

Technology Consulting

# Infrastructure Consulting: Next-Generation Data Center

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# Next-generation data centers: Provisioning IT services for high performance

Elasticity is not the first adjective that comes to mind when describing the data center environment.

But it soon will be.

Over the past few years, many IT executives have simplified, centralized and virtualized their infrastructures and cut IT expenditures. Now, organizations are stretching the capabilities of their data centers, not only taking advantage of new technologies, sourcing and variable cost models, but also expanding their ability to have an end-to-end view of all their infrastructure. The impact for the business is increased agility in responding to changes in demand, market conditions and organizational imperatives.

## The new imperative: IT service provisioning and management

CIOs have traditionally built their data center capabilities by acquiring, integrating and managing discrete technology components to serve a specific business purpose. Today, executives can take advantage of virtualization, orchestration and

distribution capabilities to provision complete, end-to-end IT services that align to—and enable—business outcomes. This paradigm shift is due to maturing capabilities that now allow data center operators to:

- Manage processes and applications as a business service
- Virtualize all layers of the technology stack and logically pool data center resources
- Develop service-oriented infrastructures with automated processes that trigger provisioning based on capacity and service-level objectives
- Create an integrated operations framework that is proactive and predictive

## Reach for the clouds

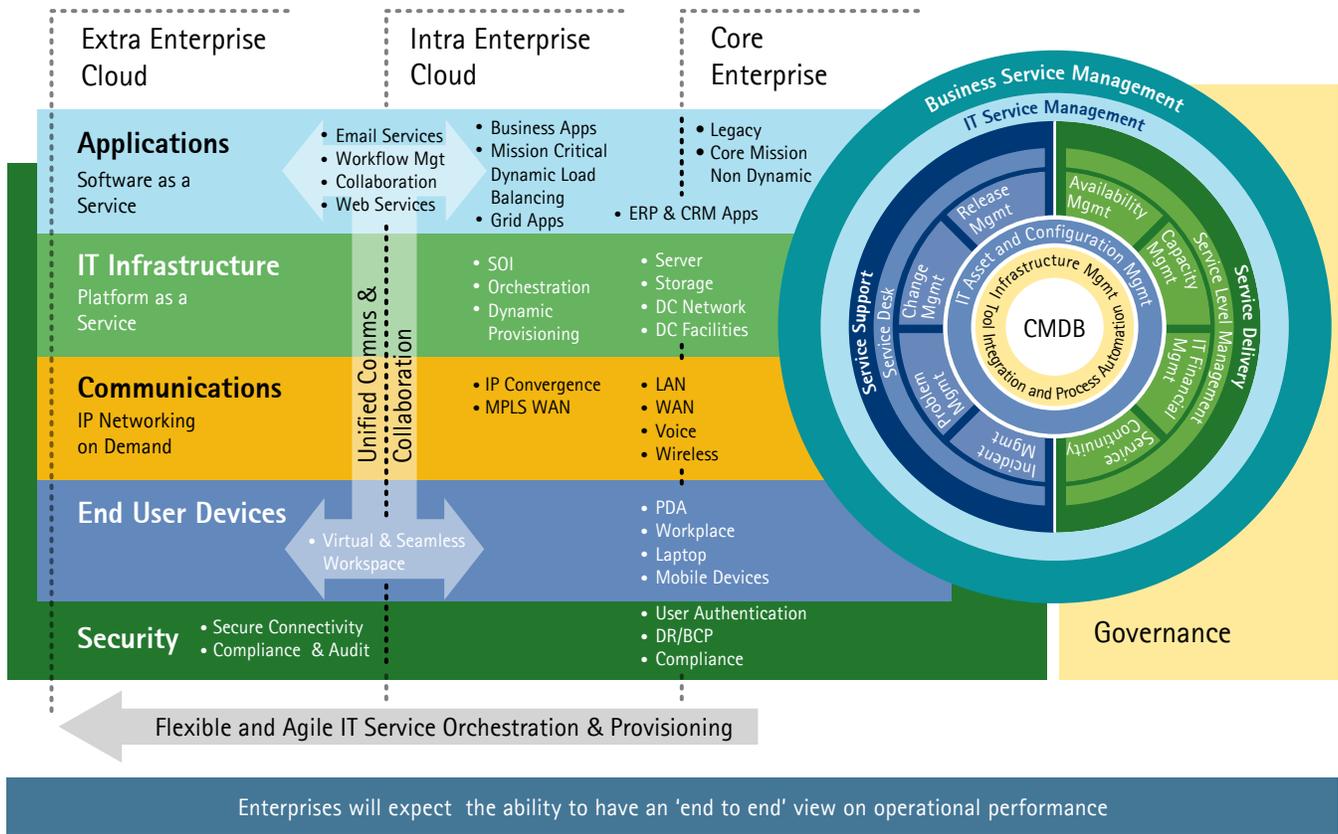
Few technologies will have a greater influence on the emergence of IT

service provisioning than cloud computing (See Figure 1). While data centers will almost always contain stand-alone, legacy applications that support core business processes, next-generation data centers will seek out opportunities to provision technology services from two types of clouds:

**Intra-enterprise clouds** are built within a data center and designed to provision and distribute virtual application, infrastructure and communications services for internal business users. These service components are highly elastic and expand and contract, as needed, to meet service-level requirements.

**Extra-enterprise clouds** extend the data center's capabilities by enabling the provision of IT service from third-party providers over a network. Software as a service, platform as a service and infrastructure as a service—which

Figure 1. Cloud computing, provisioned from inside or outside the organization, is becoming a reality for early adopters. It holds great potential for delivering lower-cost and more efficient IT services, greater IT agility, more flexibility and better utilization of resources.



offer virtualized infrastructure solutions based on a variable, pay-as-you-go pricing model—are emerging as important elements of a robust IT service capability.

### Building the next-generation data center and enabling cloud computing

A three-phased strategic roadmap makes the transition to next-generation data centers and cloud computing more manageable and affordable.

#### Phase 1

There's a continued focus on data center virtualization (across all areas of server, storage and network), as well as data center consolidation and standardization.

#### Phase 2

The focus is on automating IT processes, integrating service

management tools, optimizing resources and leveraging provisioning tools to create a proactive IT capability.

#### Phase 3

Companies apply a robust solution architecture that introduces a service approach to IT rather than a component view. The architecture is aligned with business imperatives to drive predictability and a service-oriented approach to IT delivery (See Figure 2). At this stage, companies typically begin to see the value of cloud computing.

### Next-generation data center solutions

Accenture offers next-generation data center solutions that lay the foundation for cloud computing and IT service provisioning and management. Our data center technology solutions include:

#### Server virtualization and optimization

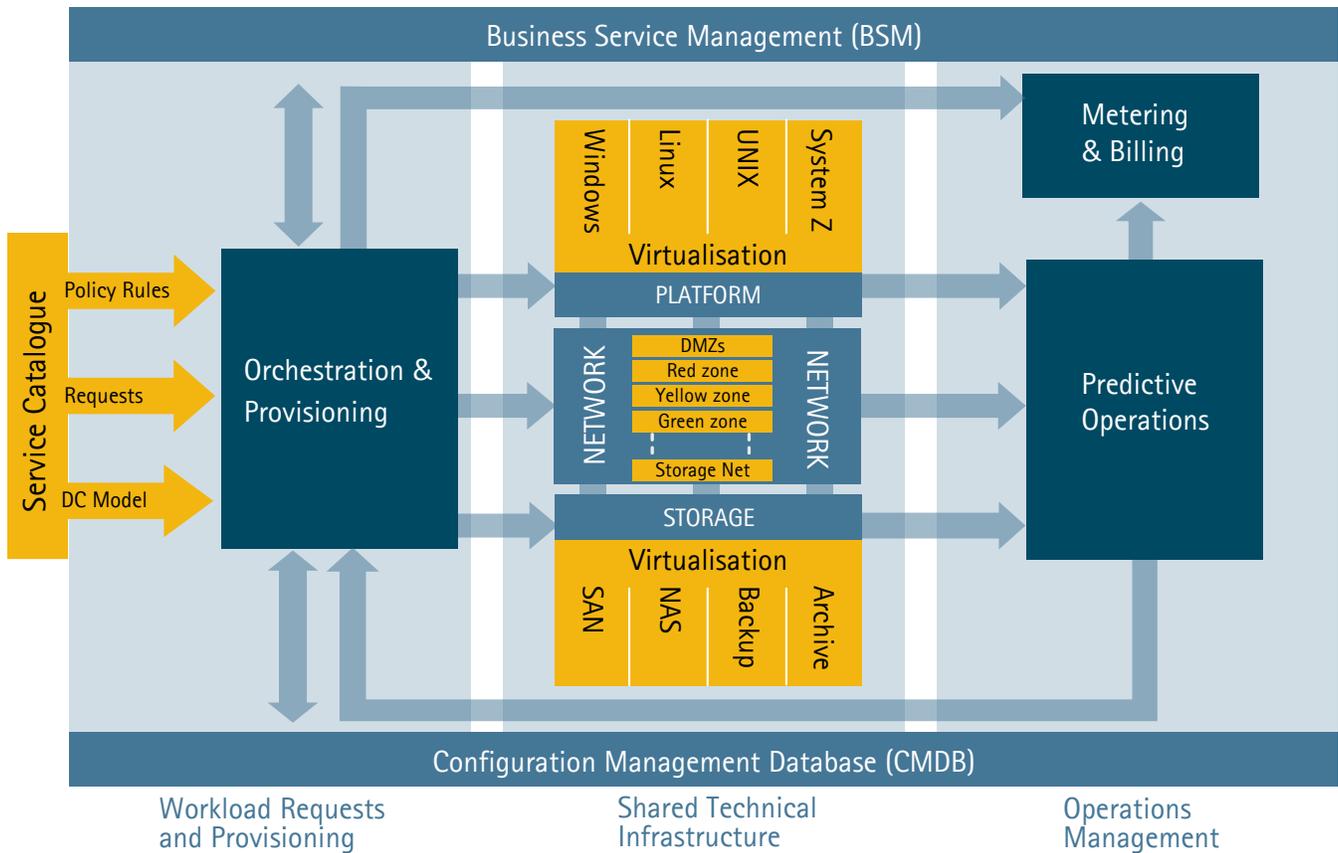
Accenture can typically centralize more than 80 percent, standardize up to 95 percent and consolidate up to 50 percent of an organization's existing servers. This helps clients achieve a 30 to 50 percent reduction in total cost of server ownership, helps increase server reliability and availability, and helps reduce capital expenditures.

#### Storage transformation

We assist clients looking to transition to networked storage and eliminate duplicate environments, thereby helping to improve storage utilization, investment returns and the availability of their enterprise data. Large organizations can save tens of millions of dollars during the first year and reduce their total cost of ownership by 30 to 55 percent.

**Database technologies**—Accenture's solutions help clients improve

Figure 2. The Architecture Blueprint for the NGDC.



IT productivity, reduce the total cost of ownership associated with database technologies and drive more value from their information assets.

**Orchestration and provisioning**—By automating a number of capabilities to provision individual components of IT—from server and storage environments to applications—into a seamless service, we help companies reduce delivery costs by up to 30 percent and delivery times from days to minutes.

**Data center design and location consolidation**—We help clients consolidate their data center footprints and help ensure that data center designs address “green IT” issues related to power utilization, power sourcing and climate controls.

**Cloud migration**—We help clients extend their IT provisioning capabilities to take advantage of both intra-

enterprise and extra-enterprise clouds, thereby enabling true end-to-end IT service provisioning and management.

Our data center operations solutions include:

**Maturity Model for Information Technology Infrastructure Library (ITIL®) Assessment**—Our robust diagnostic solution assesses all aspects of a client’s IT operations against ITIL®<sup>1</sup> (version 3) practices and identifies opportunities for improvement.

**Business service management**—We help clients align IT services to business priorities to drive business results.

**Service management**—We help clients manage their IT operations as a business, introducing business practices such as governance, workload management and financial management.

**Service delivery**—We help IT organizations assess the quality of their service delivery, transform their infrastructure and move toward dynamically provisioned service and cloud computing.

**IT asset management**—Our systematic, ITIL®-based approach to IT asset management enables clients to control the total cost of ownership for IT assets throughout their life cycles.

**IT service catalog**—We help clients define a standard set of IT services that meet the needs of their business and can be provisioned from either intra- or extra-enterprise clouds.

1. The Information Technology Infrastructure Library (ITIL) comprises a set of commonly used and highly regarded policies and practices for managing IT infrastructure, development and operations.



## **Accenture: A leader in data center strategy and delivery**

Accenture is a leader in developing and deploying data centers that can position the IT organization—and the business as a whole—for high performance.

With proven assets, deep skills and unparalleled global delivery capabilities, we provide data center solutions and services that help organizations not only optimize the delivery of IT but also usher in a new era of IT service that is aligned with business imperatives.

We can help your organization too. For more information about how Accenture's data center solutions and services can help you pave the way to achieving high performance in IT service delivery, contact:

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## About Accenture

Accenture is a global management consulting, technology services and outsourcing company.

Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. With more than 186,000 people serving clients in over 120 countries, the company generated net revenues of US\$23.39 billion for the fiscal year ended August 31, 2008. Its home page is [www.accenture.com](http://www.accenture.com).

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