CXO FOCUS

THE BENEFITS OF DBAAS WITHOUT VENDOR LOCK-IN? YES, IT'S POSSIBLE

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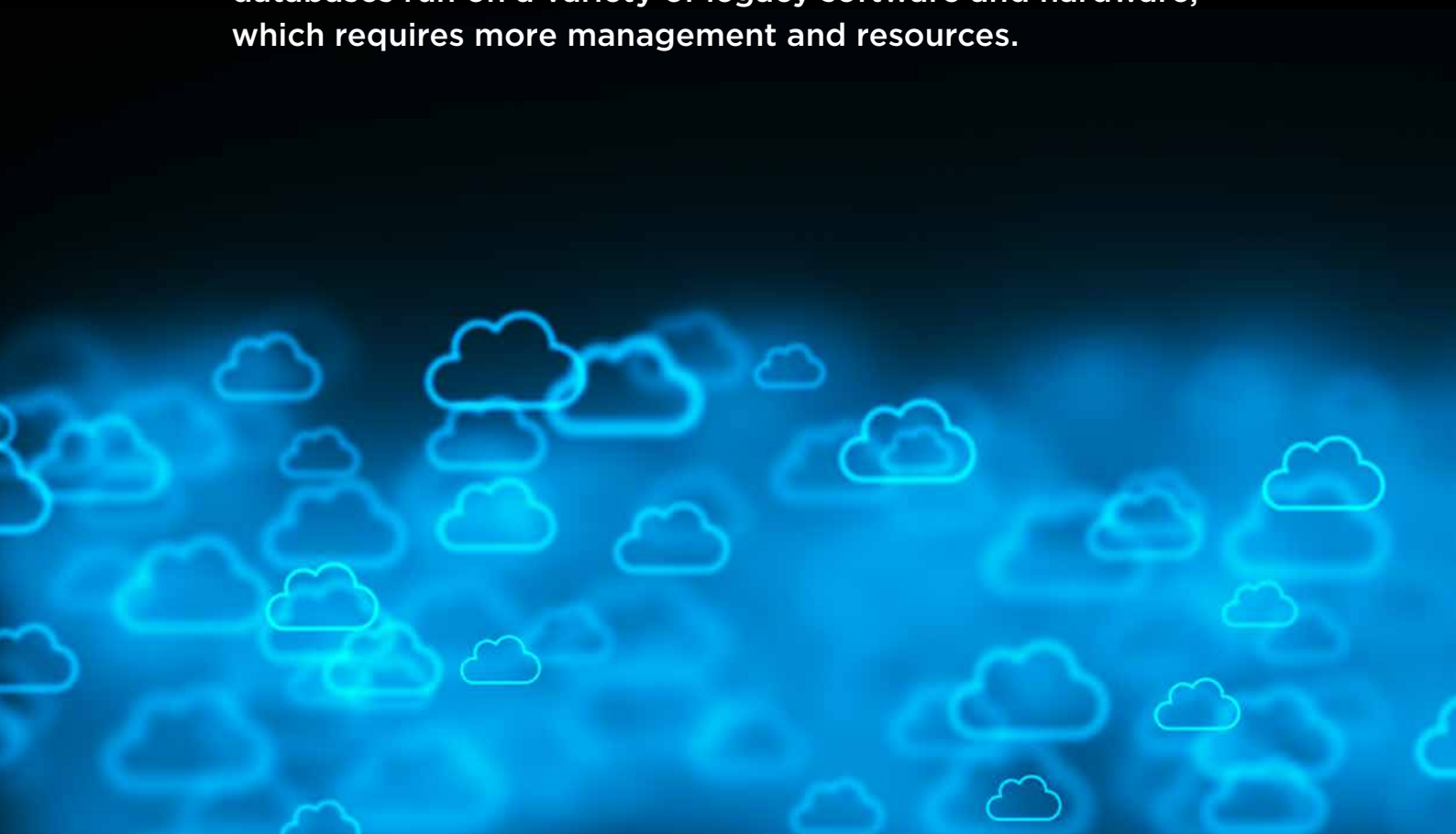
It's 2021, and despite all the chaos and uncertainty in the world, there's one thing we can count on: more data.

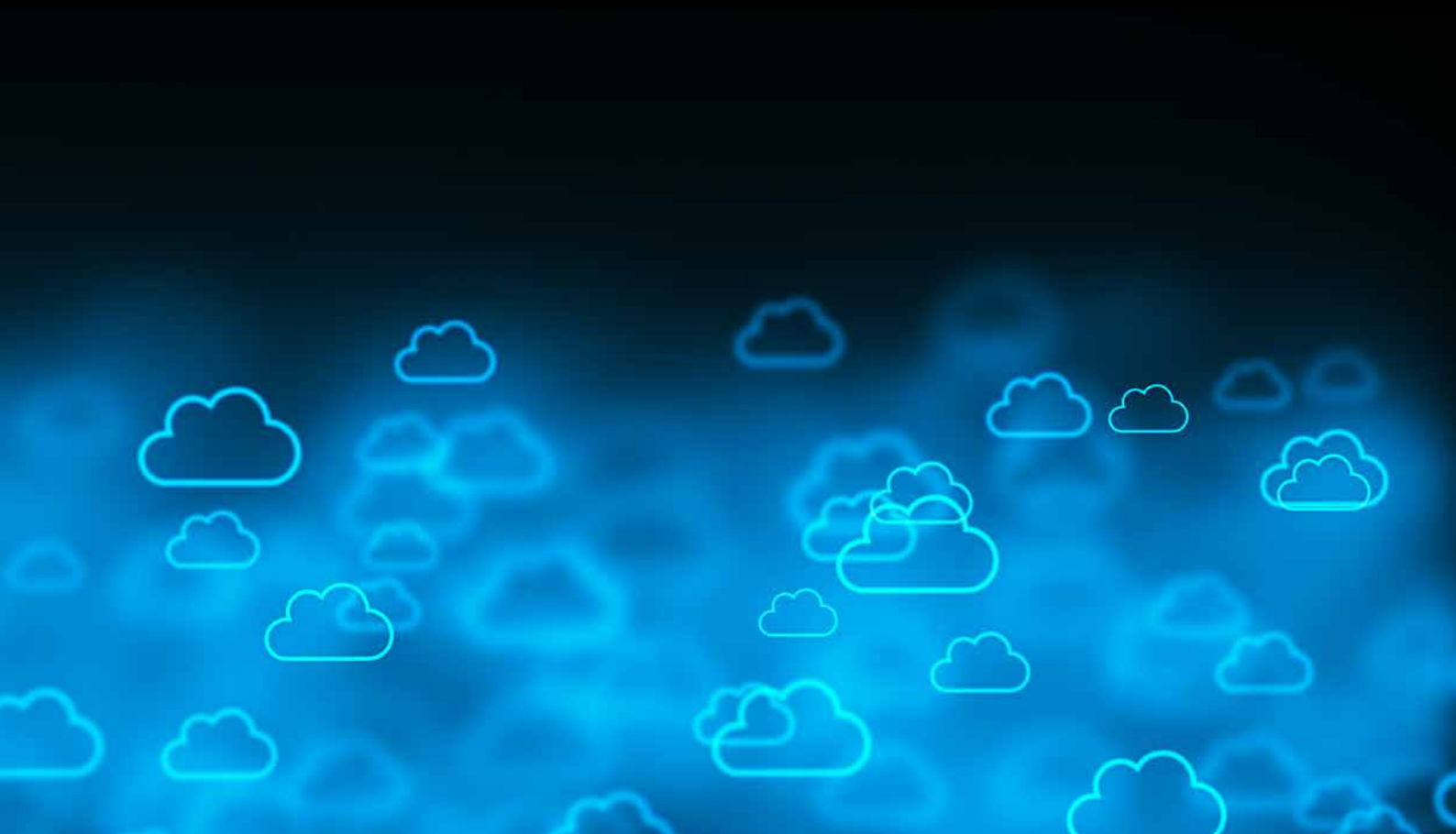
Today, data is being generated at astronomical rates and volumes. Organizations are adopting collaborative development operations (DevOps), utilizing cloud-based software offerings, and increasingly leveraging AI and data analytics. These technologies are optimizing operations and personalizing marketing outreach, and also forcing organizations to rethink how they manage and optimize their databases.

In 2016, IDC reported that 77% of organizations they surveyed have more than 200 database instances, and 82% have more than 10 copies of each instance. That means database administrators (DBAs) must provision, manage, refresh, restore, and perform other database operations for 2,000 database instances! Adding to the complexity, these databases run on a variety of legacy software and hardware, which requires more management and resources.



To simplify database management, many organizations are turning to the cloud. MarketsandMarkets predicts that the Database-as-a-Service (DBaaS) market will be worth about $24.8 billion by 2025, up from $12 billion today — that's a CAGR of 15.7%. Organizations know that cloud-based database management provides flexibility and automation, reduced overhead and risk, and the freedom to scale up or down as needed to meet changing business needs. But DBaaS has had its share of drawbacks, too, such as a loss of control and vendor lock-in. These disadvantages can inhibit innovation and growth.

Let's take a look at key benefits of DBaaS, as well as some of the challenges, and how a software-defined platform that enables a unified control plane for database management can transcend typical limitations that may be holding you back from committing to DBaaS.



Do the Benefits Outweigh the Drawbacks?

DBaaS offers some undeniable benefits:

Reduced costs: With DBaaS, organizations save money by buying capacity and functionality on an as-needed basis, without needing to invest in hardware purchases and maintenance. DBaaS eliminates capital costs and frees staff to focus on the logical administration of database and application data. Additionally, the IT team can outsource time-consuming, low-level database management tasks such as backup, recovery, tuning, patching, and upgrading. IT staff can focus on more critical work while the day-to-day management tasks are either automated or offloaded to the DBaaS provider.

Rapid deployment: Traditional rollouts require requesting and allocating storage space, provisioning the database, and installing software, a process that can involve multiple teams. Cloud-based database provisioning enables IT to deliver database instances to business units without manual intervention or lengthy approval times. IT can adapt to the data processing and storage requirements of the business faster so that it is not a barrier to growth or innovation. Some platforms offer self-service capabilities, to enable business units to power up or shut down resources without help from IT.

Resource optimization: In traditional IT environments, resources can sit idle or underutilized, leading to unnecessary spend and risk. In DBaaS environments, underutilized assets and system resources can be repurposed and used more efficiently, leading to significant cost savings. Systems can be turned on or off, depending on the current business needs, or shared with other departments to maximize the return on infrastructure investments.

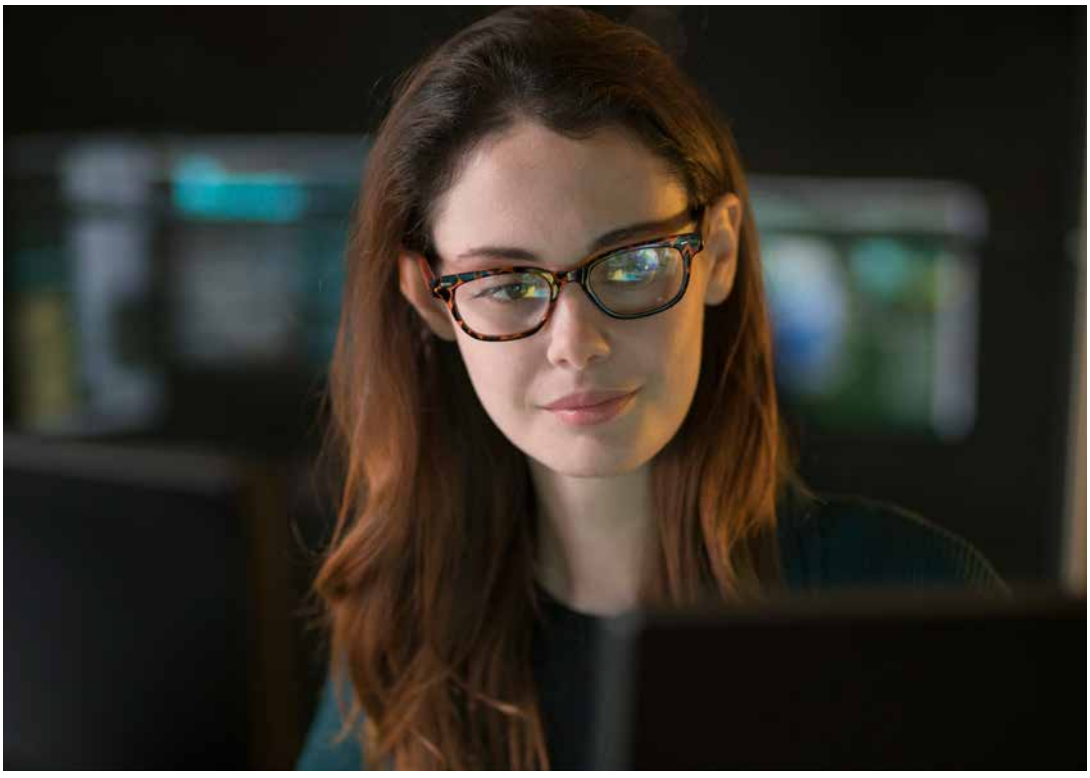
Consistency and reliability. Subscription services are typically structured around service-level agreements, and providers usually maintain state-of-the-art hardware and redundant configurations to ensure reliable fail-over and disaster recovery. As a result, organizations have peace of mind that their services are always up and running.

This list is persuasive, to say the least. But let's not overlook the drawbacks:

Lack of control: With DBaaS, you don't have direct access — or control over — the servers running your database. You have to rely on the provider to implement physical and security measures to protect your data. In other words, you have to have a very high level of trust in your vendor, and their ability to support and protect your cloud-defined database.

Vendor lock-in: Often, once an organization chooses a cloud provider, they're stuck with that provider for the long-haul. That's because moving to a different vendor can result in substantial costs, legal issues, or technical incompatibilities. It's extremely difficult to move a database once it's set up, and once the third party's software is incorporated into a business's process, the business can become dependent on it. Vendor lock-in gives organizations no way out, even if something changes for the worse, such as service quality, security, or the vendor's financial stability. A vendor can also raise their prices, giving the organization no choice but to incur additional costs.

These drawbacks often prevent organizations from making the leap to DBaaS, which means they continue to toil away at managing their on-prem infrastructure and incurring unnecessary costs. Innovation may be limited, as well, and the impact on the organization's bottom line can be significant.



What's Really Needed: A Common Control Plane, Under Your Control

Hybrid cloud environments are becoming the default for deploying new systems in the enterprise. For DBAs, this provides operational simplicity and cost savings — and all the many benefits of cloud computing. But DBAs also want to maintain control and their right to choose what platforms and vendors they work with.

One way to do this is by building a DBaaS in a private enterprise cloud. This can be accomplished by creating a software-defined common control plane that provides choice and flexibility, without the restrictions of single-vendor solutions that are database-, cloud provider- or location-specific.

Built on top of a hyperconverged infrastructure (HCI), a software-defined control plane creates a cloud-style, service-based environment that has no reliance on an external cloud platform vendor. In such a scenario, databases and other assets within an organization can be connected to the unified control plane via API, regardless of where they run, or whether they're on-prem, or in private, hybrid, or public clouds. The tedious database management tasks of provisioning, snapshot replication, failover, patching, upgrading and more can be automated and completed in minutes on a computer, with a few mouse clicks.

Here's an example. Built on the Nutanix HCI, Nutanix Era offers a Time Machine feature, which handles database copy management, backup, and restore functions. Time Machine is a service layer for recovering backups via snapshots and logs. It complements existing backup solutions; while Time Machine manages the recent snapshots, archives are sent to the native repository of the existing backup system. DBAs retain complete control over the data, while enjoying cloud-like simplicity and the speed of one-click copy, backup, and restore functionality.

By overlaying HCI with a common control plane, organizations can reap all the benefits of DBaaS, without any of the drawbacks.

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Finding Common Ground

Today's enterprises maintain a diverse IT infrastructure that comprises traditional and cloud-based assets and resources , and that's not likely to change. Meanwhile, the increasing complexity of database management means teams must find ways to simplify operations, cut costs, and scale efficiently.

But relinquishing control to a third-party vendor — and getting your organization locked into a single vendor and their solutions indefinitely — is far from ideal. As many organizations head into 2021 facing economic uncertainty, it's anyone's guess as to what the future holds. Better to keep your options open and avoid putting all your eggs in one basket.

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