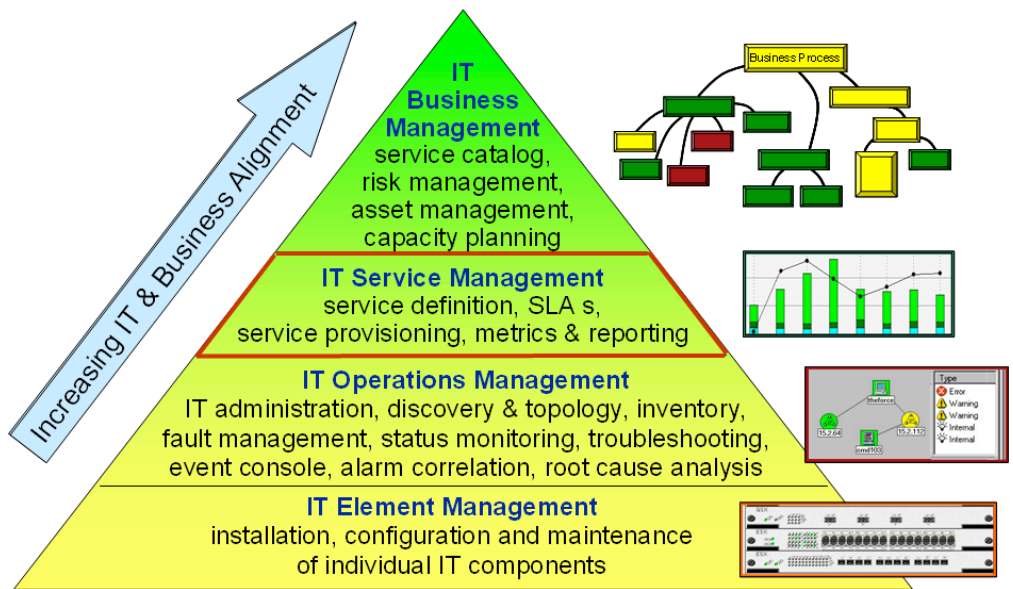


# Service Transformation Frameworks

Over the past several years, Aeritae has worked with a number of clients on improving their IT Management capabilities. At Aeritae, we position IT Service Management as the bridge between IT Business Management and traditional IT Technology Management.

## Layers of IT Management



To maximize the effectiveness of the IT Organization, IT Leadership must ensure overall alignment with business objectives, technology strategies, investment priorities, risk acceptance, and compliance requirements. Within the IT Organization, IT Leadership must drive alignment across these four layers of IT management and throughout the process, tool and data domains. However, the challenge faced by most IT Organizations is that the IT industry has evolved over the years into four relatively distinct management layers,

with each layer tending to have its own processes, tools and teams supporting it.

The result is that most IT Organizations lack of coordination and integration between these layers of management. Many have a significant number of IT management tools, a vast supply of operations and element management data, and automated processes capturing and recording this data. However, they lack the collaborative processes and integrated tools to turn this data into information that can be used to drive the processes described in the service management and business management layers. As a result, these functions tend to be performed on an ad-hoc basis, limiting their effectiveness, repeatability and accuracy.

*ITIL is the leading framework for IT Service Management – A proven strategy for driving IT and business alignment.*

This white paper discusses the frameworks available to help IT Organizations develop their IT business and IT service management capabilities, and align them with their existing IT operations and IT element management capabilities – driving a cohesive strategy across all four layers of IT management. In many organizations, this effort has taken on the name of “ITIL”, due to the widespread attention that the ITIL framework has received in recent years. This whitepaper will position the ITIL Framework, along with other IT frameworks, to help organizations develop a roadmap for maturing their IT management capabilities.

This whitepaper also discusses the crucial role that the IT service management layer plays in driving the transformation toward an IT services culture. At Aeritae, we use the term “Service Transformation” to describe this fundamental shift by IT Organizations away from a technology operations and support focus to a customer-oriented IT service focus.

By creating a culture driven by customer requirements and provisioning IT services to meet those requirements, the IT Organization can significantly increase its alignment with business strategies and priorities, and improve its contribution to the bottom line.

Through defining IT services, the IT Organization improves customer service by packaging services to meet customer expectations, and delivering them through well managed service delivery and service support processes. These expectations are documented in Service Level Agreements (SLAs), which are monitored by both IT Leadership and Business Leadership, to ensure that both organizations are meeting their commitments.

## **Service Transformation Initiatives**

For some clients, the service transformation initiative is being driven by Senior IT Leadership through a “top-down” approach. Organizations that are either in the business of providing IT services to external customers, or are providing IT services as a “shared services provider”, typically have specific objectives to improve customer service and service provisioning. Our expertise in IT service management best practices, processes and tools, has enabled Aeritae to help our clients significantly improve their IT service delivery and support processes. These process improvements result in measurable customer service improvements.

During these engagements, we have also worked with our clients on sustaining the service transformation by implementing best practices for continuous process improvement, monitoring process performance, and ensuring process compliance.

For other clients, the service transformation tends to be driven through a “bottom-up” effort to improve IT operational effectiveness and efficiency, with the primary objectives of reducing operational costs or improving compliance. These clients recognize the benefit of utilizing the same IT service management best practices, processes and tools, to drive measurable gains in cost reduction and improved compliance.

*Service transformation is achieved by improving processes, measuring results, analyzing information and creating a service oriented culture.*

While the transformation may not be as visible to the “customers” of the IT Organization, it still requires that the IT Organization make a significant internal cultural shift away from technology operations and support, and towards process management and ownership. In most cases, we have also worked with these clients to sustain the IT service transformation by implementing best practices for continuous process improvement, monitoring process performance, and ensuring process compliance.

Across these various types of initiatives, we have observed that IT service transformation results in the following benefits to the IT Organization and its customers/business users:

- ▶ Improved customer service through well-defined IT product & service offerings
- ▶ Improved IT governance through IT asset and service utilization, cost and performance metrics and reporting
- ▶ Reduced costs through improved operational efficiency and scalability
- ▶ Reduced risk through improved controls, processes and tools

## **Service Transformation Frameworks**

Our experience has shown that IT Organizations can accelerate their transformation from technology operations to IT service provisioning by

utilizing a combination of industry best practices and frameworks. The purpose of this white paper is to present an overview of these frameworks, provide guidance on their use, and offer examples of success.

We have found that the following framework characteristics provide the most value in driving the IT service transformation:

*ITIL and Six Sigma are the most common service transformation frameworks. Their approaches are similar: customer focused, data driven and results oriented. They use process improvement programs to change the culture and sustain the transformation.*

**Data Driven** – utilizes data collection and analysis techniques as the foundation for assessing the current environment, benchmarking against best practices, determining priorities, making investment decisions and monitoring progress. Process or technology improvements are only adopted when a data-driven business case can be developed.

**Customer Driven** – relies on customer feedback, or the “Voice-of-the-Customer”, to determine what service types and levels of service provisioning are required to meet the customer or business requirements.

**Proven & Reliable** – utilized by several organizations to aid in their transformation toward an IT service provisioning culture. Information is available in the public domain, and the framework is not considered to be proprietary – its future state is not determined by a single vendor, but instead is determined by feedback from actual practitioners.

**Results Oriented** – organizations using the framework can point to measurable results

**Practical** – the framework doesn’t embrace a one-size-fits-all approach, but has been utilized by organizations of all sizes and across all industries. It is a well-documented “best practice” and is considered a defacto standard in the industry. The framework can be applied with different levels of effort and resources, and has the ability to be implemented in a phased approach.

Through client engagements, roundtable discussions, and practitioner feedback, we have found that the following frameworks meet these characteristics for driving service transformation:

- ▶ ITIL
- ▶ COBIT
- ▶ Six Sigma
- ▶ Service Transformation Solutions (STS)

## ITIL Framework

ITIL (IT Infrastructure Library) was developed in the 1980s, but did not get much attention in the US until it was revised in 2000. A drive to provide ITIL training and certification programs in the US has also helped raise the awareness of ITIL and its ability to transform IT Organizations to a more service-oriented and process-driven culture. In addition, many IT Service Management tool vendors have incorporated ITIL into their tool design and implementation methodologies.

ITIL has clearly become a defacto standard for IT operational process improvement. The base publications and most of the training focus on two areas of IT processes – IT Service Support and IT Service Delivery.

*ITIL has emerged as the global standard for IT Service Management. ITIL concepts are being formalized in ISO 2000, which "promotes the adoption of an integrated process approach to effectively deliver managed services to meet the business and customer requirements".*

ITIL provides very prescriptive guidance on the design and implementation of the five core Service Support processes:

- ▶ Incident Management
- ▶ Problem Management
- ▶ Configuration Management
- ▶ Change Management
- ▶ Release Management

These sections of the ITIL documentation provide guidance through process definitions (goals, scope, benefits) high-level process flows, descriptions of roles and responsibilities, key performance indicators and tool selection. It also provides information on relationships between processes, process implementation guidelines and initiating a service management program.

The ITIL Service Support document also discusses the Service Desk function, and the role it provides in transforming an IT Organization to a more service-oriented culture by establishing a Single Point of Contact for all customer requests and interaction with the IT Organization.

Most clients have received some training on the ITIL Service Support processes and have started incorporating some of these best practices into their IT Operations Management and IT Element Management layers.

The ITIL Service Delivery publication focuses on best practices in both the IT Service Management and IT Business Management layers. Service Delivery provides guidance on:

- ▶ Service Level Management
- ▶ Financial Management for IT Services
- ▶ Capacity Management
- ▶ Service Continuity Management
- ▶ Availability Management

This publication also provides guidance on process relationships, process definitions, tool selection, roles and responsibilities, planning and implementation. However, it provides much less detail on high-level process flows or process design for these functions. This is primarily due to the fact that these processes have not been fully developed in most organizations, and therefore is not yet proven or reliable. The Service Delivery publication will continue to mature over time, and another revision of the ITIL publications are being developed over the next few years.

*ITIL is most commonly known for the Service Support and Service Delivery books, but several other publications are available. The global itSMF (IT Service Management Forum) has emerged as the worldwide ITIL practitioner's user community for sharing experiences and best practices.*

ITIL also has a publication called Planning to Implement Service Management, that provides guidance on creating a Service Management vision, assessing your current state, determining your planned future state, developing the business case, and monitoring your progress.

The ITIL publications have continued to expand into other specific disciplines of IT Operations Management including Security Management, Infrastructure Management and Application Management.

We have found the most of our clients have embraced some aspects of the ITIL framework, and are using it to help drive their IT service transformation. The ITIL education is very good at building the case for transforming the IT Organization into a more process-driven and customer-focused culture. Several education companies have developed simulation games that enforce the need for better processes, and help pave the way for organizational change.

## COBIT Framework

*COBIT has emerged as the industry standard guideline for IT compliance and audit. ISACA (Information Systems Audit and Control Association) continues to refine the COBIT publications. Most IT Organizations have based their compliance policies on the COBIT Management Guidelines.*

COBIT (Control Objectives for IT) was released by the IT Governance Institute in 2000 as a guideline for establishing measurements and controls for IT functions and processes. The COBIT framework consists of tools to assess and measure the capabilities of 34 IT processes. The framework includes tools for measuring process performance, establishing best practices, and assessing process maturity.

The framework is made up of the following documents:

- ▶ Executive Summary
- ▶ Framework Summary
- ▶ Control Objectives
- ▶ Audit Guidelines
- ▶ Implementation Tool Set

### ▶ Management Guidelines

The Management Guidelines provide a very effective method of assessing the level of control for each of the 34 IT processes, to ensure they effectively support the business objectives. The Management Guidelines use Critical Success Factors (CSFs) to drive process improvement priorities, provide Key Performance Indicators (KPIs) to establish process performance metrics, and establish Key Goal Indicators (KGIs) to ensure that each process is meeting its goals as defined in its scope document.

The 34 IT processes are grouped into 4 domains:

- ▶ Planning and Organization
- ▶ Acquisition and Implementation
- ▶ Delivery and Support
- ▶ Monitoring

The Management Guidelines provides specific recommendations for controls for each of the 34 processes. This is a very useful tool when building the metrics and reporting required to ensure IT processes are operating efficiently and effectively. We primarily use the Acquisition and Implementation and the Delivery and Support sections of COBIT framework to help our clients establish the optimal process controls across the four layers of IT Management.

Establishing this level of process control allows the IT Organization to monitor its progress toward becoming a more process-driven culture, and ensure processes are performing at their expected level. COBIT also ensures that processes are operating within compliance.

## **Six Sigma Framework**

Six Sigma was developed by Motorola in the 1980s as a method for reducing process defects to a level of 3 defects per million opportunities. This framework has become a process improvement defacto standard in the manufacturing industries, and has also made significant gains in the service industries. Variations to the traditional Six Sigma approach, such as Lean Six Sigma, have been developed to focus on reducing process cycle time as well as eliminating process defects.

The Six Sigma approach is driven by understanding the Voice-of-the-Customer (VOC), and using this information to define customer requirements and process specifications. This approach creates processes that are fundamentally designed to meet customer

requirements, and creates the measurement systems that ensure the process is achieving the expected results.

The tools used by Six Sigma include the SIPOC process model, various data collection techniques, and the DMAIC methodology:

*While not specifically oriented to the IT management domain, the Six Sigma methodology and analysis tools provide an excellent framework for creating a continuous process improvement program for the IT Organization. In ITIL terms, this is called a SIP – Service Improvement Program.*

**SIPOC** – Supplier, Inputs, Process, Outputs, Customer - a model that provides the definition of the process scope, interfaces to other processes, and interactions with customers and suppliers

**Data Collection** – all processes are measured to create an initial baseline, all process improvement decisions are based on data that reveal specific problems in process quality or cycle time, and all improvements are tracked to ensure they have a positive effect

**DMAIC** – Define, Model, Analyze, Improve, Control – outlines the step-by-step approach to understanding the current process, collecting data, determining the actions required for improvement, and then monitoring ongoing process performance

Most IT Management processes are not performing at a “Six Sigma” level of quality, and our experience has shown that it is not cost effective to operate most IT processes at that level of quality. However, using the Six Sigma framework is a very effective way to understand and baseline current process performance, develop appropriate improvement plans, and monitor process performance to ensure the improvements are working as planned.

In working with our clients, we have also found that sustaining a service transformation requires a structured approach for monitoring process performance and driving continuous process improvement, or the initial gains achieved through becoming more process focused will be lost, and the IT Organization will fall back into a “business as usual” technology-oriented culture.

## **Service Transformation Solutions Framework**

The Service Transformation Solutions framework was developed by Aeritae Consulting Group, Ltd. to provide its customers with a suite of solutions. Each component of the Service Transformation Solutions framework was constructed to address what we’ve experienced as the key needs of our customers. The solution offerings are aligned with system life cycle phases to illustrate that the approach to a problem will be different depending on where you are in the overall life cycle.

The first phase in the life cycle is to determine the vision. In this phase the Service Transformation Solutions framework provides for four unique services. Each service provides a method to assist a customer with gaining clarity and determining the vision for their endeavor. The services constructed to assist a client in determining the vision include: CIO Workshop, Rapid Chartering Workshop, Business Case Development and Rapid Organization Readiness Assessment.

Understanding the current state or “Where are we now?” is the second phase in the system life cycle. In this phase there is one key solution that can be tailored to the needs of the particular project. The Assessment Solutions service can provide a Risk Assessment, Controls Assessment or Technology Assessment to answer the question being presented.

Third in the system life cycle is gaining an understanding of where you want to be. The Service Transformation Solutions has two key services, Solution Strategy and Service Catalog in this phase. Each of these service offerings provide customers with the assistance they need to define what it is that they want to deliver.

Completing the main body of the system life cycle is the fourth phase, “How do we get where we want to be?” This phase focuses on services that can take a vision and understanding of where a client wants to be along with the knowledge of where they are to build the roadmap and provide implementation support to achieve the vision. The services of Rapid Process Design & Roadmap, Process Design & Implementation along with Technology Selection are what the Service Transformation Solutions framework provides to allow the closure of the gap between reality and vision.

In a system life cycle the continuous improvement and feedback loop is critical. The fifth phase provides this focus. The services of Technology Optimization and Measurement Review & Progress Assessment provide for the ability of a customer to be able to check their progress toward the achievement of their goals.

The final phase defined in the Service Transformation Solutions framework is focused on maintaining momentum. Services in this phase include:

- ▶ Communication Strategy Development
- ▶ Program/Project Management and Education
- ▶ Training and Mentoring

*The Service Transformation Solutions Framework consists of understanding the current state of the IT Organization, creating the vision for future capabilities, building the plan for managing change to the organization, and establishing the measurements and controls for sustaining the transformation.*

These services can be employed throughout the full system lifecycle to ensure that the momentum is maintained across all phases.

*In total, the **Service Transformation Solutions Framework** provides a structured set of offerings that can be tailored to meet the needs of each IT Organization.*

## Practical Steps for Moving Forward

Our experience has shown that the use of frameworks provides a structured, results-oriented approach for guiding our client's transformation toward a service-oriented culture. We work with our clients to develop practical steps for moving forward, based on current process and tool maturity, management priorities, business drivers, resource availability and completion targets. We have found that various approaches have proven to be successful, depending on the client's environment and needs.

These approaches tend to fall into one of five categories:

- ▶ Quick-Win
- ▶ Top-Down
- ▶ Customer-Driven
- ▶ Process-Driven
- ▶ Data-Driven

A **quick-win** approach targets a specific process or set of processes where there are suspected issues. The approach begins with a current state assessment followed by a gap analysis and a recommended action plan.

This technique works well when there is a need to quickly determine whether a process is in compliance, and create a remediation plan. This approach leverages the best practices for process controls defined in the COBIT and ITIL frameworks to create a proven and reliable solution that follows generally accepted control and compliance requirements.

While this approach can be applied to each process individually, it focuses on a single process, rather than process integration or information sharing. The benefit to the organization is short-term, rather than a longer-term organizational transformation that results from the more comprehensive approaches that follow.

*Aeritae has guided our clients through each of these five approaches. While the techniques are different, the results consistently show improvement in process performance, compliance and customer satisfaction.*

A **top-down** approach starts with a Visioning Workshop to define an implementation roadmap, in support of an overall IT management strategy. This type of engagement follows the approach described in the Service Transformation Solutions Framework. The primary benefit to this approach is that the client has an 18-36 month phased implementation plan, or roadmap, for completing the transformation to a service-oriented culture.

This approach is used to build a business case for making a long-term commitment to a phased approach with quarterly deliverables and matching investment schedule.

A **customer-driven** approach utilizes the Six Sigma concept of the Voice-of-the-Customer to understand the customer requirements for IT services and service levels. This approach follows the Six Sigma DMAIC methodology of capturing customer requirements (the Voice-of-the-Customer), collecting data to understand where there are opportunities to improve the current processes and/or tools, and then defining the service delivery and support processes required to meet the customer requirements. This is a practical approach for IT Organizations already following the Six Sigma methodology, but tends to be impractical for clients that lack the experience with Six Sigma or similar process improvement methodologies such as TQM or BPR.

A **process-driven** approach begins with defining an integrated process architecture that provides the high-level view of the service delivery and support processes and their relationships. This view helps to ensure that each of the processes being delivered is working together and there is a clear understanding of the interfaces between each of the various processes.

Next, a process model is developed to identify the workflow of the tasks and activities that are performed in the execution of the process. Within the process model, all in-scope decisions, all inputs required for the process, and outputs created within the process are documented. A process definition and a graphical process flow are created to provide a view of the tasks and activities within the process, and facilitate a review of potential improvement opportunities.

Finally, the process details provide the specific information necessary to perform the process step, execute procedures, and configure a tool to automate the process flow. The ITIL and Service Transformation Solutions frameworks provide practical guidelines for process design and the implementation of proven best practices.

A **data-driven** approach begins by leveraging the investment in current IT element management and operational tools to establish baselines for

technology component availability and operational process performance. These metrics are used to define Operating Level Agreements (OLAs) that document the level of performance and availability that the technology component or operational process can consistently deliver in its current state.

Next, customer-facing services are defined based upon customer requirements and the capabilities for packaging and provisioning the components and processes. Service Level Objectives (SLOs) are used to define the customer expectations for the performance or availability of these customer-facing services, and to document these requirements for the service delivery and support organizations.

Once the SLOs are defined and agreed upon, Service Level Agreements (SLAs) are created to document the agreed-to terms for the delivery and support of these services. While this data-driven approach is the most pragmatic, it requires a significant amount of collaboration between the various groups within the IT Organization.

This approach works best when there is a culture of collaboration, data analysis and process improvement within the IT Organization. This approach relies heavily on the ITIL, COBIT and Six Sigma frameworks to provide structure and discipline throughout the service transformation lifecycle.

**For many of our customers, it works best to use a combination of these five approaches, coordinated by a comprehensive service transformation roadmap, and delivered through phased implementation plan.**

To learn more about Aeritae Consulting Group, Ltd. or Service Transformation Frameworks, visit [www.aeritae.com](http://www.aeritae.com).

