



A THINKstrategies Whitepaper for CXOs

Maximizing the Value of Data in the Cloud

A whitepaper published on behalf of Attunity



ATTUNITY

Right Data. Right Place. Right Time.

Executive Summary

The volume and variety of data being produced from a widening array of sources is growing exponentially.

At the same time, everyone from corporate executives to end users are becoming more data-driven, relying on data to make strategic decisions and guide their day-to-day activities. They need the right data to be in the right place at the right time.

An increasing number of executives are recognizing that they can no longer keep pace with growing amount of data throughout their organization. So, they are pursuing cloud alternatives to meet their escalating data requirements.

However, optimizing data and moving data to the cloud can be more complicated than expected.

This whitepaper will -

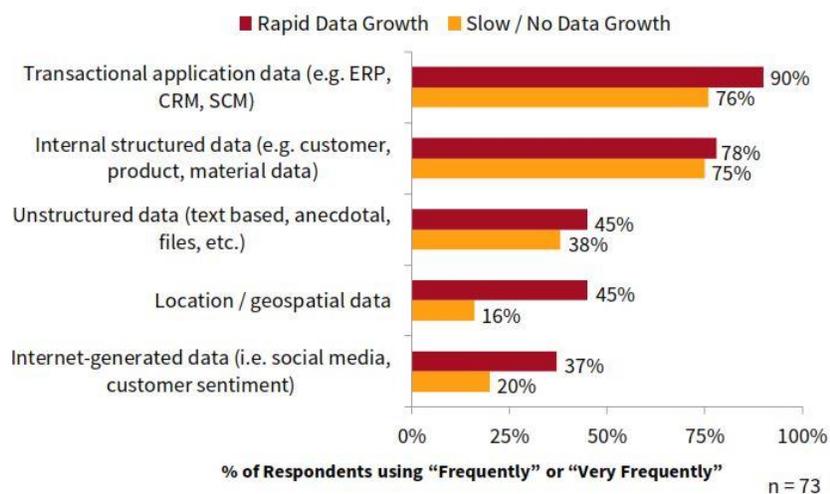
- Explain the escalating 'Big Data' challenges facing enterprises,
- Describe how a new generation of cloud alternatives can respond to these challenges, and
- Show how Attunity's software is addressing these issues.

Today's 'Big Data' Realities

Everywhere you look, data is being generated at an accelerating rate from traditional sources as well as sources that didn't exist a few years ago, compounding the data management issues that have challenged many organizations for decades.

A recent report from the Aberdeen Group¹ showed that companies experiencing rapid data expansion (data growth that exceeds 50% annually) are actually more likely to exploit data to uncover business opportunities and drive growth. Those organizations are able to leverage a wider variety of data types than their competitors with little or no growth.

A Breadth of Data in Use



Source: Aberdeen Group, March 2015

¹ ["Managing Rapid Data Growth: A Trial by Firehose"](#) research report, March 2015 by Michael Lock, Vice President & Principal Analyst, Aberdeen Group.

As a result, everyone within businesses today – from corporate executives to end-users – wants access to that data so they can make better decisions, whether it's at the executive level for strategic purposes or at the field level in order to perform day-to-day responsibilities.

In today's increasingly mobile, social and 'on-demand' world, executives and end-users alike are demanding immediate access to timely data so they can more quickly respond to changing customer needs, escalating competitive threats, and new market opportunities.

Cisco predicts that all these connections will push 1.1 zettabytes of data across global IP networks in 2016, and over 2.0 zettabytes by 2019.²

And, this is only the new forms of data traversing IP networks!

Added to this IP traffic is all the data that continues to be generated from more traditional sources, such as financial transaction processing, credit card authorizations and other cross-industry or industry-specific business processes.

Of course, capturing, collating, deciphering and capitalizing on data has been a big challenge for many organizations for years. And the escalating volume of the data coupled with the expanding variety of data is compounding these challenges. In fact, Ashish Nadkarni, research director of IDC's Storage Systems program has stated,

*"The importance of unstructured data in the enterprise is underscored by the fact that beginning in 2015, unstructured data will surpass structured data in terms of both capacity shipped and revenue. IDC estimates that in 2017, unstructured data will account for 79.2% of capacity shipped and 57.3% of revenue."*³

As a result of these challenges, Gartner has estimated less than 15 percent of Fortune 500 organizations will effectively exploit big data to gain a competitive advantage by the end of 2015.⁴

Given the greater than expected volume and variety of data facing organizations today, Gartner's prediction could easily be extended a few more years if organizations don't employ new methods to move and optimize the use of their data across on-premise and cloud-based IT environment.

Moving Data to the Cloud

Traditional data warehouse solutions are one way to meet demands of today's Big Data world, but can be challenging because of their complexities and costs.

In response to these issues, an increasing number of CXOs are recognizing that they must leverage a widening array of cloud services to more cost-effectively store and more easily utilize their data.

A recent Computer Economics survey found 56% of IT organizations are increasing spending on cloud applications compared with only 10% that are spending more on their own data center infrastructure.⁵

² The Zettabyte Era—Trends and Analysis, Cisco Systems, May 2014.

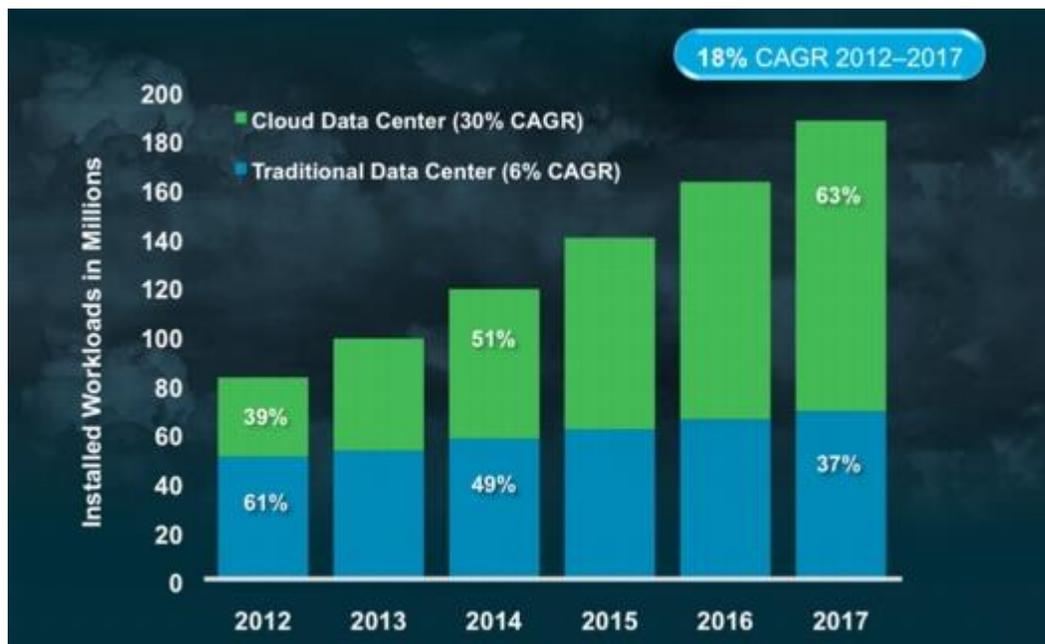
³ Structured Versus Unstructured Data: The Balance of Power Continues to Shift, IDC, March 2014.

⁴ Gartner Reveals Top Predictions for IT Organizations and Users for 2012 and Beyond, December 1, 2011. <http://www.gartner.com/newsroom/id/1862714>

⁵ CFO.com, "Survey Sees IT Budgets Shifting to Cloud", June 17, 2015, <http://ww2.cfo.com/the-cloud/2015/06/survey-sees-budgets-shifting-cloud/>.

IDC predicts that by 2017, 35% of new applications will be cloud-enabled and be continuously delivered.⁶ The use of these cloud-based applications will make it increasingly important to also have essential data available in the cloud.

As the following figure from Cisco's 2014 report shows, a massive shift in data workloads in conjunction with the growing spending on cloud-based applications is clearly underway.



Applications run best and most efficiently if they consume data easily available to them, whether it is on-premise or in the cloud. It is equally important to be able to replicate the data across these two environments in an increasingly hybrid world. And, most importantly, it is essential to have visibility and insights into data use patterns across cloud and on-premise resources to optimize TCO.

So, how do you decide which data to move to the cloud and where on the cloud?

Successfully Maximizing the Value of Data in the Cloud

Bringing together data from an assortment of software applications, systems and sources has never been easy, and adding a new layer of cloud-based applications to the equation only compounds the challenges.

Data optimization depends on making the right decisions about which “hot” and “cold” data can and should be moved to the cloud so it can easily be accessed when needed. For example, if you have data that you are storing in a data warehouse that hasn't been accessed in over 3 years it can probably be placed in a “cold” on-premise or cloud location. Attunity Visibility is software that provides detailed insight into business activity, data usage and resource consumption so that organizations can optimize their data as they move it to the cloud.

The next issue to consider is whether you are going to “lift and shift” your data from a traditional on-premise environment to the cloud or establish a hybrid mix of on-premise and cloud resources.

⁶ Innovative Integration, “2015-2017 Forecast: Cloud Computing to Skyrocket, Rule IT Delivery”, January 19, 2015, <http://www.innovativeii.com/2015-2017-forecast-cloud-computing-skyrocket-rule-delivery/>.

While today's new generation of cloud applications and other cloud-based resources have gained attention because of their promise of being easier to deploy and integrate with one another, the data storage and integration process can still be complex and expensive, further complicated by the explosive growth of data being generated by multiple sources.

Organizations have to implement more flexible and intelligent data integration solutions to assimilate the more diverse array of data sources so they can be utilized to support a wider range of enterprise applications and business processes.

Meeting today's escalating data migration and integration needs is no small task.

Organizations are increasingly deploying platforms like Attunity CloudBeam that can cost-effectively extend their data center operations in the cloud.

Attunity CloudBeam, based on Attunity's data integration solution called Attunity Replicate, is designed to streamline the data migration process by orchestrating the incremental loading of data from on-premise to Amazon Web Services (AWS), Google Cloud, and Microsoft Azure cloud infrastructures.

CloudBeam accelerates the data transfer rates and simplifies integration processes to produce measurable operating efficiencies and greater data availability in today's increasingly hybrid environments of on-premise and 'on-demand' resources.

Attunity CloudBeam ingests data to Amazon Redshift, Google Cloud SQL, or Microsoft Azure SQL Data Warehouse from traditional, legacy data sources without needing to install software on either the source or target machines. The software uses simple drag-and-drop configuration, flexible target database schema mapping and transformations, and content-based filtering to also support other cloud services, like AWS RDS, S3 and Hadoop/EMR.

CloudBeam offers automated real-time, scheduled or on-demand task execution. Attunity also assures the service delivery and offers automatic recovery, security, auditing and reporting.

An example of the tangible benefits of the cloud-based approach of Attunity's CloudBeam solution is the Glidewell Laboratories success story. According to Glidewell's CIO, Mike Selberis –

Attunity CloudBeam enabled Glidewell “to onboard more quickly to the platform and overcome the data transfer bottleneck while avoiding a large learning curve. This resulted in rapid self-service analytics with immediate value to our business.”⁷

Another example of the significant efficiencies that can be achieved by using Attunity CloudBeam to move data to the cloud is Philips Healthcare, where data scientists Douglas Ranahan and Andy Allaway were looking at an estimated 56 days to load 37 million records. In order to overcome that data loading bottleneck, they turned to the AWS Marketplace and located Attunity CloudBeam optimized for Amazon Redshift. A few clicks later, they were able to load the 37 million records in less than 90 minutes.⁸

⁷ Industry-Leading Dental Lab Company Uses Attunity CloudBeam to Support Timely, Cost-Effective Analytics on Amazon Redshift.

⁸ Youtube video, [Philips Works With Attunity to Move Large Data Sets to Amazon Redshift in Record Time](#)

Summary & Conclusions

Today's Big Data phenomenon is compounding the data migration and optimization challenges which has plagued organizations for many years. A new generation of social data along with data being generated from a growing populations of 'things' is now piling on top of data being produced by traditional business processes.

Information-driven corporate executives and end-users are becoming more dependent on data to make strategic and day-to-day decisions, and need better access to real-time data.

As it becomes increasingly difficult for traditional, on-premise systems to keep pace with these escalating data demands, a growing number of organizations are pursuing cloud alternatives to meet their needs.

Attunity's CloudBeam software offers an easy to deploy and flexibly priced platform to address these issues. It integrates with traditional systems and provides a cost-effective method to leverage today's leading cloud resources, such as Amazon AWS, Google Cloud and Microsoft Azure.

About Attunity

Attunity is a leading provider of information availability software solutions that enable access, management, sharing and distribution of data, including Big Data, across heterogeneous enterprise platforms, organizations, and the cloud. Its software solutions include data replication, data flow management, test data management, change data capture (CDC), data connectivity, enterprise file replication (EFR), managed file transfer (MFT), data warehouse automation, data usage analytics, and cloud data delivery. For more information, go to: www.attunity.com.

About THINKstrategies, Inc.

THINKstrategies, Inc. is the only strategic consulting services company focused entirely on helping its clients capitalize on the unprecedented business opportunities created by the technology industry shift from a product-centric to a services-driven orientation and an "on-demand" delivery model, such as Cloud Computing, Software-as-a-Service (SaaS) and Managed Services.

THINKstrategies' mission is to help our clients re-THINK their corporate strategies, refocus their resources and re-align their operations to achieve their business objectives. THINKstrategies helps enterprise decision-makers with their sourcing strategies, IT solutions providers with their marketing strategies, and VCs with their investment strategies.

THINKstrategies has also created the Cloud Computing Showplace online directory and best practices resource center to help IT and business decision-makers find and fully leverage today's leading SaaS, Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS) solutions. To learn more about the Cloud Computing Showplace, go to www.cloudshowplace.com.

THINKstrategies also hosts a series of executive forums focused on the latest business opportunities and technological developments in the Cloud marketplace, called the Cloud Innovators Summits. To learn more about these events, go to www.cloudsummits.com.

For more information regarding our unique capabilities, visit www.thinkstrategies.com, or contact us at info@thinkstrategies.com.