

FEATURE STORY

ReVOLUTION IN THE AIR: THE CLOUD EFFECT ON IT AND BUSINESS

Volume 3 in the Cloud
rEvolution Series

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All businesses — whether they realize it or not — will be affected by the cloud.

Cloud's highly elastic, ever-accessible, powerful computing is unprecedented, says the latest volume of CSC's Leading Edge Forum Report, "Cloud rEvolution: The Cloud Effect."

"Cloud is having a major impact on the IT industry, on enterprise IT, on the nature of IT itself and on the business," says Yale Esrock, coauthor of the report with Rick Muñoz and Doug Neal.

"Businesses say, 'What is this cloud? It seems like more of the same,'" he says. While the technological underpinnings of cloud aren't new, he explains, they have been combined to result in something that is new — and quite revolutionary. To keep up, business and IT leaders must first understand what they're dealing with.

"People try to understand cloud in terms of technology. But the best way to understand cloud is really as a paradigm, or operating model, for how IT capabilities are delivered and consumed," Esrock explains. "Cloud is implemented in different ways by different technologies by different providers."

But the overall result is the same: being better able to match IT supply to IT demand, rather than having to invest in IT as an expensive (and often underutilized) fixed asset, and boosting the organization's agility by being able to set up and take down IT systems on the fly.

The cloud model will be significant and far-reaching, and the report identifies six main cloud effects:

The Stack Transforms to Services

IT has been moving toward services throughout the evolution of the Internet, and now we have a more mature services environment. The cloud services landscape has coalesced around a few familiar services categories: infrastructure, platform, application and process.

What's next? Some tout the notion of "everything as a service." In this scenario, consumers get everything via the cloud — from personalized information and social discourse to entertainment — while enterprises use the cloud for critical business needs.

Structural Deepening Expands the Cloud Ecosystem

More products and services are emerging to help enterprises use cloud computing effectively. These new products and services provide additional functionality that bolsters capabilities offered by the primary cloud providers. They also provide the means to coordinate and integrate cloud services, as well as greater cloud visibility. The result is an ever-growing ecosystem of cloud providers, services and products. Business must not only navigate through these expanding options, but make them interoperable, which will be a challenge.

Cloud Enables New IT Options

Today there is a spectrum of cloud choices, from private clouds to semiprivate clouds to public clouds, as well as the ability to mix these together

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Yale Esrock, coauthor, "Cloud rEvolution: The Cloud Effect"

into hybrid clouds. With a range of clouds, plus capabilities delivered as services up and down the stack, IT will have wide latitude to mold all these parts together to reinvent IT in many ways.

For example, what if cloud benefits could be obtained in house, right in your own data center, while avoiding some of the security concerns? Or what if there were a cloud that was restricted to a known, trusted community of businesses, with higher levels of transparency and security? The possibilities are endless.

Mega Data Centers Power It All

Gigantic data centers on a previously unheard-of scale are emerging around the world. These warehouse-size facilities may be up to 10 football fields in size and represent billions of dollars in investment.

They embody new technologies and architectures. They also offer significant economies of scale that allow providers to make a profit while offering cloud services that are priced competitive with — or cheaper than — an enterprise data center.

Clouconomics Provide Financial Incentive

Cloud presents a new economic proposition — "clouconomics" — that affects both providers and businesses. The first economic shifts to emerge are in the costs and prices of cloud

services. Providers can offer services at unprecedented price points based on a different data center structure; enterprises can take advantage of these price points while shifting capital expenditures (capex) into operating expenditures (opex). They will also have the ability to turn on, dial up, dial down and — perhaps most importantly — turn off computing resources as needed.

"At this point, due to the economy, most businesses are focused on capex versus opex," says Esrock. "Ultimately, that's not the big advantage to businesses. Greater agility, collaboration and innovation — these are where you'll get the biggest bang for the buck." The final cloud effect, about business value, addresses this.

Cloud Drives Business Value

In this sixth and last effect, cloud represents new business opportunities for all, especially in the areas of agility, collaboration, innovation, evaluation (business analytics) and new venues for conducting business. People will be able to work together like never before. And many ideas and scenarios will be tried out quickly, in parallel, for reasonable cost, and without having to commit internal IT resources.

"This cloud effect is probably the most important," says Esrock. "If cloud doesn't bring value to the business, then it is just an interesting concept. It's the value the business itself can gain that makes cloud important."