Transform Faster by Bridging the DBA-DevOps Disconnect

As companies advance digital transformation, data is taking center stage. This means DBA-DevOps engineers and database administrators (DBAs) will need to be more collaborative than ever before.

Data is the key to nearly every transformation initiative. It's led many businesses to prioritize modernizing their database technology stacks to hit objectives. But it's also requiring IT teams to be more strategic and collaborative. In particular, DBAs and DevOps engineers need to get synced. When these pros are on the same page, they can supercharge your ability to create, test, and deploy high-quality applications.

The DBA-DevOps Disconnect

In many organizations, DBAs and DevOps engineers are *not* well-aligned, but they should be. DevOps is all about unifying ops and engineering teams. DBAs can help build a more data-driven organization[1]. If you're serious about using your data for competitive advantage, collaboration between these two teams is a must.

A good starting point is encouraging DBAs to embrace the fact that their jobs are changing. Automation, artificial intelligence (AI), and machine learning are here to stay. In most cases, that change will be for the better—for DBAs as well as for their organizations.

DevOps engineers, meanwhile, may see DBAs as an obstacle to their progress. They need to let go of that notion. It's time for them to recognize the role their DBA colleagues can play in improving the application development process.

DBAs and DevOps: From Mars and Venus? Sort Of

The 1992 book, "Men Are from Mars, Women Are from Venus," by John Gray came to mind as I considered how DBAs and DevOps pros can build a better rapport.2 The analogy sums up the reality at hand. DBAs and DevOps may both operate in the same IT universe, but they inhabit different planets when it comes to how they work. DevOps engineers like to move fast, while DBAs prefer to be methodical.

Both groups need to recognize and respect these differences. Then, they'll be able to communicate and collaborate effectively.

Learning to Love DevOps

For DBAs, that means being more welcoming to DevOps. There's been a lot of discussion about DevOps processes and automation phasing out the DBA's role. DevOps engineers do have an "automate everything" mindset that can make DBAs uncomfortable. But automation isn't necessarily a path to obsolescence for the DBA. In fact, automation and becoming an integral part of continuous integration and continuous development (CI/CD) processes can make DBAs *more* valuable.

It can also help them shake their image as a bottleneck to swift release cycles and innovation. DevOps engineers depend on DBAs to provide accessible and up-to-date databases for development work. The manual processes that many DBAs rely on can be a hindrance for DevOps teams trying to work quickly.

Learning to Respect Database Administration

DBAs don't *want* to be bottlenecks, though. They need to ensure that databases are secure and stable and perform as expected. But that's not only for the benefit of DevOps teams and the product development process.

DevOps engineers' view of DBAs as obstacles is often rooted in their lack of understanding about the complexity and scope of DBAs' work. They may not appreciate the constraints these pros can face when they aren't supported by modern storage solutions.

DevOps also may not consider how today's DBAs are tasked with remote monitoring of on-premises and cloud instances in physical and virtual environments. DBAs are also likely responsible for managing a multitude of databases. Research shows the number of open-source databases is expanding rapidly in enterprises, for example.

Not to mention, the number of database changes has also been rising. This is not only due to an increase in deployments but also human error.3 The pressure on DBAs to move fast when making changes to production databases can lead to mistakes. This can be a real drag on morale for DBAs who feel responsible for protecting databases and the information they contain. They're constantly worried about quality, performance, reliability, and security.

Automation (and Infrastructure) Can Bring Us Together

Challenging workloads and the potential for costly missteps are more reasons for

DBAs to find ways to collaborate with DevOps engineers and run toward—not away from—automation. Many DBAs and managers do see the value of moving in this direction, including greater innovation, reduced time to market, and fewer database errors and bottlenecks.

DBAs should take the opportunity to evolve their roles proactively and strive to become a trusted partner to their DevOps colleagues. DevOps are on the front lines of transformation, and DBAs can help them achieve their mission, break down silos, and speed product delivery.

When it comes to eliminating the silos that hinder DBA-DevOps collaboration, organizations will want to consider software-defined storage (SDS) solutions that are cloud-ready, container-aware, and AI-driven. These investments can make data more accessible and available, which helps teams work toward the same goals and speeds the development cycle. Data silos are a major issue: A Harvard Business Review Analytic Services study sponsored by Pure Storage® found that three-quarters of organizations today are working to break down silos and manage data as a shared resource.4

Storage as a service (STaaS) can help with that process and allow DBAs and DevOps engineers to work more efficiently together (and more efficiently in general). STaaS reduces the complexity of storage management and operations, allowing teams to focus on more strategic initiatives. According to the Harvard Business Review study, one of the key strengths most organizations see in STaaS, compared to traditional storage methods, is its ability to help free IT staff to do higher-value work.

The study's findings also indicate that users of traditional storage methods don't experience the same levels of flexibility as STaaS users when it comes to cloud integration and data imports. That inflexibility undermines employees' ability to do their jobs and make data-based decisions.

The Benefits of Better DevOps-DBA Collaboration

With the right mindset and modern storage, DBAs can have a tremendous impact on the DevOps workflow. They can provide engineers with the ability to get the copies and clones of databases that they need when they need them. And once they're communicating and working in sync, DBAs and DevOps engineers can better manage database changes and avoid costly errors that can gum up the development works and prevent the business from achieving market-differentiating digital objectives.

The results can mean major business breakthroughs. Companies that have taken steps to improve their DevOps workflow gain efficiency and agility that can give them a competitive edge. For example, Despegar.com, Latin America's leading online travel service, had struggled with an outdated IT infrastructure. Without modern tools, developers couldn't access the resources they needed. They were always waiting for operations staff to provision development infrastructure.

After Despegar.com moved to Pure Storage and made investments to modernize its infrastructure, developers hit their stride. They were able to create, test, and deploy more than 400 applications and updates daily. Before, they were only delivering about three to five apps and updates per week. Now, they can complete production queries in less than one minute, instead of 10 minutes. Enhanced developer productivity has allowed them to integrate user feedback into applications faster. This improves customer satisfaction and accelerates time to market for other new features and services.

The need for DBAs and DevOps teams to work together more effectively isn't new. But, it's perhaps never been more urgent for businesses to address this disconnect—and let go of outdated IT infrastructure that undermines their agility.

Read the full story of how Despegar.com created a new DevOps environment to eliminate infrastructure barriers and accelerate application development, with help from Pure Storage.

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3. https://www.dbta.com/Editorial/Trends-and-Applications/The-Top-5-Challenges-Facing-DBAs-in-2020-139071.aspx
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