Outsourcing Database Administration Saves Money, Improves IT Productivity

Introduction

Today, enterprises are supporting hundreds or even thousands of databases to meet growing business demand. With most organizations supporting Lean and Agile application development initiatives, IT organizations are being pressured to deliver applications in months, if not weeks. Although DBMS technology has improved in automation over the years, provisioning and administering databases for application development remains a bottleneck, largely because of lack of database administration (DBA) and system resources, limited IT budget, complexity of IT infrastructure, and lack of priority to enterprise databases. As a result, many enterprises are struggling with new application development to innovate, remain competitive, and deliver improved services in the age of the customer.

Outsourcing database administration overcomes these application and business challenges by supplementing existing DBA staff to perform day-to-day administration activities, lower cost of administration, and improve the quality of service. It enables business to innovate, focusing on business issues rather than deal with technology challenges.

According to data from Forrester's Forrsights Budgets And Priorities Survey, Q4 2013, three-quarters of a firm's total IT budget as a percentage of revenues is spent on IT MOOSE

(IT spending to maintain and operate the organization, systems, and equipment), leaving just more than one-quarter for new project spending (see Figure 1).

With such a dramatic misbalance, it's no wonder business leaders struggle to get mindshare in IT — making innovation an uphill battle.

FIGURE 1

"Run-The-Business" Costs Remain High
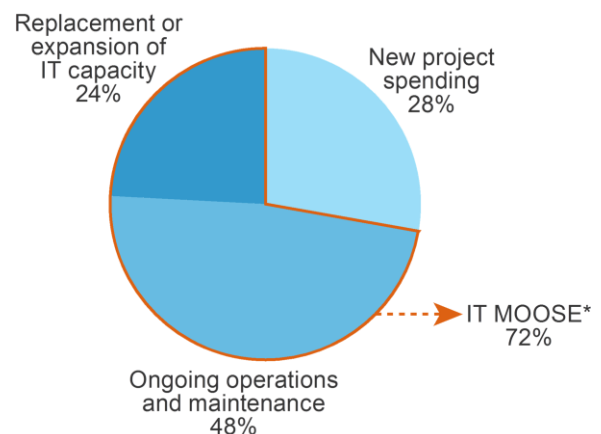
Base: 408 US IT decision-makers at firms with 1,000 or more employees
Source: Forrsights Budgets And Priorities Survey, Q4 2013
*IT MOOSE = IT spending to maintain and operate the organization, systems, and equipment

This Datavail-commissioned profile of US database administration decision-makers from firms with 1,000 or more employees evaluates the viability of outsourcing DBA functions to third-party firms, based on Forrester's own market data, and a custom study of the same audience.
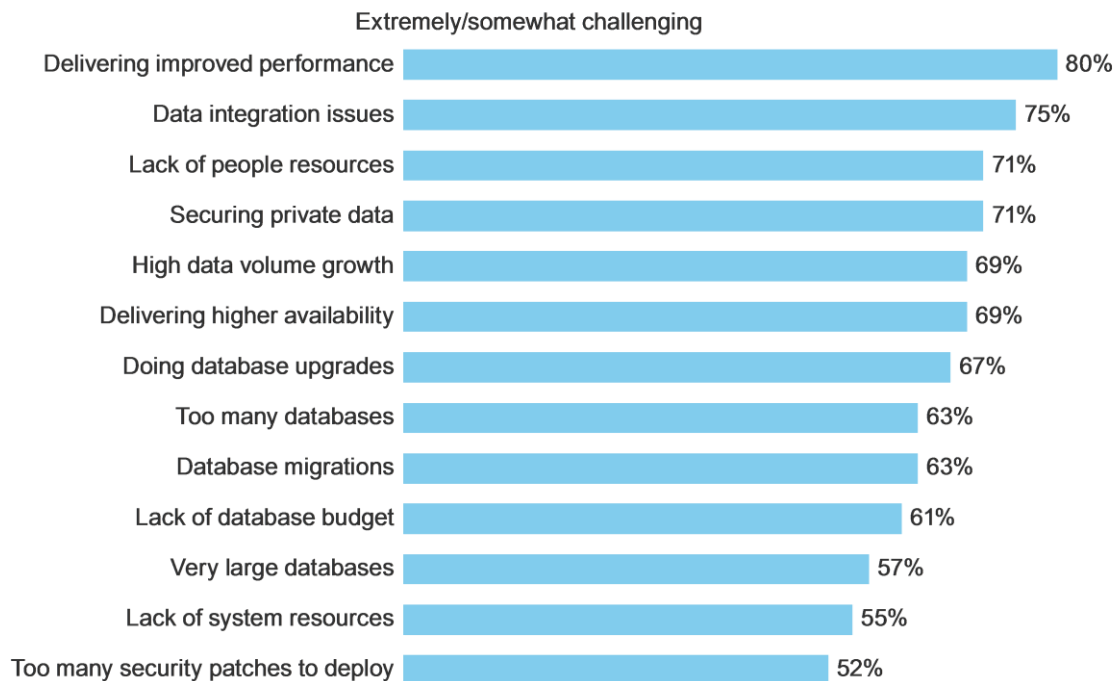
IT Struggles To Keep Up With Database Administration Requirements

Today, all enterprises depend on DBMS technology to store their critical business data. Databases support mission-critical data for banks, hospitals, airlines, defense agencies, schools, retailers, and other industries. Every new database that an organization deploys puts pressure on IT to ensure its availability, integration, security, reliability, and quality. Managing databases with fewer people has always been a challenge, but with databases scaling to terabytes and petabytes, these challenges have grown more acute. Our research points to several technology and organizational challenges most organizations are facing:

› **Delivering improved performance.** Enterprises have always struggled with the performance of critical applications, an issue further exacerbated by growing data volumes and velocities; as a result, performance continues to be a top challenge. Poorly written SQL statements, improper configuration database layout, and a lack of clear understanding of how to tune often create performance issues. Tuning and optimization often takes nearly twice the effort for a large multi-terabyte database

compared with a smaller database. Based on the survey, 80% of enterprises reported performance as the top challenge (see Figure 2).

› **Lack of staff resources.** While most enterprises have doubled or quadrupled the number of databases over the past decade, the number of DBAs has not increased proportionally. As a result, 71% of organizations reported lack of staff resources to manage their enterprise databases. With the increasing number of databases and data volume, staffing challenges are becoming more widespread across large and smaller organizations.

› **Data integration issues.** New data sources, such as social media, Internet of Things (IOT), and cloud, combined with support for real-time data make data integration more challenging. As a result, 75% of organizations reported struggling with data integration. Today's applications deal with all kinds of structured, unstructured, and semistructured data stored across many locations, presenting new data management challenges that often require more efficient databases.

› **High data volume growth.** On average, the amount of data that mission-critical applications handle doubles every 18 months; for some firms, it can quadruple over the same period. Despite database innovation, handling tens or hundreds of terabytes of data in databases remains challenging, especially where sub-second responses are critical to support business needs.

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FIGURE 2
Challenges Riddle Most Organizations

"What are the key database management issues you see as challenging in your organization?"

Extremely/somewhat challenging

Delivering improved performance	80%
Data integration issues	75%
Lack of people resources	71%
Securing private data	71%
High data volume growth	69%
Delivering higher availability	69%
Doing database upgrades	67%
Too many databases	63%
Database migrations	63%
Lack of database budget	61%
Very large databases	57%
Lack of system resources	55%
Too many security patches to deploy	52%

Base: 104 US database management professionals with 1,000 or more employees

Source: February 2013 Global Database Management Online Survey, Forrester Research, Inc.

Firms Realize Benefits In Outsourcing Database Administration

Outsourcing database administration extends your existing database or data management group to include additional expertise critical to support short-term or long-term database initiatives. It can help DBAs, developers, testers, and architects with database resources and functions that are critical to run a business. Although database administration is often used for tier-one mission-critical applications, enterprises also expand to include tier-two, tier-three, and nonproduction databases over time.

Outsourcing database offers several key business and technology benefits that include:

› **Lower database administration cost.** With the growing number of databases, enterprises are also concerned about the growing database budget requirements. While there can be several approaches one can take to reduce

database administration cost, outsourcing is a top focus for enterprises. Survey results show that 68% of enterprises save money when outsourcing some or all of their databases (see Figure 3).

› **Improved quality of database administration.** Forrester finds that many enterprises don't have a formal database administration strategy in place. Without a strategy, enterprises deal with troubleshooting databases in a reactive mode that often impacts SLAs. Outsourcing database administration on the other hand not only delivers improved SLAs but also quality of service. Outsourcing database administration helps by automating processes, procedures, proactively monitoring systems, and applying best practices to ensure quality. This is clearly reflected in the survey where 56% of respondents reported improved quality of database service.

› **Has helped focus on business issues.** With the age of the customer, competitive pressure, and globalization, businesses don't have the luxury to spend time and effort

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on managing technology issues. This was confirmed where 50% of surveyed professionals mentioned that outsourcing database administration helps focus on business issues.

› **Helps complement existing staff.** The larger numbers of databases have led many enterprises to experience a shortage of DBA and administrator-level resource, hindering innovation and business growth. Outsourcing helps complement existing staff by offloading routine database administration tasks or providing support outside normal business hours for activities such as backup, recovery, tuning, upgrade, migration, integration, and installation to outsourcing vendors that have expertise and specialized focus. In addition, outsourcing
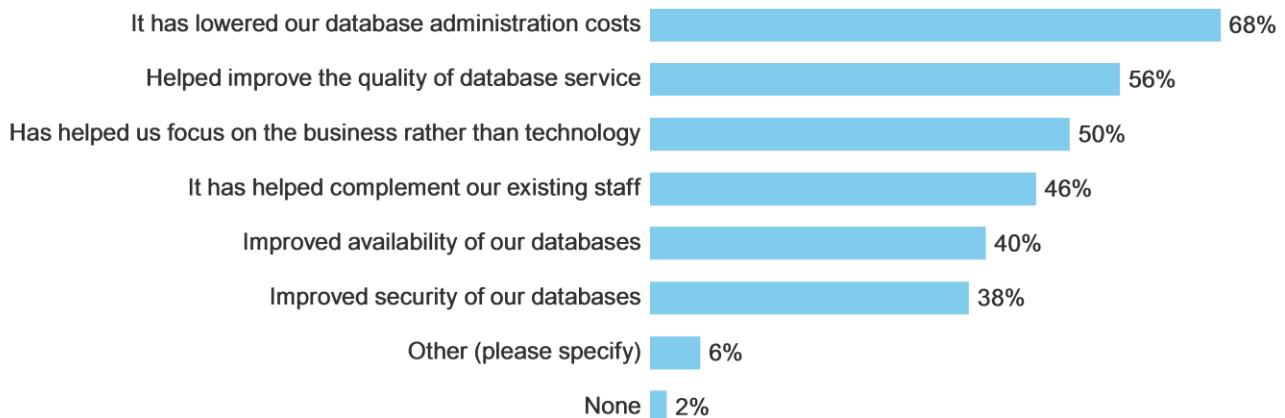
also helps support new app development and deployment that often requires database skills for a shorter period.

› **Improved SLAs.** Today, many enterprises run global apps that must be available 24x7. Most enterprises strive to achieve five 9s (99.999%) availability for unplanned outages, but often fail because of skills and hardware issues, human error, platform complexity, and application-related issues. Outsourcing helps improve SLAs by automating processes, proactively monitoring databases, and improving areas that often minimize critical outages. This was confirmed by the fact that 76% of surveyed database decision-makers that outsourced their database administration reported SLA improvement (see Figure 4).

FIGURE 3

Cost, Quality Of Services, And Business Focus Are Top Benefits Of Outsourcing Your Database Administration

"What benefits have you achieved by moving some or all of your database administration (DBA) management to an outsource vendor?"

It has lowered our database administration costs	68%
Helped improve the quality of database service	56%
Has helped us focus on the business rather than technology	50%
It has helped complement our existing staff	46%
Improved availability of our databases	40%
Improved security of our databases	38%
Other (please specify)	6%
None	2%

Base: 50 US database administration decision-makers at firms with 1,000 or more employees who are currently outsourcing at least some of their DBA management outsourced

Source: A commissioned study conducted by Forrester Consulting on behalf of Datavail, January 2014
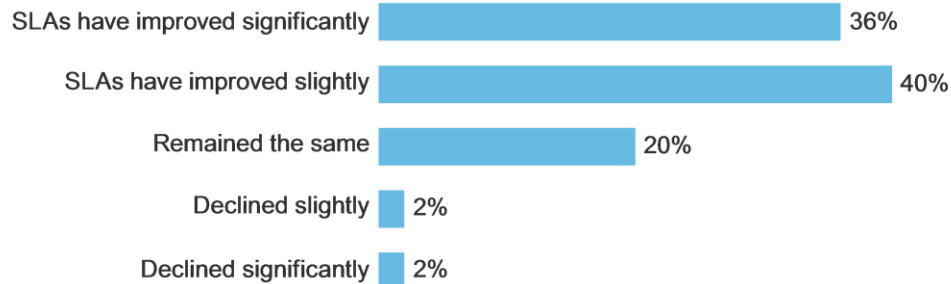
"Cost benefits as well as internal operations have significantly improved, resulting in good benefits for our organization."

— IT decision-maker in response to "Why are you increasing your use of DBA outsourcing?"

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FIGURE 4

Most Enterprises Are Seeing SLA Improvement When Outsourcing Database Administration

"How have your SLAs changed as a result of moving some or all of your database administration (DBA) management to an outsource vendor?"

SLAs have improved significantly	36%
SLAs have improved slightly	40%
Remained the same	20%
Declined slightly	2%
Declined significantly	2%

Base: 50 US database administration decision-makers at firms with 1,000 or more employees who are currently outsourcing at least some of their DBA management outsourced

Source: A commissioned study conducted by Forrester Consulting on behalf of Datavail, January 2014

Outsourcing Database Administration Becoming Strategic

Outsourcing database administration is here to stay. Although, database administration outsourcing is seen as more tactical than strategic today, with increasing enterprise focus on real-time apps and insights, it is becoming a strategic function.
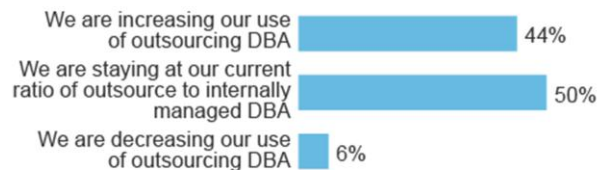
Outsourcing database administration offers a wide range of business and technology benefits including: 1) cost savings, 2) quality of service, 3) improved availability and SLAs, 4) complementing existing staff, and 5) allowing organizations to focus more on business issues than deal with technology challenges.

Firms outsourcing their database administration today are reinvesting tomorrow. Half of the enterprises surveyed in this research are keeping their current ratio of outsourced to internally managed DBA, while most of the other half plan to increase their use of outsourcing in the future (see Figure 5).

FIGURE 5

Most Organizations Increasing Databases Or Remaining Status Quo When It Comes To Outsourcing

"What are your plans with outsourcing your database administration (DBA) in the future as compared to today?"

We are increasing our use of outsourcing DBA	44%
We are staying at our current ratio of outsource to internally managed DBA	50%
We are decreasing our use of outsourcing DBA	6%

Base: 50 US database administration decision-makers at firms with 1,000 or more employees who are currently outsourcing at least some of their DBA management outsourced

Source: A commissioned study conducted by Forrester Consulting on behalf of Datavail, January 2014

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Outsourcing Database Administration Is A Critical Tool In A Sound DBMS Strategy

Outsourcing database administration is here to stay. Outsourcing offers so many business and technology benefits that can help make databases more efficient, secure, integrated, and available, besides lower cost of administration. Forrester estimates that large enterprises will double the number of databases over the next decade, as more newer next-generation mobile, cloud, and real-time applications are built. Although hiring more DBAs is always an option to support the growing number of databases, enterprises need to look at alternate options that can save money and proactively monitoring their databases. Firms that invest in outsourcing database administration are more likely to respond quickly to business needs and competitive threats, save money, grow faster than their competitors and deliver innovative products and services.

Methodology

This Technology Adoption Profile was commissioned by Datavail. To create this profile, Forrester leveraged its Forrsights Software Survey, Q4 2013, and Global Database Management Online Survey. Forrester Consulting supplemented this data with custom survey questions asked of 50 US DBA management decision-makers from firms with 1,000 or more employees who have outsourced at least some of their DBA management. The auxiliary custom survey was conducted in January 2014. For more information on Forrester's data panel and Tech Industry Consulting services, visit www.forrester.com.

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