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## EXECUTIVE SUMMARY

As the era of “Big Data” marches on unabated, data is coming from an ever wider range of sources, including transactional systems, mobile devices, sensors, streaming media, and social networks. Businesses are looking for innovative ways to better leverage terabytes—and for some, petabytes—of information. This has placed tremendous pressure on IT departments to deliver database services faster and at lower operational costs. With this rapid rise in demand for database services comes the stewardship and challenge of managing multiple databases. Database administrators (DBAs) and IT operational teams increasingly need proactive self-managing and automated systems to augment or replace manual techniques and processes. Traditional methods such as using customized scripts for database management are simply not scalable with today’s data surge.

A new independent survey of Oracle product and technology users reveals that:

- Some DBAs still use legacy or past practices in their attempts to address or prevent unplanned downtime, whether by manual database tuning or hardware provisioning.
- One out of five administrators indicated they take little or no action to prevent unplanned outages.
- There are a surprising number of DBAs who attempt to address system problems reactively by denying users access to business applications until the situation is better understood and under control.

With input from 445 member respondents from within the Independent Oracle Users Group (IOUG) community, the survey finds that forward-looking companies, led by Oracle technologists and DBAs, are meeting the challenges head-on with more comprehensive and smarter database management practices. The bottom line: the faster the data growth, the greater the inclination to adopt methodologies and proactive solutions that provide better database manageability. The survey was conducted by Unisphere Research, a division of Information Today, Inc., in partnership with Oracle Corporation.

Respondents to the survey have a variety of job roles and represent a wide range of company types, sizes, and industry verticals. The greatest number of respondents includes those with the DBA title, followed by IT managers and developers. More than one-quarter come from very large organizations with more than 10,000 employees. The largest industry segments in the survey come from IT government agencies, IT services, utilities/

telecommunications, education, and manufacturing. (See Figures 22-24 at the end of this report.)

### Key findings:

The following summarizes the results of the survey, which explore issues and solutions around managing fast-growing database environments. Key highlights and findings include:

- More than one-third of companies in the survey report their data stores are expanding at a rate greater than 20% a year. The survey finds that this growth is a key contributor to many of the day-to-day challenges and pains database administrators face. Slowing down or purposely delaying changes may limit some of the pain, but it comes with a major disadvantage that most organizations can’t live with—an inability to access information or address the companies’ ever evolving business requirements.
- Identifying origins of an issue in the complex mission-critical systems at many respondents’ sites is easier said than done. Performance issues can arise within a number of components across the infrastructure, leading to episodes of performance regression or even unplanned downtime.
- Close to one out of five respondents admit they do nothing to address database and application performance issues, or don’t even know how those issues are addressed.
- Nine out of ten respondents report experiencing unplanned downtime as a result of database changes not properly tested.
- Eight out of ten respondents report experiencing unplanned downtime as a result of configuration drift, which results as changes are made.
- Growing usage necessitates proactive measures and therefore a more comprehensive approach to overall database management is required. However, most respondents do not have systematic means or practices to address such surging requirements. Most are unable to automatically bring new databases online fast enough to meet demand.

Most notably, 13% of respondents reported no downtime or system performance issues. With this response, coupled with the other data points by those respondents, it is evident that these administrators are already benefiting from using advanced database management capabilities and automation. This enables them to avoid downtime as a result of performance issues altogether.

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Data collection and analysis performed with SurveyMethods.