For the Complete Technology & Database Professional

2015 IOUG DATA INTEGRATION FOR CLOUD SURVEY

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EXECUTIVE SUMMARY

In today's diverse computing environments, data ends up in many different places, addressing many various demands. Data may need to be moved between on-premises systems and public clouds, between private and public clouds, between different hybrid clouds, or between different public clouds. The rise of big data—in its varying formats and files sizes, often required at real-time speeds—is proving to be an overwhelming data integration challenge. In the past, data professionals often could simply stitch together manual scripts, or plug in connectors or adapters to enable two different applications to pass data sets to each other. Or, administrators and developers could point data sources at their extract, transform and load (ETL) environments to bring information into data warehouse environments or analytic applications. Now, organizations are demanding real-time views and insights into data coming from both within and outside their organizations, which needs to be rapidly synced, stored, and managed—while maintaining peak, always-on performance. The traditional methods of data integration are proving too slow, costly, and unreliable for these emerging requirements.

Cloud services—particularly private and hybrid clouds—are now part of mainstream IT, and with it, greater comfort in not only storing and fetching data, but also doing the complex behind-the-scenes integration work organizations now need. The opportunities presented by cloud data integration occur on two levels. First, storing data in the cloud itself affords a degree of standardization and access that is often difficult to replicate across on-premises enterprise systems. Second, as organizations move to hybrid cloud approaches, the need to enable the movement of data between cloud and on-premises environments extends the data integration architecture, and related standardization, beyond the firewall. The survey shows the majority of cloud users make an effort to use the same data integration solution they use on-premises for cloud integration as well.

In February 2015, Unisphere Research fielded a study among the members of the Independent Oracle Users Group (IOUG) to examine the current state of data integration in the cloud era, including the key issues, priorities and solutions being adopted by organizations. A total of 342 qualified responses were collected and analyzed. Respondents came from organizations of all sizes and across various industries. A demographic overview is available at the end of the report.

The key findings of the study include the following:

■ A majority of enterprises are now implementing or considering cloud-based applications and infrastructure to manage their mission-critical systems. Much of the movement has been to private and hybrid cloud architectures, with public cloud adoption following not too far behind. Close to 30% of respondents have public Software as a Service and 16% use public Platform as a Service or Infrastructure as a Service. Among cloud adopters, close to one-third deploy Database as a Service or Application Platform as a Service, and one in five deploy Data Integration as a Service.

■ Data-driven requirements—such as big data analytics and backup—are the motivating factors behind many cloud initiatives, yet may also be holding back cloud deployments. About one in four respondents also cite application and data interoperability as one of their top challenges in moving to cloud. Enterprises that have moved to private/hybrid or public cloud mention data integration as a key challenge more frequently than who have not moved to cloud. Among non-cloud users, 19% mention data integration as a challenge for cloud projects. Among public cloud users, this group goes up to 42%, indicating the necessity to plan well for data integration, as well as application integration, when moving to cloud.

■ There are now an abundance of choices for achieving enterprise data integration. Most enterprises still rely on the established, tried-and-true strategies for data integration that were perfected in the 1980s and 1990s. ETL and data replication approaches dominate within enterprises, used by a majority of organizations in this survey. Many even still integrate with manual scripting. Close to one-third of respondents now also employ cloud-based services for application or data integration.

■ For a majority of enterprises, data integration is a key requirement of their cloud plans. For both implementers of private/hybrid and public cloud systems, at least nine out of 10 recognize data integration as important to their efforts going forth. Those leveraging data integration within cloud environments report they are seeing faster data movement to target applications, reduced costs, and increased agility. Half of enterprises also now require real-time data synchronization data between cloud and on-premises systems —reflecting the opportunities that lie ahead. Cloud adopters have a stronger need for real-time or near real-time data synchronization than their peers that have not adopted cloud yet.

On the following pages are the detailed results and analysis of the study.