

# Challenges and Lessons Learned Implementing ITIL, Part 1

## Realizing Value Through Business IT Alignment

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A key issue often cited by information systems (IS) executives in the last three decades is aligning IT with business, which assists in realizing value from IT investments. This article demonstrates how a multinational oil company deployed an automated implementation of the Information Technology Infrastructure Library (ITIL) integrated with COBIT® in an effort to achieve alignment between IT goals and business goals. The article, based on a longitudinal study conducted over a period of three-and-a-half years (2012 to 2017), presents the challenges, value realized and lessons learned in moving from the planning stage of implementing an IT service management (ITSM) strategy to the dynamic phase of managing and distilling business value from IT.

Research indicates that alignment of IT and/or with the business has been the top IT management concern for three consecutive years since 2013, and has remained within the top three since 2005.<sup>1</sup> “Alignment” has been defined as the degree of fit and integration between business strategy, IT strategy, business infrastructure and IT infrastructure.<sup>2</sup> Hence, IT is considered to be very

important to the delivery of the overall business strategy and vision, where the contribution of IT to the business is widely recognized, with value creation of IT investments being one of the most important dimensions.<sup>3</sup> Subsequently, getting value from IT investments has been a top priority for organizations. Moreover, one of the four major activities of chief information officers (CIOs) is IT services, which encompass managing the IT organization, its people and its external partners to ensure delivery of IT infrastructure, applications, projects and related services across the enterprise at the desired cost, risk and service levels.<sup>4</sup>

### Profile of Case Study Company

The company is a 24-year-old government-owned multinational oil company, registered and headquartered in the United Arab Emirates (UAE). Its annual revenue was US \$14.7 billion in 2015. As of 2014, it had 39 companies in its portfolio, with more than 250 remote locations and diversified operations. The company has more than 6,500 employees. It directly or indirectly owns 39

#### **Mathew Nicho**, Ph.D., CEH, CIS, ITIL Foundation, RWSP, SAP

Is a faculty member at the School of Computing and Digital Media at Robert Gordon University, Scotland. He has given talks on IT governance and cyber security at ISACA® chapters in Auckland (New Zealand) and Dubai (United Arab Emirates). He has published numerous papers in journals and presented at international conferences.

#### **Shafaq Khan**, Ph.D., CIS, PMBOK, PMP, SAP

Is an assistant professor in the College of Engineering and Information Technology (CEIT) at the University of Dubai. She has more than 18 years of teaching experience, both at undergraduate and graduate levels, and she has presented at ISACA events in Dubai.

#### **Ram Mohan**, CRISC, CISM, CGEIT, ISO 27001, ITIL Foundation

Is manager of IT service management with Emirates National Oil Company Limited (ENOC) LLC, Dubai. During this time, he has led several transformation projects, including the IT service management automation project, IT service catalog for the shared services center and setting up the project management office in ENOC. His experience within ENOC also includes IT strategy and business alignment, budget and performance management, and audit/risk management.

companies which operate through four business segments:

- **Supply, trading and processing**—Condensate and gas processing and oil trading
- **Terminals**—Storage for various petroleum and chemical products
- **Marketing**—Marketing of aviation fuel, lubricants, chemicals and industrial products
- **Retail**—Retail fuel and nonfuel services at retail stations

## IT Department Profile

The IT department at the company head office manages the IT services of the entire group of companies using its own resources and outsourcing several IT services (**figure 1**). The IT department consists of 89 full-time equivalent (FTE) employees

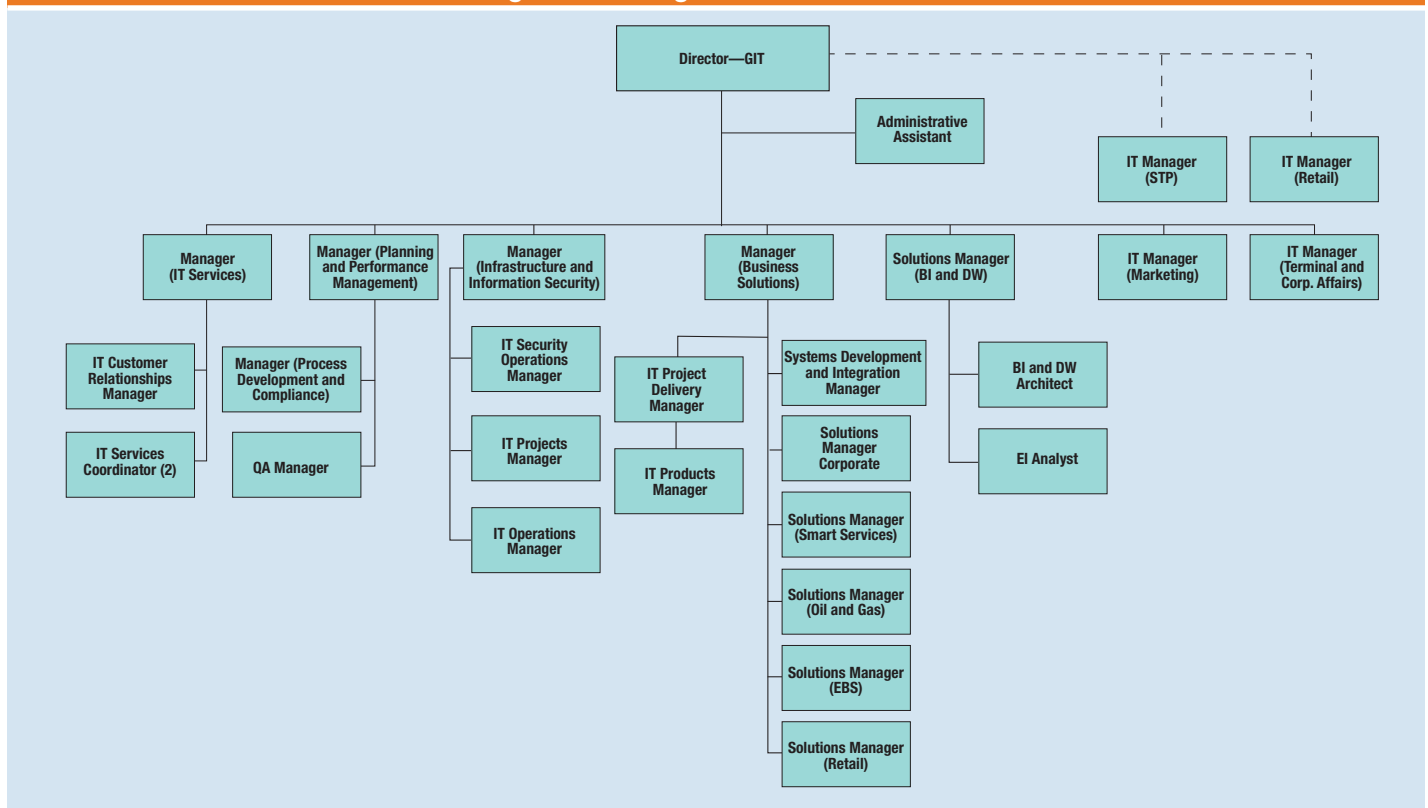
in four departments covering policy and planning, IT service, infrastructure, and business solutions.

As part of a continuous improvement program, the IT service department was restructured in May 2016 (**figure 2**).

The IT architecture, which consists of five mainframes, 165 physical servers, 200 virtual servers, 650 network devices and 2,200 desktops, presents a challenging environment for the company in its operations. Interviews were conducted with the following personnel:

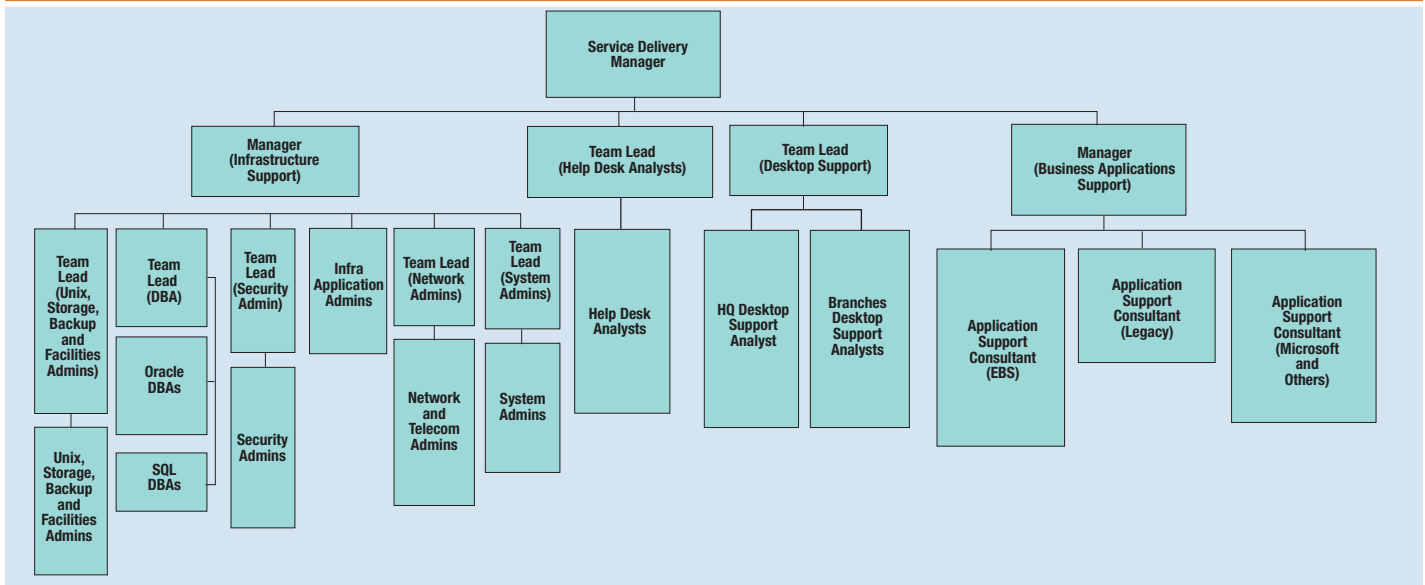
- **Director of IT services**—For overall strategy
- **IT service manager**—For customer satisfaction and service catalog
- **IT infrastructure manager**—For availability management, change management, release management

**Figure 1—IT Organizational Structure**



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Figure 2—IT Service Structure as of 2017 (Service Level Agreement Team)



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- **Service delivery manager**—For incident management over a period of 36 months

### IT Governance Process and Leadership

The company started to plan for ITSM implementation in September 2009. During that time, it underwent major restructuring and brought in a new CIO to lead the ITSM implementation. To restructure the IT service management function, the company appointed a new director of IT to oversee the IT functions of the entire group of companies. The newly appointed director of IT had a lot of vision and

experience in establishing processes and procedures in his previous organization. He was entrusted with the major responsibility of managing in-house IT with four clear priorities to realize value from IT:

1. Setting up a world-class shared services center
2. Implementing best practices in ITSM for high-quality service delivery
3. Developing an efficient cost-recovery model with a well-defined IT service catalog for recharge transparency
4. Bringing in process automation and innovation for faster time-to-market services and products

**“In its ITSM implementation journey, the company proved that IT/business strategic alignment can be facilitated through the organization’s appropriate management practices and strategic IT choices.”**

His first jobs were to invest judiciously in IT and evaluate the current application to add value. He decided to scrap the current help-desk application and invest in what was needed to achieve the organization’s vision of what an ideal IT service organization should be and how these challenges should be addressed.

Therefore, he continued augmenting the initial cost of operation with a long-term view. He gave the go-ahead to invest in IT in contrast to maintaining an attitude of containing cost and working with limited resources. His position was not to cut costs, but that the organization should benchmark itself with the

industry leader. Therefore, there were industry class systems that were needed and implemented.

## ITIL Phases

In its ITSM implementation journey (**figure 3**), the company proved that IT/business strategic alignment can be facilitated through the organization's appropriate management practices and strategic IT choices. In line with the principle of starting with relevant and simple processes, in phase 1 the organization implemented a 24/7 call center with an interactive voice response (IVR) integrated to the help desk, incident management, problem management, change management, and the creation of foundation data for service management and service level management.

Based on the lessons learned from this phase, the second phase saw the introduction of outage management, setting up of the customer care systems with a toll-free number and establishment of incident handling in another division. These accumulated experiences enabled the organization to move to phase 3, which consisted of release management (initial phase: user acceptance test only), upgrade of outage management, creation of IT work order billing information, the automation of service operating procedure (SOP) and creation of a configuration management database (CMDB).

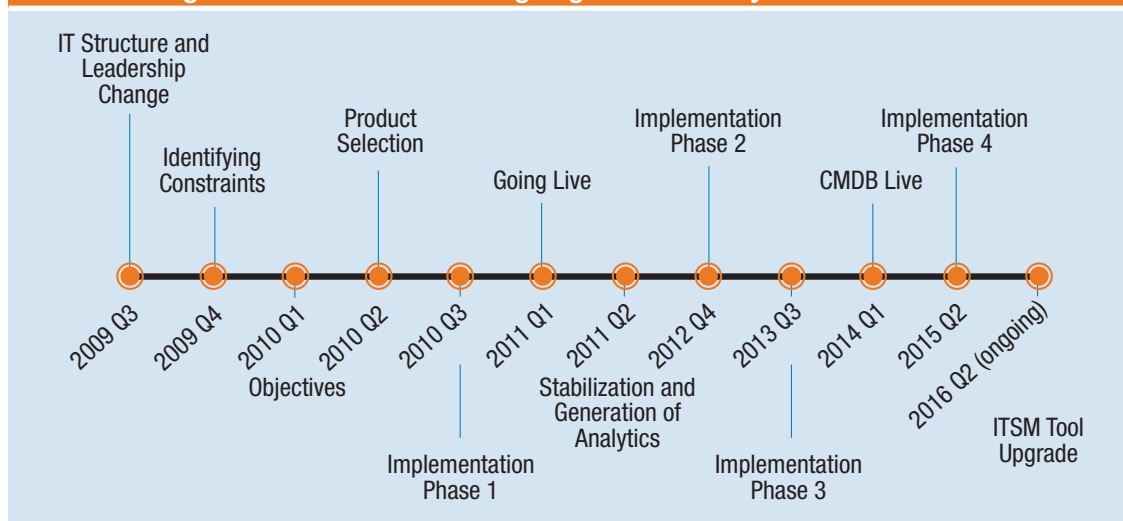
Phase 4 started with the implementation of release and quality management, which involved a full-fledged quality management system incorporating the entire software development life cycle (SDLC) as part of release management. The automated ITSL tool (product) upgrade that started in quarter 2 of 2016 was still ongoing as of March 2017. This task entails upgradation of the automated ITSM tool to enable IT service mobility for support personnel and end users.

## Alignment of Business and IT Goals With IT Service Processes

Midway through the ITSM journey, one of the exercises was to align 17 business goals (based on the four quadrants of the balanced scorecard [BSC]) to 28 IT goals. This was aligned subsequently to key ITIL and governance processes, and then further mapped to ISO 20000 and COBIT® controls (**figure 4**) using a proprietary IT governance tool (based on COBIT® 4.1) developed by an external consultant.

Within the tool, an analysis of the business and IT goals and an overview of the impact of certain IT risk factors on the organization were used to assess and select the COBIT processes relevant to the organization. Once this was completed, the tool allowed for a maturity assessment to be performed on these processes. In 2013, the organization created

**Figure 3—Timeline of the Ongoing ITSM Journey as of March 2017**



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a strategy map with value drivers (**figure 5**) for guidance in measuring the four quadrants of the BSC.

For each of the 14 value drivers (F1 to LG4), the organization drafted value driver statements for the four quadrants.

#### Financial

IT will:

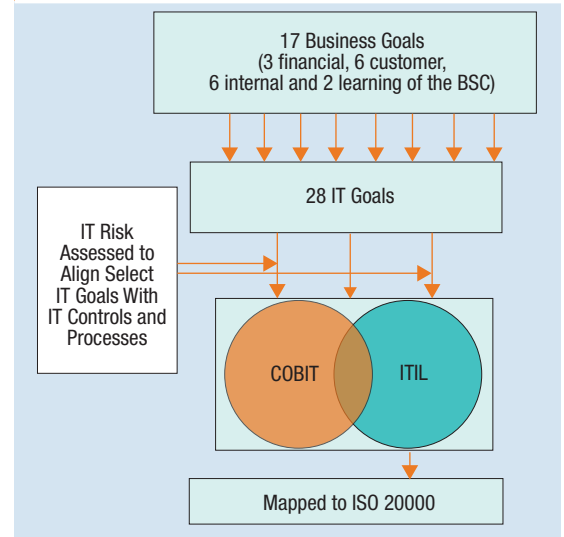
- Maintain the ratio of IT operational expenditure (OPEX) to the company's OPEX. (F1)
- Adhere to the approved budget. (F1)
- Ensure IT cost recovery based on the approved budget. (F2)
- Achieve benefits on identified projects and initiatives by effective resource utilization. (F2)

#### Customers

IT will:

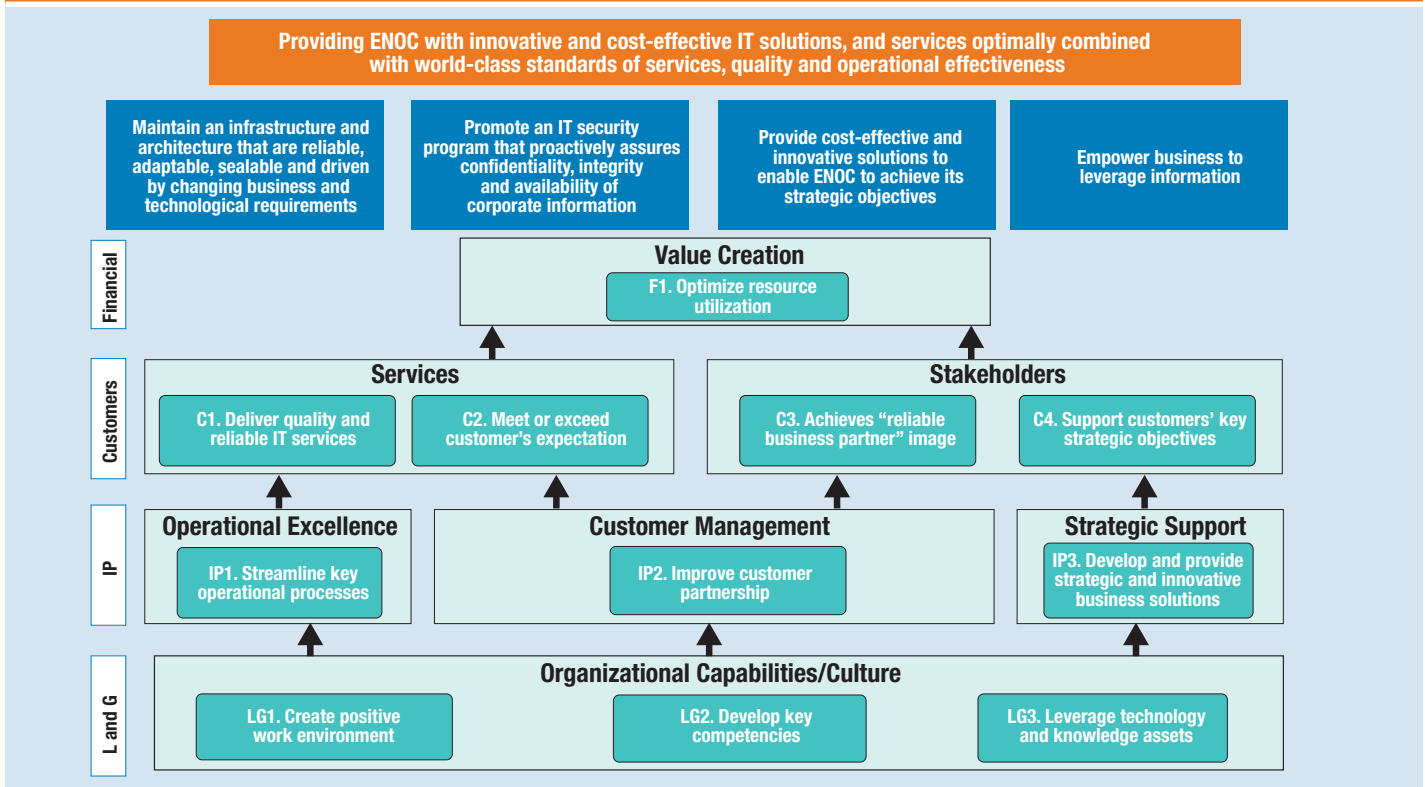
- Deliver quality and reliable services that meet or exceed agreed service-level targets. (C1)

**Figure 4—Alignment of Business and IT Goals to IT Service Processes**



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**Figure 5—Alignment of Business and IT Goals to IT Service Processes**



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- Strive to meet customer demands and improve the standard of its services through regular customer feedback. (C2)
- Enhance its partnership with business units through continued engagement and business alignment. (C3)
- Actively engage with its customers to understand their business strategies and growth aspirations, then use its functional expertise to develop and deliver solutions that contribute to its customers' success. (C4)

### Internal Processes

IT will:

- Streamline and automate key operational processes to enable efficient service delivery. (IP1)
- Execute the customer relationship strategy plan to ensure ongoing customer and business alignment. The strategy will focus on effective customer engagements, value proposition promotions and customer feedback. (IP2)
- Develop a plan to identify prospective customers for rolling out various services and solutions. (IP3)
- Provide project support services that are driven by the customers' dynamic business requirements and aligned with their strategic goals. (IP4)

### Learning and Growth

IT will:

- Focus on selecting the competent; developing and rewarding top talent; encouraging open communication, teamwork and collaboration; and maintaining a supportive work environment that empowers employees, encourages innovation and rewards service excellence. These activities recognize the importance of the human capital resource. (LG1)
- Develop key competencies in areas of IT functions, customer management and business alignment. (LG2)
- Leverage and utilize technology with knowledge assets to improve shared services center (SSC) business process efficiencies. (LG3)
- Foster a customer-centric culture to bring greater focus on customer requirements in order to meet/exceed their service expectations and continuously improve processes. (LG4)



### Conclusion

Transitioning from a cost-centered IT service approach to creating value out of IT investments requires strong leadership, restructuring of IT and organizational hierarchy, alignment of IT goals with business goals, and deploying the balanced scorecard to assess their maturity level. These three activities enable the enterprise to clearly envision the IT service-specific challenges that are ahead and learn from the incremental implementation of ITIL processes for continuous improvement of IT services.

### Endnotes

- 1 Kappelman, L.; E. McLean; V. Johnson; R. Torres; "The 2015 SIM IT Issues and Trends Study," *MIS Quarterly Executive*, vol. 15, 2016
- 2 Henderson, J. C.; N. Venkatraman; "Strategic Alignment: Leveraging Information Technology for Transforming Organizations," *IBM Systems Journal*, vol. 32, 1993, p. 4-16
- 3 ISACA® and the IT Governance Institute, *Global Status Report on the Governance of Enterprise IT (GEIT)*, USA, 2011
- 4 Weill, P.; S. L. Woerner; "The Future of the CIO in a Digital Economy," *MIS Quarterly Executive*, vol. 12, 2013