



IBM Computing On Demand Uses Clouds to Increase Business Productivity

Overview

Computing on Demand

Challenge

- IBM customers increasingly require shorter time frames to acquire additional computing capacity. One option is leasing this capacity, but traditional lease terms lack the flexibility, manageability and quick response times that today's businesses need.

Solution

- Using existing Computing On-Demand technologies from IBM systems, IBM has leveraged cloud computing so that customers can gain access to as much or as little additional computing capacity they need with minimal turnaround time.

Key Benefits

- CoD reduces the time to select and provision resources from weeks or days to just a matter of hours.
- IBM clients are able to respond to the needs of their businesses and access additional computing capacity quickly and securely. Moreover, they only pay for the additional computing capacity that they actually use. As a result, IBM CoD customers are more productive and capable of responding to business needs on short notice.

Today's business climate places a premium on flexible and responsive organizations. That's why IBM enables customers to lease whatever computing capacity the situation requires and makes it available within a matter of hours.

This service, known as Computing on Demand (CoD), utilizes cloud computing technology to deliver the computing capacity customers want, when they want it and only for the time period they require it. It's this on-demand feature that makes CoD so customer-friendly. In the process, cloud computing has brought IBM closer to a paradigm shift in IT services: the advent of the dynamic IT infrastructure and the smarter planet.

Thanks to cloud computing and CoD, IBM has enabled clients both large and small to become much more productive. For instance, Exa Corp., a leading simulation software company, has found CoD to be invaluable to the company's ability to serve clients effectively. CoD enabled this company to deliver—over a weekend—an analysis for a client assessing how a series of changes to an auto design would impact the vehicle's aerodynamics, thereby boosting fuel efficiency by 25 percent to 30 percent. With Exa's in-house computing resources, the analysis—which was requested on a Friday and due the following Monday—would have typically required ten days to complete. But by tapping IBM CoD to scale-up its computing capacity, Exa had the analysis completed and delivered in 16 hours. IBM CoD enabled the customer to meet its client's needs without a major investment in hardware—or time. Exa credits IBM CoD with its cloud computing ability, in part, for the company's double-digit percentage growth every year for the past five years.

A leading provider of variable annuities also relies on IBM CoD and cloud computing to analyze huge volumes of data needed by the company's actuarial team within 10 hours of the time the data becomes available. With IBM CoD, the annuity provider can scale from a modest 200 processors to as many as 500 processors for critical workloads. Not only has IBM met the company's IT needs, but also CoD has saved the company the cost of building a new data center to handle the peak workloads, as well as the cost of maintaining the infrastructure. Moreover, the company only pays for the cloud resources it requires when it needs them.

Without CoD, additional computing capacity for peak workloads or back-up can be leased, but the terms usually require multi-year commitments for a specified number of processors and a fixed amount of data storage and network capacity at certain times. Provisioning those processors and storage on short notice is beyond the scope of the standard agreement, as it can take two weeks to build processors to client specifications.

With today's more powerful processors, customer workloads often require far less time to process than the lease term commitment. Customers want to reduce the time required to provision the servers, network and security as well as the time increments available to lease.

With the cloud computing CoD model, IBM delivers these customer requirements. Subscribing customers can now access CoD through a self-service scheduling portal that provides access to 14,000 processors and 56 terabytes of storage spread across six global CoD centers. The portal acts as a service catalog that allows subscribers to choose operating systems and to schedule server racks for any time period, from weeks or days to just a few hours. Utilizing IBM build server and provisioning technology, automation of the deployment cycle now allows large numbers of cluster racks to be built simultaneously, without administrator intervention.

CoD, with its rapid deployment of services, represents one more milestone in the IBM vision for the new enterprise data center. Furthermore, CoD is a service that IBM has come to embrace as part of its every day business. IBM business units, including Research and the Service and Technology Group, regularly utilize CoD themselves to increase productivity and respond to new workloads in less than two hours.

IBM Design Centers can assist your business in developing cloud computing solutions to solve infrastructure challenges. Once engaged with a Design Center, customers partner with skilled IBM experts from the concept stage all the way through implementation of a cloud or ensemble to drive first-of-a-kind advanced solutions to reality.

For more information on how a Design Center can help you, visit:

<http://www-03.ibm.com/systems/services/designcenter/index.html>

For more information on CoD, visit:

<http://www-03.ibm.com/systems/deepcomputing/cod/index.html>

IBM's Computing on Demand Centers help clients reduce data center expenses, especially power and cooling costs. A variety of security levels help ensure compliance with U.S. Government requirements.

For more information, visit:

<http://www.ibm.com/jct03001c/systems/deepcomputing/cod/testdrive.html>

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Produced in the United States of America

March 2009

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