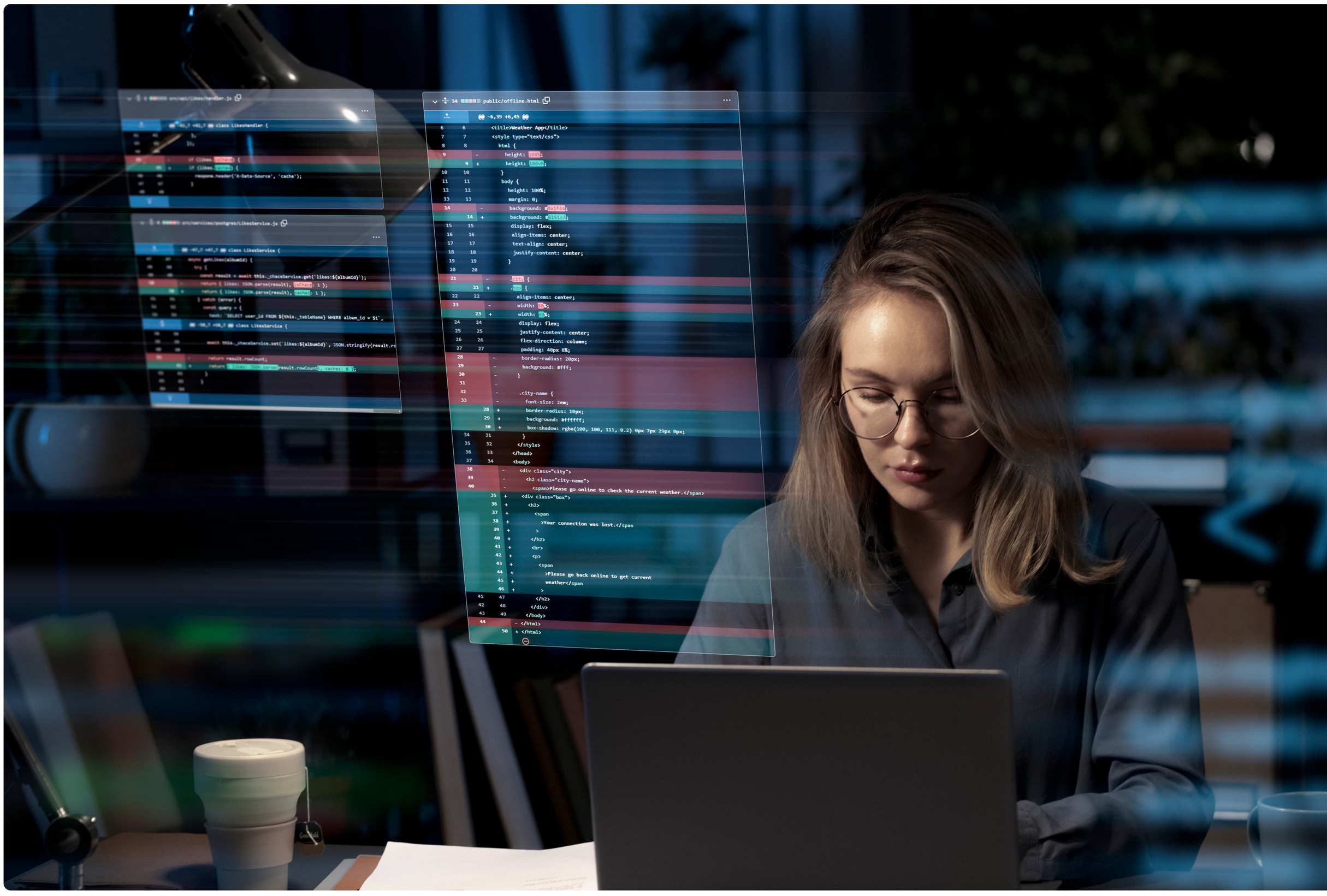
Data Optimisation

Opening opportunities for innovation and efficiencies through data



Make better happen

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Introduction

Oftentimes data platforms' high operational costs are difficult to manage, especially as organisations struggle to scale the data platforms, onboard new use cases or apply necessary changes to the platform. Common challenges include:

Infrastructure Issues

Often having the incorrect infrastructure selection or configuration can result in unnecessary data platform costs. We look at lifecycle management, pausing and termination, cluster pool sizing, auto scaling, node selection, and software updates.

Workload Issues

As the cloud data platform grows, the workloads and structure and data management policies can lead to workloads being executed incorrectly. We look at how those workloads are set up and executed, including data structure—medallion model and/or star schema, partitioning/ sharding, indexing, and columnar storage.

Data Lake Issues

To ensure your business is gaining the most value from your Data Lake, we review the memory, CPU, IO, parallelisation, caching, and materialised views.

By using Data Optimisation, Ensono's expert team of engineers, analysts and designers help clients improve the efficiency and ROI of their data platforms. Effective Data Optimisation benefits can include:

- Reduced data platform operational costs
- Increased workload efficiency
- Latency reduction for data availability
- Identification of future state platform improvements
- Identification of potential use cases and a delivery roadmap

Ensono is backed by our collaboration with best-of-breed cloud service providers, through strong partnerships with Microsoft, Google, AWS and Databricks. We have experience in applying analytics across a diverse set of platforms and for a myriad of industries (retail, finance, supply chain and logistics, manufacturing, and public sector).

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Data Optimisation Process

Ensono delivers Data Optimisation through a **three-step** engagement process:

Discover

With access to the client's data platform and code repositories, our experts perform four weeks of analysis and discovery of workloads and clusters. We determine the data platform spending breakdown, and then deliver recommendations for increasing performance and/or reducing costs.

01

02

Implement

During implementation, usually over 8-12 weeks, we put our recommendations into service and use our custom tools to help benchmark performance and optimise workloads.

03

Report

Afterwards, we document any additional data optimisation recommendations for the client.

Data Optimisation Deliverables

Once completed, Data Optimisation delivers:

Reduced Operational Platform Costs

Reduced operational costs of data lake, data platform, lakehouse or data warehouse

Workload Improvement

Optimised workloads that reduce data latency and increase data pipeline performance

Optimal Patterns

Re-useable optimal data patterns

Discovery

Identified future improvements and potential use cases

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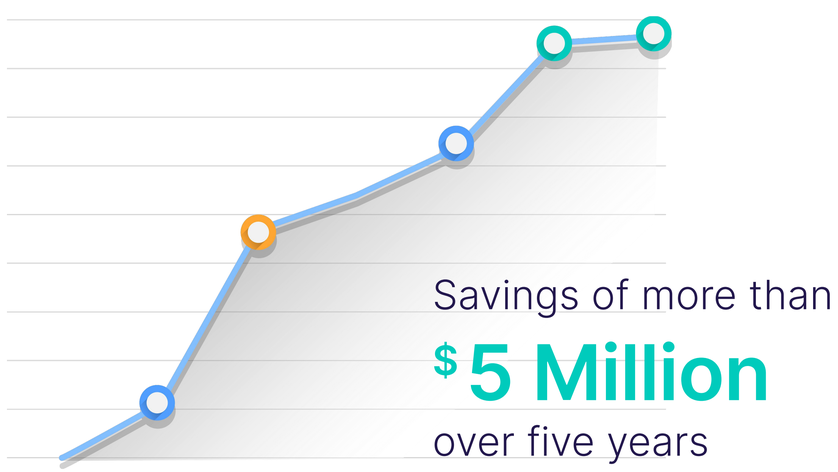
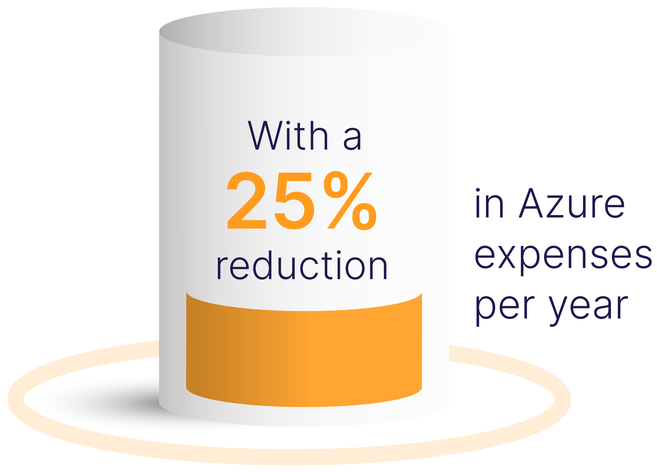
Retail Client Example

The client is a retailer known for its affordable products, rapid growth, and success in the retail space. Its primary challenge was the escalating costs associated with its Azure cloud environment and Azure Databricks usage (Azure spend had more than doubled in less than three years). Ensono's approach to these cost challenges was a comprehensive strategy focused on data optimisation. To help the client make informed decisions going forward, Ensono's tailored strategy quantified the projected financial benefits and estimated work needed to implement each component, including:

- Implement Databricks' native code framework to process data more efficiently, enhancing computational resource utilisation and reducing unnecessary spend.
- Resize and adjust VMs and compute resources to match real-world usage, incorporating Spot Instances to leverage lower-cost computing options.
- Enhance data management through Unity Catalogue, streamlining governance.
- Incorporate effective backup strategies with compression to keep storage costs in cheque.
- Optimise job clusters and compute pools in size and operation to ensure they meet demand without excess capacity.
- Right-sized API management services based on accurate metrics analysis.
- Leveraged enterprise agreements for software licencing rather than costlier pay-as-you-go options.
- Recommendations to use Spot Instances with decommissioning for cost-effective computing.

This collaboration helped the client reduce cloud consumption and Azure Databricks costs. The ROI was achieved in four months, with the retailer reinvesting savings into transforming its architecture to meet aggressive growth plans.





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Hospitality Client Example

The client is a large UK-based budget hotel chain whose data and application platform had grown organically over time, becoming misaligned with the client's overall business strategy. The inefficient platform had more than 50 broken applications, redundant APIs, and unused servers in development. The absence of a defined structure or roadmap for these legacy systems created a lack of accountability and control, and costs had unnecessarily skyrocketed into the hundreds of thousands.

Ensono conducted a data platform cost optimisation analysis to identify inefficiencies, underutilised resources, and security vulnerabilities. We delivered a comprehensive roadmap with short-term, medium-term, and long-term goals to establish structure, optimise the as-is estate and quickly realise significant cost savings. Additionally, a security assessment ensured that sensitive data is protected from potential threats and vulnerabilities.

Results

Our recommendations identified significant underutilisation of resources,

Saving the hotel chain **27%** on monthly platform costs

while removing vulnerabilities and enhancing security. The optimisation measures were quickly put in place, with a roadmap for the future leading to significant improvements in operational processes, security posture and data structure.

To learn more about Ensono's Data Optimisation, visit Ensono.com or contact your sales representative.

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