Utility Computing:

Business Reality and Advantages

A report prepared by:

SAUGATUCK TECHNOLOGY

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About Saugatuck Technology

Saugatuck provides research-based consulting services that combine business planning and market assessment with first-hand research of executive technology buyer trends. Founded in 1999, Saugatuck is headquartered in Westport, CT. For more information, visit www.saugatech.com or call 1-203-454 3900.

Introduction: Utility Computing is a Real Business Advantage

The promise of IT as a ***utility*** – the delivery of dynamically-scalable IT functions, used and billed on a usage basis, as the needs of the business environment dictate – is too often seen as just a promise.

The reality is that Utility Computing is real today, *and is delivering business benefits now*. Saugatuck research shows that 73 percent of user firm executives responsible for Finance, IT or specific lines of business see value in current forms of Utility Computing, and even more are putting in place business strategies and structures to take advantage of rapidly-emerging and evolving Utility Computing services and pricing.

The business benefits of Utility Computing go well beyond reduced capital costs and operating costs. Utility computing is already delivering more efficient business operations, improved responsiveness of IT to changing business needs, and reduced complexities in managing IT, from sourcing to integration to upgrades and maintenance.

This report provides an executive-level summary view of the reality of Utility Computing (UC) – what it is, how it is evolving, the role of outsourcing for UC, what capabilities are being used today, and the key business factors for evaluating providers of UC outsourcing services.

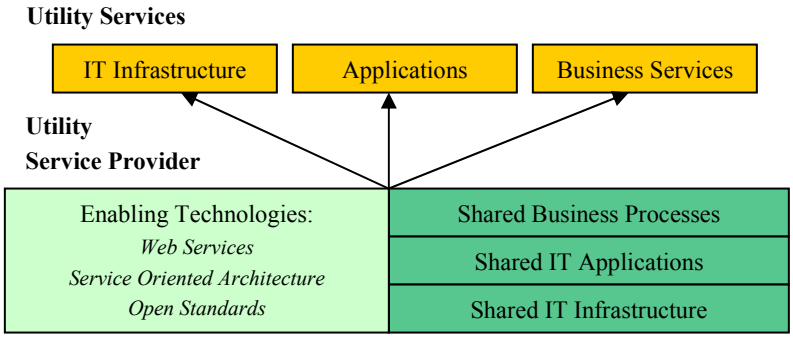
This report was prepared by Saugatuck Technology Inc., a leading IT market and strategy consultancy based in Westport, CT. All report content comes from Saugatuck research on utility computing and related practice areas. More information on the research and on Saugatuck as a company is available at www.saugatech.com, or by calling 1.203.454.3900.

What is Utility Computing

"Utility computing" is the provision of IT functions and applications over a shared infrastructure, typically as a set of services provided by either an internal source (typically the IT or IS department), by an outside IT outsourcing or business process outsourcing services provider, or by a hybrid/combination of both, managed by the user IS organization.

Figure 1 below illustrates Saugatuck's Utility Computing services provision model. The upper layer represents internal "utility" services, typically distributed and managed by the IS organization. These in turn are enabled, and often ride on top of, technologies and services from a combination of internal and external infrastructure providers as illustrated in the lower layer.

Figure 1: Saugatuck Utility Computing Services Model



Source: Saugatuck Technology Inc.

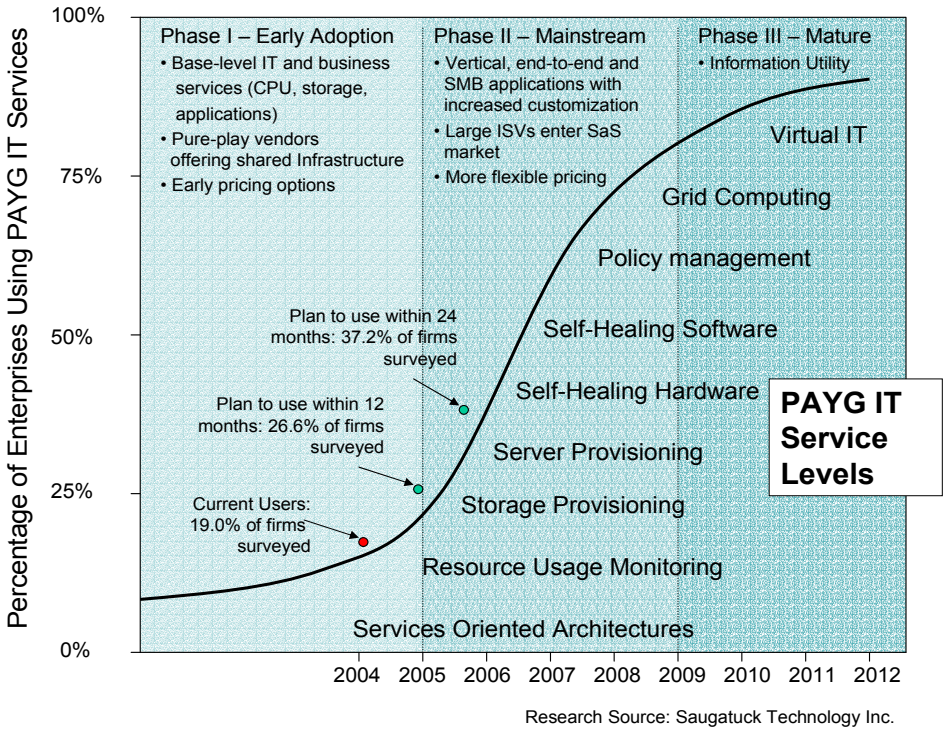
In the case of ***internal*** utility computing, the IS organization acts as an information utility, delivering and charging on a "pay as you go" basis for the use of shared resources. In the case of ***external*** utility computing, one or more Service Providers charge for the on-demand delivery of IT functionality on a "pay as you go" basis using resources shared by multiple clients, each of which manages its own Information Utility.

In both cases, the delivered services are enabled by a combined, hybridized platform of shared IT infrastructure, applications, and business processes (see sidebar on page 3). Over the next several years, as IT platforms and data centers become more virtualized, we will see dramatic changes and improvements in the capabilities of utility computing based on the expansion of shared, virtual infrastructure, applications and processes.

The Current Reality of Utility Computing

As of year-end 2004 nearly one-fifth of firms in the U.S. are taking advantage of utility computing, mostly in the form of "pay as you go" (PAYG) outsourced IT functions and outsourced business processes and applications. Figure 2 shows the current and planned adoption of PAYG IT services by more than 300 finance, business and IT executives surveyed and interviewed by Saugatuck in 2004.

Figure 2: Pay-as-you-go Services Adoption Leading Utility Computing



As can be seen in Figure 2, PAYG IT services are beginning to enter the mainstream of user adoption. *Nineteen percent of user executives have already begun using some form of pay-as-you-go IT services, with another 26.6 percent planning to do so by the end of 2005, and 37.2 percent by the end of 2006.*

Worldwide, user firms are utilizing specific business process and IT functional services, from finance and accounting applications and systems to managed IT services such as dynamic processing and storage capabilities. This focus represents a "one step at a time" evolutionary approach by most firms, seeking to test and prove the business value of UC before committing to it wholesale.

The right-hand side of the figure clearly shows the increasingly sophisticated types and levels of IT and services that will be required by both users and providers in order to continually improve service and expand the scope and range of utility computing capabilities. It's clear that we are just entering an accelerated period of utility computing adoption, and that more exciting and useful technologies and services can be expected soon.

Utility Outsourcing: Vendor Impact Factors

When looking at outsourced providers to help enable Utility Computing, especially in an increasingly hybrid environment, Saugatuck research indicates five recurring, critical factors that impact the user firm's ability to do business. These are:

- *Capital expenditures*. Different providers will enable or require different levels of CapEx reduction, with time and infrastructure being the key determinants.
- *Operating costs.* Many firms initially outsource to reduce operating costs, and then find that outsourced IT usage costs grow beyond projected savings as the business itself grows and changes. Cost reduction per utility component (per MIP, per minute of use, per storage unit) over time is a key service provider advantage.
- *Freeing critical resources*. This is the prime reason for outsourcing – focusing on core business competencies. However, changes in business IT usage (i.e., frequency, resources) require rethinking and even re-incorporation of IT assets and management back into the firm. Fifty percent of CIOs surveyed by Saugatuck in late 2004 report needing to renegotiate Utility Computing or PAYG IT services on an annual basis.
- *Reduce deployment time.* A Utility Computing provider should be able to deploy resources faster, more effectively and more efficiently than a user firm's internal resources. A flexible hardware, software and networking platform enables this type of adaptability in a most cost-effective manner.
- *Leading-edge technology access.* Over time, Saugatuck expects the availability of more advanced technologies to become an even more critical Utility Computing decision factor. As a business becomes more virtual, it requires more and more advanced IT. A provider's ability to deliver more efficient and more effective processing capabilities, storage management, networking security and availability, among others, becomes more critical over time to the user firm.

What explains the rapid growth in Utility Computing interest, plans, adoption and implementation? The answer is a combination of technologies, management capabilities, and pricing. The business advantages in outsourcing IT and business functions have been well-documented for years. What's new — and improved — is the ***management and pricing that make such capabilities available and useful on a "Pay-as-you-go" or utility basis***.

And while Saugatuck expects to see continued change in services bundling and pricing, ***these changes will be evolutionary rather than dramatic***. The most efficient Utility Computing pricing models will be hybrids that combine standardized access to a set of services or capabilities, coupled with per-unit or per-use charges over time – what Saugatuck refers to as an "electric utility" model.

Outsourcing Growth: Drivers & Inhibitors

Saugatuck predicts strong growth in IT outsourcing to continue through the next decade, as the trend toward Utility Computing continues to gain momentum. The top four factors driving this include the following:

- Most user firms' infrastructures are not capable of delivering Utility Computing in anywhere near a optimal manner;
- Capital expenditures and near-term operating costs are likely to increase due to significant investments needed to implement Utility Computing;
- Negotiations will be required with multiple IT vendors and service providers in order to deliver Utility Computing across most enterprises; and
- Outsourcing enables faster deployment with reduced long-term costs due to typical declining cost-per-usage agreements.

When executives consider that multiple, distinct IT functions can be — and are being — delivered and used as a utility, outsourcing makes even more sense.

Even though there are strong business arguments in favor of outsourcing for Utility Computing, there are obstacles and objections. The greatest obstacles to outsourcing Utility Computing include the following:

- Business models for users and providers. To date, only a relative few IT outsourcers deliver utility-style usage, management, pricing, and billing, due to their installed base of technologies and existing contracts with their clients and other IT suppliers.
- Optimizing variable IT usage requires strong, standardized business process management. If the user firm does not have the capability of managing flexible resources, then long-term cost savings will be less significant.
- Costs versus usage over time. While most IT outsourcing deals include declining costs per unit of usage over time, usage over time often increases as business needs increase. Many outsourcing pricing contracts therefore result in higher usage costs over time.
- Technology capabilities/obsolescence. Improvements in IT over time are not necessarily included in outsourcing contracts. Therefore, business improvements enabled by new or advanced IT can be rendered more costly.

Utility Outsourcing: Vendor Relationship Factors

In addition to the Utility Computing Outsourcing Decision Factors shown in the box on page 3, Saugatuck research indicates that the following factors are critical to the success of any Utility Computing outsourcing partnership:

- *Ability to customize and integrate provider services with user firm's current technology and operations.* Very few business processes and supporting systems are exactly the same, even within a single industry. The ability for an organization to quickly scale its IT infrastructure up (or down!) will continue to be a prime requirement. At the same time, user firms must continue to reduce IT risk and the costs associated with excess IT capacity.
- *Ability of the provider to partner with the user firm as a business.* Industry-specific business knowledge is very useful in developing and then managing a Utility Computing relationship (i.e., understand high/low margin company and ability to spend).
- *Stability of vendor.* Relatively few providers are in the Utility Computing business now; even fewer have been able to provide Utility Computing for very long. Longer experience suggests greater success with the user population.
- *Understandable, variable pricing units.* User needs will change over time – provider pricing should reflect that reality.

Utility Computing: Real Business Benefits Today

In summary, Saugatuck sees utility computing as an emerging, viable set of capabilities that user firms can — and should — take advantage of. Asset-based IT is an increasingly unattractive option for businesses. Effective and efficient management of information technology is more and more about services and access. The proof is that enterprises are buying into this trend – especially in the large-company category, where research from Saugatuck, Gartner and others indicate that 80 percent of large-company IT spending is now going to various managed service providers.

Because of this, we are seeing a distinct movement toward outsourcing to managed service providers, especially for IT functions that are easily managed that way – precisely because there is such a strong economic and business argument for it.

Obviously, each firm's business and IT situation is different, and the adoption of, and benefits from, Utility Computing will differ accordingly. But overall, the following key business planning assumptions can be used by user finance, IT and line-of-business executives:

- Utility Computing provides real business benefits, from cost reduction to tactical and strategic business flexibility.

- Utility Computing can provide greater business value to user firms than most current IT delivery and management models, whether internally-provided or outsourced IT and services.
- Outsourcing Utility Computing enables most user firms to focus more on what is important to the business.
- In the longer term, Utility Computing for most firms will be a combination of internally and externally provided capabilities.

Perhaps the most significant finding of all, based on Saugatuck's own and reviews of other research sources, is that Utility Computing is here today and already changing the way businesses operate to enhance the bottom line.

SPONSOR PERSPECTIVE: VeriCenter, Inc.

So, how do you begin to take advantage of the new computing utility model? User executives already actively engaged in such services suggest asking, "what is too cumbersome for our organization today?" In other words, where do we have a "toothache" right now? Is it Collaboration? Security? Redundancy? Disaster recovery? Where could a service provider work with us now to implement a *simple, real-life* pilot, to test the concept?

One way to help determine that is by utilizing a flexible services approach, such as that provided by VeriCenter. This approach can allow you to quickly begin piloting or testing selective outsourcing and putting the "On Demand IT" model into practice. It can begin with an "Infrastructure Strategy Assessment," which is tied to your business goals and examines how you can:

- Reduce IT capital requirements
- Simplify technology delivery, support, and maintenance
- Scale technology and infrastructure
- Better support business operations and growth

Secondly, a "System Readiness Assessment" can be conducted, a more tactical step in which the provider works with the customer to determine how to implement the strategy and select the services that will provide the most value.

The Relationship and the Importance of the SLA

The key to a rewarding, long-term relationship is a partner that understands your business objectives. It goes without saying that a managed IT services provider must be financially stable, well-backed, with an experienced, dedicated management team, strong technical credentials, major industry partners, a stable workforce, and a solid existing customer lineup.

Finally, understand and insist on Service Level Agreements (SLAs), backed by guarantees and real dollars. Performance measurement must be a key part of the package, with monitoring/reporting software tools for capacity planning and trend analysis, to ensure you're paying only for what you need, when you need it. An important advantage for the customer is that the outsourcing partner takes ownership, yet the customer maintains visibility, knowledge, and control.

The VeriCenter Value

VeriCenter is successfully addressing mid-size to large company needs with IT managed services that utilize expertise in data center operations, public network infrastructure, and application hosting. With a comprehensive suite of managed services and IT infrastructure, VeriCenter provides hundreds of customer firms the ability to increase flexibility, reduce time to market, and improve quality and efficiency.

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For more information about this or any other Saugatuck Technology report or service, please reach us at the contact information below.

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