



Technology Labs

Cloud computing is the sourcing of a computing capability – hardware, software, even execution of a business process – somewhere "out there," in a computing "cloud" created wherever vast resources are linked together.

Users don't know or care where the capability comes from, or how the computing capability is put together. What users do care about is the capacity of cloud computing to introduce significant new levels of scalability and flexibility, including:

- Lower infrastructure, maintenance and energy costs
- Capacity as you need it, with the ability to handle unexpected load changes

- Accelerated speed to market, including faster pilots
- High-powered computing, including "infinite" computing capacity on demand

Cloud computing sounds good on paper. But prior to taking the leap, every enterprise faces critical questions. The innovative Accenture Cloud Computing Accelerator helps organizations answer these questions in four weeks or less via a defined process using proprietary tools to accelerate your first cloud pilot. Leveraging our experience and knowledge, Accenture works in close collaboration with you to achieve high performance by capitalizing on your areas of greatest cloud computing potential.

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Capture the power of cloud computing with Accenture Cloud Computing Accelerator

Cloud computing is an integrated sequence of services, accessible from anywhere, that turns computing from a fixed into a variable cost by providing on-demand computational capacity or application services from remote locations using a global network. Cloud computing essentially delivers IT capability "as a service," allowing users to access vast technology resources via the Internet. Your service remains available at all times, and resource usage is adjusted automatically, so you only pay for what you use.

The Accenture Cloud Computing Accelerator helps enterprises - corporations and governments – explore the potential power of cloud computing from assessment through pilot. Many organizations have heard about cloud computing and are intrigued by its possibilities. Most would like to pursue a structured process of experimentation, while avoiding the obvious pitfalls of going too fast and stumbling, or going too slow and falling behind. In as little as four weeks (even faster if you have already identified candidate applications), the Accenture Cloud Computing Accelerator lets you quickly learn about cloud computing's potential applications for your enterprise.

Accenture's approach helps your enterprise ask and formulate answers to such questions as:

- What business applications can be migrated to the cloud?
- Is the existing applications infrastructure ready to make the move?
- Which migrations will most benefit the enterprise?
- What are the risks and opportunities of cloud computing?
- Can cost savings be realized quickly?
- How do you get started?

Accenture's program is comprehensive, beginning with an opportunity assessment that utilizes proprietary tools such as Accenture's Cloud Computing Assessment Tool (see Figure 1). This analysis quickly quantifies the value of the opportunities

available to your enterprise. Our deployment strategy modeling will help you identify cloud-ready enterprise applications and pilot a candidate application with one or more cloud providers, such as Amazon Web Services or Microsoft's Azure service. The program includes an interactive workshop to explore business and technical dimensions.

Why cloud computing?

Several categories of cloud computing exist, from hardware clouds to software and desktop clouds. The Accenture Cloud Computing Accelerator focuses on the infrastructure clouds, platform clouds and application clouds.

Cloud computing is a flexible alternative to your current IT capability that delivers tangible benefits, including:

Cost reduction: With lower infrastructure, energy and maintenance costs, cloud computing lets you take out significant IT infrastructure costs in the near term. Since there is no hardware acquisition, your total cost of ownership is reduced.

Elasticity and scalability: Cloud computing provides on-demand capacity and high business agility, including "infinite" computing capacity when needed.

Speed to market: Cloud computing allows organizations to launch projects earlier, and succeed or fail faster, with lower risk and reduced costs. Where pilots are successful, cloud computing also makes it easier to scale up services.

Virtually every organization today is concerned about economic conditions, and hesitant to take undue risk. With funding restrained, businesses are searching to preserve capital. Cloud computing enables you to take advantage of important IT trends, including hardware commoditization, falling costs for network bandwidth, Service-Oriented Architecture (SOA), the virtualization of servers, and the economies of scale that are a dominant feature of globalization.

Cloud Computing Case Study: Speed to Service

A public-sector enterprise has a small but highly visible application targeted to go live soon. High traffic is anticipated, but funding is constrained. Cloud computing offers an appealing alternative. With no upfront hardware costs, the agency can quickly stand up the short-duration application and then scale it down or completely tear it down after the peak season. In contrast to a rigid infrastructure configuration, the agency can use cloud computing to manage capacity in a costconscious way by automatically shrinking and expanding resource pools.

The agency needs to quantify the value of cloud computing against a traditional data center alternative. Team members work to answer a battery of questions: Is cloud computing viable from a business, technical and security perspective? Given the business objective - cost avoidance is this application the best fit? Once the agency determines that cloud computing is a viable approach, it is time to quantify benefits: What are the cost reductions with a chosen cloud provider? Lastly, the agency shapes an infrastructure deployment strategy and schedule that estimate the total cost of migration and the ongoing total cost of ownership.

From discovery to pilot, three fast phases to realize your cloud computing potential

The Accenture Cloud Computing

Accelerator can take your enterprise from a standing start to a full-scale pilot in one month or less by working through three clearly defined phases:

Discovery

In Phase 1, we work with your team to identify applications that could benefit by running on a cloud. We identify your business goals and IT strategy, search for under-utilized assets, and prioritize pilot opportunities. The work in this phase can proceed more rapidly if you have typical industry applications, or already know the applications you are interested in piloting. Regardless of where your specific opportunities lie, the discovery process moves guickly, thanks to the intrinsic advantages of cloud computing.

Assessment

In Phase 2, Accenture's cloud computing specialists work with you to prioritize your application readiness, and create detailed maps for migration opportunities. We conduct a quantitative assessment of

Figure 2: Formulating a cloud

capacity plan for fluctuating demand





Time

100

Evaluation Criteria

security issues)?

your options using the Accenture Cloud Computing Assessment Tool, review results with you, define a migration strategy for the highest-value applications, and build an implementation roadmap.

Workshop Pilot

In the final phase, Accenture works with you to conduct a workshop pilot that will prove out a functional cloud to your management, and then build a business case and implementation plans for a production roll-out.

- Will there be a measurable gain in performance for the application if it were deployed in the cloud?
- Will a move to the cloud be possible for the application without a major (>20%) increase in complexity to the implementation process?
- Is this application safe for the cloud (including data, application and network
- Given my existing DR strategy, will a move to the cloud realize cost or other advantages for my application?
- Will there be a measurable gain in performance for the application if I used Amazon as the cloud provider?
- Will it be possible to design, build, and deploy the application without a major (>20%) increase in complexity using Amazon as the cloud provider?

Figure 1 (above): This sample screen detail from the Accenture Cloud **Opportunity Assessment Tool shows how** this tool can help identify high-value cloud opportunities for your enterprise.

The Accenture Cloud Computing Assessment Tool is used to model applications usage and traffic patterns in order to avoid over-provisioning of cloud computing resources, while maintaining desired service-level requirements such as

In this illustration (see Figure 2 at left), there is a mismatch between supply as represented by the blue line and demand as represented by the yellow area. So the infrastructure's capacity slightly exceeds actual demand. This may be appropriate for an enterprise that wants to maintain extra capacity as a precautionary measure. An alternative cloud capacity plan may more precisely "hug" the spikes and valleys in actual traffic. In that case, the supply of resources will track demand more precisely, with the cloud allocating and releasing resources effectively in real time.

Accenture Cloud Opportunity Assessment Tool

When your enterprise works with Accenture, you benefit from Accenture's cloud computing experience as you formulate a coherent cloud computing strategy and roadmap. Accenture offers a roadmap for organizations seeking to realize benefits quickly. We can advise you on where and how to get started, and would be happy to share our perspectives on cloud computing and batchand data-intensive applications, software development and testing, research and development, business continuity and disaster recovery, desktop productivity tools, and peak load demands.

At the center of the program is the Accenture Cloud Computing Assessment Tool, which facilitates a candid analysis of your enterprise's opportunities. This assessment and decision-support tool is driven by a repository of cloud computing research and resources. The assessment tool also factors in application use cases to support the development of cloud computing solutions that leverage Infrastructure-As-A-Service, Software-As-A-Service or Platform-As-A-Service.

The tool includes these features and capabilities:

Questionnaire-based diagnostics support:

- A guided question-and-answer set to identify candidate applications
- Scoring that is specific to cloud provider capabilities and technology
- Potential deal breakers and risks are recognized at the start
- Focus on specific, concrete opportunities: variable demand, peak load, time-to-implement

Knowledge base of applications:

- Inventory of cloud solutions include multiple application styles: e.g., portal, batch, backup
- Repurpose existing application architecture and infrastructure profiles
- Technology maturity landscape

Cost-benefit estimator:

- Pre-populated strategies for a quick estimate of cloud versus data center
- Impact of turning capital expenses into operational expenses

Deployment strategy modeling:

- Time element capture to show immediate time-to-implement
- Load capture to show effects of variable demand on infrastructure

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About Accenture Technology Labs

Accenture Technology Labs, the dedicated technology research and development (R&D) organization within Accenture, has been turning technology innovation into business results for 20 years. The Labs create a vision of how technology will shape the future and invent the next wave of cutting-edge business solutions. Working closely with Accenture's global network of specialists, Accenture Technology Labs helps clients innovate to achieve high business performance. The Labs are located in Chicago, Illinois; Silicon Valley, California; Sophia Antipolis, France; and Bangalore, India.

For more information, please visit our website at www.accenture.com/accenturetechlabs.

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 Aug. 31, 2008. Its home page is www.accenture.com.