



MANAGING EXPLODING DATA GROWTH IN THE ENTERPRISE

2014 IOUG DATABASE STORAGE SURVEY

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TABLE OF CONTENTS

<i>Executive Summary</i>	3
<i>Storage Impacts the Business</i>	4
<i>The Origins of Data Growth</i>	8
<i>Storage Eats Up IT Funding</i>	13
<i>Hands-On Attention</i>	20
<i>Smarter Data Management</i>	25
<i>IOUG Recommends</i>	29
<i>Demographics</i>	30

EXECUTIVE SUMMARY

There's no question that many organizations are dealing with rapidly expanding data stores. Much of today's data growth—coming out of enterprise applications—is being exacerbated by greater volumes of unstructured, social media and machine-generated data making their way into the business analytics platform.

The question becomes, then, where and how to store all this data. The storage approach that has worked well for organizations over the decades—produce data within a transaction system, then send it downstream to a disk, and ultimately, a tape system—is being overwhelmed by today's data demands. Not only is the amount of data rapidly growing, but more users are demanding greater and more immediate access to data, even when it may be several weeks, months or years old.

Many data managers and professionals acknowledge that they have been encountering storage issues that have impacted the performance of associated applications and systems. There needs to be more work done to manage storage “smartly”—versus simply adding more disk capacity to existing systems or purchasing new systems from year to year. Smarter storage solutions include increased storage efficiency through data compression, information lifecycle management and consolidation, or deployment strategies such as tiered storage. At the same time, storage expenditures keep rising—eating a significant share of IT budgets and impeding other IT initiatives. For those with significant storage issues, the share storage takes out of IT budgets is even greater.

These are some of the findings of a survey based on the responses of 217 data managers and professionals, which confirms that as organizations continue to expand the volume, variety and velocity of their information resources, storage will play a growing role in supporting capabilities and performance. Respondents are members of the Independent Oracle Users Group (IOUG) and their global partner organizations. The survey was underwritten by Oracle and conducted by Unisphere Research, a division of Information Today, Inc. Survey respondents hold a variety of job roles and represent a wide range of organization types and sizes and industry verticals. (See Figures 33–35 for more demographic details.)

Key findings from the survey, which explore IT and storage resource issues, include the following:

- Data storage issues have a direct impact on the performance of database applications. As increasing volumes of data flood the enterprise, systems and application performance often suffer,

and there is increased latency in response times. Ever-expanding volumes of data and the resulting impact on the business are keeping data managers and professionals up at night.

- The largest consumers of data storage are enterprise or ERP-style applications, and this is where most data is coming from, versus unstructured data sources.
- Storage expenditures are rising, and are outpacing overall IT budgets. Most data managers and professionals believe storage costs are cutting into funding for other IT initiatives. A majority of the respondents are addressing the data storage challenge by purchasing and installing more hardware, but there's widespread realization that smarter approaches are needed.
- An increasing amount of time is being spent on the “nuts-and-bolts” of storage—managing, configuring, and tuning storage systems in Oracle Database environments. Data managers and professionals feel they do not have enough visibility into the application-to-database and data storage environments to quickly identify and resolve performance issues.
- Most storage is active, meaning data is treated as if it needs to be available instantly to end users. Many enterprises are missing opportunities for efficiencies already available with their storage systems to store a large portion of their data still automatically available but at a slightly higher latency.

The survey found that the primary “smart” approaches to managing data growth within Oracle Database environments consist of a formal information lifecycle management process; database-level compression; storage or file-system compression; or adopting a tiered storage architecture. Forty-two percent of enterprises in this survey have adopted at least one or more of these strategies, and we have designated these as “Leaders. At the other end of the spectrum are the “Laggards,” organizations that have not yet adopted any of the above-mentioned strategies. Fifty-eight percent of respondents do not have such strategies or technologies in place yet. Although moving data to the cloud is making news headlines, only 9% of respondents indicated that they are adopting private cloud storage.

On the following pages are the results of the latest examination into today's pressing data management approaches.