Skills 101 Series: Toad Hybrid and Cloud Made Easy

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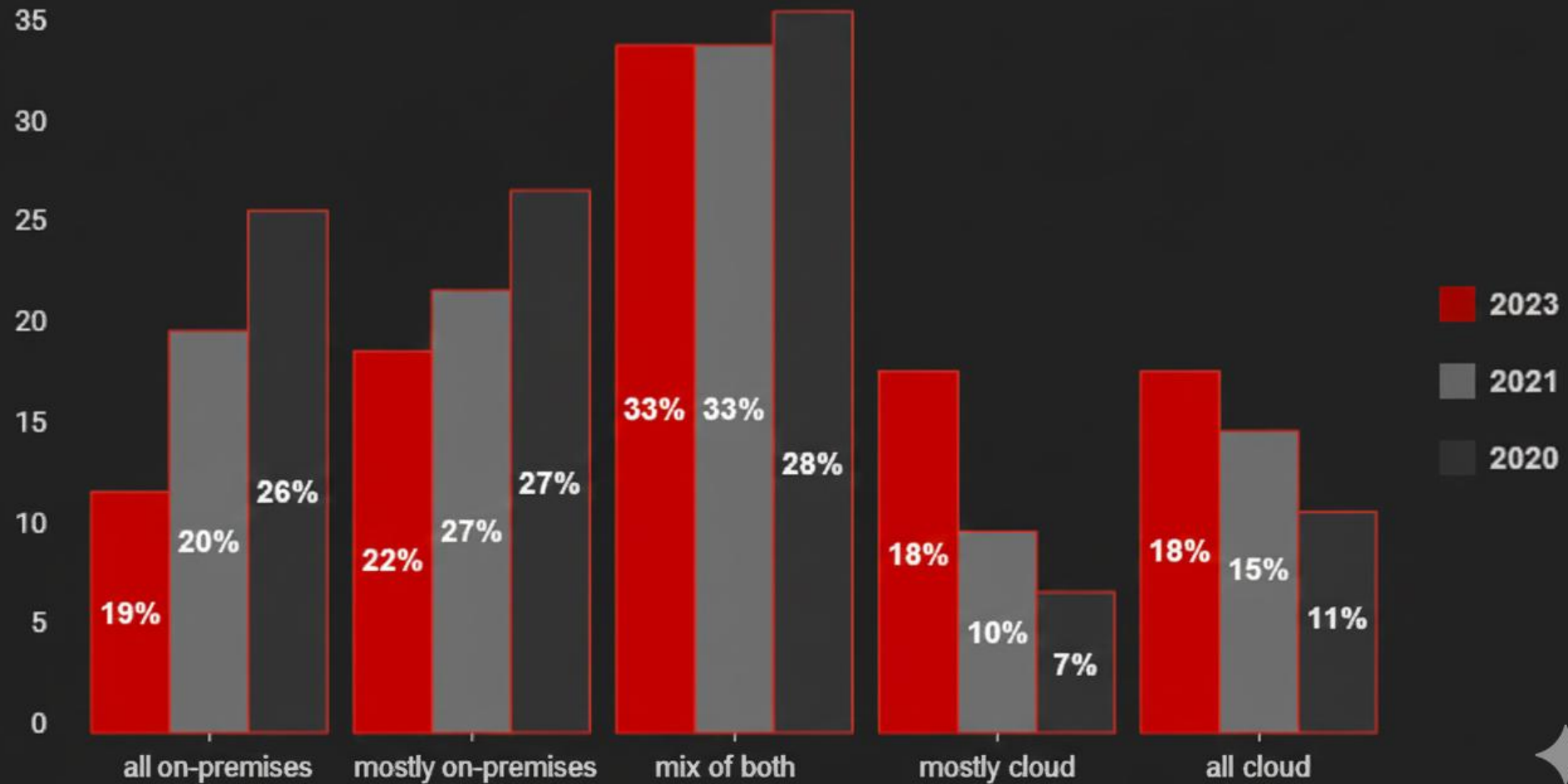mathew.phan@quest.com

Hybrid & Cloud Made Easy - Agenda

- Modern Database Landscape
  - On Premises, Cloud, and Hybrid

- Using Toad to connect and manage
  - Toad for Oracle
    - Traditional Oracle Databases on Prem and Cloud
  - Toad Data Studio
    - What is Toad Data Studio
    - New data sources and applications
    - On Prem, Cloud, and SaaS applications

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Where production databases are hosted

Legend: 2023, 2021, 2020

Category	2023	2021	2020
all on-premises	19%	20%	26%
mostly on-premises	22%	27%	27%
mix of both	33%	33%	28%
mostly cloud	18%	10%	7%
all cloud	18%	15%	11%

Source: State of the Database Landscape 2025 - Redgate

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Multi-cloud and hybrid will become a strategic architecture, not a choice

"Most enterprise clients are already using more than one hyperscaler, driven by a deliberate strategy to avoid vendor lock-in and negotiate discounted rates on bulk service mapping. In 2026, multi-cloud and hybrid environments will become architectural necessities."

"Organizations will strategically place critical components in the public cloud for scalability and high availability, use private cloud for data security and cheaper hardware for AI initiatives, and rely on specialized clouds for AI and compliance workloads. This diversification will define cloud strategy through the next year."

- Database Trends and Applications Magazine

- Avoiding vendor lock in
- Best environment for application
  - Scalability and high availability
  - Private cloud for data security
  - Specialize clouds for AI, compliance
- Diversification continuing

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Feature	On-Premise	Cloud	Hybrid (On-Prem + Cloud)
Control	**Complete** control over hardware, software, and configuration.	**Less Direct Control**; managed via service-level agreements (SLAs) with the provider.	**Balanced Control**; full control over on-premise components, shared control for cloud components.
Maintenance	**Full Responsibility** for all hardware, software updates, patching, and upkeep. **High in-house burden.**	**Minimal** in-house responsibility; Oracle manages the core infrastructure and often the OS/DB patching. **Low burden.**	**Shared Responsibility**; manage on-premise, provider manages cloud components. **Moderate burden.**
Upfront Costs	**Very High** CAPEX (Capital Expenditure) for hardware, software licenses, and infrastructure build-out.	**Low** CAPEX; subscription-based OPEX (Operational Expenditure).	**Moderate**; requires some initial investment for on-premise components.
Operational Costs	**Consistent/Predictable** but include IT staff, power, cooling, and ongoing support.	**Variable** pay-as-you-go model; can escalate if not monitored carefully. **Lower TCO (Total Cost of Ownership) is common.**	**Balanced/More Complex** to track, combining fixed on-prem costs and variable cloud costs.
Scalability	**Limited** by physical infrastructure; slow, manual, and costly to scale up or down.	**Highly Scalable and Elastic**; resources can be provisioned or de-provisioned rapidly and on-demand.	**Flexible**; can leverage cloud elasticity for fluctuating workloads while keeping stable base on-prem.
Privacy/Security	**Maximum Physical Control**; easier to meet strict regulatory compliance where data must reside in-house. **Full organizational risk responsibility.**	**Provider-Managed** security is robust, but data resides in the provider's data centers. **Shared risk responsibility.**	**High Flexibility**; sensitive data can stay On-Premise, while non-sensitive workloads use the Cloud.

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Modern Database Landscape

- Data professionals are task with handing even more complex data environments

- Organizations selecting environment based on
  - Cost
  - Performance
  - Expertise
  - Security

- Juggling multiple solutions is a pain

- Toad supports on prem, cloud, and hybrid environments making it easy from one trusted brand

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Database	Toad for Oracle	Toad Data Studio
Oracle Cloud Managed Databases (DBaaS, IaaS, etc.)	Yes	Yes
Oracle Cloud Autonomous Database	Yes	Yes
Oracle Cloud Fusion Database	No	Yes
Amazon AWS RDS Oracle Database	Yes	Yes
Amazon AWS EC2 Oracle Database	Yes	Yes
Azure VM Oracle Database	Yes	Yes

- Toad for Oracle supports most Oracle deployments
- Toad Data Point is included with every Toad for Oracle license for a limited time
- Toad Data Studio supports the same, plus Oracle Fusion
- Toad Data Studio also supports many other database platforms like Snowflake, Databricks, MongoDB

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Demos

Toad for Oracle

- Create an Oracle Autonomous Transaction Processing Database in the Oracle Cloud

- Configure the Oracle client

- Connect to ATP with Toad for Oracle

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Toad for Oracle

- Connecting to Oracle on Cloud platforms
  - Connecting to Oracle on Amazon RDS
  - Connecting to Oracle on Oracle Cloud Infrastructure
  - Connect to cloud databases using SSH tunnels in Toad

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Toad Data Studio

- What is Toad Data Studio
- Connecting to Oracle
- Connecting to Oracle Fusion
- Connecting to Amazon Redshift
- Connecting to Snowflake and more

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