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IT and storage technology predictions for 2017

By Mark Bregman

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The explosion of data in today's digital economy has resulted in a fundamental shift from using data to run the business to recognising that data is the business. In an era where data is king, superior data management and storage in the hybrid cloud become paramount. Here are six predictions on what businesses and users can expect from this ever-evolving space in the coming year.

1. Data is the new currency

These days, poor access to data can impact heavily on a company’s success. With data so valuable to success, it has become the new currency of the digital age and has the potential to reshape every facet of the enterprise, from business models to technology and user expectations. We’ve seen this in the emergence of game-changing digital businesses like Uber and Airbnb, which are built around the control of a network of resources.

To make things even more interesting, we continue to see new types of data that enterprises didn’t previously think about collecting. For example, whereas we used to store and share only critical transactional data, we now store mass amounts of ancillary data surrounding transactions for deep analysis. This can include click stream data and even data about weather and other external factors, which can significantly enhance market insight for businesses.

2. New IT models are taking hold

The focus on data requires a universe of services that can integrate and work together to solve critical problems of all types and simplify delivery. This will require the support of platforms and an ecosystem of providers and developers that enables them. In this context, the platform model carries intrinsic value in its ability to integrate and simplify the delivery of services. A good example of this is Amazon Web Services, which continues to evolve into a richer and richer set of services all the time.

Platforms create a virtuous cycle, as does a good flea market: people go there to buy because that's where people are selling; sellers go there to sell because that's where the buyers are.

As access to critical skills is becoming more challenging, broad-based platforms allow a more fluid flow of talent as expectations from both employees and employers shift. People with specialised skills are attracted to projects they find interesting and the ubiquity of common platforms and tools makes it easier to engage their interests.

3. The cloud as catalyst and accelerator

More and more organisations have been deploying cloud technologies to support their data requirements. Customers who are focused on optimising performance while reducing costs are finding that usage-based consumption models meet all their needs. The ready availability of cloud-based services provides easy access to the infrastructure needed to support innovation because it has dramatically lowered barriers to entry: with a credit card and an AWS account, new projects can be set up in a day and operate on a pay-as-you-go basis.

An example of this is CloudSync, which was built by six engineers in six months with no capex infrastructure. New usage-based consumption models, based on Platform as a Service combined with new scale, compliance and data protection offerings, are making cloud infrastructure more essential for businesses of all sizes.

4. New technologies are becoming the standard

All of these business drivers will ultimately lead to the dominance of new technologies, particularly in the form of new application paradigms, which will reduce friction in business change and movement of talent. We've seen this emerge in the form of today's DevOps movement, where compositional programming based on micro services and mashups, open source have taken hold.

Currently, these are considered niche solutions, but as the value of data becomes more critical to business and the pace of innovation becomes an even more crucial competitive weapon, they will quickly move into the mainstream. Historic parallels include the emergence of Ethernet as a networking standard and Linux as a standard operating system.

5. A wider, dynamic range of storage and data management technologies evolves

As IT architectures evolve to accommodate new cloud infrastructure and new applications, a wider, dynamic range of storage technologies will also emerge. We've witnessed how flash storage has quickly gained in popularity offering incredible efficiency and performance. Likewise, hyper-converged infrastructure (HCI) is one of the new IT architectures that addresses the critical demand for simplicity and reduces the need for administrative resources to manage storage.

While the first wave of HCI solutions have done that well, they have not addressed additional requirements for flexibility and scalability. Building web-scale infrastructure will call for the flexibility to adapt the ratio of compute to storage according to the need, enable the upgrade of compute and storage separately, and scale easily and cost effectively.

Expect the next wave of HCI solutions to leverage what we've learned from converged infrastructure to deliver web-scale

converged infrastructure that meets these requirements. We also see the build out of higher bandwidth networks to manage the movement of large volumes of data.

On the horizon, storage technologies such as archive class storage and massive persistent memory are next in line for adoption. The rapid development of easy and accessible data management services will allow for easier deployment of these emerging technologies.

6. Consumeriation of IT persists

Perhaps most profound is the change in user expectations of iPhone-like simplicity and self-management and the integration of applications and services. These expectations are affecting development across all technologies in storage and data management. User experiences with mobile app simplicity in a wide variety of forms has raised expectations for the usability and simplicity of data management software.

From a business standpoint, companies are demanding this simplicity because it will enable them to use less expensive resources to manage their data while giving them greater access and use of their data as a critical business asset.

ABOUT THE AUTHOR

Mark Bregman, SVP and CTO at NetApp