Services Provider Builds New Cloud Infrastructure for SMBs

Customer Case Study

Cisco solutions help Cbeyond extend end-to-end cloud data center services to small and medium sized customers.

EXECUTIVE SUMMARY

Customer Name: Cbeyond Inc.
Industry: IT Services
Location: Atlanta, Georgia
Number of Employees: 2000

Challenge:

- Solve business needs of SMBs with enterprise-class, end-to-end cloud services
- Design, build, and deploy consolidated cloud infrastructure using single provider
- Meet aggressive schedule for glitch-free launch of public and private cloud services

Solution:

- High- and low-level design, data center optimization, and implementation support services for new cloud infrastructure
- Integrated managed hosting and cloud services business with Cisco Unified Computing System
- Consolidated Cbeyond's cloud and data center technologies with Cisco solutions

Results:

- Reduced time-to-market by two months
- Secured new revenue opportunities earlier than expected
- Reduced per-switch port power by more than 75 percent

Challenge

Founded in 1999, Cbeyond is an Atlanta-based managed services provider that focuses exclusively on small- and medium-sized businesses (SMBs). Positioned as a technology ally for SMBs, the company delivers cloud services and communications through its enterprise network and data centers to nearly 60,000 customers. The company has data centers in Norcross, Georgia and Louisville, Kentucky, and is planning to expand its operations into the western portion of the United States soon.

Cbeyond has made significant investments in network and cloud upgrades as the company experienced increasing customer demand for more competitive voice and data services in addition to the need for cloud and data center services. In 2010, Cbeyond acquired a cloud services company called MaximumASP, which helped to strengthen its market position and expand its cloud business. While the MaximumASP services provided a good entry point into the cloud, Cbeyond recognized that it needed to invest in a more robust cloud infrastructure. A new, more comprehensive cloud service platform would encourage the adoption of cloud services by its SMB customers while creating new revenue opportunities.

"Other service providers tend to offer SMB customers a commodity-grade or an exclusively self-service type of offering," says Chris Ortbals, senior vice president of product marketing at Cbeyond. "We wanted to offer an end-to-end cloud solution that would support production applications in the cloud on a platform that was secure and affordable. We knew we would need to revamp our cloud infrastructure from the ground up to deliver that kind of solution."

To find the most suitable vendor for the service platform that would become Cbeyond's TotalCloud Data Center solution, the company conducted a proof of concept (POC) with three major cloud vendors, including Cisco. The trial aimed to identify the ideal vendor that could also deploy, provision, test, and implement the cloud platform within Cbeyond's aggressive launch timeframe.

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Chris Ortbals
Senior Vice President
Product Management

Cbeyond wanted to help ensure that the vendor it selected would be able to provide a comprehensive cloud solution, from the network and security to compute and storage capabilities. In addition, support for Microsoft Hyper-V release 2 and the availability of resources to assist throughout the project were critical factors as well.

Solution

Cisco Services conducted the POC, which included validating Cbeyond's proposed service platform design, verifying that various network element combinations were interoperable, and testing for performance and scalability.

After the three vendors were evaluated, Cbeyond determined that Cisco could most effectively meet all of its requirements. "Cbeyond's banner is the intersection of the cloud, network, and security, and we've been partnering with Cisco for years to achieve this," says Ortbals. "Thus, it made sense to go to Cisco for our cloud services. Cisco presented us with a complete stack that merges our network with cloud capabilities in a repeatable, scalable architecture that can be used in our current and future data centers. Other vendors would have pieced it together from multiple sources."

Ortbals adds, "Being able to extend our managed hosting capabilities into our cloud services with Cisco's offering was a big play for us in terms of the partnership and our decision-making. Going with Cisco as a single vendor offered a clear advantage over using three or four different vendors to accomplish the same task. Cisco was the only vendor that could provide this level of integration."

"One of the finalists was about to enter the cloud market, and we would have ended up competing with that company," says Tim Myers, vice president of cloud technology at Cbeyond. "We wanted to find a vendor that worked with us, not against us, to build and grow our business, and Cisco was the best fit for that."

Today, Cbeyond's TotalCloud Data Center, which the company offers as a service platform for public and private cloud solutions, is powered entirely by Cisco® technology. Cbeyond is using Cisco Unified Computing System™ (Cisco UCS®) as a server layer for its virtual servers, hosted offering, and internal corporate compute. The company also has Cisco UCS Blade servers and Cisco Nexus® switches in the cloud infrastructure. In addition, Cbeyond is using Cisco UCS to provide a Hosted Microsoft Exchange (HME) environment to its customers. The company also recently migrated its physical servers to Cisco UCS Rack Servers (C Series), and all of Cbeyond's network and edge products are also based on Cisco technology.

Cbeyond recognized that its long partnership with Cisco would be key in helping it meet the aggressive implementation schedule for bringing the TotalCloud Data Center to market. From proof of concept through implementation, Cbeyond engaged Cisco Services to meet these goals.

Further, Cisco Services provided Data Center Optimization Services and Network Optimization Services, which helped Cbeyond develop network designs and configurations that allow for the best performance across the network. "Network performance is a critical piece of our strategy to run production applications in the cloud, and Cisco Data Center and Network Optimization Services help make sure we are at top performance," says Ortbals.

The Services team also provided software support and knowledge transfer to Cbeyond staff, including during the initial deployment to customers. “The Cisco Services team has been very responsive and incredibly supportive,” says Myers. “We had a few significant bugs in some non-Cisco software, but Cisco worked with us to resolve the issues.”

Results

Cisco has helped enable Cbeyond to bring its network and cloud technologies together to provide end-to-end private connectivity into the cloud over a stack that is entirely Cisco equipment. “Many cloud platforms are built like an island with limited integration into other businesses within a service provider,” says Ortbals, noting that the Cisco offering is the complete opposite. “Cisco has architected its technology in partnership with us so that the technology supports how we want business to operate. It’s a huge benefit to have technology from one vendor throughout the stack. We can merge physical and virtual platforms together with an out-of-the-box capability that Cisco brings to the table.”

Ortbals adds that the integration of Cisco UCS with the Microsoft platform has been very beneficial as well. “Cbeyond reduced per-switch port power by more than 75 percent by replacing traditional rack and stack hardware with Cisco UCS and Cisco Nexus architectures,” says Ortbals.

Teaming with Cisco Services also helped Cbeyond build a comprehensive offering in the most efficient way. “By engaging Cisco Services, we mitigated all of our initial concerns and significantly increased the probability of a successful product launch,” says Ortbals. “The additional resources from Cisco provided us with a vast amount of experience and expertise. We successfully met our internal deadlines, and we saved at least two months by engaging Cisco Services. The support from Cisco Services allowed us more time to focus on deploying the cloud service platform on time, which provided us with a greater opportunity for securing new revenue.”

Myers concurs with Ortbals’ assessment. “Having direct access to Cisco engineers as we build up and mature this platform has been incredibly beneficial. The platform thus far has proven to be quite robust in terms of performance, capacity, and capabilities,” says Myers. “We’re growing at a fast pace now, and we plan to grow at an even faster pace in the future. This kind of support is instrumental, not just in getting this endeavor rolled out, but in promoting our future growth as well.”

Next Steps

With Cisco as its primary technology partner, Cbeyond has built a robust cloud and managed hosting services business. However, the company does not plan to stop there. “As our medium-sized customer base grows, we’re getting a more technical buyer,” says Ortbals. “We’re seeing a lot of demand with customers coming from other cloud providers who want to manage many of the services themselves. For these customers, we’re taking the architecture that we’ve built in the TotalCloud Data Center and offering an alternative version for the more technical customer that provides control of the Hyper-Visor and surrounding management layers.”

Cbeyond is also implementing a proof-of-concept of Cisco Assurance Services to help preempt issues with innovative ways to monitor performance, capacity, availability, and faults. Designing and watching key performance indicators will help the Cisco team maximize uptime for Cbeyond’s networks.

Ortbals believes that working with Cisco will allow the company to continue to reap benefits from its network and cloud infrastructure well into the future. “We want to simplify our operational support, capacity management, and performance management down the road,” he says. “Making good choices now, such as choosing Cisco for our cloud and networking technology, will have a positive effect in the future. Fast-forward, and we’ll have hundreds, even thousands of servers streamlined in our data center technology under a single management and monitoring platform.”

For More Information

- To find out more about Cisco Cloud Solutions, visit: www.cisco.com/go/cloud.
- Learn more about Cisco Services at: www.cisco.com/go/services.

Solutions List

Cisco Data Center Solutions

- Cisco Unified Computing System (UCS)
- Cisco UCS B200 and B230 M1/M2 Blade Servers
- Cisco UCS C220 and C24 Rack-mount Servers
- Cisco UCS 6200 Series Fabric Interconnects

Routing and Switching

- Cisco Aggregation Services Router 9006
- Cisco Nexus 7000 Series Switches
- Cisco Nexus 5500 Series Switches
- Cisco Nexus 2248 Fabric Extenders

Virtualization

- Microsoft Hyper-V release 2

Applications

- Microsoft Exchange
- Microsoft Windows Server 2012
- Microsoft SQL Server
- Microsoft SharePoint

Cisco Services

- Cisco Cloud Service Provider Program
- Validation and Testing Services
- Data Center Optimization Services
- Network Optimization Services
- Assurance Services

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