Guiding Principles of Database Automation

A Twelve-Step Guide for CIOs

Autonomous database technology can magnify the impact of digital transformation initiatives by freeing database administrators to focus on adding value to corporate database assets—rather than getting mired in routine administrative tasks. It's all about having the right software. As Forrester suggests in its 2018 report, "The CIO's Guide to Automation, AI, and Robotics," astute CIOs strive to raise automation to the level of a strategic organizational competency.

However, automation can only succeed when these business leaders make judicious investments in strategic technologies and business practices. This guide will give you the practical direction you need to embark on a successful journey to autonomous database operations.

Use Automation to Magnify the Business Impact of Database Technology

1 Make it easy for business workers and developers to provision and scale their own databases, without IT assistance.

2 Eliminate routine maintenance chores related to provisioning, scaling, patching, and tuning databases.

3 Embrace the disruptive potential of autonomous database technology to replace human labor—and move existing DBAs into higher-value roles.

4 Secure important database environments with an intelligent, cloud-based platform that automatically prevents, detects, and responds to performance issues and cybersecurity threats.

Address real business problems, not pie-in-the-sky ventures.

Standardize on a Comprehensive, Autonomous Database Platform

5 Autonomous database assets should be anchored by a cloud foundation that is based on open, standards-based tools. Make sure you can see a path for moving existing database assets forward.

6 Embrace the core attributes of autonomous operations—self-driving, self-securing, and self-repairing—and let your DBAs focus on high-value tasks such as creating new data models and improving application performance.

7 Transform routine DBMS processes by leveraging the power of artificial intelligence (AI) and machine learning. Your information systems should get smarter over time.

8 Work with a cloud vendor who can cost-effectively move your legacy database assets into the digital age. For example, can you move OLTP and analytic databases to the cloud unchanged?

Make sure you adopt technologies that work with what you have. Nobody wants another silo.

Invest in Core Competencies to Maximize Positive Change

9 You need an autonomous database platform that supports transaction processing and mixed workloads—a database that runs itself and protects itself with little or no human intervention.

10 Evangelize the potential value of autonomous database technologies to other business leaders. Emphasize the importance of establishing automated security practices that use machine learning to achieve situational awareness of nefarious activities.

11 Hire people who can adapt to the presence of automated systems and intelligences—and help DBAs move into more progressive, high-value roles such as from data custodians to data architects.

12 Assess your current state of automation maturity to determine how much autonomous database technology you are ready for. Then, pick projects with high visibility and obvious returns.

Even the most unique technologies will wither and die if the workforce doesn't embrace them. What does your team really need?

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