



Paravision Search Value Proposition

Paravision Search is a cutting-edge biometric search platform designed to provide identity, security, and customer experience service providers across industries with a reliable and efficient solution for large-scale image matching in the most challenging environments. With Paravision Search, organizations can quickly integrate a ready-made, packaged solution that offers world-class biometric capabilities.

This document is intended to showcase the outstanding business value that Paravision Search brings by highlighting its unique features and benefits. We'll illustrate how the system can revolutionize operations for partner organizations through the following key benefits:

- **Fast time to market:** Paravision Search can be fast to integrate and enables organizations to start using the system quickly.
- **Automated elasticity:** Paravision Search's automatic scaling capabilities help ensure the platform can handle the most demanding workloads while saving resources outside of peak times, without the need for manual intervention.
- **Attribute filters:** Paravision Search's sophisticated attribute filtering allows operators to quickly and accurately identify individuals with focused search.
- **Elastic resource manager:** Paravision Search's easy-to-use resource management system helps ensure efficient processing and maximum cost savings.
- **Cloud-ready, service provider agnostic:** Paravision Search is designed to work with all major cloud providers, making it easy for organizations to use the system with their existing cloud infrastructure.

Fast time to market

Paravision Search offers a quick time-to-market, enterprise-grade product by providing easy-to-deploy container-based software that can typically be implemented within a week. This allows organizations to reap the benefits of the system in a very short time frame: In contrast, developing a similar system in-house is estimated to take over 5 person-years of highly specialized, rare technology expertise according to Paravision's conservative estimate.

The Paravision Search team combines over 50 years of experience in the development of scaled biometric infrastructure. This wealth of experience and expertise provides Paravision Search with a solid foundation for delivering world-class functionality with high confidence.

Case example

A company builds an AI-based image search system similar to Paravision Search. The company will need to find a team of five highly experienced Senior Software Engineers to build the system in a year. Assuming the company finds the people with the right skills, the system will be ready for use in 14-18 months after hiring, onboarding, and development.

Time to market: 14 -18 months (including hiring, onboarding, and system building)

Annual total employment costs: \$1,170,000 (5-person team of Senior Software Engineers, 10+ years of experience, average salary \$180,000 plus benefits)

Automated elasticity

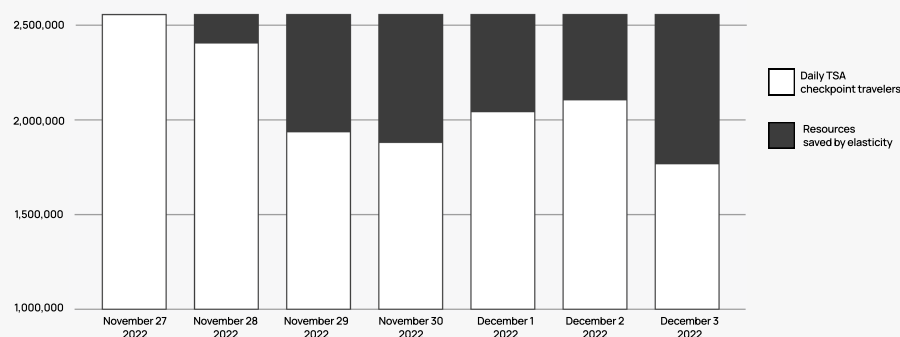
Paravision Search offers a native elasticity feature that allows the system to automatically scale compute resources up or down based on real-time demands. This feature helps organizations achieve significant cost savings, particularly in environments where traffic fluctuates based on time or day of the week, such as entertainment venues, airports, or office buildings.

With Paravision Search, organizations can rest assured that their system uses the optimal amount of compute resources, leading to improved performance and efficiency. Moreover, the elasticity feature helps ensure that organizations are only paying for the resources they need, reducing unnecessary expenses and allowing for greater cost-effectiveness.

Case example

The daily traffic through TSA checkpoints can fluctuate in any given week by over 40%. The graph below shows real TSA data from a 7-day period in 2022. In this case, the elasticity of Paravision Search would enable weekly cost savings of 18% by automatically scaling down used resources based on the daily need.

Daily TSA checkpoint travel numbers, 7-days



Travel data source: <https://www.tsa.gov/travel/passenger-volumes>

Attribute filters

Paravision Search offers a highly accurate and efficient feature-based attribute filtering system that reduces compute requirements. The system performs a scalar match against the chosen filters, followed by a vector search within the filtered group, leading to a significant increase in the accuracy and speed of matching.

Furthermore, Paravision Search allows for dynamic changes to be made to the chosen attributes without requiring a system reset. This feature helps organizations to quickly and cost-effectively adjust their workflows to meet changing needs and requirements.

Overall, Paravision Search provides a powerful tool for organizations to utilize accurate and efficient feature-based attribute filters, resulting in a faster and more cost-effective workflow, without compromising on accuracy or quality.

Case example

A large sports arena uses Paravision Search for entry, VIP lounge access, and concession sales.

The arena creates the following audience groups using the easy gallery management on Paravision Search:

- **Full gallery:** all ticket holders for an event
- **Sub-gallery:** ticket holders with VIP lounge access (5% of total audience)
- **Attribute filter:** 21+ people for alcohol purchases (50% of VIP lounge audience)

Attribute filters of Paravision Search enable cost savings with focused searching at 2X the speed compared to searching the full gallery.

Elastic resource manager

Paravision Search utilizes API-based resource management, allowing for easy translation of SLAs into the operational system through simple scripts. This feature enables automated or scheduled resource management, reducing the need for specialized DevOps teams to manually scale resources and helping companies utilize resources more efficiently.

Case example

A large border control agency manages national entry and exit on all national border crossings, with borders divided into three clusters. The agency has three teams of 5 DevOps engineers managing all border crossing clusters.

Annual total employment costs/cluster: \$975,000 (5-person team of DevOps Engineers, average salary \$150,000 plus benefits)

Annual total employment costs for 3 clusters: \$2,925,000

Paravision Search enables cost savings with an elastic resource manager that **lowers the need for DevOps Engineers from 15 to 2 FTE, enabling cost savings of \$2,535,000, or 87%.**

Speed and accuracy, driving operational efficiency

Paravision Search has been meticulously optimized for speed down to the hardware architecture level, resulting in a system that is twice as fast as Paravision's other Gen 5 face recognition products. Despite the increased speed, Paravision Search maintains the same industry-leading accuracy levels as other Paravision software. This world-leading combination of accuracy and speed results in increased efficiency and processing times, leading to cost savings for organizations.

By reducing processing times and eliminating bottlenecks and processing errors, Paravision Search enables organizations to optimize their workflows and maximize efficiency. The faster processing times allow for more data to be processed in less time, resulting in improved productivity and throughput.

Case example

A large security operator uses Paravision Search for passenger identification at an airport security checkpoint.

Paravision Search is 2X faster than our standard SDKs and Docker products, **cutting hardware costs by 50%** while achieving the same throughput.

In addition to this, the leading accuracy of **Paravision Search can lower the number of false negative matches by 50%** compared to the next-ranked independent technology provider from the U.S. or Europe.

Cloud ready, service provider agnostic

Paravision Search is deployable in the cloud independent of cloud service providers. The system will work with any major provider and private cloud solutions. This allows companies to optimize cost by removing the cost overhead of switching providers or being locked into a specific provider.

Supported Deployments/Cloud service providers

On-premise/
Private Cloud



Google Cloud
Platform



Amazon Web
Services



Microsoft Azure

