

Leading E-Learning Platform

From High Search Latency to 57% Lower Elasticsearch Costs

Challenge

The platform relied on Elasticsearch to power content discovery across its learning ecosystem but faced **high search latency, inefficient indexing, and rising infrastructure costs**, impacting user experience and scalability.

Objective

- Reduce search latency and improve system efficiency
Accelerate indexing for near real-time data availability
- Enhance search accuracy with fuzzy and semantic search
- Optimize cluster architecture for scalability & cost efficiency

Solution

Hyperflex optimized the client's **Elastic Cloud deployment**, upgrading Elasticsearch and refining index architecture. We implemented fuzzy and semantic search, deployed **Elastic App Search** for targeted use cases, and improved cluster monitoring to identify performance bottlenecks.

Results



50% reduction in search latency



40% faster indexing performance



57% reduction in hourly operational costs



65% reduction in data size

Strategic Impact

- Improved content discovery across the learning platform
- Enabled advanced search capabilities with semantic relevance
- Reduced infrastructure costs through optimized cluster architecture
- Strengthened scalability for growing user demand