



What Is Copy Data?

Traditional data management practices compartmentalize business functions to create uncoordinated infrastructure which independently spawns separate stacks of duplicate data. That's copy data.

The Problem of Copy Data

Data growth is among the prime challenges cited by enterprise CIOs. In particular they contend with uncoordinated data growth caused by too many systems creating redundant copies of data for multiple purposes.¹ With the volume of production data growing at a tremendous rate, uncoordinated "copy data" is layered on top. This copy data glut is driving a massive excess of cost and complexity. Now, copy data virtualization promises a powerful means to address the challenge.

COPY DATA: Excess copies of production data, created and stored by disparate data protection and availability tools and used for backup, disaster recovery, application development, analytics or other separate functions.

Across decades, enormous time and expense has been expended on IT infrastructure. The process has introduced ever more complex but unconnected systems for data protection,

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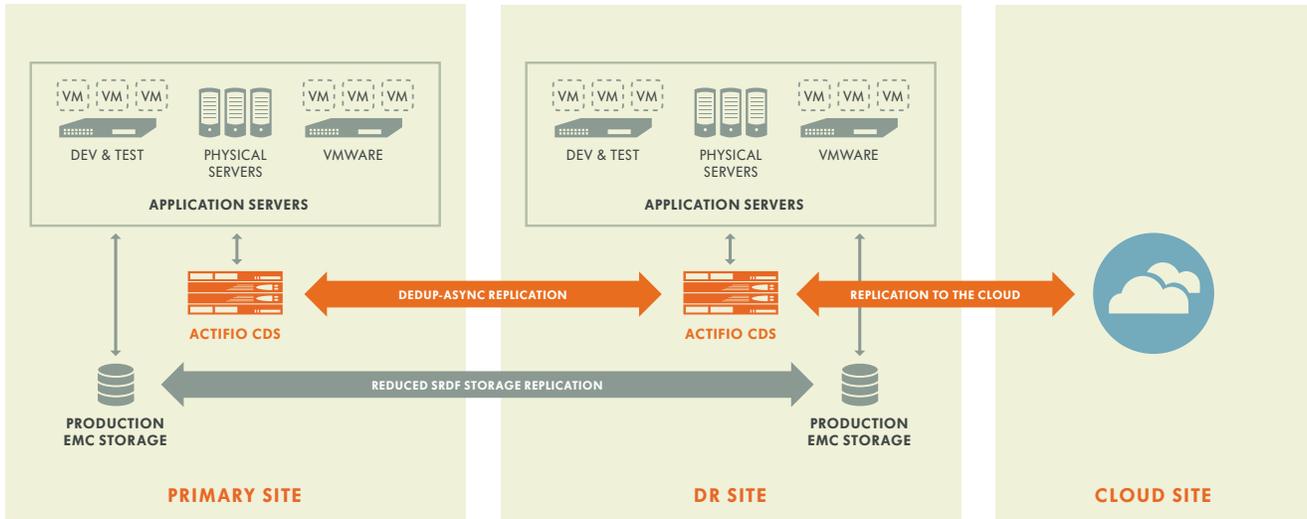
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backup, disaster recovery, application development, testing, and analytics. Each separate stack produces separate data copies. Each stack uses distinct underlying technologies, tools, scripts and data formats, but the core data is identical. Copy data has become a major contributor to annual data growth rates averaging 60%² and more. The result is infrastructure sprawl and organizational confusion around data management.³ Achievement of business, application, and technology objectives urgently requires IT leaders to effectively address the challenge of these complex environments.

Data Virtualization Addresses Copy Data

As VMware virtualized servers and transformed enterprise approaches to IT infrastructure, data virtualization has potential for a similar impact on copy data. In addition, reduction of excess copies beneficially reduces hardware, software, and operational expenses while eliminating systems complexity, reducing energy consumption, and enhancing data governance. Yes, that's a lot.

Figure 1: End State Technical Architecture



FOR EXAMPLE:

CIO conversations regularly highlight widespread difficulties with copy data. Start with a 40TB database. The application development and test environment uses full physical production data copies and is refreshed twice a week. That operation consumes a great deal of CPU and takes nearly 24 hours to create ten copies consuming 400TBs of storage.

Now, turn to copy data virtualization (CDV). The required storage capacity shrinks from 400TB to only the original 40TB. All authorized developers and testers can then access individual virtual data copies. And, using incremental-forever data capture, data is always fresh. Self-service access to current production data is accomplished in minutes. Virtual data copies are protected, instantly available, and easily orchestrated for disaster recovery.

It's important to note how much precious enterprise IT budget has been sucked into this vortex. Think about what has come to be common in traditional data architectures full of physical devices from multiple suppliers all linking specialized data protection applications and redundant systems. It's complicated, messy, slow and expensive. It's an environment built to create data copies. Each has typically had a separate set of processes, hardware, software and tools. Many have dedicated staff with little or no sharing of resources or data copies.

Data virtualization transforms that same architecture to the essential components of server, storage, and network (**Figure 1**). For DR purposes, add a remote or cloud site to the primary. That's it. Through copy data virtualization, many tools are consolidated into a single, simple solution. Put a big X through all of those messy, expensive elements. You don't need them any more.

Copy data virtualization gives IT professionals ultimate control over their data management objectives. Actifio's Virtual Data Pipeline (VDP) platform creates a "Golden Data Copy" designed to integrate with existing VMware, Oracle, and Microsoft systems, consolidating backup, snapshot, disaster recovery, replication, and application test and development into a radically simple platform. The result? Significant savings of time, money, and storage space while improving business resilience, agility, and cloud service usage.

ENDNOTES

1. MeriTalk, "Consolidation Aggravation: Tip of the Data Management Iceberg." June 2014
2. IDC White Paper "The Copy Data Management Market: Worldwide Market Opportunity and Analysis" May 2013
3. Gartner, "Magic Quadrant for Enterprise Backup Software and Integrated Appliances" June 2014

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