. A self contained process of improvement is established as part of the process, which is now developing a pre-emptive capability
<b>Managed</b>	The process has now been fully recognized and accepted throughout IT. It is service focused and has objectives and targets that are based on business objectives and goals. The process is fully defined, managed and has become proactive, with documented, established interfaces and dependencies with other processes
<b>Defined</b>	The process has been recognized and is documented but there is no formal agreement, acceptance and recognition of the role within the IT operation as a whole. However the processes has a owner, formal objectives and targets with allocated resources and is focused on the efficiency as well as the effectiveness of the process. Reports and results are stored for future reference
<b>Repeatable</b>	The process has been recognized and is allocated little importance, resource or focus within the operation. Generally activities related to the process are uncoordinated, irregular without direction and are directed towards process effectiveness.
<b>Initial</b>	The process has been recognized but there is little or no process management activity and it is allocated no importance, resources or focus within the organization. This level can also be described as 'ad-hoc' or occasionally even 'chaotic'

**Tool Selection.** An important task is the selection of right tool to meet critical business requirements. This usually needs to be done under the ambit of financial objectives to be met, without significantly impacting the operational activities once implemented. ITAF uses the **WINNOW** framework, a proprietary framework developed by researchers at Infosys, for evaluation.

WINNOW focuses on what is really important to the business, and then uses a robust evaluation model to compare alternatives and finally select a winner. Winnow aids the process of tool selection through a set of scenario-specific models, methods, frameworks and tools. Exhibit 6 shows highlights of the WINNOW framework.

## Highlights

- Hybrid algorithm - combines the best of Weighted Average Method (WAM) and Analytic Hierarchy Process (AHP) - for last leg elimination
- Scenario specific meta models capture expertise within different technology areas such as BI, EIP, ECM
- Highly flexible process, can be easily customized for any kind of evaluation or client scenario
- Integrated set of models



Source: Infosys Research

## Deployment

Without sufficient planning, the best of technology and tools will fail. So, an important stage in a technology adoption is the rigorous planning of various activities to be carried out.

### Deployment Plan

The three Ps for any successful technology deployment are *Planning, Preparation and Participation*. If the deployment is undertaken without adequate planning, it will result in unexpected delays, unwanted results and extra expenses. Well laid project plan covering detailed activities, tasks and phases of the program give direction and instructions to the groups working on the initiative. Important components of a good project plan are:

- Test plan
- Change Plan
- Implementation Plan
- Review plan
- Communication Plan

### Metrics and Measurements

After the technology tool is selected and deployed, it needs to be continuously measured and improved. There have to be systems in place for periodic health-check and monitoring the progress of the technology. It gives an opportunity to define the metrics and parameters for measurement and benchmark them over a period of time for service efficiency. ITAF recommends using either the Six Sigma defect measurement framework or the balanced scorecard framework (or both in conjunction) to measure and monitor the progress and performance of the initiatives against pre-determined metrics.

## Management

Tools alone don't give the desired results; they need to be managed using right processes and should follow a pre-defined roadmap for improvement once they are deployed.

### ITSM approach and process alignment

Once the tool is implemented, it is necessary to align the services offered by the tool with the processes. Standardizing processes based on the ITIL approach can be adopted to demonstrate clear benefits from the tool deployment.

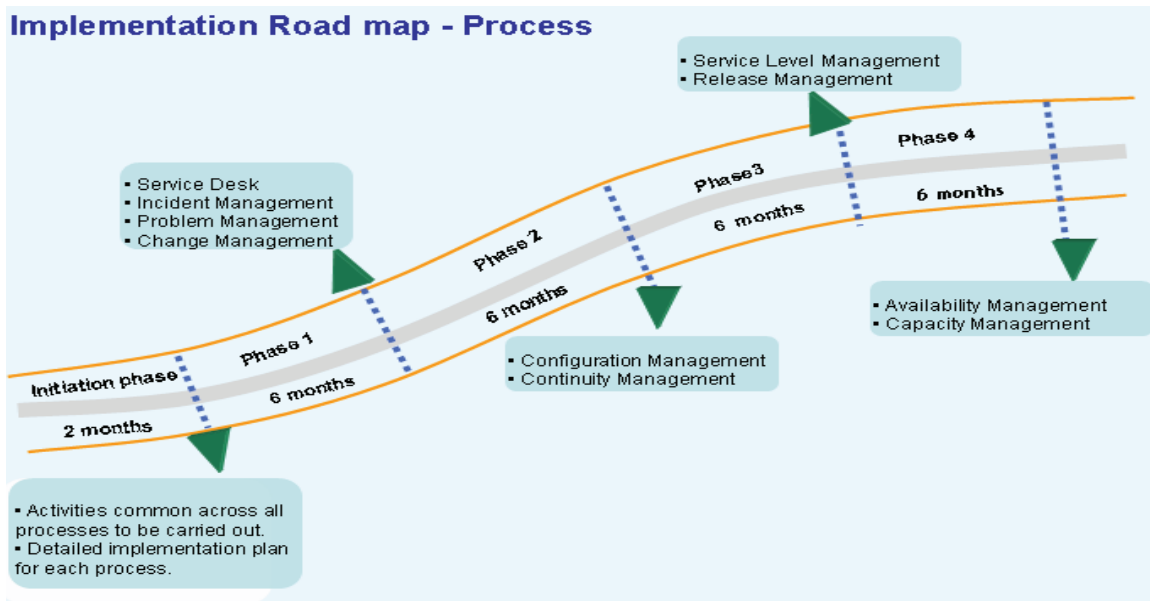
ITIL is the industry accepted best practice framework, and the most popular approach for IT service management. ITIL is no longer a fancy. It has become a necessity for deriving efficiencies that lead to dramatic cost reduction and improvement in service delivery.

### Roadmap - A navigator for the future

Upon defining the metrics and establishing a system for measurement, a high-level roadmap for a definite period of time, gives direction and guidelines in the service management and improvement journey. The roadmap should be prepared for both near-term as well as long-term objectives.

Near-term roadmaps focus on the immediate goals of the technology as well as business and typically spans across 12-18 months. These are some of the quick win areas, from which organization can benefit within a short period of time.

Long-term roadmaps give strategic direction to the entire initiative. They are aligned towards the long term vision and goals of the company and ask for detailed planning over a longer period. Typical span of these roadmaps is 3-5 years.



## Conclusion

With IT organizations adopting the ITSM vision with a view to becoming a partner to business, the level of sophistication and automation offered by ITSM enabler technologies (such as monitoring & reporting tools, service desk etc) is increasing rapidly. While these create opportunities for organizational transformation, they also run the risk of being branded a “White elephant” by business if it doesn’t demonstrate commensurate benefits.

The ITAF framework is an attempt at building best practices around ITSM tool implementations. ITAF focuses on the duality of approach that needs to be taken – both from the Business aspect and the technology capabilities of the toolset.

ITAF is a collection of frameworks (both public domain and in-house) that are used by Infosys to put together the right tool implementation approach for clients.

The emphasis of ITAF is on the development of a holistic and optimized technology adoption approach where strategic policies and processes guide the technology selection criteria.

Yankee Group<sup>2</sup>, a leading global IT research and consulting organization, recently acknowledged the urgency surrounding this issue, stating that, “CIOs and IT executives who have not begun the process of correctly aligning the IT infrastructure with business processes and requirements will soon be at a competitive disadvantage.” Fortunately, there are some practical and effective steps that IT organizations can take to ensure alignment of technology with business requirements, and ITAF is one such framework.

## Appendix

**ITIL® stands for Information Technology Infrastructure Library.** Originally developed by the Office of Government Commerce in the United Kingdom, the set of best practices have evolved to include practices from both public and private sectors internationally and are supported by a comprehensive qualification scheme and accredited training organizations. These practices are documented in a series of books, the most widely referenced among these being on Service Support and Service Delivery.

- **Service Support** processes are concerned with ensuring that the customer (buyer / owner of the service) has access to appropriate services to support the business functions. This includes the management of the Service Desk and processes such as Incident, Problem, Configuration, Change and Release Management.
- **Service Delivery** processes look at what services the business requires of the provider in order to provide adequate support to the business user. In essence, these are the “enabling processes” and include Availability, IT Financial, IT Service Continuity, Capacity and Service Level Management processes.

## References

<sup>1</sup>Forrester Research Inc, IT Spending Outlook: 2004 to 2008 And Beyond, Andrew Bartels with Tom Pohlmann and Natalie Lambert, August 23, 2004.

<sup>2</sup>Practical Strategies for Aligning IT with Business: White paper by Packeteer, Inc. 2004.

## Abbreviations

ITSM	IT Service Management
CIO	Chief Information Officer
OGC	Office of Government Commerce
itSMF	IT Service Management Forum
BI	Business Intelligence
EIP	Enterprise Information Portal
ECM	Enterprise Content Management

## About the Author

[Shraddha Tiloo](#) is a Process Consultant at Infosys Limited (NASDAQ:Infy). She has about 10 years of IT industry experience including ITSM tools design, implementation, assessment and ITSM process consulting.



For more information, contact [askus@infosys.com](mailto:askus@infosys.com)

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