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# How to Organize IT for Efficiency

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By Analysts [Monika Sinha](#)

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Initiatives: [CIO Leadership of Strategy, Governance and Operating Models](#)

To help the enterprise increase operational efficiency and maximize profits, CIOs must establish a process-optimized IT organization that reduces information and technology (I&T) costs, improves IT performance and begins to lay the foundation for digital business.

## Overview

### Key Challenges

- Traditional technology tower silos are unable to scale as enterprises become more global.
- Reactive IT departments are stuck in a constant state of firefighting, managing problems moment to moment rather than proactively planning for IT issues.
- Relationship with business functions is compromised because of disconnected priorities, lack of financial transparency and inconsistent delivery.
- Isolated design decisions have significant impact on the integrated cost of the technology architecture and its performance across technology domains.

### Recommendations

CIOs seeking excellence in IT operating model design and strategy execution by delivering on an efficiency-focused value proposition should:

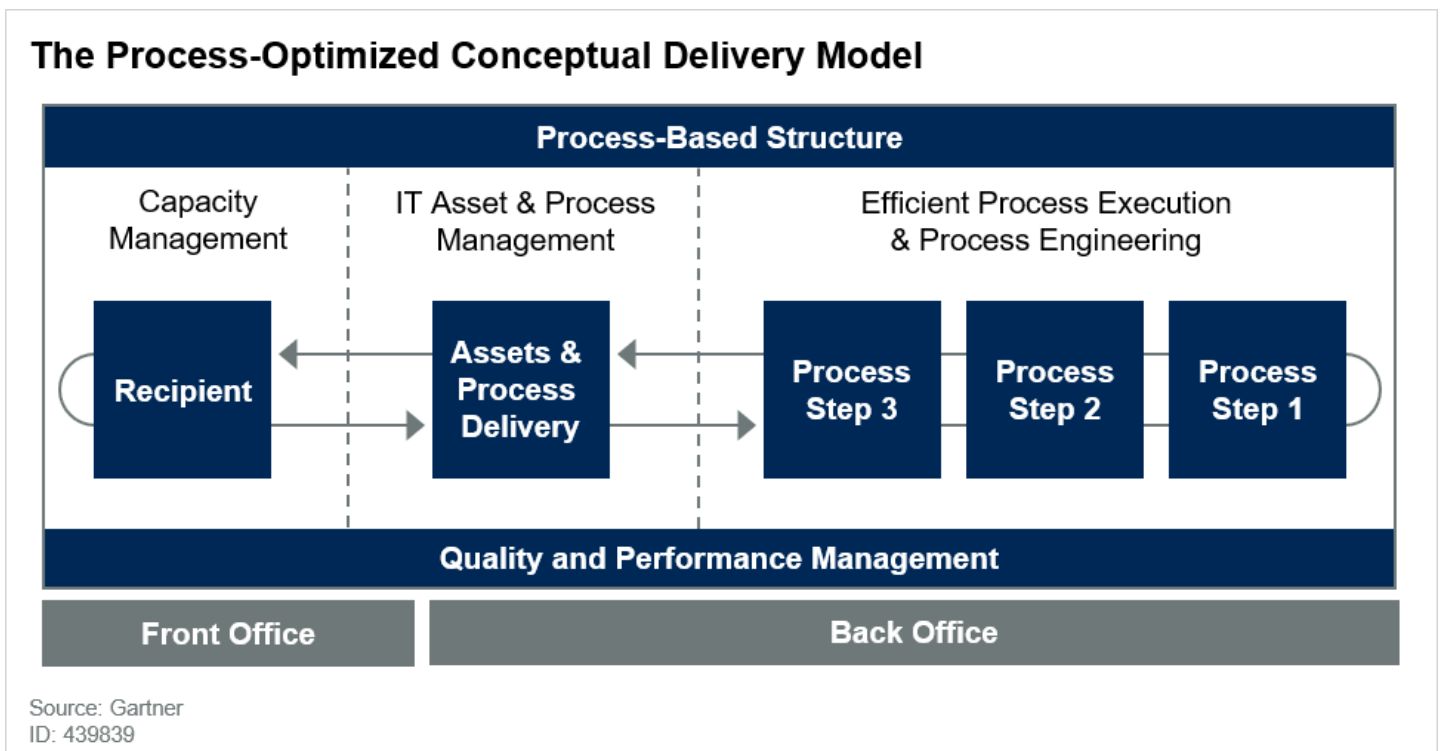
- Implement a process-optimized organization.
- Build an IT business office (ITBO) capability for sensing and managing demand, aligning priorities to capacity and governing standards.
- Establish technically proficient and process-disciplined functions aligned to plan-build-run.
- Establish distinct roles and responsibilities around end-to-end workflow processes that deliver predictable and measured results.

## Introduction

Many business leaders are aggressively pursuing operational effectiveness and productivity goals to improve profits. These enterprises are pursuing application and asset enhancements that will digitize and automate existing business processes to drive operational efficiency, scalability and cost reduction. To meet these expectations, CIOs must build trust through transparent, reliable and responsive technology delivery.

The design principles for an efficiency-focused organizational structure are captured in the conceptual delivery model shown in Figure 1, which is clearly focused on back-office process effectiveness.

**Figure 1. The Process-Optimized Conceptual Delivery Model**



Functioning as a cost center, this IT organization concentrates on optimizing core IT processes to deliver its efficiency-based value proposition. CIOs do not pursue unilateral self-improvement for the sake of having “the best” IT department; rather, they target specific processes that are essential to meaningful goals in cost-effectiveness, reliability and responsiveness.

A critical first step in meeting internal business expectations involves clearly constructing and optimizing these core processes. To ensure proper configuration of the core IT process, explicit principles are codified into a set of fundamental rules defining how the process-optimized organization should operate. In the process-optimized organization, the following design principles apply:

- Scale and pool critical IT resources to optimize efficiency.
- Improve system knowledge and standardize core IT processes (such as demand management, project management, software delivery, help desk, change management, incident management and no-

objection certificate services), leveraging process best-practice frameworks (such as information technology infrastructure library [ITIL], project management body of knowledge and DevOps practices) as they emerge.

- Localize only to improve speed or responsiveness without compromising process, discipline or efficiency
- Eliminate duplication of core IT services, technologies and assets.
- Improve technical security and reliability of systems.

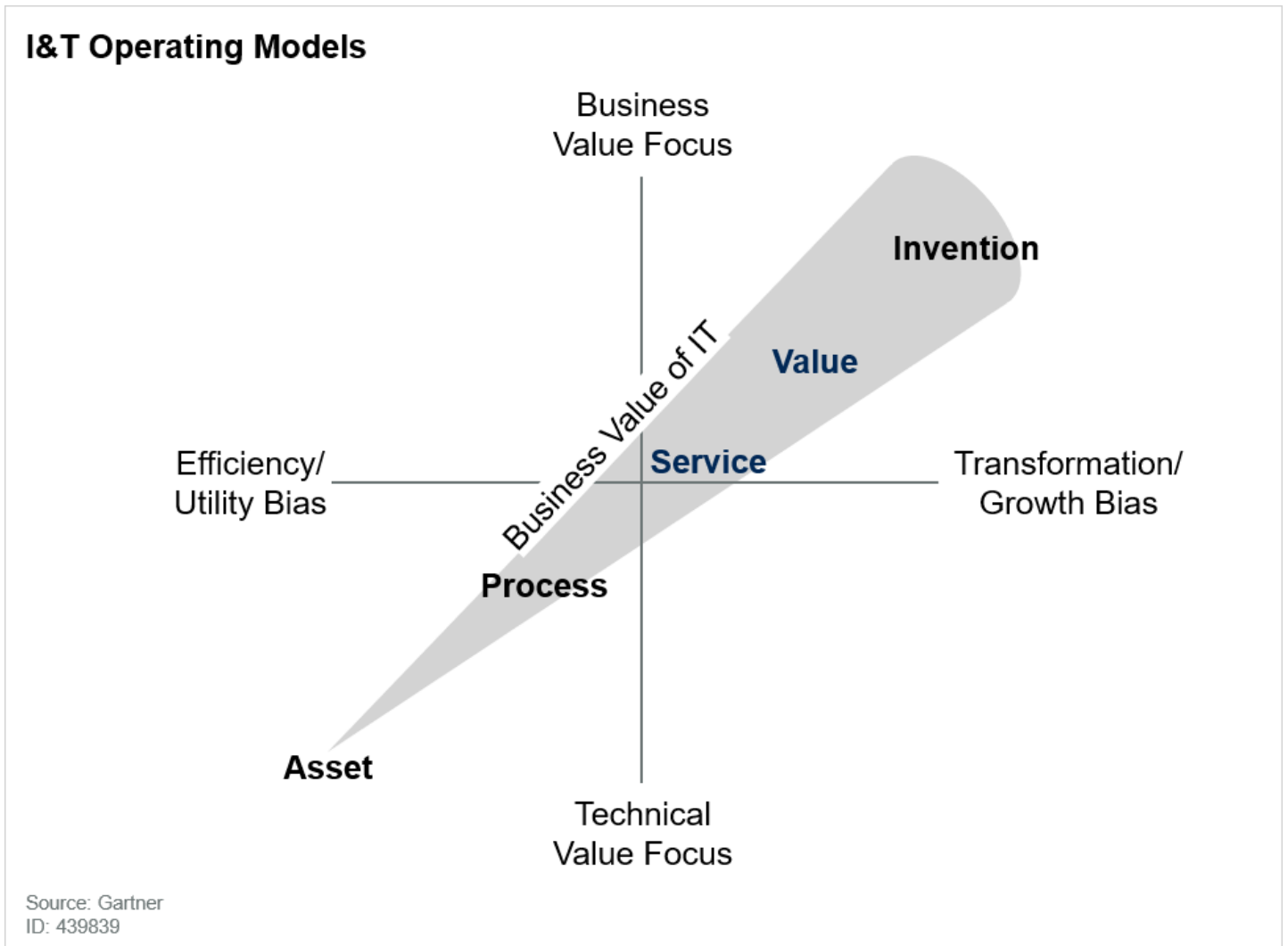
These principles provide the high-level context and framework that guide subsequent organizational design activities. They can also be especially helpful in identifying whether to locate functions globally or locally and in determining centralization, decentralization or matrix reporting needs. (see [“Design Principles to Drive the Design of Your New I&T Operating Model Published”](#)).

## Analysis

### The Process-Optimized Operating Model

These design principles and their associated conceptual delivery model are put into practice via the “Process-Optimized Operating Model,” which dictates the explicit manner in which the enterprise’s I&T capabilities and resources are orchestrated to deliver against an efficiency-focused business value proposition. This operating model is one of several available options that collectively represent a maturity progression of tighter IT-business integration and increased enterprise value from IT investments and capabilities (see Figure 2).

Figure 2. I&amp;T Operating Models



Each operating model is defined by interrelated components that work together to deliver expected business outcomes and value. Organizational design is just one of those components.

Representing over 60% of I&T operating models today, the process-driven IT organization is a highly responsive and effective order taker (reacting to business in a traditional supply and demand relationship) and end-to-end IT workflow orchestrator. This organization focuses on delivering business demand for IT systems efficiently by managing the life cycle of technology in addition to implementing best practice workflows with clearly defined roles and responsibilities for all participants. As a result, there are:

- Fewer dropped handoffs between core processes
- A coherent, scalable workflow among IT and business teams
- Improved service quality
- Lower operational costs — in most cases — through improved use of resources

CIOs are in a position to better manage business risk and service disruption so they can provide a more stable service environment to support constant business change.

The fundamental premise of this model is that the IT organization operates like an efficient factory, optimizing its processes to increase the speed and reliability of execution and to decrease costs, error rates and failures.

While Level 2 maturity may seem modest, it is the level at which IT demonstrates its functional excellence and its ability to deliver against its fundamentals. No other opportunities or value-generating roles will be made available to IT unless this state is achieved. Highly mature Level 2 enterprises are starting to run IT like a business. A successful business must be reliable, efficient and responsive to its customers' needs.

### **Designing the Process-Optimized Organization**

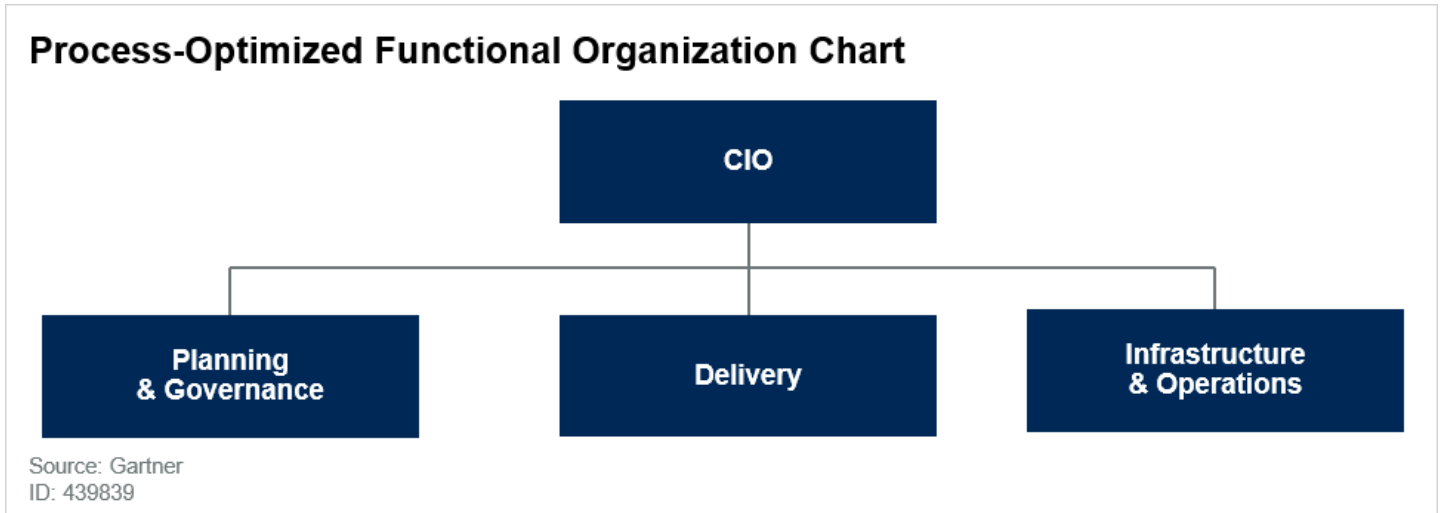
Collectively, operating model components determine the characteristics necessary to deliver the capabilities and financial outcomes required by the business. The process-optimized organization is designed for efficiency, which means it is able to implement its plans using the smallest possible expenditure of resources while delivering business solutions in a cost-effective manner. This plan-build-run model prides itself on management of core IT processes in a continuous workflow to deliver applications and technology services. IT organizations that shift from a technology tower asset model to a process-optimized model can take anywhere from 12 to 36 months to reap the full benefits. Below is an example of core capabilities and organizational structures for this model.

### **Core Components of the Process-Optimized Organization**

The process-optimized organization is designed to scale technology assets and practices to satisfy the internal customer. Typically reporting to the CFO and seen as a cost center with an overall mandate of cost containment, this effective IT order taker focuses on executing a life cycle approach to establishing, delivering and monitoring the performance of IT systems.

As shown in Figure 3, in a mature process-optimized organization, each interconnected function has clear accountability and measurable, specific responsibilities aligned to the management of the IT life cycle processes.

Figure 3. Process Optimized Functional Organization Chart



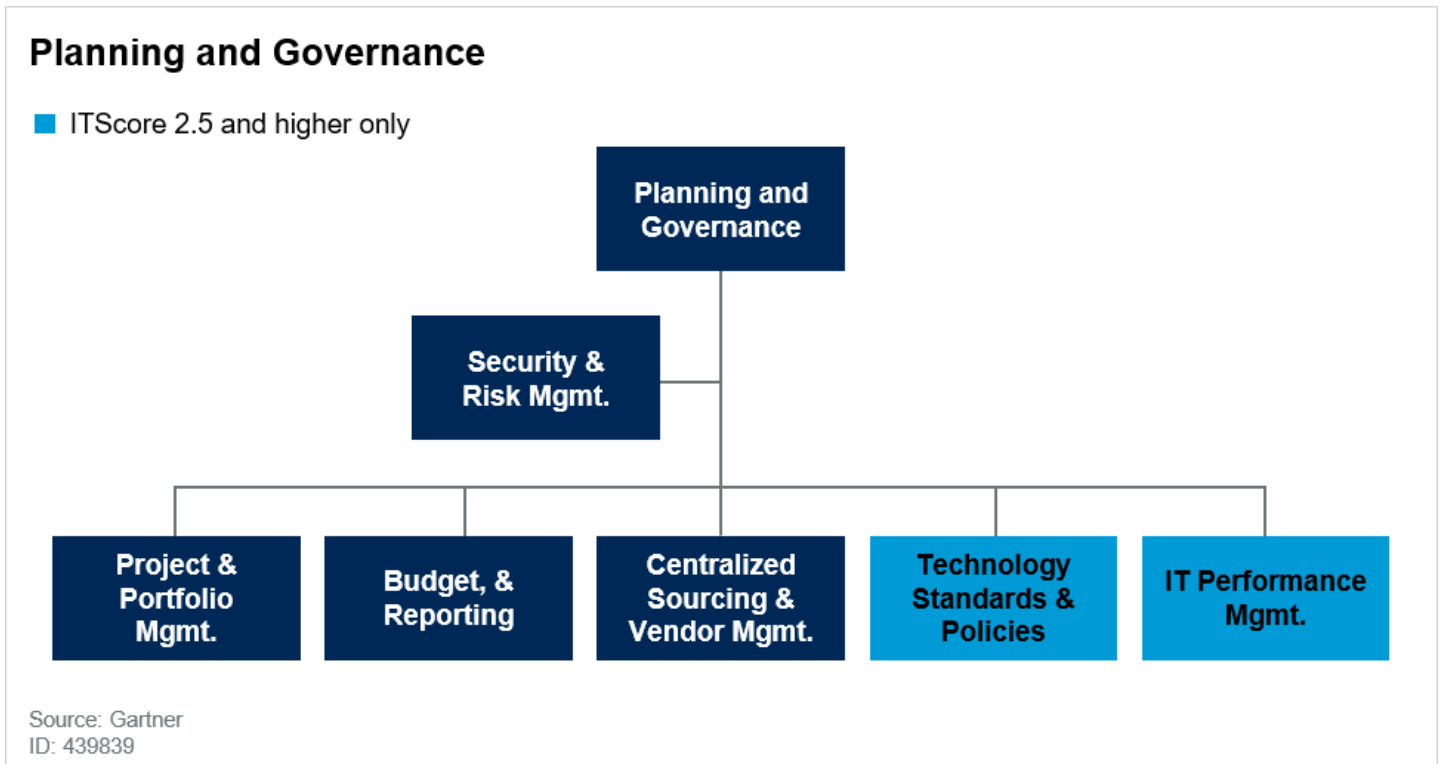
Like a well-run factory, a mature IT Score Level 2 IT organization prides itself on centralized planning and governance. This organization will demonstrate repeatable and scalable core processes as well as a technically competent pool of resources that systematically deliver measurable efficiency. This efficiency drives down total cost of ownership (TCO) through qualitative and efficient delivery of IT projects and support. The process-optimized organizational structure can be broken down into three key functions.

### Planning and Governance

Serving as the ITBO, this planning and governance function, also known as the office of the CIO (OCIO), has a mandate to establish repeatable IT operational planning, demand planning and governance processes. It is a centralized and hierarchical governing body that does not exist in lower-maturity organizations (see Figure 4). It is responsible for strategic and tactical management of IT investments and initiatives through the coordination and facilitation of:

- Demand and portfolio management
- Budget and performance management
- Technology standards and policies
- Disaster recovery and business continuity risk management
- Centralized sourcing and vendor management

Figure 4. Planning and Governance



**Security and risk management** is fundamentally an IT-centric concern and quite rudimentary but begins to evolve into an enterprise function as IT organizations move beyond Level 2 to Level 3. These organizations begin to work on understanding relevant information security programs and the resources needed. Though no formal information security governance or steering committee may exist, stakeholders begin to communicate and collaborate on an ad hoc basis to address identified information security issues.

**Project and portfolio management** initially focuses on outlining project management methodology and standards across the enterprise. As it matures, it begins to expand its focus to establishing fundamental and basic decision-making practices for prioritizing demand, allocating staffing and assessing capacity to reduce delivery issues and increase resource utilization. Aggregated dashboards defined by this group provide the ability to oversee progress, track costs and manage program or project risks.

**Budget and reporting** understands that IT is a cost center and focuses initially on controlling costs by tracking its budgets and activities to mitigate cost variances. As it matures, this function begins to establish policies and governance practices for capital and operational expenditure approvals. Reporting begins to communicate IT spending and cost-containment efforts to all stakeholders, not just internally to IT. Operational planning and budget forecasting become standard practices for mature IT process-optimized organizations.

**Centralized sourcing and vendor management** serves, at first, as a forum for contract review and negotiation. Because this function must consolidate procurement activities to improve vendor performance and cost, it matures quickly beyond its initial efforts to centralize deals and contracts and also begins to standardize performance criteria and to amalgamate relationship management functions.



The highly mature function begins to formalize and move from selective outsourcing to more strategic multisourcing.

**Technology standards and policies** are often focused on ad hoc technical issues within initiatives and projects. This governance work is predominantly reactive to address pain points in the organization and react to the needs of in-flight projects. In highly mature organizations, ad hoc governance practices become institutionalized as the focus shifts to creating deliverables and training teams in an effort to publish crucial technology standards and policies.

**IT performance management** tracks and monitors the health of an IT department by reporting on key performance indicators, departmental operational metrics and audit findings. The focus shifts from an ad hoc, informal and problem-oriented focus in lower-maturity organizations to a formalized IT operational dashboard in higher-maturity process-optimized organizations, driving targeted improvements in core processes.

In addition to these functions, this office is often seen as the incubator for the business relationship management function and for prototyping efforts. These nascent capabilities generally only reside in the office of the CIO until their responsibilities and impact are clear, at which time they find more permanent homes in the organization.

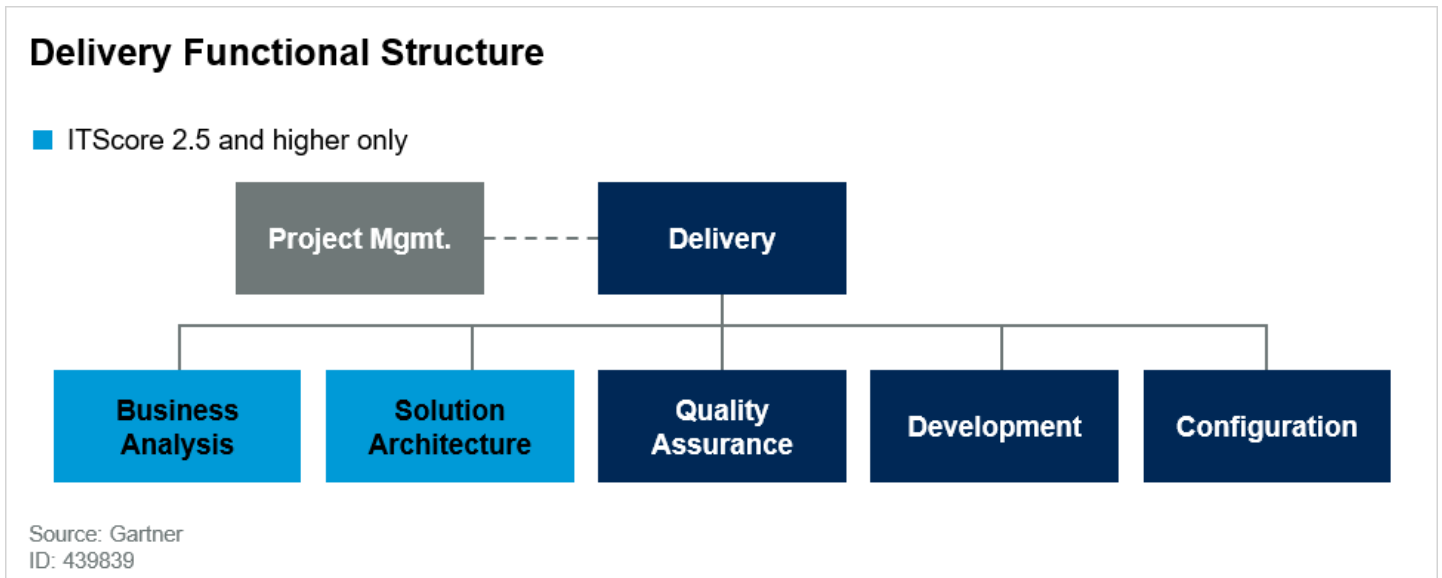
## **Delivery**

This function establishes its priorities from the management office, focusing on designing solutions and systems that are pragmatic and align with business need. Whether centralized or localized, this function is technically proficient at designing and delivering technology solutions through standardized project delivery practices, supplementing skills with external providers when approved.

Proficient and responsive to the needs of the business, this component analyzes, designs, develops and deploys solutions and systems in a timely and efficient manner. Acting like an engineer, the IT organization constructs to specifications to ensure solutions or systems can meet business expectations of function and feature. Design and delivery governance practices as well as process metrics minimize cost wastage and business disruption.

Delivery responsibilities include quality assurance to ensure that the proposed service meets specified requirements. Delivery is typically waterfall. System and application integration is often a major component of delivery, given that enterprise architecture (EA) does not yet exist in the Level 2 organization (see Figure 5).

Figure 5. Delivery Functional Structure



**Project management** can take a hybrid approach in the process-optimized model. Organizations that implement large strategic initiatives or programs may use a hybrid model where a centralized program office resides in the planning function. There it promotes consistency of practices, standardized reporting and transparent communications while leveraging distributed project management to oversee and coordinate efforts that require a specific level of technical or functional expertise.

**Business analysis** serves as an IT liaison to the business to initially gather detailed requirements, document business processes, support user acceptance testing and perform some user system training. In more mature process-optimized organizations it is a separate and distinct function that serves to reduce project rework caused by errors in capturing business requirements.

**Solution architecture** is responsible for the design of one or more applications or systems within an enterprise. Acting as technical advisor on projects, the architect mainly focuses on making technical decisions on a solution and how they impact desired business outcomes. Working closely with business analysts and development and configuration staff on the project team, the architect supports not only the design and integration of a solution but also compliance to technical standards in mature process-optimized organizations.

**Quality assurance (QA)** aims to prevent defects and missed business requirements in the solution that the project team delivers as well as issues with deploying these solutions to internal customers within the business. Serving as an important feedback loop at various gates of the project delivery cycle, this team works closely with technical and business teams to ensure proper business steps are identified and executed to test various solution capabilities. In mature organizations, automation of testing procedures and reporting is used to scale QA efforts.

**Configuration and development** functions work collectively to construct solutions that are fit for purpose and adhere to outlined requirements and standards. This team is responsible for executing efficient and

repeatable delivery practices, developing and deploying assets, providing technical expertise and troubleshooting system issues (with infrastructure and operations).

In the Delivery function, there is a range of opportunities to enhance efficiency:

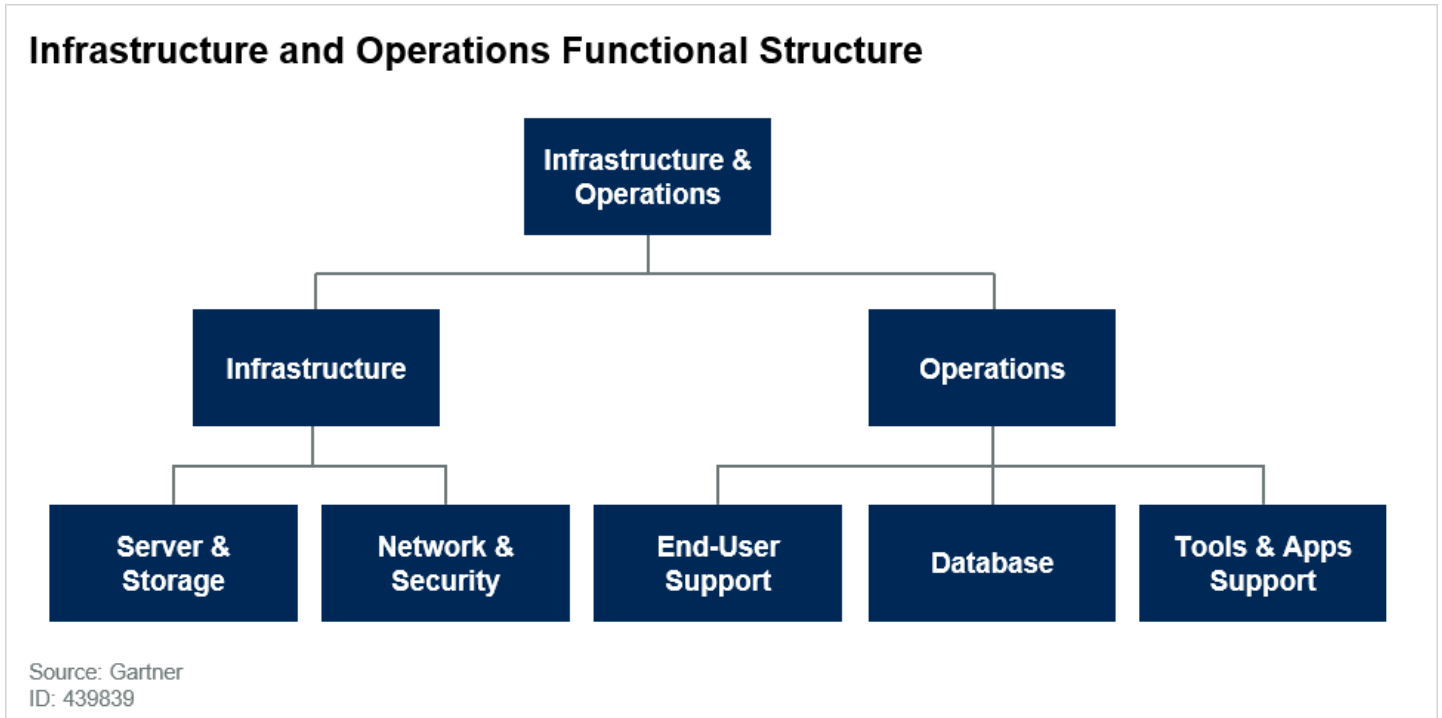
- Establish strong regional functions with a global group driving consistency, if the localization will enhance business outcomes and expedite delivery.
- Eliminate duplication of activities by forming shared systems for common activities (such as global development factories).
- Set up a center of excellence (also known as a capability or competency center) for key technology areas to establish specialized expertise and best practices to provide leadership and purposefully disseminate knowledge (for example, a reporting and analytics COE or an ERP COE).

### **Infrastructure and Operations**

Infrastructure and operations (I&O) is responsible for managing the infrastructure supporting business operations and the operational processes necessary to keep applications and infrastructure reliable and available. This includes network infrastructure, server and device management, end-user productivity tools, application hosting and the support or service desk.

The efficient I&O organization implements standardized processes influenced by ITIL to achieve its key objectives to maximize application uptime and minimize the firefighting that occurs in Level 1 maturity organizations. To do so requires appointing the new roles of process managers (such as change managers and incident managers) that work in a matrixed way across organizational boundaries (see Figure 6).

Figure 6. Infrastructure and Operations Functional Structure



- **Infrastructure** plans, directs and coordinates the design, installation and connectivity of computer systems and network infrastructure to ensure the stable operation of the enterprise's IT assets. This includes developing, configuring, maintaining, supporting and optimizing all new and existing network hardware, software and communication links.
- **Server and storage** is responsible for the day-to-day management of data centers and ensures that all data center equipment is fully functional and responds to users' needs. Staff monitors power, space and environmental conditions around the clock.
- **Network and security** is responsible for setting up, developing and maintaining computer networks within or between enterprises. This function must ensure the integrity of high-availability network infrastructure to provide maximum performance. In addition, this function defines and controls the access to information and resources within a computer network, based on their roles and circumstances. Controls are set through authentication, authorization, provisioning and directory services.
- **Operations** provides centralized support operations that deliver capabilities to ensure continuity of operations and includes help desk, provisioning of users and their devices and office productivity aides, disaster recovery and maintaining high-availability systems. In addition, a Level 2 organization implements key ITIL processes to achieve consistency, quality and scalability (change and incident management, for example). Later stages of Level 2 maturity include release and availability management.
- **End User or tools and application support** are functions intended to provide the end users with information and support related to enterprise technologies and tools by troubleshooting problems and

providing guidance about technology assets (such as computers, mobile devices, electronic equipment and applications). It also provides productivity software and tools for end users.

- **Database management** is responsible for the installation, configuration, upgrade, migration, backup, recovery and security of database software. Working closely with the infrastructure team, new releases and patches are managed to continue to optimize how databases are used.

In I&O, there is a range of opportunities to enhance efficiency:

- Push down IT support to reduce costs by driving those support calls down to the lowest tier that can satisfactorily resolve users' issues
- Consolidate IT personnel and support services to major locations to drive efficiency
- Standardize on operational processes and tools

## Limitations of the Process-Optimized Organization

Process optimization offers significant opportunities for simplification and standardization across the technology landscape, driven by efficient IT workflow and cost containment efforts. However, these competencies can cause significant challenges as enterprises pursue innovation and digital business.

The process-optimized model overinvests in IT operational controls that are intended for reliable delivery services and aggressively managed costs. Pursued in a vacuum, or without an understanding of what processes drive actual service or business outcomes, these controls can create stagnation and rigidity that create a suboptimal environment to pursue digital transformation.

Process-optimized organizations that regard ITIL as an opportunity to improve their performance should pay attention to the limitations of these frameworks, which can erode the value of this model. ITIL concepts, when implemented by the book, are very rigid and comprehensive. Their comprehensive implementation and extensive use may lead to complexity and a one-size-fits-all inefficiency. This causes the business to complain that IT is too slow and unresponsive.

Where many organizations go wrong with ITIL alignment to this organizational design is trying to implement a full set of mature ITIL processes without understanding effectiveness or value to the operating model. Rather, IT leaders should target ITIL in core practices but enable flexibility to meet the increasingly diverse needs driven by digital business. ITIL's factory-style segmentation leads to poor cross-functional and cross-discipline communication and lengthy handoffs between plan, build and run. These independent functions, measured on operational metrics, are so focused on driving proficiency of their narrow areas that they are consumed by self-referencing and self-reinforcing practices.

Failure to involve more multidisciplinary collaborators leads to a limited pool of ideas, agility and innovation. To be fair, part of the issue with ITIL at a Level 2 organization is lack of EA function, resulting in disparate application architectures with monolithic applications that are difficult to change. A Level 3

organization begins to invest in EA and bimodal, thus enabling I&O to begin to instill flexibility into its processes as well.

In addition, process-optimized organizations are conservative investors. For these organizations, capital growth is not a priority. These cautious investors seek stable investments that will gradually grow in value and are not prone to high volatility. With rigid performance requirements on technology investments driven by aggressive cost-management approaches, the conservative technology portfolio is intended to deliver steady income and moderate growth. This model of low risk appetite and unwillingness to be opportunistic is counterproductive to digital business disruptive efforts. Operating models are fit for purpose. When the purpose (business model) changes, then change the operating model. Understanding the role that technology capabilities play in the business strategy can shift IT from being an enabler of business (IT Score Level 2 – Process-Optimized Model) to an enhancer of business (IT Score Level 3 – Service-Optimized Model). Different operating model designs should be considered to meet specific strategic ambitions. Serving as a reliable first step to building a foundation ready for digital business, this organizational model should be seen as the steppingstone to more aggressive digital pursuits.

## Recommended by the Author

[Adopt a New I&O Operating Model and Organization Design for Digital Business](#)

[Take These Five Steps to Prepare I&O for Digital Business Platforms](#)

[Designing the Application Organization: An Overview](#)

[Successful ITIL and Service Management Projects Avoid These 10 Common Failings](#)

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