

# IT Key Metrics Data 2023: Industry Measures — Framework Definitions

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Initiatives: [IT Cost Optimization](#), [Finance](#), [Risk and Value](#)

This research outlines Gartner Benchmark Analytics total IT spending consensus model and framework definitions for cost management and benchmarking activities.

## Overview

### Key Findings

- This document provides an outline of data required to benchmark against the IT Key Metrics Data Industry Measures using the IT Budget tool.

### Recommendations

- Leverage the [Gartner IT Budget tool](#) as a starting point to establish a top-down baseline benchmark, as well as to communicate annual updates.
- Use this document to support data collection and alignment activities in preparation for total IT spending benchmark exercises vs. the industry.
- Create an audit trail, use the best available data and document opportunities to improve data quality for future revisions and repeatability.
- Refer to the [Practitioners Guide](#) for additional guidance.

### Country Representing the Largest Amount of Enterprise's Operations:

- Indicate the accepted national affiliation for your enterprise. For example, if your enterprise is headquartered in country A for tax purposes, but is really considered an enterprise based in country B, indicate country B.

### Organizational Scope Represented by This Assessment:

- Indicate whether the data provided will represent the enterprise (all business units), a particular division (some defined set of business units) or a particular business unit (including country). (Note this is for validation purposes only. No classification or calculations are performed based on this).

#### **Revenue is defined as:**

- “The enterprise revenue associated with the business units supported by the IT organization (banks should use total interest income plus noninterest income minus provision for loan losses, while insurance companies should use gross written premiums and other income).”

#### **Business Operational Expense is defined as:**

- “The total expense associated with the business units supported by the IT organization. This includes items such as selling, general and administrative expenses, cost of goods sold (or cost of revenue), research and development, depreciation, and depletion and amortization expenses. For insurance, this includes underwriting expenses, loss and loss-adjustment expenses; for banking organizations, it includes interest expenses and noninterest expenses; for government and nonprofit organizations, it is represented by the enterprise operating budget.”

#### **Employee count is defined as:**

- “The count of employees (i.e., headcount, excluding enterprise contractors and consultants) on a full-time equivalent basis, regardless of whether these employees are frequent users of the technology supported by the IT organization. This includes full-time and part-time employees, or as reported in the public record.”

### **Industry Cohorts**

#### **Primary Industry Comparison Group**

Users can compare your organization’s IT metrics to any one of 21 vertical industries or a cross-industry view as your primary industry comparison group.

Users can also “copy” your assessments and generate additional comparison reports against various vertical industries to offer more than 1 perspective. Industries available to compare against are as follows:

Figure 1: Industry Comparison Groups



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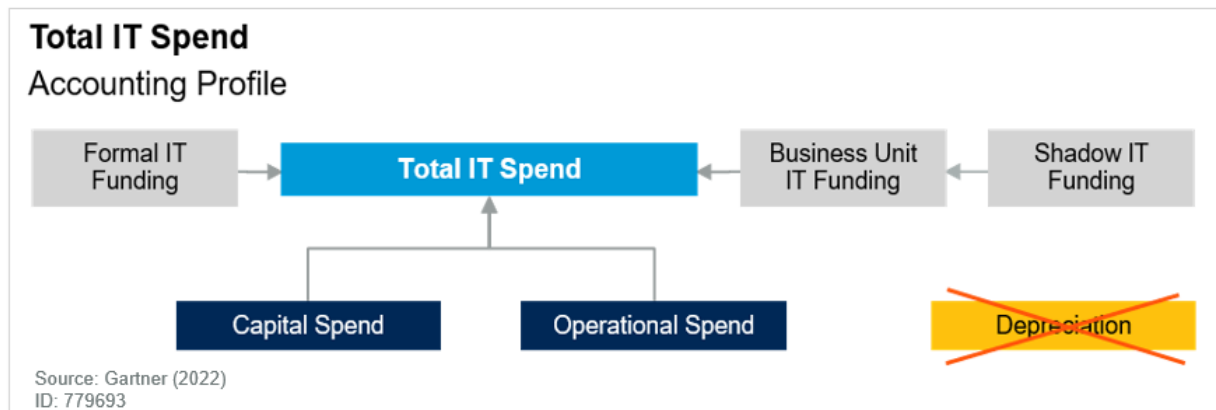
See, [IT Key Metrics Data 2023: Definition of Industries](#) for detailed definitions for each of the 21 industries available for comparisons.

## Total IT Spending/Budget Definition

Gartner has defined “total IT spending” as the following:

The best estimate of total spending at the end of the 12-month budget period for IT to support the enterprise. IT spending/budget can come from anywhere in the enterprise that incurs IT costs, and it is not limited to the IT organization. It includes estimates by enterprises on decentralized IT spending and or “shadow IT.” It is calculated on an annualized ‘cash flow view’ basis, and, therefore, contains capital spending and operational expenses, but not depreciation or amortization.

Figure 2: Total IT Spend



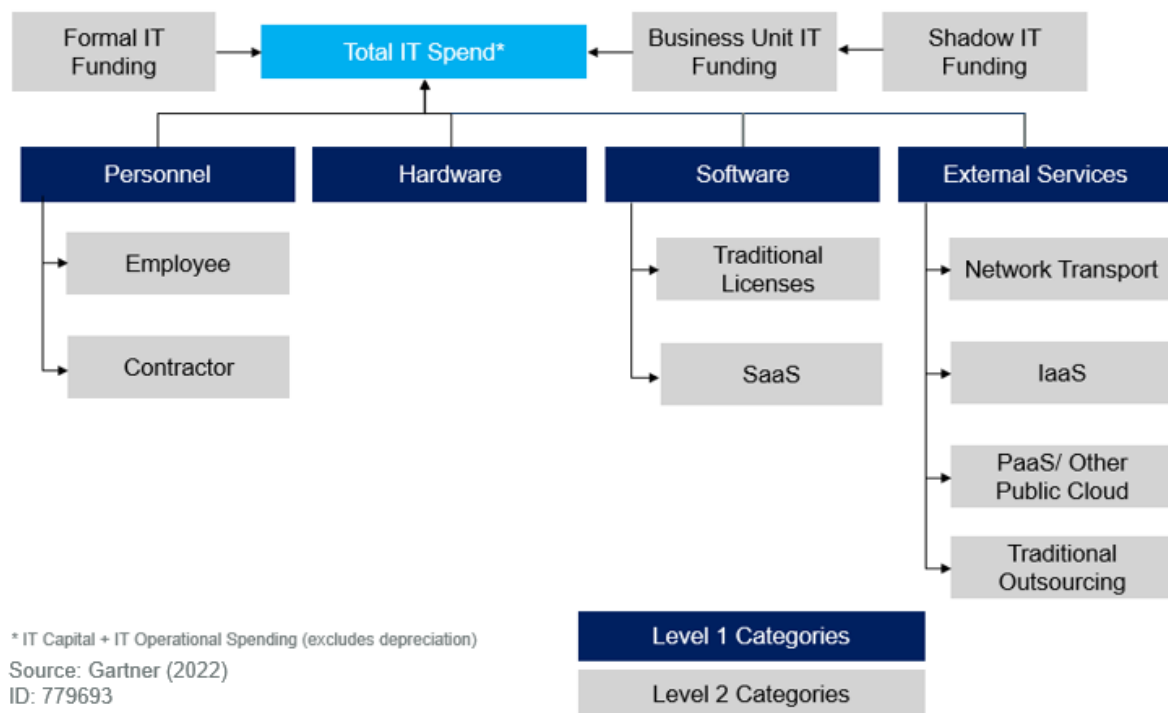
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### From a Resource (Asset) Perspective IT Spending/Budget Includes

- Hardware, software, personnel for IT FTEs including IT contractors, network transport, external IT services e.g., consulting, system integration, infrastructure etc.), public cloud services, occupancy and utilities spending associated with data centers, taxes other than value added taxes where it is recovered and refunded to the organization.

**Figure 3: Asset-based Cost Management View**

## Asset Spend

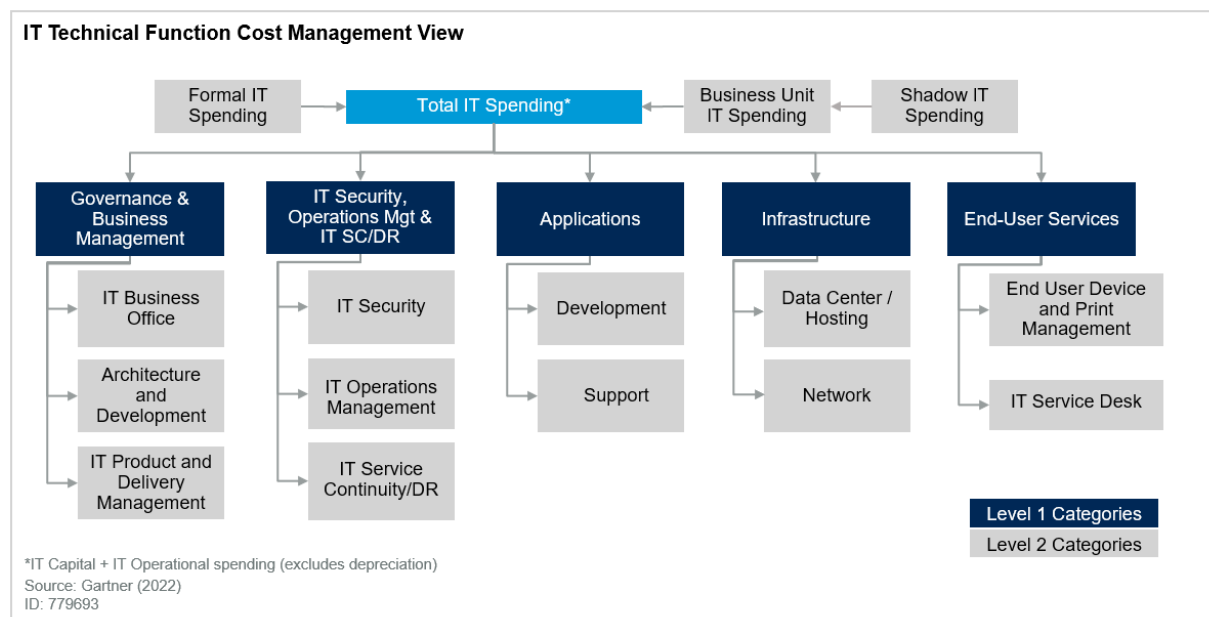


**Gartner**

## From an IT Technical Function Area or Activity Perspective IT Spending/Budget Includes

- Governance and Business Management which consists of IT Business Office, Architecture and Development, and IT Product and Delivery Management, IT Security, IT Operations Management, and IT Service Continuity/Disaster Recovery (DR) costs.
- Applications that consist of Application Development and Support of business functionality applications (including purchase, license and maintenance costs).
- Infrastructure which consists of Data Center (Compute, Storage, Database, Middleware, Facilities/Hosting) and Network costs.
- End-User Services which consists of Digital Workplace Services as well as IT Service Desk costs.

Figure 4: IT Technical Function Cost Management View



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### From a Business Perspective IT Spending/Budget Includes

- Business functionality software that runs on standard IT equipment e.g., SAP, insurance claims processing software.
- Dedicated general use data processing equipment used in operations, production and engineering environments. Examples are standard computing equipment used in computer-aided design/computer-aided manufacturing (CAD/CAM) or for factory automation, and tablets used by healthcare professionals or market researchers performing surveys.
- Spending on hardware, analytics software, development tools, and staff who create and maintain the business analytics applications.

### IT Spending/Budget Excludes

- Equipment that contains computerized components but was built or purchased for non-data-processing purposes. Examples include robotic manufacturing machines, automated teller machines, specialized point-of-sale devices, scanners, blood pressure monitors, and sensors used in internet of Things (IoT) applications.

- Appliance-like or proprietary data processing equipment that has a single (typically industry vertical) purpose and cannot be used for other general purposes. An example of an appliance like device is a programmable logic controller on a supervisory control and data acquisition (SCADA) system. This device can only control the flow of electricity through the power grid. Since it cannot be repurposed, it is not included.
- Business data subscriptions and services (such as Bloomberg, S&P CapitalIQ, Dun & Bradstreet), even if they are managed by the IT organization
- Business process outsourcing services (BPO) where organizations outsource entire business functions such as payroll or benefits management. This includes cases where the BPO vendor provides access to software, and also guarantees that the outcomes of their services will meet business requirements, such as tax and withholding regulations. Note: where a vendor provides Software as a Service (SaaS) and only guarantees that the software will perform as specified, then this is in scope of the IT spending/budget.
- Personnel performing business analytics functions e.g., data scientists and other users of business analytics capabilities.
- Content Functions — e.g., gathering, and development of information to be published on a corporate intranet.

## **Additional Points of Clarification**

### **For Providers of Information and Technology Services to External Customers**

For the purposes of this definition, “commercial software” includes applications:

- That is resold as packaged software or public cloud services.
- That delivers third party digital content and/or analytics e.g., market data feeds, internet search, music streaming etc., social media platforms.
- That is embedded in other products e.g., automobiles.

### **For Providers of Information and Technology Services to External Customers IT Spending/Budget Includes**

- IT assets used by commercial software developers, e.g., development and testing tools.

- The IT based delivery mechanisms for commercial software. This may include servers hosting software to be downloaded, or infrastructure that runs SaaS applications and websites.
- Applications developed for customer use (web/mobile/other), primarily to enhance the value of other products and services sold e.g., insurance mobile applications.
- Applications and technology developed to provide business process outsourcing capabilities for external clients. e.g., processing payroll.

## **For Providers of Information and Technology Services to External Customers IT Spending/Budget Excludes**

- IT-skilled employees who provide services for the organization's external clients.
- Spending for personnel responsible for developing commercial software (as these are considered users/employees not IT FTEs).
- Spending for technology that is used to provide infrastructure services that are sold e.g., carrier networks, hardware and software used in hosting or Infrastructure as a Service, or Platform as a Service.

## **Accounting-based Cost Management View**

### **IT Operational Expense**

- "The total day-to-day operations and maintenance expenses for this fiscal year have not been capitalized. These do not include any amortization and depreciation expenses."

### **IT Capital Spending**

- "The total capitalized IT spending for the fiscal year (i.e., the full value of capitalized assets acquired in the fiscal year). This includes investments in new application development and IT infrastructure."

## **IT Spending by Funding Source**

### **Formal IT Budget**

- IT spending that the IT department is accountable for. The IT department is answerable for the provision of these IT assets and services.

### **Business Unit IT**



- IT spending where profit centers or overhead departments are accountable. For this category the IT department is consulted as a subject matter expert, and there is two-way communication.

## Shadow IT

- IT spending anywhere in the enterprise for which the IT department is not accountable. For this category the IT department is aware of spending but may not have detailed information about it. Amounts here may need to be estimated.

## Asset-Based Cost Management View

### Personnel

- **Salary and Benefits Expenses:** Salary (including overtime pay), benefits and “other” employee costs, such as travel and training for all IT FTEs. The “benefit load” should include costs for bonuses, paid holidays, vacations, medical/dental coverage, life and accident insurance, retirement plans, stock plans, disability, Social Security, unemployment compensation, dependent care, tuition reimbursements and employee assistance programs (for example, physical exams, exercise programs and similar costs).
- **For contractors and consultants,** include all compensation that was paid directly to the individual or agency.
- Do not include the spending related to human resource department staff allocations, early retirement incentive bonuses and internal “cross-charges” for corporate overhead such as for the chairperson’s salary.

### Hardware

This includes the capital and operational IT spending for the hardware assets associated with the IT functional areas.

### Software

#### Software (On-premises)

This includes the capital and operational IT spending for the on-premises software assets associated with the IT functional areas.

#### Software as a Service (SaaS)

SaaS is the application service layer within cloud computing. The application software is owned, delivered and managed remotely by one or more providers. The provider delivers a solution based on a uniform application definition and on a sharing model at one or more layers of the application stack. SaaS is purchased on a pay-for-use basis or as a subscription based on usage metrics.

- Customers may be able to extend the data model by using configuration tools supplied by the provider, but without altering the source code. This approach is in contrast to the traditional application hosting model in which the provider supports multiple application codes and multiple application versions or a customized data definition for each customer.
- Purchasing is based on a subscription (for example, a per-user, per-month fee) or use basis (for example, allocating a certain number of transactions for a fixed time period or an actual pay-per-use basis). A perpetual license purchase is not considered SaaS.

## External Services

### Infrastructure as a Service (IaaS)

- IaaS is a standardized, highly automated offering in which compute resources, complemented by storage and networking capabilities, are owned and hosted by a service provider and offered to the customer on demand. The resources are multitenant, metered, and operate in near-real time. Self-service interfaces are exposed directly to the customer, such as a web-based graphical user interface and API.

### Other Public Cloud Services

Other Public Cloud Services comprise of public cloud management and security services, and platform as a service PaaS). These services managed by a provider, offered by subscription and in a multitenant manner, with some sharing of resources between tenants to increase overall efficiency and scalability of the operation

- **Cloud Management and security services** include IT operation management, security services and storage management services.
- **PaaS** —includes delivery of application infrastructure capabilities — including the runtime and development-time components — as public cloud services.

**NOTE:** Private cloud implementations are not included in this category. Third party offerings involving single tenant solutions should be included in the Traditional Outsourcing category. Internally maintained infrastructure cloud solutions are included in the Hardware and Software categories

## **Network Transport**

- Network Transport (i.e., circuit costs et al) charges for mobile and fixed data and voice telecommunication services.

## **Traditional Outsourcing**

- The fees for third-party or outsourcing contracts in which “outsourcing” is defined as any situation in which the full operational responsibility for IT services is completely handed over to an external service provider (for example a service desk contract based on a per user or per contact fee). Third party private cloud implementations involving single tenancy are included in this category.

## **Strategic-based Cost Management View**

The distribution of IT spending to run the business, grow the business and transform the business provides a view of the IT investment profile or “portfolio” to support business performance. In some industries, it is not uncommon to see a high “run” focus — typically because organizations in the industry are not planning strong changes in business model growth or high organic growth — which often translates into a more “cost center” role for IT in the industry or niche sector.

Classifying IT spending into categories that show impact on business outcomes or success can aid alignment and quantify underinvestment in IT. Gartner uses the following portfolio spending categories and defines them as follows:

### **Run the business**

This is an indicator of how much of the IT resource is consumed and focused on the continuing operation of the business. It includes all non discretionary expenses as part of the run-the-business cost. Some businesses call this “business as usual,” “keep the lights on” IT spending, or sustain investments. Run expenses do not directly increase revenue, or achieve by themselves new or enhanced goals of the enterprise.

### **Grow the business**

This is an indicator of how much of the IT resource is consumed and focused on developing and enhancing IT systems in support of business growth (typically organic growth). Discretionary investments are more likely to be included in the grow-the-business or transform-the-business cost.

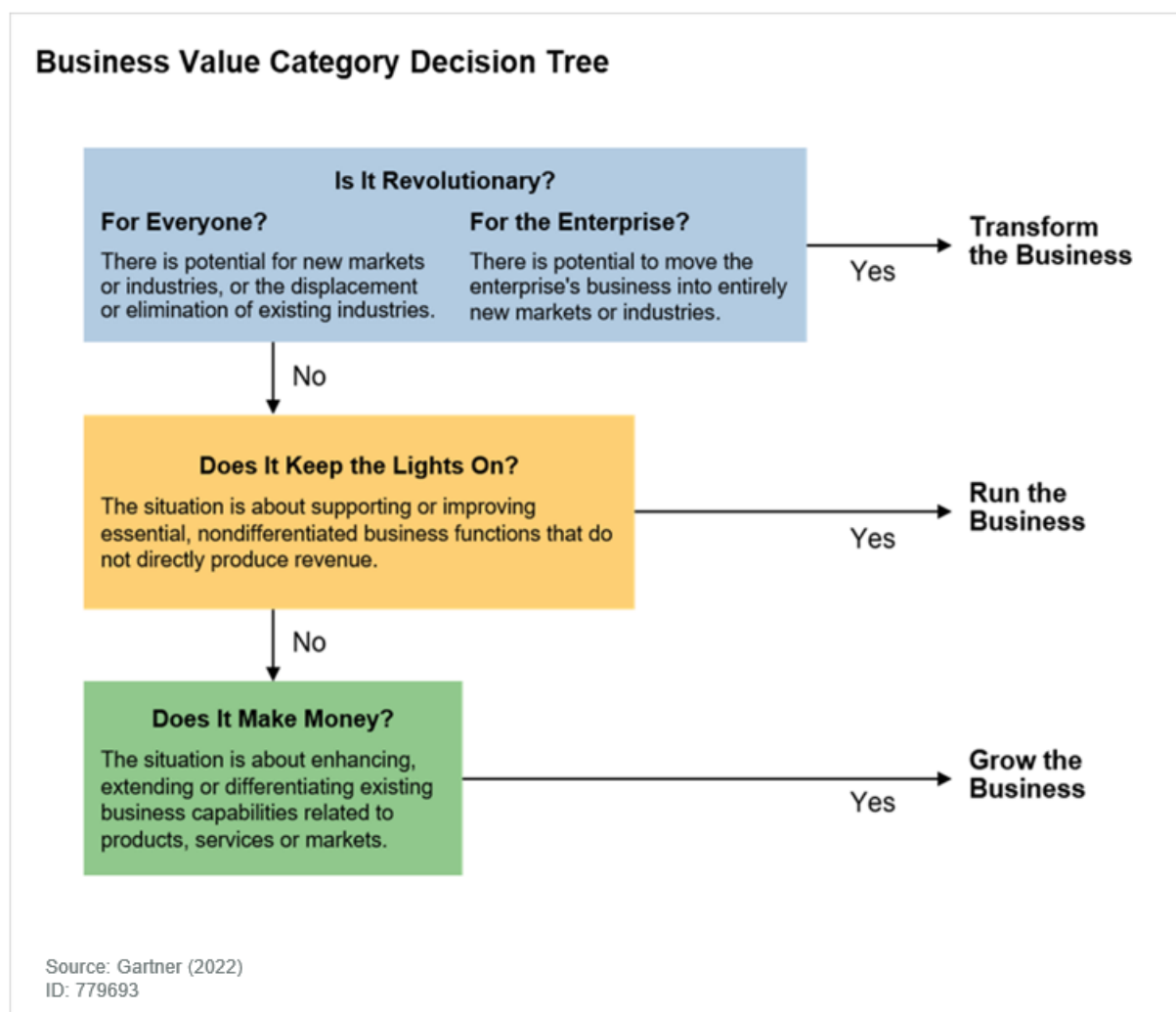
## **Transform the business**

This is an indicator of how much of the IT resource is consumed and focused on implementing technology systems that enable the enterprise to enact new business models. This is very much a “venture” category and would be represented by activities such as an insurer introducing usage-based insurance products such as telematics or a supermarket combining real time analytic monitoring with in-store task management to provide automated alerts to store staff to perform preemptive tasks.

## **Change the business**

This combines the grow and transform the business IT spending categories for the sake of simplicity. If change the business IT spending is used as a category, this often means that grow and transform categories are not used (thus, run versus change the business IT spending). Use of this categorization is often favored where there is ambiguity as to the classification of expenses or investments, but where there is still a clear distinction between run and change the business investments.

Figure 5: Business Value Category Decision Tree



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Gaps in business alignment can be found by examining IT spending as it relates to the day-to-day operations of a business (run), the organic growth of the business or productivity improvement (grow) and its support with new revenue creation from major business transformation, new products, services or business models (transform).

A common misconception with this measure is that an IT initiative that may transform the IT organization, such as data center modernization or virtualization, should be classified as a “transform the business” investment. While these IT initiatives do transform the IT organization, they should primarily be classified as “run the business” investments because they support pre-existing IT services. IT transformation often leads to new business process improvements that enable the business to grow or build new revenue streams. Therefore, these costs would need to be evaluated and distributed based on IT service and business performance.

The run, grow and transform business framework should always be viewed in business terms with respect to how IT will enable the business to grow or transform revenue, operating income and/or profit margins.

## IT Technical Function Cost Management View

IT technical, or activity-based view evaluates IT spend by technical function area. Technical functions include Governance & Business Management, IT Security, IT Operations Management and IT Service Continuity/Disaster recovery, Applications, Infrastructure, End-user costs and staff as defined below.

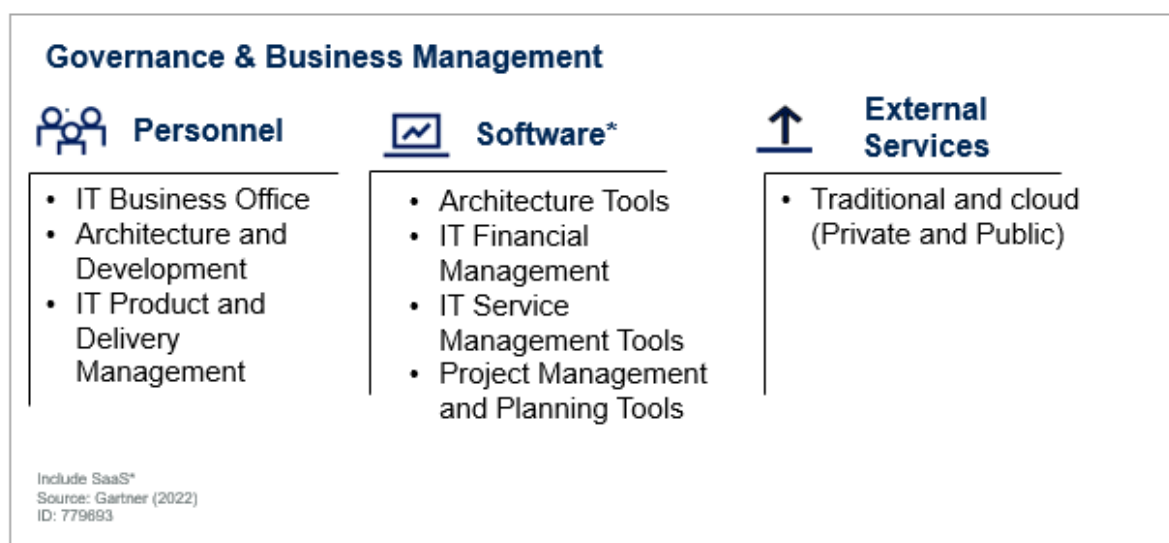
### Governance and Business Management

Governance & Business Management functions tend to be more prevalent in service-optimized IT organizations. They can act as growth enablers and a source of both operational and strategic differentiation. Here, the IT organizations constructively and proactively engage with the business to improve business operations to enrich enterprise performance.

- In order to drive business value, these IT organizations run themselves like a business, bringing out front-office capabilities. IT demonstrates financial discipline, transparency, and delivery of business value by managing an integrated view of technology cost and performance against defined business outcomes, which are formally captured in a strategic service portfolio. These IT organizations exhibit the following key characteristics of an implicit business-oriented consumer/provider relationship:
- Understand customer's needs
- Manage service and solution life cycle
- Deliver solutions and services to customers
- Governs internal IT operations and architecture to ensure strategic success

Governance and Business Management includes IT Business Office, Architecture and Development, and IT Product and Delivery Management.

Figure 6: Governance and Business Management



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### IT Business Office

The IT Business Office is directly responsible for the customer value proposition. It includes the “front office”, and other functions that steer the IT organization to operate effectively. It includes the IT Executive Office and Administration, and Sourcing Procurement and Vendor Management.

### Executive Office and Administration

The Executive Office and Administration function develops and manages a multiyear IT strategy and IT financial plan to deliver the pipeline of services, processes, and tools. It includes the Office of the CIO, Financial Management, Performance Management, Talent Management, and IT Relations/Communications.

- **Office of the CIO:** This function includes the CIO, other cross-functional IT executives, and their administrative support. It excludes those IT managers and other staff that fit logically within the other areas in the model such as the CISO in IT Security, Data Center Managers, Network Managers, End-User Support Managers or Application Development and Support Managers, Chief Architect etc.

- **Financial Management:** Financial Management establishes the transparency of the relationship among cost, quality, and business value so that it can be consistently measured and managed. This function is key to running IT like a business ensuring an understanding of IT delivery cost and competitiveness to external market offerings, competitive pricing of offerings, visibility to process and labor costs to price products and services, and communicates the value of IT. In some cases, this function may be a part of the corporate finance organization. IT FTEs outside of the IT Department can be included here, but only for personnel who spend 30% or more of their time dedicated to supporting IT assets and services.
- **Business Relationship Management:** Business Relationship Management is a senior team within the IT organization that has extensive business and industry experience. The business relationship managers are embedded in the business, typically aligned to specific business units or geographical regions and locations. They are expected to be the business optimization and innovation champions for their area of responsibility, whether BU or location. They maintain a close, trusted relationship with the business to understand and provide input into strategy, plans, and needs. They advise on innovation and technology enablement opportunities. In addition, they facilitate matching of business needs to product/service offerings and are catalysts in helping IT evolve its offerings. They engage customers throughout the life cycle – from marketing of services/products, through demand and planning process, to delivery and support of product/service. In traditional business terms, they are analogous to an account executive function.
- **Performance Management:** Performance Management is the quality control function of the IT business. It is tasked with optimizing IT delivery and improving customer satisfaction with service quality. This function leverages key performance indicators (KPIs), SLAs and audit findings to improve IT delivery practices.
- **IT Talent Management:** This function works to recruit, hire, retain and develop the most capable and skilled employees available in the job market. IT FTEs outside of the IT Department i.e., human resources staff should be included here, but only for personnel who spend 30% or more of their time dedicated to supporting IT Staff.
- **IT Relations/Communications:** This function involves driving effective communications strategies and campaigns for Information Technology products and services. Communications may be around general IT announcements, system updates, new tools and processes, major change efforts, disruptions etc.

## IT Sourcing, Procurement and Vendor Management



This function includes the costs of any personnel or external services providing dedicated IT Sourcing, Procurement or Vendor Management (ITSPVM) services for IT assets and services. All the phases of ITSPVM may involve “value added activities” such as Market Intelligence, Spend Analysis & Reporting, Process Improvement etc. IT FTEs outside of the IT Department can be included here, but only for personnel who spend 30% or more of their time dedicated to supporting IT assets and services.

- **Sourcing:** Sourcing is the discipline of ongoing strategic analysis to optimize the supply base for technology products, services, and associated delivery models, in order to enable the achievement of strategic and operational business objectives. A comprehensive sourcing strategy helps identify sourcing opportunities, tailor sourcing decisions based on business goals, and structure an effective sourcing function.

Tasks include:

- Assessing organizational readiness to adopt new sourcing models.
- Analyzing process maturity, control mechanisms and critical process gaps to identify and evaluate sourcing options.
- Ensuring alignment between sourcing strategy and business goals by continuous validation
- Analyzing sourcing spend to negotiate new sourcing contracts and spread vendor risk.
- Conducting market analysis to understand sourcing options, vendor offerings, and industry trends.
- Evaluating available and emerging sourcing options and pricing models
- Building the roles, competencies, and organizational structures needed to execute on the Sourcing, Procurement and Vendor Management strategy.
- **Procurement:** Procurement is the discipline of engaging vendors to identify, evaluate and acquire technology products and services in alignment with business requirements and the sourcing strategy. It tends to include more tactical activities such as requests for quotations, proposals, and information (RFQ, RFP, RFI).

Tasks include:

- Scanning the vendor market to prepare an initial list of suitable vendors and screening lists based on qualification parameters
- Preparing RFPs defining sourcing requirements, budget and time constraints, selection criteria, and contractual terms.
- Negotiating contracts based on pricing, terms and conditions, and service level criteria
- Developing and maintaining contract templates
- Resolving invoice discrepancies
- Communicating the status of purchases with internal customers
- **Vendor Management:** Vendor Management is the discipline of optimizing value delivery and business outcomes through the consistent management, administration and guidance of the technology product and service vendors. Activities involve supplier segmentation and strategy setting, ongoing performance management, and beyond the contract collaboration.

Tasks include:

- Monitoring vendor and stakeholder feedback to improve vendor relationships.
- Monitoring performance metrics continuously to identify opportunities of performance improvement.
- Identifying contract parameters that may require renegotiation and/or restructuring.
- Monitoring and mitigating known risks and identify new and potential risks
- Working with vendors to identify ideas for innovation
- Developing processes to manage outsourced staff.

Vendor Management does not include:

- The day-to-day tactical activities of internal personnel who may interact with, advise, direct, or support vendor staff E.g., daily work prioritization, and obtaining relevant authorizations.

- Activities falling under the umbrella of a Product Management group such as integrating vendor services into defined IT Product and Service offerings.
- Activities falling under the umbrella of a Project Management group such as integrating vendor services into major projects or business reengineering activities.
- Monitoring and mitigating known risks and identify new and potential risks
- Working with vendors to identify ideas for innovation
- Developing processes to manage outsourced staff

## Architecture and Development

Architecture and Development involves practices around setting the direction for the technical landscape and how technology is leveraged.

- **Technology Architecture:** Technology Architecture is the governance of the technical landscape. Activities can include building technical roadmaps, analyzing the current technology environment to detect critical deficiencies, recommending solutions for improvement, creating standards, advising engineering and delivery teams, and evaluating new products and services etc.

Only include staff here whose primary responsibility is architecture and who are part of a cross functional architecture entity within the organization. Therefore, allocation of resources here is more common for larger organizations with more mature processes. For example, in a smaller organization a member of the network staff who primarily has day to day responsibilities for the network may also develop the network reference architecture. That individual would be included in the Infrastructure category under Network, and not here. This would be the case even if they hold the title of "Architect".

Staff allocated to this category should be primarily focused on technology with an eye towards business. Staff who are focused primarily on the operational efficiency and the business effectiveness of IT should be included in Enterprise Architecture.

Security architects are always included under the IT Security technical function and not here. This is the case even if they are a part of a cross functional architecture entity.

- **Enterprise Architecture:** This group provides cross functional direction, guidance, and definition of an enterprise's technology architecture to effectively support the corporate business strategy. They are tasked with improving the operational efficiency and the business effectiveness of IT. They tend to have an even focus between technology and IT issues. Their responsibilities include researching, analyzing, designing, proposing, and delivering solutions that are appropriate for the business and technology strategies.

Enterprise Architecture teams translate business strategy and vision into IT opportunities that help optimize the existing business. Through proactive technology leadership, they evaluate emerging technologies and risk profiles to benefit business as well as to influence the enterprise strategy. They document policies, and foster standards that promote information sharing, and minimize duplication of effort. They also evaluate existing investments to determine if they are still meeting business needs.

- **Research and Development:** This team performs activities in connection with technology innovation that align with business needs of the enterprise. The function is tasked to focus on applied research and development of working prototypes for targeted priorities. Research and Development (R&D) is not often intended to yield immediate benefit, and generally carries greater risk and an uncertain return on investment but is aligned to enterprise strategy. The focus of activities here is primarily technical rather than strategy related. For example, R&D might investigate the possibility of using a mobile application for delivery services, rather than deciding if the company should be in the delivery business at all.
- **Portfolio Management:** This function includes decision making around investment mix, matching funding to strategic priorities and balancing risk against performance. While product management is focused on the development and optimization of existing capabilities, portfolio management covers deciding which capabilities the business needs now and in the future. That may involve adding new capabilities or eliminating existing ones.

Tasks include:

- Identification and prioritization of demand
- Funding initiatives
- Ensuring resource capacity and availability

- Managing interdependencies between programs and portfolios.
- **Business Architecture:** These individuals tend to focus primarily on business issues with an eye towards technology. Business architecture focuses on how an organization's business capabilities, business ecosystem, value streams, business processes, organizational model, and cost model can be affected by technology. Even though Enterprise architecture is a separate category in this model these activities are a part of the spectrum of Enterprise Architecture activities in more mature organizations.

## IT Product and Delivery Management

Product and Delivery Management ensures that IT can deliver on its day-to-day objectives and operate as a services-based, business-oriented, and value-focused service provider.

- **Project Management:** This function at a minimum ensures that the organization can deliver IT projects on time, on budget and in scope. Project managers may report into a formal Project Management office (PMO), or into different IT units, such as in application development or in the business. They focus on implementing project management methodologies, leading organizational changes in promoting a project management culture, and institutionalizing organizational processes and methodologies

If the organization does take on business projects (or anything outside of the scope of the Gartner Industry IT Spending and Staffing Framework) the costs around that would be excluded from the scope of this analysis.

Not all organizations have this function and allocation of resources here is more common for larger organizations with more mature processes. Only include individuals here whose primary responsibility is project management and who are part of a cross functional entity within the organization. For example, in a smaller organization an experienced developer, network engineer or manager may take on project management responsibilities as an additional duty, or even have a "Project Manager" title. That person would be allocated to their individual function (applications, network etc), rather than project management.

- **Product Management:** This function is focused on developing products based on how they are consumed rather than the technologies they run on or the functionality they offer. This function is responsible for developing and managing the products and services that IT will offer and at what price and quality levels to meet the needs of the business. If a service catalog exists, it would be built and managed here.

Only include individuals here who:

- Have a primary responsibility of product/service management.
- Are part of a multi-disciplinary or persistent “standing” team (not a “project team”).
- Have end-to-end responsibility for a product/service.
- Have their success defined based on outcomes and adoption of their products/services rather than technical performance.

Not all organizations have this function and allocation of resources here is more common for larger organizations with more mature processes. For example, a smaller organization may charge customers back for desktop PCs. They may have a desktop manager, but that position would not have all the characteristics outlined here. That desktop manager would be included in the Digital Workplace category under End-User Services, and not here.

- **Delivery Management:** Delivery Management is a function which operates to coordinate and facilitate, and communicate around Infrastructure, Applications and End-User Services operations. It provides functional, technical, and process leadership for these other functions. For example, Infrastructure, Digital Workplace and Applications may be primarily responsible for configuring devices, resolving incidents, releasing new versions of software, and applying tags to assets. This function makes sure that all the necessary groups who are impacted by a problem, change, or release are prepared for it. They do this through facilitation and communication. They own and manage the change, incident, release, and asset management processes.

Not all organizations have this function and allocation of resources here is more common for larger organizations with more mature processes. Only include individuals here whose primary responsibility is delivery management and who are part of a cross functional delivery management entity within the organization. For example, in a smaller organization the entire server configuration management process may be owned by someone on the server team. That person would be allocated to the Data Center function rather than Delivery Management.

## IT Security

IT Security is the discipline of designing, implementing and maturing security practices to protect critical business processes and IT assets across the enterprise. It covers:

- Developing and maintaining effective program governance
- Communicating and engaging successfully with all stakeholders
- Defining a vision promoting desired security, risk management and business outcomes
- Defining, communicating and enforcing security policies across the organization
- Planning budgets and resourcing, including talent management and professional services
- Assessing and improving program maturity and performance

See, [IT Security Framework Definitions](#) for more details.

Figure 7: IT Security

IT Security

 Personnel	 Hardware	 Software*	 External Services
<ul style="list-style-type: none"><li>• Infrastructure Security</li><li>• Applications Security</li><li>• Vulnerability Management and Security Analytics</li><li>• Security Governance, Risk Management and Compliance</li><li>• Management and Administration</li></ul>	<ul style="list-style-type: none"><li>• Firewall/Unified Threat Management Devices</li><li>• IDS/IPS Devices</li><li>• Radius/Proxy Servers</li><li>• Encryption Concentrators</li><li>• Email/Web Security Gateways</li></ul>	<ul style="list-style-type: none"><li>• Identity and Access Management</li><li>• Security Information &amp; Event Management</li><li>• Anti-virus/Anti-spam/Anti-malware</li><li>• URL/Content Filtering</li><li>• End-user Encryption</li><li>• Host IDS/IPS</li><li>• Firewall Software</li><li>• Vulnerability and Threat Detection</li><li>• Application Testing/Scanning/Shielding</li></ul>	<ul style="list-style-type: none"><li>• Traditional and Cloud (Private and Public)</li></ul>

\* Includes SaaS  
Source: Gartner (2022)  
ID: 779693

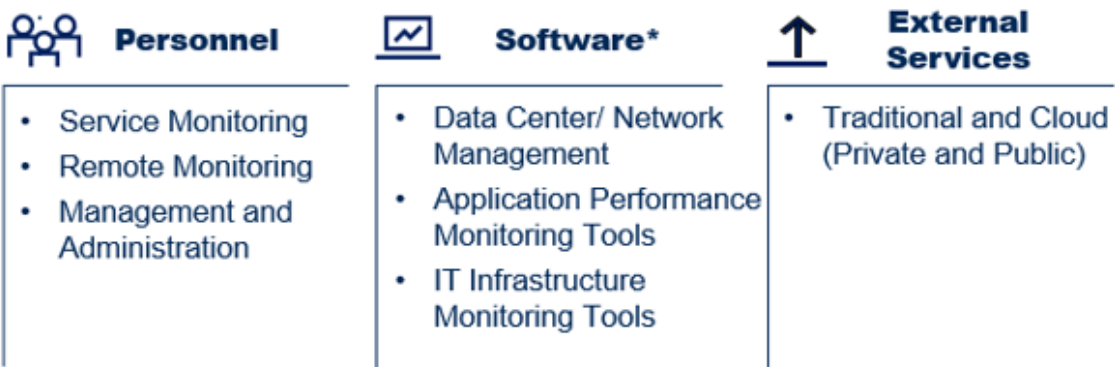
IT Operations Management

IT Operations Management provides on-site and/or remote IT Operations monitoring to gain insight into the historical, current and future availability and performance of IT systems, networks and applications, while also performing root cause analysis. Monitoring typically is performed in four categories: IT Infrastructure Monitoring (ITIM), Applications Performance Monitoring (APM), Artificial Intelligence for IT Operations (AIOps) and Network Performance Monitoring and Diagnostics (NPMD).



Figure 8: IT Operations Management

IT Operations Management



\* Includes SaaS  
Source: Gartner (2022)  
ID: 779693

Gartner

- **Service Monitoring:** On-site operations monitoring and management including such tasks as system start/stops, monitoring system jobs, responding to console messages, detecting and recording of data center and network incidents and correction of production failures.

Production control duties which maintain the integrity of the production environment, including turnover of applications from test into production after the systems have been developed and tested, ensuring that systems to be placed in the production environment meet certain standards, providing job procedural documentation such as scheduling requirements and rerun procedures, establishing and adjusting the batch job schedule, providing ongoing job monitoring and reviewing the service level of production jobs to improve quality and/or efficiency.

Capacity management duties which ensure that adequate data center and network capacity is available at all times to meet the requirements of the business by balancing business demand with IT supply.

- **Remote Monitoring:** This is the same job description as Service Monitoring above but performed by staff in a remote location.

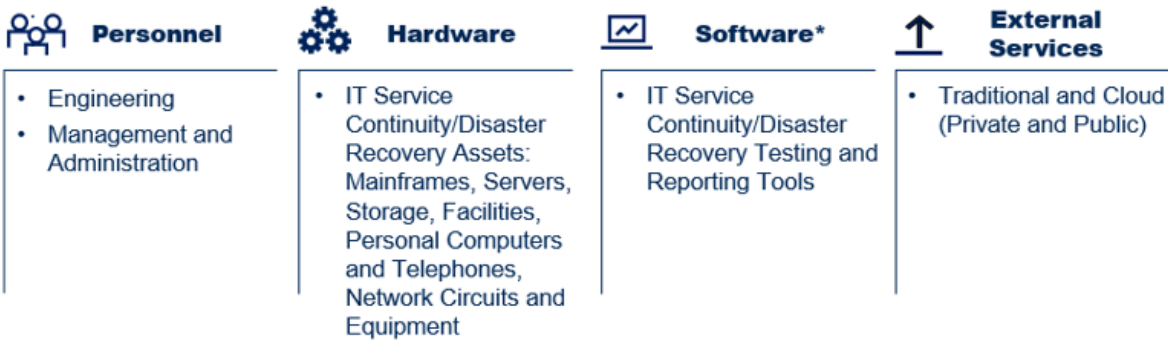
IT Service Continuity/Disaster Recovery

IT Service Continuity/Disaster Recovery is defined as the use of alternative network circuits to re-establish communications channels if the primary channels are disconnected or malfunctioning. This includes all methods and procedures for returning a data center to full operation after a catastrophic interruption (e.g., including recovery of lost data).

Note: For assets to be considered as in-scope for IT Service Continuity/Disaster Recovery (IT SC/DR), they are required to be in an active/passive state whereby production failover occurs to idle standby systems/location.

Figure 9: IT Service Continuity/Disaster Recovery

IT Service Continuity & Disaster Recovery (IT SC/DR)



\* Includes SaaS  
Source: Gartner (2022)  
ID: 779693

- **Engineering:** Functions include producing recovery plans for data center, workplace and network services designed to ensure that, following any major incident or sudden, unplanned calamitous event causing or potentially causing disruption of the service, IT services are provided to an agreed level within an agreed schedule.

It should be recognized also that IT SC/DR is only one component of Business Continuity Planning (BCP). The objective is to assist the business and BCP to minimize the disruption of essential business processes during and following a major incident. The process includes such activities as business impact analysis, risk analysis and risk management exercises, maintaining disaster recovery documentation, conducting periodic tests and audits, and negotiating contingency site arrangements. However, only include costs/FTEs related to IT personnel.

While there are other functions around disaster recovery/business continuity such as developing manual processes, and ensuring business unit personnel are able to function, they are not within the scope of this definition.

Applications

The scope of Applications is the provisioning and management of all business applications within an enterprise. Application spending includes personnel spending as well as annual capital plus operational (cash out) spending for maintenance, installation and taxes, as appropriate for all non-personnel spending (i.e., application software licenses, software maintenance agreements, and development and support tools). This also includes third party or outsourced spending for application development and support activity and SaaS/PaaS based solutions.

It covers building new capabilities as well as supporting existing capabilities.

Applications include Application Development as well as Application Support costs and staff as defined below. See [Applications Framework Definitions](#) document for more details.

Figure 10: Applications

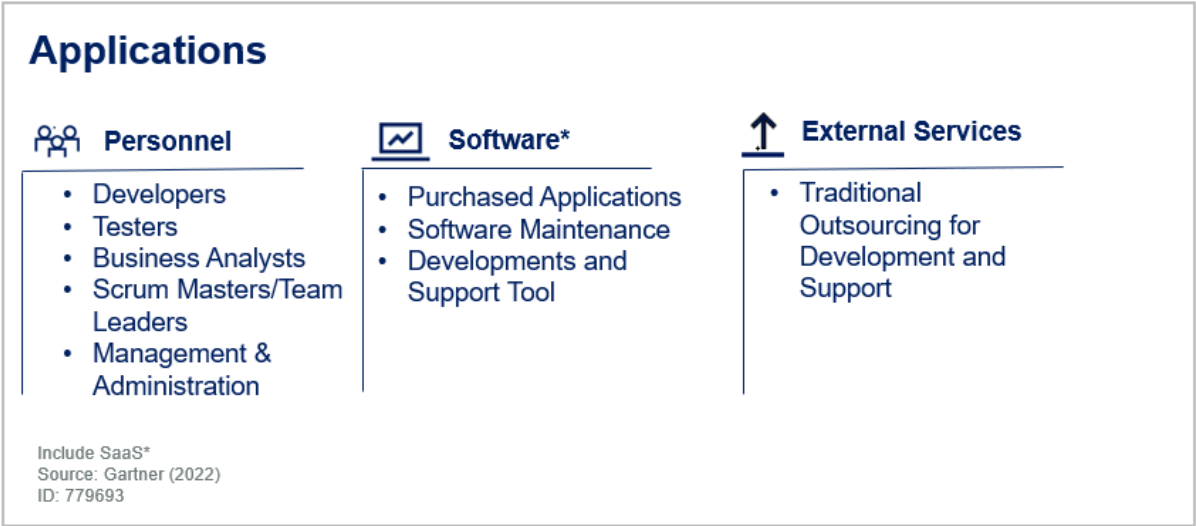
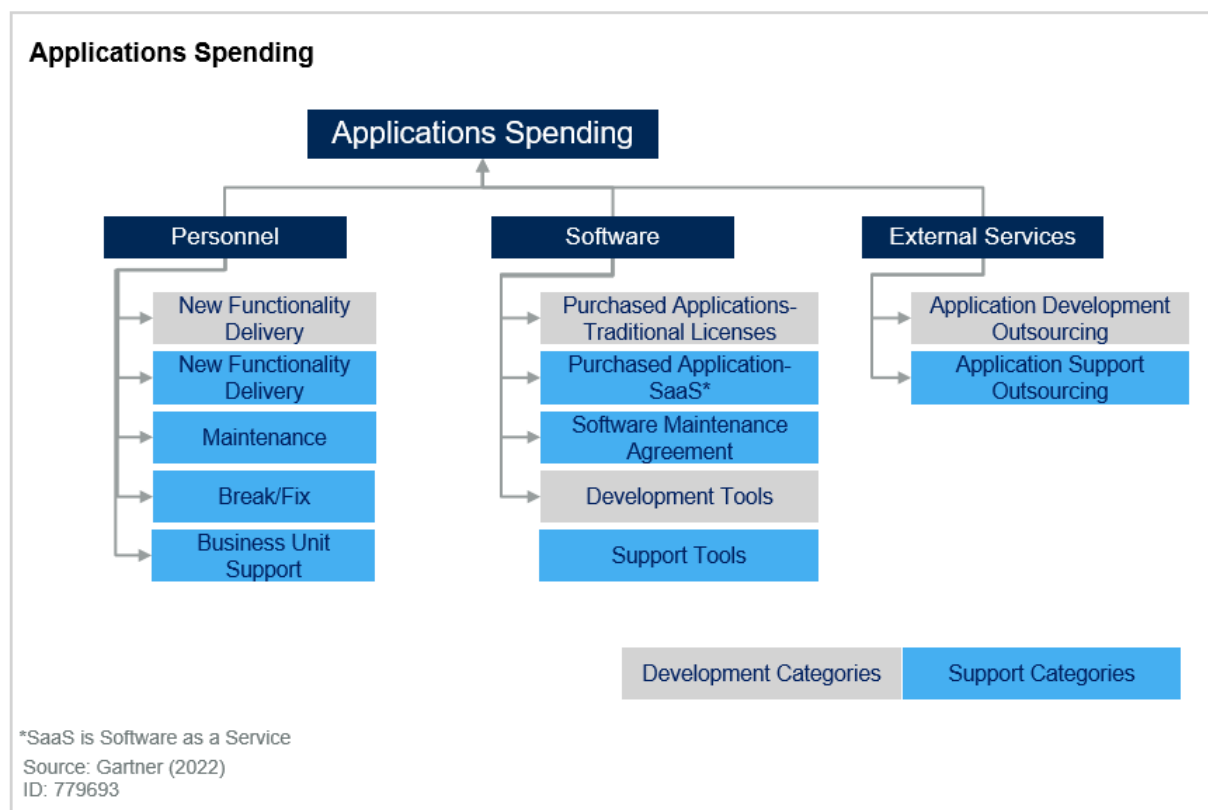


Figure 11: Applications Spending



Gartner

### New Functionality Delivery vs. Minor Enhancements

- **New Functionality Delivery:** New Functionality Delivery includes the creation of new applications, and functional enhancements to current applications that take longer than your organizations functional enhancement threshold. If your organization doesn't have a threshold, use more than 2 person-weeks as the dividing line between new functionality and minor enhancements.

Activities cover the full systems life cycle including analysis, design, coding, testing, communications, documentation, defect removal, quality management, and implementation and deployment of application software. Staff may make recommendations toward the development of new code or reuse of existing code. Responsibilities may also include participation in component and data architecture design, product evaluation and buy versus build recommendations.

- **Minor Enhancements:** The modification for an existing application that provides new functionality and takes less time than the organization's functional enhancement threshold. Includes design, coding, testing, communications, documentation, defect removal, quality management, and implementation and deployment of the enhancement.

## Exclusions

Applications excludes costs for:

The development and support of commercial software

Purchased software licenses and software maintenance costs for database management systems, middleware, and applications that are:

- Associated with the management of IT Infrastructure and Operations e.g., Operating Systems, utilities, communications, IT service desk software, security software etc.
- Associated with workplace services, email, messaging, personal productivity, end-user collaboration, or end user content services

## Infrastructure

Infrastructure includes Data Center (Compute, Storage, Database, Middleware, Facilities/Hosting) and Network costs and staff as defined below. See, [Data Center Framework](#) and [Network Framework](#) for more details.

### Data Center





Data Center includes Compute, Storage, Database, Middleware and Facilities/Hosting.

### Compute

The provisioning of the full life cycle management of processing/hosting services on both mainframe and midrange (UNIX, Windows, Linux, iSeries etc.) platforms including acquisition, deployment, maintenance, change management and disposal.

Figure 12: Compute

Compute

 Personnel	 Hardware	 Software*	 External Services
<ul style="list-style-type: none"><li>• Engineering</li><li>• Management and Administration</li></ul>	<ul style="list-style-type: none"><li>• Processors (mainframe, servers)</li><li>• Internal Disk Storage</li></ul>	<ul style="list-style-type: none"><li>• Operating Systems</li><li>• Virtualization</li><li>• System Utilities</li><li>• Communications</li></ul>	<ul style="list-style-type: none"><li>• Traditional and Cloud (Private and Public)</li></ul>

\* Includes SaaS  
Source: Gartner (2022)  
ID: 779693





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Storage

The provisioning of the full life cycle management of storage services utilizing online, near-line and offline technologies including acquisition, deployment, maintenance, change management and disposal.

Figure 13: Storage

Storage

 Personnel	 Hardware	 Software*	 External Services
<ul style="list-style-type: none"><li>• Engineering</li><li>• Management and Administration</li></ul>	<ul style="list-style-type: none"><li>• Storage Controllers</li><li>• Storage Arrays</li></ul>	<ul style="list-style-type: none"><li>• Storage Maintenance</li><li>• Replication</li><li>• Backup/Restore</li><li>• Archival</li><li>• Media Handling/ Migration</li></ul>	<ul style="list-style-type: none"><li>• Traditional and Cloud (Private and Public)</li></ul>

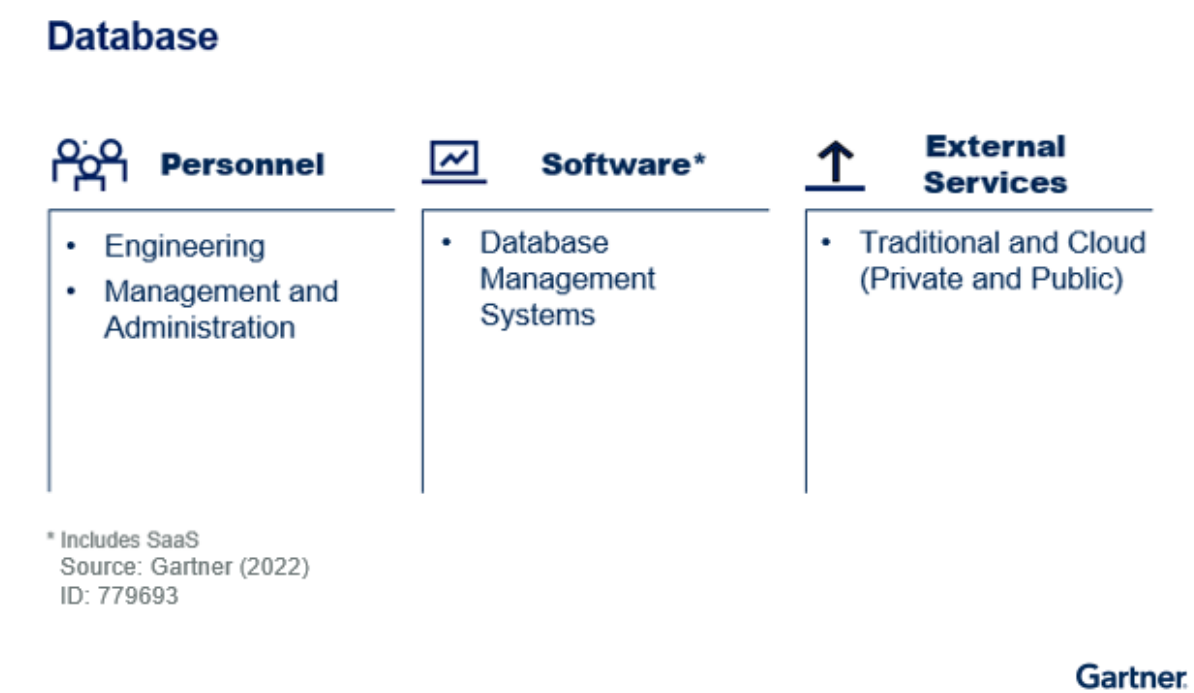
\* Includes SaaS  
Source: Gartner (2022)  
ID: 779693

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Database

The full life cycle management of relational, non-relational and pre-relational databases including the tools for monitoring and diagnosing problems with databases, analyzing and improving the performance of databases, and routine administration of databases, including configuration changes.

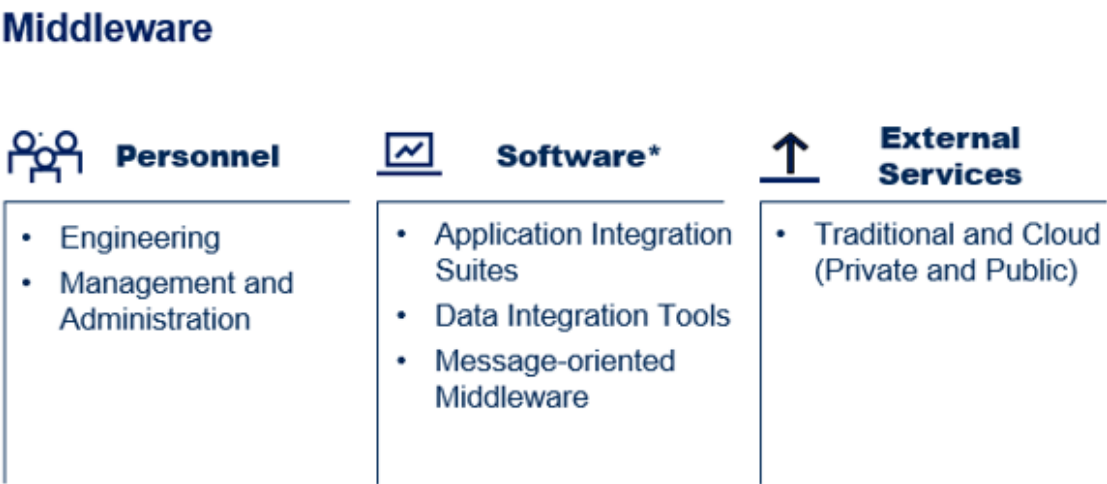
Figure 14: Database



Middleware

Middleware is the software “glue” that helps programs and databases (which may be on different computers) work together. Its most basic function is to enable communication between different pieces of software. This includes Integration middleware and Platform middleware.

Figure 15: Middleware

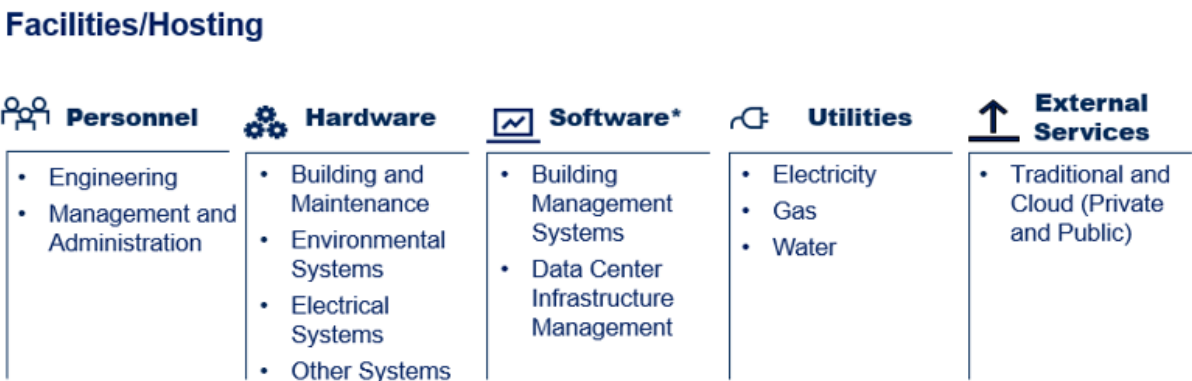


\* Includes SaaS  
Source: Gartner (2022)  
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Facilities/Hosting

Includes the full life cycle management of the physical data center premises, and other facilities and services associated with the premises such as furniture, power supply, heat management, climatization services, access security, floor space, office space, design and consulting.

Figure 16: Facilities/Hosting



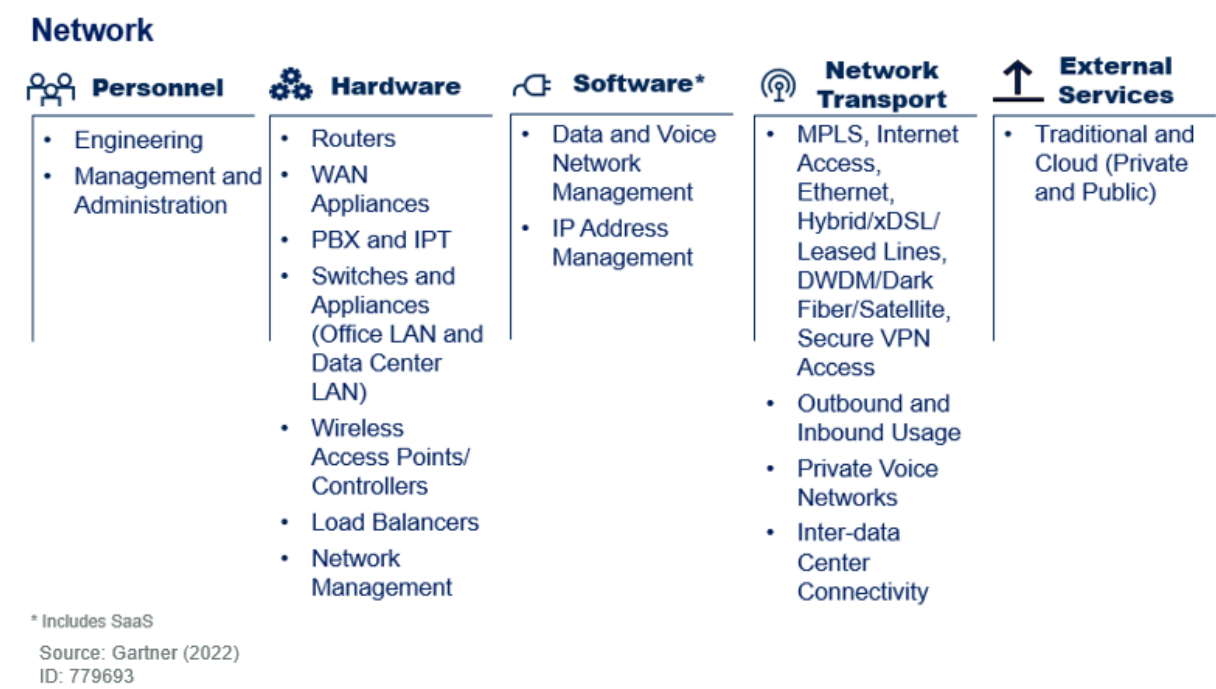
\* Includes SaaS  
Source: Gartner (2022)  
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Network



Network services consist of Local-Area Voice and Data Network Service and Wide-Area Voice and Data Network Service. Network spending includes the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of Personnel, Hardware, Software and External Services.

Figure 17: Network



- **Wide-Area Network Service** — This subservice helps in the management and supply of inter-site connections and network infrastructure.
- **Remote Access Service** — This subservice helps to connect the internal network from a remote location with broadband or phone line access using a security token.
- **Internet Connectivity Service** — This sub service provides access to the internet.
- **Intranet Connectivity Service** — This subservice helps in the provision of the global network provided by third parties. This also includes management of network optimization devices.

End-User Services

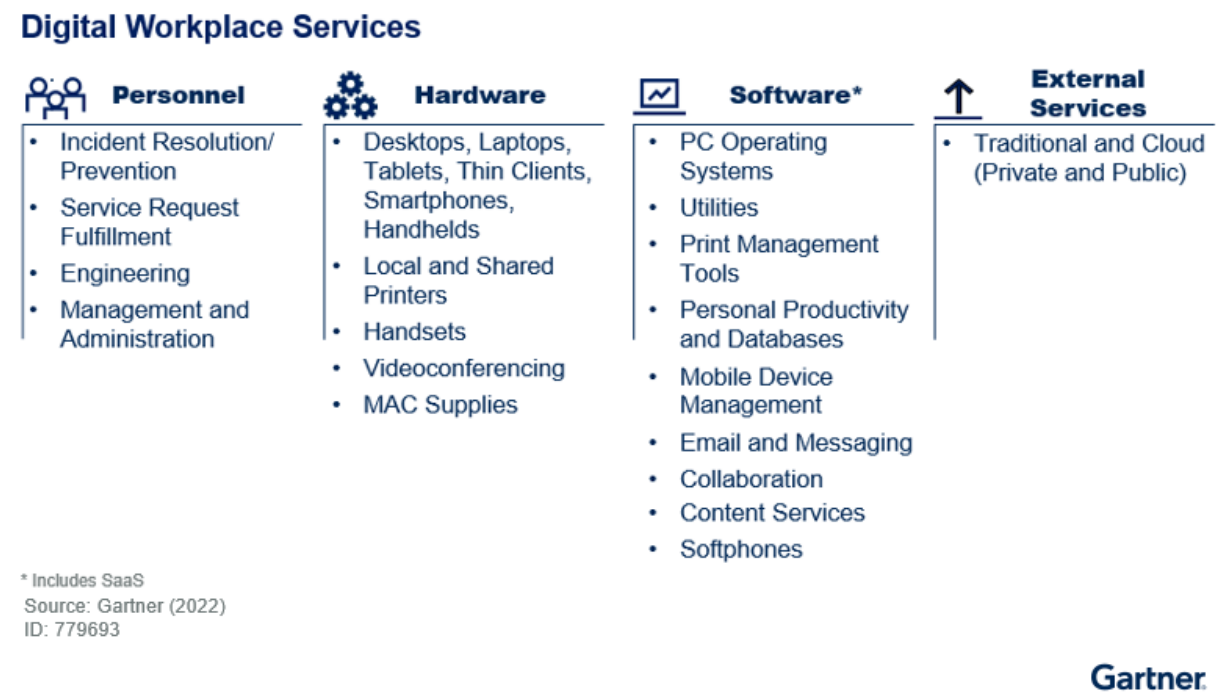
End-User Services includes Digital Workplace Services as well as IT Service Desk costs and staff as defined below. See, [Digital Workplace Services Framework](#) and [IT Service Desk Framework](#) for more details.

Digital Workplace Services

Note: “Digital Workplace Services” was previously referred to as “End User Device & Print Management”.

Digital Workplace Services includes provisioning of the full life cycle management of desktop, laptop, thin client, tablet, handheld, telephone and peripheral assets including acquisition, deployment, maintenance, change management and disposal.

Figure 18: Digital Workplace Services



IT Service Desk

An IT Service Desk is defined as any single location that evenly distributes the receipt and/or placement of technical support calls or contacts to a predetermined group of support staff. The IT Service Desk assessment examines IT efficiency and effectiveness with respect to the provisioning of remote Tier 0/Tier 1 support provided to end-users of IT services.

Because IT service desks may be organized differently across enterprises, you may be required to capture some information that is beyond your specific budget lines to ensure consistent comparisons. Examples include telecommunications equipment used specifically by the IT service desk, transmission expenses attributable to the inbound support calls and remote user support resources that may physically reside in other support groups (e.g., network operations or applications support).

Figure 19: IT Service Desk



Staff

Staff should be reported as full-time equivalents (FTEs). FTEs should be measured in calendar time.

For example, an individual who works full time on an assignment for one full year would be reported as 1.0 FTE while an individual who was employed for six months of the study period would be reported as 0.5 FTE. Do not subtract such activities as vacation time, sick days and administration time. Do not count any one physical person as more than one FTE (for example, due to overtime). FTEs are assigned to services based on the functional definitions provided. If an individual or group performs more than one function, FTEs may be prorated between services or model categories based on client estimates of time spent in each area.

An IT FTE represents the logical staff to support functions performed by the physical staff, measured in calendar time. This includes all staffing levels within the organization, from managers and project leaders to daily operations personnel. This also includes insourced FTEs and contract FTEs. However, this excludes the staff of a third-party vendor (for example, IT outsourcing), which is not operationally managed by the in-house staff, but rather is managed by the vendor.

Recommended by the Authors

*Some documents may not be available as part of your current Gartner subscription.*

"Effectively Communicating Cost Optimization Across the Enterprise: A Strategy Perspective"

"Research Roundup for Digital-Outcome-Driven Metrics for Industries"

"3-Year Roadmap for Strategic Cost Optimization"

"The Quintessential Guide to Strategic Planning"

"Strategic Cost Optimization Score for IT"

"Balancing Capex and Opex Funding for Digital Investments"

## Evidence

This research contains relevant industry standard consensus models and IT performance measurement framework as defined by Gartner Benchmark Analytics. To learn more about [Gartner Benchmark Analytics](#) contact your account executive or email us at [inquiry@gartner.com](mailto:inquiry@gartner.com).

## Document Revision History

IT Key Metrics Data 2022: Industry Measures — Framework Definitions - 16 December 2021

IT Key Metrics Data 2021: Industry Measures — Framework Definitions - 18 December 2020

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