

FEATURE STORY

FOR THE FUTURE OF THE CLOUD, LOOK TO ITS FOUNDATIONS

Volume 1 in the “Cloud
rEvolution” Series

It seems “Cloud” is the new “dot-com,” and businesses are having a tough time cutting through all the noise.

CSC’s new Leading Edge Forum Report, “Cloud rEvolution,” aims to separate the facts from the fiction. It provides a clear, objective analysis of cloud’s capabilities – enabling readers to determine their own best path.

Volume 1 of the report, “Laying the Foundation,” introduces the Cloud rEvolution and explores the digital foundations – the core building block technologies – that lay the groundwork for cloud computing.

“This is ‘the perfect storm,’ where many elements are coming together in essentially a new way to create new models for doing business,” says Rick Muñoz, CSC partner and co-author of the report with Yale Esrock and Doug Neal. “You have to understand those elements to really understand where the cloud can go in the future, and what you can create with it.”

Epic shift from products to services

The overwhelming driver in this perfect storm has been the consumerization of IT, with serious competition coming from unlikely sources such as Google and Amazon, who have left traditional IT companies at first skeptical and then scrambling to catch up. The second force is what economist Brian Arthur calls “combinatorial evolution,” in this case the combining of key technologies and concepts such as grid computing, ubiquitous bandwidth, intelligent mobile devices and abstraction, ranging from virtualization to multi-tenancy. The third driver is the plight of the enterprise data center: out of space, out of capacity, and out of fashion in these increasingly

Green times. And the fourth driver is the current economy.

“We are witnessing a rEvolution in the making: Cloud represents an evolution in technology and a revolution in business,” the report says. “Although cloud is on an evolutionary technology path, cloud’s impact on business is potentially revolutionary, for it represents an epic shift from products to services. IT goes from being monolithic, fixed, expensive and slow to modular, flexible, cheap and fast.”

Power, information, access

The report groups cloud’s digital foundations into three categories:

- **Universal power:** The computing power needed for delivering cloud services is made possible by the amplification effect of many technologies stacked on top of one another, from multi-core processors to self-managing data centers.
- **Universal information:** Unlimited data storage, smarter storage and smarter information are driving the creation, consumption and persistence of the data that will reside in the cloud.
- **Universal access:** Without universal access to broadband networks – through unified high-speed networks and new “edge” devices – interwoven into the Internet, cloud computing would not exist.

However, as will be explored in the next volumes, the cloud is more than a sum of these digital foundations.

For More Information:

Visit www.csc.com/lef.

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FOR THE FUTURE OF THE CLOUD, LOOK TO ITS FOUNDATIONS (CONT.)

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partner and co-author of
"Cloud rEvolution"*

"We have just begun to see what new applications and uses of data are possible in this evolved technology environment. The combinatorial evolution of information technology has given us new digital foundations to build upon, with exciting potential," the report says.

Internet the game-changer

Muñoz notes that while the cloud is a combination of technologies and processes, at its core is the Internet.

"The fact that anything can be accessed and used, essentially, over the Internet basically removes all the physical limitations working with anything digital," he explains, "except of

course for the speed of light."

He adds that competing approaches will continue to battle for market dominance, making it even more important for readers to really comprehend what the cloud is and what it can (and can't) do.

"Do companies need highly sophisticated systems or do they just need, literally, acres and acres of cheap processors somewhere on the Internet?" Muñoz asks. "There aren't any standards yet, and there are many different players and different approaches. I think here in particular CSC can provide, not just cloud capabilities and services, but some clarity to help clients sort through the current complexity."