



Drive Superior Value and Cost
Savings v/s
**Self-Managed Oracle
Databases on Azure with
Tessell**



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Executive Summary

The transition to cloud-hosted databases by organizations has witnessed a steady increase driven by the lure of cost savings, scalability and flexibility, simplified infrastructure management, enhanced security and disaster recovery capabilities. Despite the adoption trends, managing enterprise databases in the cloud remains archaic and expensive. Tessell, which is a full-managed multi-cloud DBaaS platform, was created to address this fundamental challenge redefining enterprise data management with its comprehensive suite of AI-powered database services.

Tessell conducted a study of customers across various industries to estimate the potential benefits and cost savings of running their Oracle Databases on Tessell-managed Azure infrastructure versus Self-Managed Azure infrastructure.

Some of the benefits that led customers to choose Tessell were:

- **Co-hosting Multiple Databases:** Tessell's ability to co-host multiple database services onto a single server allowed the customers to reduce the required licenses and optimize compute resources significantly.
- **Unified Cloud-Native Environment:** Centralized control over licenses, compute resources, and software images across all cloud subscriptions by Tessell allowed customers to effectively enforce license management policies, ensuring compliance with audit requirements and mitigating non-compliance risk.
- **License Reduction:** Tessell's ability to consolidate multiple Oracle databases on a single Azure VM significantly reduced the number of Oracle DB licenses. Overall, Tessell helped reduce Oracle licenses spending by 79%.
- **Infrastructure Savings:** By consolidating databases that were previously hosted on single instances on to fewer Azure VMs, customers reduced infrastructure costs by 32% compared to self-managed Databases on Azure.
- **Integrated Features:** Tessell's suite of data management apps eliminated the need for siloed 3rd party software for HA/DR, backup compliance, data masking, export/import, data refreshes, and more.
- **Operational Efficiency:** By automating routine tasks, improving database management efficiency, Tessell's reduced operational burden and increased productivity, decreasing admin FTE costs by 56%.

55%

Compute Costs Savings

+

79%

Reduction in Annual License Support Costs

+

56%

Reduction in Admin Costs

=

65%

Savings in Total Cost of Ownership (TCO)

189%

Return of Investments (ROI)

Additional savings can also be realised by removing 3rd party licenses providing overlapping with backup and data-masking

Introduction

As organizations adopt cloud-hosted databases, they gain cost efficiencies, improved performance, and increased flexibility. However, managing databases across multi-cloud environments brings new challenges, including complex management and cost control. To address these complexities, companies are turning to DataOps and FinOps for financial accountability in cloud usage.

Tessell combines DataOps and FinOps strengths into a single, cloud-native platform that addresses key friction points in data management. Tessell's features include:

- **End-to-End Data Management:** Simple data processes from inception to production, boosting operational efficiency.
- **Automation and Standardization:** Automate repetitive tasks and standardize workflows, enhancing data quality.
- **Enhanced Collaboration:** Facilitate teamwork, aligning data engineers and consumers with shared goals.
- **Robust Monitoring and Analytics:** Provides real-time insights to proactively address issues.
- **Agile Practices:** Support agile methodologies enabling rapid adaptation to changing business needs, enhancing data delivery speed.

By integrating these capabilities, Tessell enables organizations to manage cloud-hosted databases with higher performance, reduced complexity, and lower costs

"I'm most impressed by the team's **never-ending availability, solution-centric thinking, and amazing customer service** attitude. This in comparison with **top-notch Oracle knowledge** and skill makes it **very easy for me to recommend Tessell** for any corporate seeking options for running Oracle in the cloud environment. Also, the **portal for Oracle workloads is a masterpiece**. All vital information about the database's state is available with a glance. Exemplary. "



Martti Kontula,
Head of OT & Data, Landis+Gyr

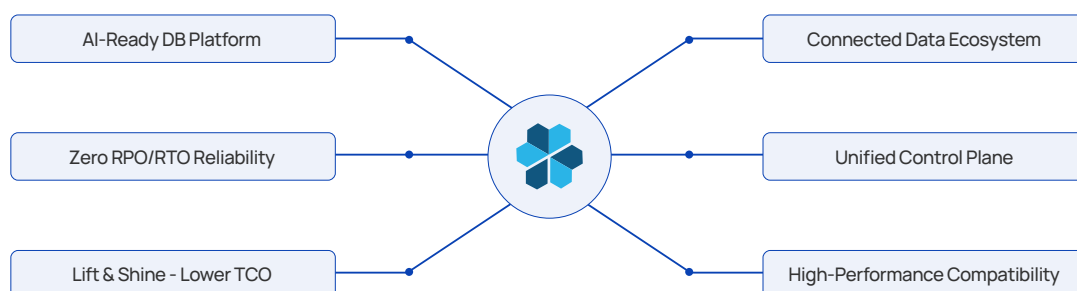
Overview: Business Value of Tessell

Tessell is a multi-cloud database-as-a-service (DBaaS) platform redefining enterprise data management with its comprehensive suite of AI-powered database services. By unifying operational and analytical data within a seamless data ecosystem, Tessell enables enterprises to modernize databases, optimize cloud economics, and drive intelligent decision-making at scale. Through AI and Conversational Data Management (CoDaM), Tessell makes data more accessible, interactive, and intuitive—empowering businesses to harness the full potential of their data with ease.

Tessell was created to address a fundamental challenge: while cloud adoption has surged, managing enterprise databases in the cloud remains archaic and expensive. Tessell's fully managed, multi-cloud database platform eliminates these pain points by offering:

- Modern cloud DB platform for AI apps with vector extensions to popular DB engines and providing conversational query capabilities.
- High-performance, scalable cloud database compatible with PostgreSQL and MySQL, powered by patented technology to eliminate provisioned IOPS.
- A unified control plane for seamless management of multiple cloud providers, database engines, and infrastructures.
- Comprehensive data ecosystem, connecting mission-critical operational data with analytical/decision-making systems (data lakes, warehouses).
- Zero RPO/RTO high availability & disaster recovery services for uninterrupted operations.
- Enterprise-grade security and compliance with custom policies.
- Lift & Shine for your data estate to achieve significant TCO reduction.

By improving operational efficiency, maintaining data integrity and security, and supporting informed decision-making, Tessell enhances organizational performance and resilience, leading to greater compliance and business continuity.



Customer Case Study

Introduction

Tessell conducted a study of three customers to explore the various savings and benefits of running their Oracle Databases on Tessell-managed Azure infrastructure versus Self-Managed Azure infrastructure. These customers belonged to diverse industries with a multinational presence. The first customer is a Fortune 500 railroad logistics provider in North America. The second customer is one of the largest accounting and professional services firms in the world, with a presence in more than 150 countries. The third customer is a Global Fortune 100 European energy company providing oil, gas, wind, and solar energy in more than 30 countries worldwide.

Tessell was brought in as the trusted partner to help realize the seamless consolidation of Oracle databases to Tessell-managed instances on Azure while saving infrastructure, license, and operational Costs. Here is the exposition of the findings of our study.

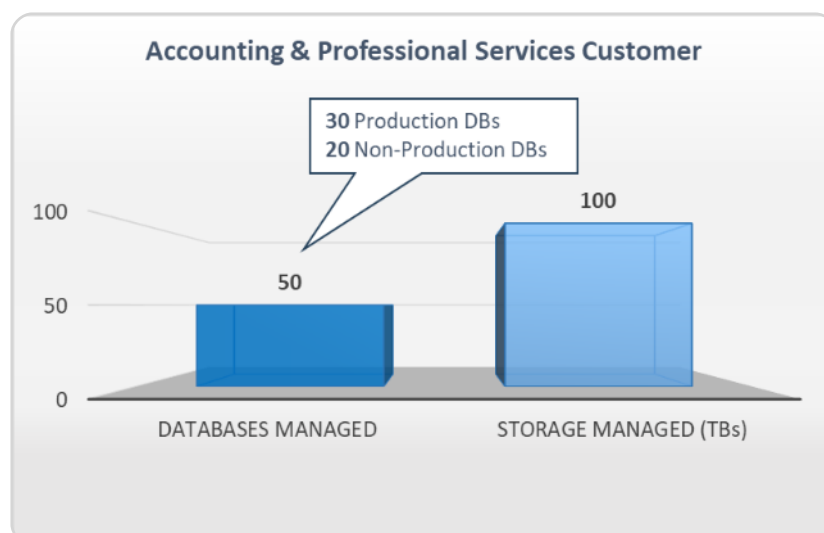
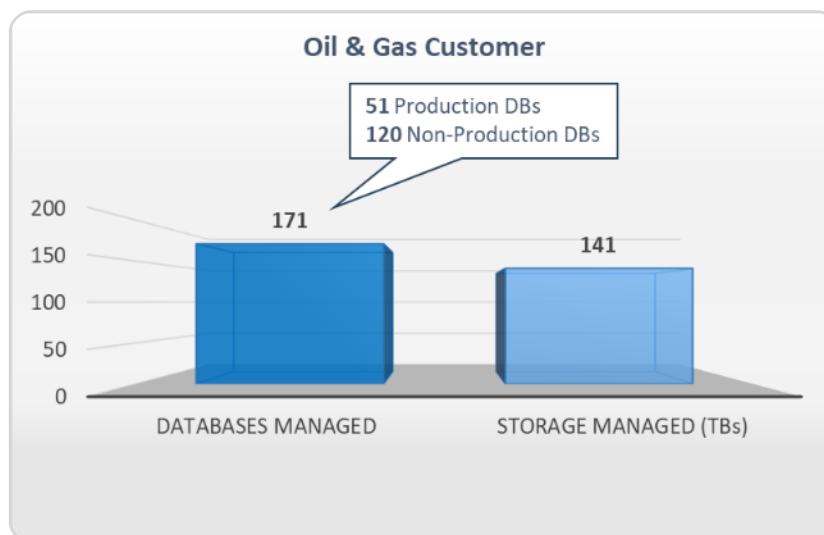
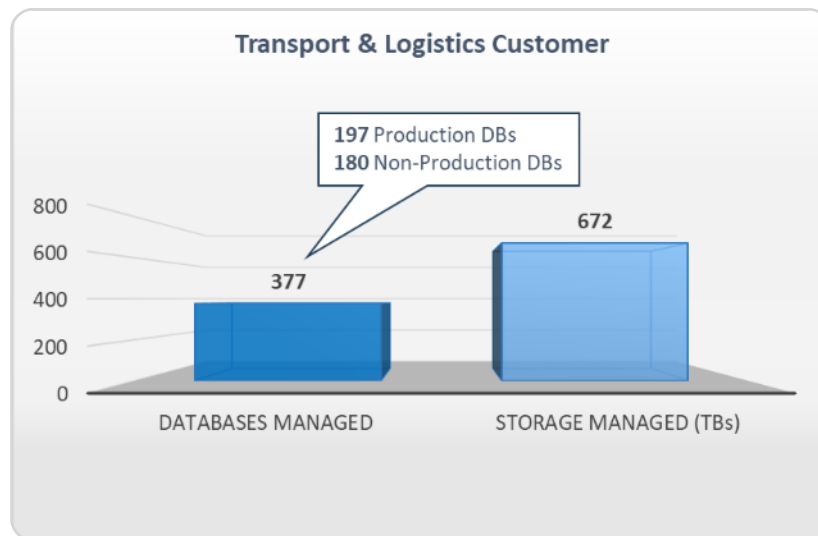
Challenges Reported by the Customers

- Inability to maintain centralized visibility and control over license management, compute resources, and software images across multiple subscriptions led to lack of central oversight which made enforcing license compliance and meeting audit requirements difficult.
- Difficulty in managing Role-Based Access Control (RBAC) across their diverse environments, further complicated operational management.
- Self-managed instances had very high Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO), which led to frequent downtime and disruptions in business operations.
- The need for a dedicated team of full-time employees (FTEs) was a barrier to moving the entire database estate to a single cloud services provider due to the increased operational complexity and costs.
- Significant latency challenges with applications in Azure connecting to current databases hosted in the cloud.
- Need to reduce complexity, costs, governance, and security related to managing multiple cloud environments. of our study.

Reasons for Choosing Tessell

- Tessell's ability to **co-host multiple database services** onto a single server allowed the customers to **reduce the required licenses** and **optimize compute resources** significantly. This consolidation **lowered operational costs** and **simplified the management** of the company's database estate, making it easier to **scale operations** and **manage workloads more efficiently**.
- **Centralized control** over licenses, compute resources, and software images across all cloud subscriptions by Tessell allowed customers to **effectively enforce license management** policies, **ensuring compliance** with audit requirements and mitigating non-compliance risk.
- **Automated High Availability (HA) and Disaster Recovery (DR)** capabilities ensured that the **critical business applications remained available**, even during incidents, by providing **rapid recovery options and minimizing data loss**. The **automated setup** for provisioning, patching, and HA/DR management further **reduced the administrative burden** on the IT teams, allowing them to focus on more strategic initiatives.
- Leveraging **Tessell's Availability Machine** app and its **built-in functionality of managing native RMAN backups**, helped customers **eliminate third-party backup software licenses** and associated costs.
- Tessell's **fully managed database service** covered all the database operations the DBAs manually performed, **improving database performance**, **ensuring security**, and **enabling strategic contributions** - all while **lowering operational costs**.

Customer Infrastructure Managed by Tessell

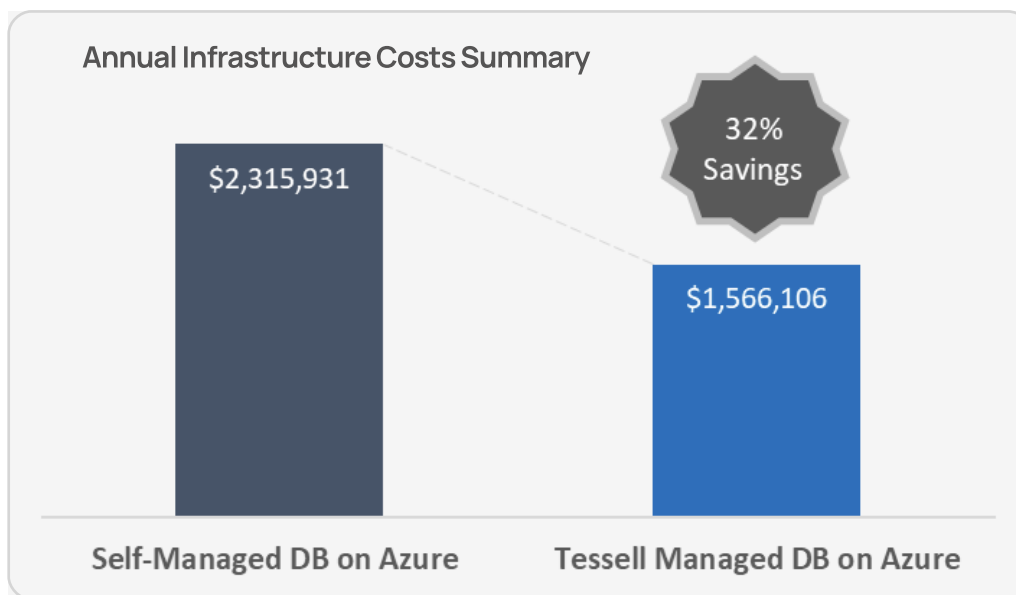


Business Value Quantification

Our study compared the costs of running Oracle Databases on Self-Managed Azure infrastructure versus Tessell-managed Azure infrastructure. The key cost savings drivers observed in the study were the following:

1. Infrastructure Costs

Tessell-managed Azure infrastructure helped customers reduce infrastructure costs by 32% compared to Self-managed Azure infrastructure. A detailed breakdown of the infrastructure cost savings is listed below:

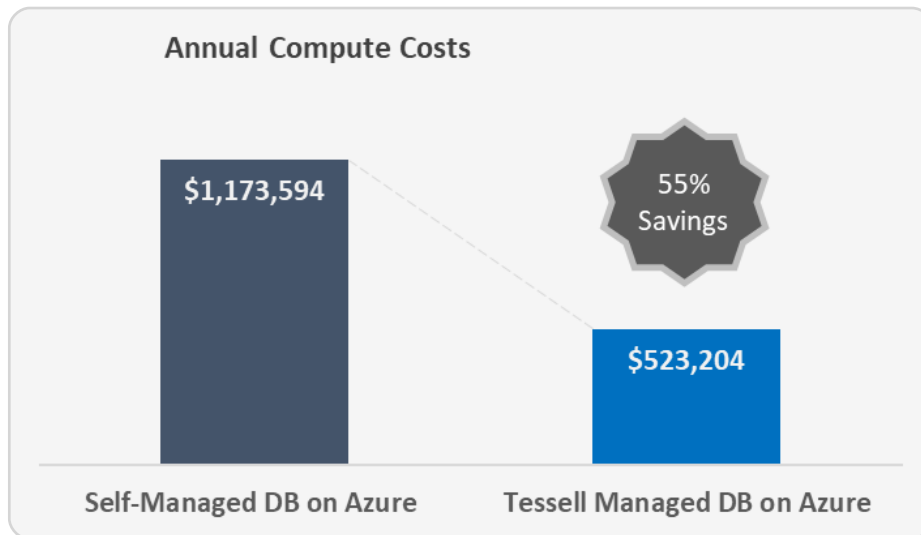


a) Compute Savings

Tessell optimizes compute costs by consolidating multiple databases in a single instance through its multi-tenant architecture. This approach allows customers to host several databases on a single Compute instance, which not only enhances resource utilization but also simplifies management tasks and enhances overall performance.

By consolidating databases on a single Compute instance, organizations can streamline operations, reduce costs, and fully capitalize on the advantages of cloud-hosted database consolidation. Customers can also efficiently create and delete databases within a specific instance, monitor and predict tenant usage, and easily move tenants to new instances as needed.

In our study by consolidating Oracle Databases hosted on self-managed Azure VMs on to Tessell managed Azure VMs, the customer was able to reduce their compute costs by 55%.



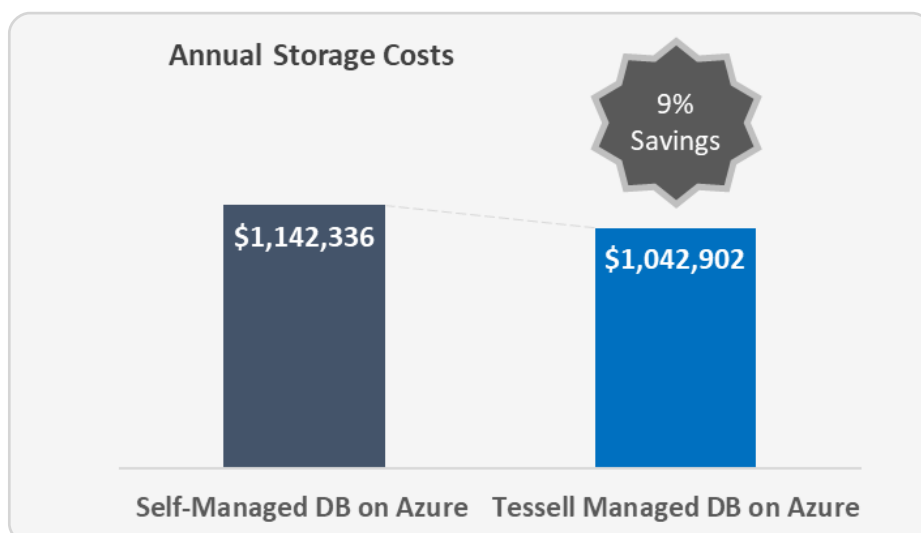
b) Storage Savings

Tessell reduces storage costs through multiple strategies. First, it employs resource pooling, which allows multiple databases to share the same server resources. This consolidation minimizes the overall storage footprint and eliminates the need for separate infrastructure for each database.

Additionally, Tessell's patented technology leverages NVMe (Non-Volatile Memory Express) storage, which enhances performance by facilitating faster data transfer between the storage device and compute instances. NVMe significantly increases IOPS (Input/Output Operations Per Second) and reduces latency, leading to improved performance for database workloads.

Tessell's architecture converts the high-performance compute and local storage of NVMe instances into durable, persistent cloud storage, offering both high performance and data durability. This is particularly beneficial for demanding workloads that require fast data access and processing.

In our study the customer was able to reduce storage costs of the Oracle Databases hosted on self-managed Azure versus the same hosted on Tessell managed Azure instances by 9%.

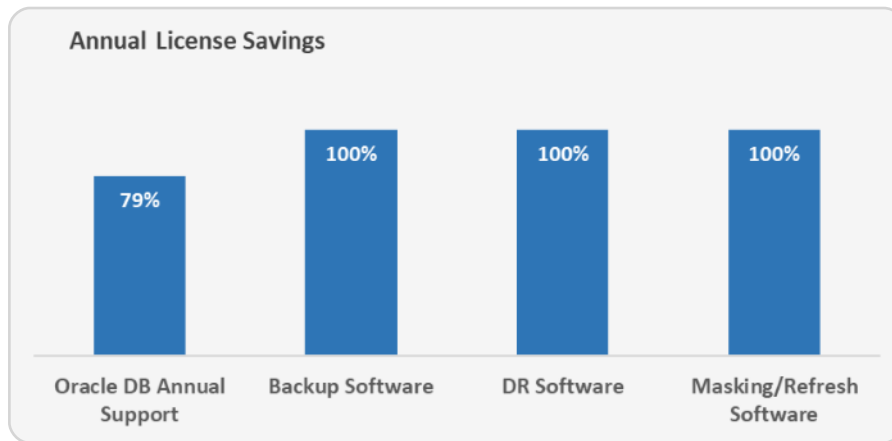


2. License Savings

Tessell achieves significant license savings by enabling organizations to consolidate multiple databases onto a single server in the cloud. By pooling resources and optimizing license utilization, Tessell reduces the number of licenses required, leading to substantial cost savings. Its pay-as-you-go model and volume/time commitment discounts further enhance license cost optimization. Tessell helps reduce or fully eliminate the following licenses:

- **Oracle Licenses:** Tessell helps organizations efficiently manage Oracle licenses by predicting secondary environment license requirements and reducing the need for multiple nodes for high availability (HA). In some cases, customers can switch from Oracle Enterprise to Oracle Standard, resulting up to 65% cost savings. Tessell's platform eliminates the need for Oracle Real Application Clusters (RAC), which are often expensive and complex. By consolidating and optimizing database resources, Tessell maximizes their Oracle license utilization and reduces costs.
- **Backup Licenses:** Tessell provides comprehensive backup and recovery capabilities, eliminating the need for additional backup software. Customers can set up automated backup schedules, define retention policies, and store backups in secure, encrypted environments. Tessell also offers point-in-time recovery (PITR) to restore data to a specific point before an incident, ensuring data protection and compliance with backup requirements.
- **Disaster Recovery (DR) Licenses:** Tessell includes built-in disaster recovery capabilities, removing the need for separate DR software. It offers automated backups, point-in-time recovery, and multi-AZ architecture for high availability. Tessell's failover mechanisms minimize downtime and data loss during disasters, allowing organizations to protect their data and maintain business continuity without the need for additional software.
- **Data Masking Licenses:** Tessell provides advanced data masking and sanitation features, eliminating the need for separate data masking and refresh software. Tessell transforms sensitive data into fictional but realistic values to prevent unauthorized access, while its data sanitation capabilities permanently remove unnecessary sensitive data. These features help organizations balance data security, usability, and compliance efficiently.

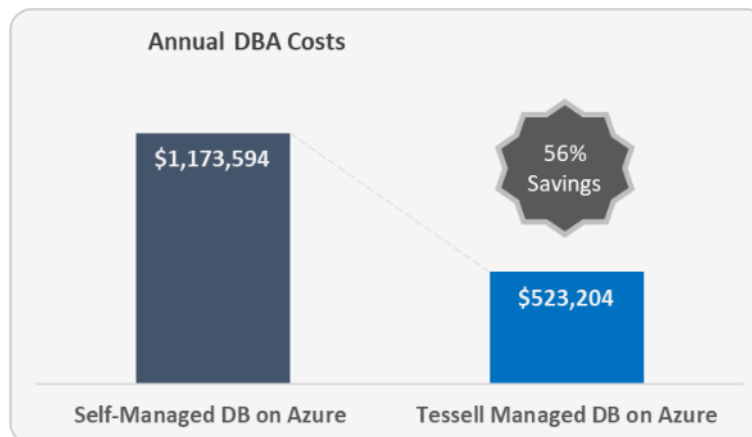
The following is the snapshot of the license savings realized in our study when comparing the self-managed Databases on Azure infrastructure with Tessell-managed databases on Azure infrastructure.



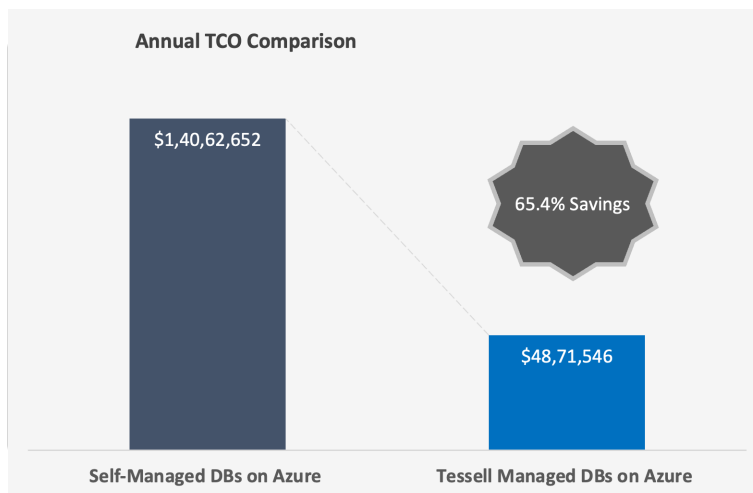
3. Admin FTE Savings

Tessell significantly reduces DBA costs by automating routine tasks and offering a fully managed DBaaS solution. With Tessell, DBAs can provision databases quickly, automate repetitive tasks, and focus on strategic business solutions rather than manual administration. The self-service portal enables application developers to create databases independently, reducing dependence on DBAs. Tessell further alleviates DBA workloads by automating essential tasks such as resource scaling, patching, backup creation, and snapshot management.

The following is a snapshot of the Admin FTE savings realized in our study when comparing self-managed Databases on Azure infrastructure with Tessell-managed databases on Azure infrastructure.



TCO Savings Summary



65%

Annual savings when comparing the TCO of running Oracle databases on self-managed Azure versus Tessell managed Oracle Databases on Azure cloud infrastructure.

TCO Financial Summary

Financial Summary	Self-Managed DB on Azure	Tessell Managed DB on Azure
Licenses & Infrastructure Annual Costs		
Oracle Annual Support Costs	\$6,237,660	\$1,279,080
Backup Software (Veeam)	\$1,810,801	\$0
DR Software (Zerto)	\$467,220	\$0
Downstream Env Masking/Refresh	\$1,200,000	\$0
Compute Costs	\$1,173,594	\$523,204
Storage Costs	\$1,142,336	\$1,042,902
Tessell Service Costs	\$0	\$1,130,440
Total Licenses & Infrastructure Costs	\$12,031,612	\$3,975,626
Admin/Productivity Annual Costs		
DBA Costs	\$2,031,040	\$895,920
Total Admin / Productivity Costs	\$2,031,040	\$895,920
1-YEAR TOTAL	\$14,062,652	\$4,871,546
3-YEAR TOTAL	\$42,187,956	\$14,614,639

Annual TCO Savings	\$9,191,106
Savings %	65.4%
ROI %	189%

Conclusion

Self-managing databases on Azure present several challenges in terms of cost optimization, performance limitations, and lack of granular control over cloud resources. Tessell addresses these challenges by offering a breakthrough technology that optimizes performance and eliminates cloud metering for better cost-effectiveness. Tessell delivers exceptional performance, offering up to 2 million IOPS with low latency, significantly surpassing traditional self-managed solutions. This high-performance capability can help reduce the need for additional resources and drive cost savings for users while enhancing overall database operations. Additionally, Tessell offers utility consumption with a pay-as-you-go model and discounts for customers with large database footprints, further enhancing cost-effectiveness.

Tessell stands out as the only fully managed DBaaS solution designed to address and overcome the challenges of workloads that often fall short of the complex demands of large, cloud-centric organizations. By leveraging Tessell's capabilities, organizations can overcome the challenges associated with self-managing databases on Azure, leading to improved performance, reduced operational overhead, and enhanced data security.

“Our application team was also very happy with the service Tessell provided. They performed both functional tests and ran performance tests on the provided database. **Special legacy requirements were met, and performance was on par or better than existing solution.**”

Lead Azure Architect,
European Energy customer



Bakul Banthia
Head, Product & GTM



Animesh Pillai
Head, Strategy & Alliances



Apratim Sau
Cloud Economist