Capgemini boosts service to clients with a cloud delivery platform

Building value on integrated IBM technologies

Overview

The need

As one of the world's leading infrastructure outsourcing providers, Capgemini saw an opportunity to enhance flexibility and cost-efficiency by offering its clients a cloud-based solution that would deliver Infrastructure as a Service.

The solution

In partnership with IBM®, Capgemini built a fully integrated cloud delivery platform for clients in the UK and USA. Leveraging the IBM CloudBurst™ solution, the team designed a solution based on IBM BladeCenter® HS22V and IBM XIV® Storage System technologies, automated and monitored by IBM Tivoli® software.

The benefit

Automation enables the Capgemini team to manage more servers without taking on more staff. Delivers lower costs and better service for clients: one client was shown how it could save over 33 percent on its disaster recovery service while cutting recovery time objectives from 72 to 24 hours. Self-service features cut application development time for clients by as much as 50 percent.

Capgemini is headquartered in Paris, France and operates in more than 40 countries. Capgemini employs 115,000 people in North America, Europe, and the Asia Pacific region. Management and support roles aside, its employees are grouped into four major disciplines – consulting, technology, outsourcing, and local professional services – each of which is governed by its specific economic rules, and managed with its own profit.

Capgemini Infrastructure Services draws on the expertise of its employees to manage, innovate and improve the IT systems and business processes of its clients. It offers a full spectrum of services including Infrastructure Outsourcing and Transformational Outsourcing.

As one of the world's leading infrastructure and hosting service providers, Capgemini Infrastructure Services saw an opportunity to reduce costs, enhance service levels and provide better value to its clients by developing a Cloud hosting offering that would provide infrastructure as a service.

Capgemini has partnered with existing Public Cloud service providers such as Amazon, but also realized that building its own Cloud infrastructure would address the needs of clients wishing to combine the benefits of a high-value infrastructure service provider with the cost advantages of Cloud computing. The challenge was to find the most effective combination of hardware, software and support services to facilitate the creation of a truly leading-edge Cloud service offering – and to deploy it rapidly to allow Capgemini to get its new offering to market as quickly as possible.

Designed for Data

- Capgemini is using IBM Tivoli solutions to monitor and manage its new Cloud environment, providing real-time analysis of clients' use of computing resources and enabling accurate usage-based billing.

Tuned to the Task

- Capgemini uses IBM BladeCenter and XIV platforms to support a multi-tenanted Cloud infrastructure that runs a variety of Microsoft® Windows® and Linux® solutions to meet clients' precise and diverse needs. The solution can also easily be extended to support IBM Power Systems™ and other platforms, allowing clients to choose the right platform for the right workload.

Managed in the Cloud

- Leveraging the IBM CloudBurst solution as a starting point, Capgemini has built a highly optimized, automated and scalable platform for Cloud Computing, providing clients with flexible Cloud services that can be deployed rapidly and managed at minimal cost.

Driving Innovation

- The solution enables Capgemini to enter the Cloud hosting marketplace, providing a significant opportunity for the company to win new clients. By persuading existing clients to leverage services from the Cloud rather than procuring new systems, Capgemini will also be able to reduce costs and enhance service levels.

Capgemini evaluated hardware and software solutions from a number of leading vendors. In July 2010, the team selected IBM as its partner for the Cloud initiative, citing the following reasons:

- IBM was one of the few vendors capable of acting as a 'one-stop shop' and providing all necessary hardware, software and support services.
- Capgemini already had considerable positive experience of using IBM hardware and Tivoli solutions.
- A full cost-benefit analysis predicted lower total cost of ownership (TCO) than most other vendors' solutions.
- The solution proposed by IBM was highly versatile and not tied to specific hardware platforms, operating systems or hypervisors – enabling Capgemini to avoid vendor lock-in and build a more flexible Cloud offering for clients.

Capgemini initially deployed a standard IBM CloudBurst solution as a lab system for development and testing, and subsequently worked with IBM Systems and Technology Group Services and IBM Software Services for Tivoli to customize the hardware and software configuration to meet its specific requirements. The IBM and Capgemini teams also worked together to define an innovative 'pay as you grow' commercial model and partnership agreement that enabled the two companies to share the up-front investment required and collaborate seamlessly in the development and deployment of the solution.

The design for the initial Cloud production footprint consists of 24 IBM BladeCenter HS22V blade servers and an IBM XIV Storage System with 79 TB of usable capacity. The hardware is monitored, managed and automated by a stack of IBM software including IBM Systems Director, IBM Tivoli Service Automation Manager, IBM Tivoli Monitoring and IBM Tivoli Usage Accounting Manager.

Two of these footprints have now been put into production in the UK and US, and are already supporting client workloads on Microsoft Windows and Linux platforms. In future, Capgemini can increase capacity in the current implementation as well as roll out additional footprints to support Capgemini clients in other countries.

Benefits

The IBM solution has enabled Capgemini to develop a secure, scalable multi-tenanted architecture that allows it to offer leading-edge Cloud services to its clients. The use of advanced IBM Tivoli automation technologies makes it possible for the Capgemini team to substantially extend the computing capacity it can offer without a proportionate increase in the workload for its server and storage management teams – enabling it to maintain lean staffing levels and reduce the management cost per server. This ultimately translates into better value for clients while preserving margins for the business.

Solution Components

Software
- IBM® Systems Director
- IBM Tivoli® Service Automation Manager
- IBM Tivoli Monitoring
- IBM Tivoli Usage Accounting Manager

Servers
- IBM BladeCenter® HS22V
- IBM XIV® Storage System

Services
- IBM Systems and Technology Group Services
- IBM Software Services for Tivoli

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— Darren Wall, Director of IaaS solutions, Capgemini

Automation also enables faster and more flexible response to clients' requests – for example, the provisioning of a new server can now be accomplished in less than 60 minutes, an improvement over the three weeks it would typically take to deploy in a traditional dedicated server environment.

Above all, the new architecture is versatile, and does not tie Capgemini or its clients to any specific hardware technology or vendor. Unlike competitors' offerings, the same solution can be used to manage a wide range of platforms and architectures (even including non-IBM hardware) – so if future clients require UNIX® or mainframe platforms in the Cloud, Capgemini will be able to extend its existing landscape to offer these services. The ability to choose the right platform for the right workload is a key advantage.

Conclusion

Using the Cloud Infrastructure as a Service platform, Capgemini has demonstrated to its clients how Cloud technologies can be integrated into their existing IT environment to improve service and save money. For instance, using a combination of physical and cloud servers, Capgemini was able to show more than 33 percent savings on one client's disaster recovery service while decreasing the recovery time objective (RTO) from 72 to just 24 hours.

By providing self-service features that are built into the Cloud platform, Capgemini believes that it can cut application development time by as much as 50 percent. Giving clients' development teams direct, secure access to the Cloud management platform allows them to self-provision, start, stop, pause and even archive servers without going through a costly and time-consuming request process. This has the result of increasing the developer's productivity resulting in shorter application development schedules.

Darren Wall, Director of IaaS solutions at Capgemini, comments: "The ability to leverage IBM's experience in Cloud deployments and broad portfolio of hardware and software technologies has been vital to Capgemini's success in creating our new Cloud service offering. The solution has been launched with great success in the UK and US, and we are looking to roll it out in other markets in the near future."

For more information

To learn more about smarter computing from IBM and how we can help you integrate, automate, protect and transform your IT, contact your IBM sales representative or IBM business partner, or visit:
ibm.com/smartercomputing