

RISE OF DATA CENTERS AND PRIVATE CLOUDS IN RESPONSE TO AMAZON'S HEGEMONY



Amazon has long since dominated the cloud platform scene for eCommerce in an era of big data. Since the company's inception, it has used data about customer wants and desires to influence investments in technology in a continuous way. Today, Amazon is exploring innovative ways to get products to customers faster and expand into new markets like fresh food and grocery delivery.

Such a confluence of innovation has given Amazon a hegemony in eCommerce that has remained unchallenged. Until now, that is.

Big box retailers and companies with significant enterprise capabilities are beginning to respond to Amazon's dominant stance. Here's what we can expect from challengers throwing their hats in the ring to compete with Amazon in 2018 and beyond.

(This article is part of our [Data Center Operations Guide](#). Use the right-hand menu to navigate.)

Competitive Innovation in Retail

While data centers aren't totally wiping out shopping malls, paired with a [private cloud](#) they are becoming a force to be reckoned within retail due to [security](#) and flexibility. What's clear today is that eCommerce brands need to think about cloud solutions if they want rival players in a highly competitive market. This could lead those who have the wherewithal to compete with Amazon to purchase data centers that will allow them to build proprietary clouds in a hybrid-cloud

environment.

Sizing Up the Competition

The ability to compete with Amazon is no small undertaking. There are only a handful of sizable retailers who stand poised to put a dent in Amazon's market share. These are:

- **Walmart:** retail giant in the brick and mortar big box sector
- **Apple:** trailblazer of stores as a showcase in addition to being a major media competitor with iTunes (the largest online store for music and media)
- **Target:** big box retailer with high standards for customer satisfaction
- **Best Buy:** big box store specializing in technology and media
- **Alibaba Group:** [Sixth largest internet retailer](#)
- **eBay, Zulily, Wayfair:** other popular eCommerce sites

Within this space, companies like Walmart are beginning to leverage the advantages of private cloud computing to better compete with Amazon.

Benefits of Private Cloud for eCommerce

A private cloud refers to a cloud solution dedicated for use by a single organization. The data center resources may be located on-premise or operated off-site by a third-party vendor. A switch to a private cloud is an ideal choice for large enterprises that require advanced data center technologies to operate efficiently and cost-effectively as well as organizations which possess the financial resources to invest in high performance and availability technologies.

Establishes Trust Among Customers

Implementing a private cloud is one way enterprise retailers convey security and trust because their customers know that their personal information is being stored in a dedicated and secure environment that cannot be accessed by other organizations. Said another way, private clouds offer presumably a secure architecture with fewer backdoors for hackers.

Highly Available

A major benefit of private clouds relates to high availability sensitive mission-critical IT workloads. This is especially important in the retail space when it comes to page load times and server availability because proprietary private clouds are typically more reliable and higher velocity.

Overall, access to data is typically much quicker in the case of on-premise private cloud environments because the information doesn't have as far to travel compared with a public cloud.

Greater Flexibility

Private clouds have limitless potential for flexibility and scalability. While these proprietary server environments require considerably more management at the data center level compared to public cloud services, a well managed private cloud can offer enterprises more customizable solutions than any public cloud.

Data Storage

Data storage is a priority for retailers who store important customer information. Although private cloud storage is similar to public cloud storage as it regards scalability, usability and flexibility, the major difference arises when we add security to the mix. Private cloud storage, also known as internal cloud storage requires the implementation of a data center, which keeps all of a company's data centrally housed. Think of a data center as the hub for IT operations and equipment.

Compliance Standards

A private cloud can also help large retailers reduce their risk by adhering to compliance standards of organizations that govern a number of industries. No organization wants to experience a data breach of the magnitude of Target or Home Depot's from a few years ago. Although these incidents were non-cloud, if retailers learned anything from the media backlash that occurred at the time, it's that it pays to keep your data safe.

Walmart Response to Amazon Hegemony

We know that private clouds establish trust while offering accessibility, security and flexibility. Therefore, it's no surprise that Walmart, like Amazon, has now embarked on the proprietary cloud journey.

In recent years, Walmart acquired six [data centers](#) in what is considered their "[best chance at taking on Amazon](#)". In fact, some in the industry predict that Walmart hopes to create the world's largest private cloud with these heavy investments.

The facilities took around five years to build, but since going online have boosted Walmart's competitiveness. Indeed, Reuters reports that Walmart's online sales growth has been outpacing industry standards.

In addition, Tim Kimmel, head of cloud operations at Walmart, suggests the shift to a private cloud is helping the company to improve services both online and in-store. The increase in service levels powered by cloud technology could be the beginning of a race to close the gap between Walmart and Amazon, while breathing new life into in-store shopping.

But the truth is, Walmart has a long way to go. As reported by Reuters, Walmart's share of the US e-commerce market stands at 3.6%, while Amazon controls a whopping 43.5%.

Another question that has popped up is whether Walmart will enter the cloud services market to compete with Amazon's AWS and add another revenue stream to its model. Kimmel indicated they had not ruled this idea out for the future.

Trends in Retail

Retailers big and small are becoming more reliant on cloud technology to power their business. Some trends, like showrooming, allow retailers to save on in-store operational costs while gently shifting most of their business to online shopping. This gives retailers the flexibility and scalability to support more customers, and also to collect important customer data that may one day allow them to compete with retail giants like Walmart and Amazon.

In addition, there are a number of startups hoping to create their own competitive advantages:

- [CommonSense Robotics](#): a robotics logistics company automating fulfillment centers-as-a-service
- [Flytrex](#): fully operational drone delivery service
- [Brinng](#): innovative last mile delivery service

These startups are bringing innovation to fulfillment and delivery for some retailers. But what's going to propel large enterprise eCommerce platforms closer to Amazon status sooner than later is a switch to data centers with a private cloud.

While not every retailer can afford a private cloud, as-a-service innovations have allowed all businesses to benefit from things like payment processing in the cloud, without the hassle of a lot of expensive equipment and operational processes.

Whether public, hybrid-cloud or private cloud solutions, the future of retail lies in the cloud.

The Rise of Data Centers & Private Clouds

While more and more retailers deploy cloud solutions that increase their efficiency and deliver more value to customers, the acquisition of data centers and implementation of private clouds will be limited to larger enterprise retailers who have the funds to compete in the current marketplace.

According to Gartner, the cloud industry is proving that on-premise data center deployments don't always translate into strong security and that cloud computing is a secure alternative.

Hybrid cloud is another much talked about solution that offers a mix of public and private cloud deployments optimized for cost, security and performance based on organizational needs. Gartner also anticipates that the hybrid cloud market will continue to experience robust growth, with [90 percent](#) of the organizations investing in the technology by 2020.

While the private cloud infrastructure market is more likely to expand at a slower rate than the public cloud services market, [IDC forecasts](#) that it will continue to gain importance in IT investment decisions as organizations pursue secure and reliable alternatives for managing their data.

Final Thoughts

Amazon has led the pack when it comes to cloud computing for eCommerce for quite some time, but today the company's hegemony is being challenged by other enterprises with the means and the wherewithal to leverage the benefits of the private cloud like Walmart. But whether these efforts will prove successful remains to be seen.

The ability to effectively manage cloud solutions will be a major determining factor in the outcomes of these initiatives. BMC Multi-Cloud Solutions are uniquely positioned to help IT achieve the full benefits of multi-cloud ecosystems via industry-leading, vendor agnostic solutions for these required capabilities by:

- Customizing cloud services to meet business needs,
- Managing a variety of platforms from a single console,
- Enabling high-precision analysis across different applications; and
- Uniting cloud and enterprise management tools and processes.

If you're a retailer looking for help navigating private or hybrid cloud solutions to forge a lasting

competitive advantage, then [click here to learn more.](#)