

# Face Recognition Product Suite



From Cloud to Edge, Paravision's comprehensive face recognition product suite offers all of the tools necessary to develop and deploy mission-critical biometric identification and authentication solutions across a wide range of applications, from identity verification to physical access control to air travel and government services.











Paravision face recognition has been optimized for leading chipsets, from Intel CPUs to NVIDIA GPUs to Ambarella SoCs, Apple silicon, and the broader ARM ecosystem. In addition, Paravision face recognition supports leading operating systems including Windows, Linux, iOS, and Android, and can be deployed at any level, from SDK to API-driven Docker containers.

Paravision has been repeatedly recognized by NIST FRVT as a top global provider and the most accurate U.S.-based face recognition technology provider across all use cases, including 1:1 verification and 1:N identification, including multi-million record databases, performance by age, performance with face masks, and the full range of image quality characteristics, from passport-quality to fully unconstrained images.

In short, Paravision powers its partners with world-class face recognition technology in a way that fits their technical expertise and deployment goals, supporting transformative solutions for the next generation identity, security, efficiency, and user experiences.

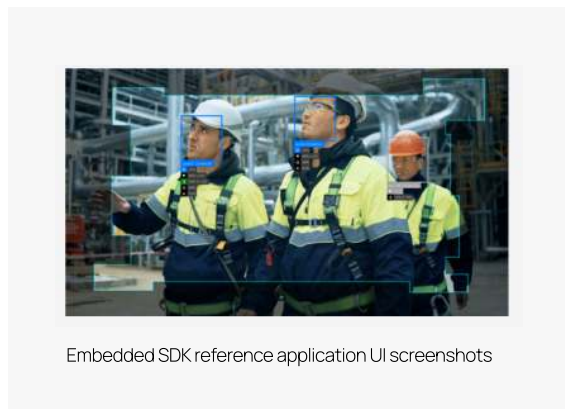
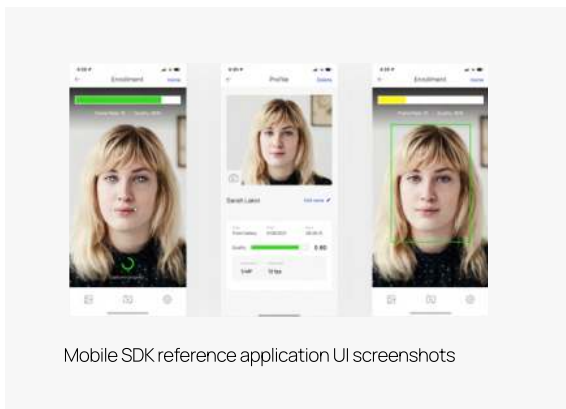
## Supported Computing Environments

Paravision supports a wide range of computing environments. Paravision proudly partners with leaders from Silicon Valley and around the world to deliver outstanding price, performance, availability, and support:

Intel	NVIDIA	Ambarella	ARM	Apple silicon
				
Supported Computer Vision Framework				
				

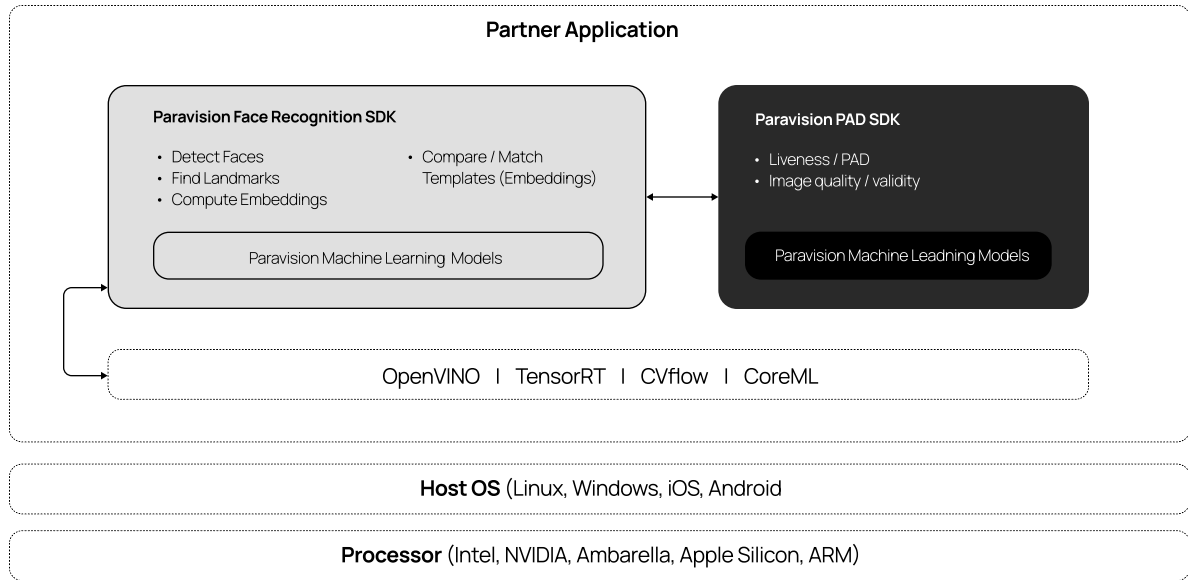
## Implementation Support

To speed up time-to-market, reduce development risk, and otherwise optimize partner integration efforts, Paravision offers a range of demonstration applications, user interface examples, and sample code. Sample user interface graphics for mobile and embedded applications can be seen here.

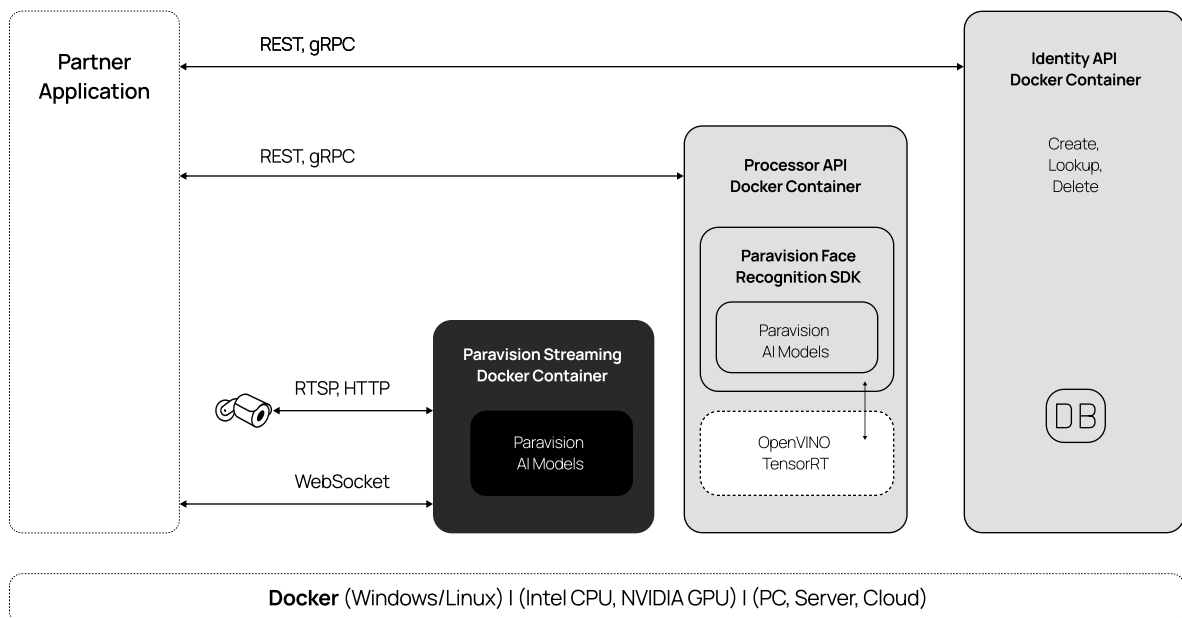


## System Architectures

### FACE RECOGNITION SDKS



### FACE RECOGNITION DOCKER-BASED ENGINES



## Technical Specifications

### FACE RECOGNITION SDKS

	Mobile	Embedded	Desktop/Server
Programming languages	Swift - iOS Kotlin - Android	C++ / C Wrapper	C++ / Python Wrapper
Supported operating systems	iOS 13+ Android 8.0+ (API ver 26)	Linux for Ambarella CVflow	Windows 10+ Windows Server 2019 Datacenter Linux: Ubuntu 20.04
Supported hardware platforms & computer vision frameworks	Apple Silicon (CoreML) ARM (PyTorch)	Ambarella CV25/ CV22 (CVflow)	Intel (OpenVINO) NVIDIA (TensorRT)
Supported functions	Face Detection <ul style="list-style-type: none"> <li>• Face detection / bounding box detection</li> <li>• Face landmarks identification</li> <li>• Image quality analysis</li> </ul> Face Recognition: <ul style="list-style-type: none"> <li>• Template (embedding) generation</li> <li>• Toolsets enabling 1:1 verification and 1:N identification</li> </ul>		

### FACE RECOGNITION ENGINES

Deployment method	Docker container, supporting on-premises or cloud-based computing
Supported operating systems	Windows 10+, Windows Server 2019 Datacenter, Linux: Ubuntu 20.04
Supported compute platforms (Computer vision frameworks)	Intel CPU (OpenVINO) NVIDIA GPU (TensorRT)
Face recognition engine APIs	REST gRPC, with Clients supporting Python, C++, C#, Node.JS, GoLang, Java, Ruby
Supported functions	Face Detection: <ul style="list-style-type: none"> <li>• Face detection / bounding box detection</li> <li>• Face landmarks identification</li> <li>• Image quality analysis</li> </ul> Face Recognition: <ul style="list-style-type: none"> <li>• Template (embedding) generation</li> <li>• 1:1 verification</li> <li>• 1:N identification</li> </ul>