



SAFR is a **unified facial recognition ecosystem** designed for the enterprise, across access control, cameras, and mobile devices.

SAFR®

# Facial Recognition Software for 3<sup>rd</sup> Party Cameras



# SAFR Software

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When deploying dedicated SAFR cameras isn't practical, SAFR Software transforms your existing camera infrastructure into a powerful facial recognition system.

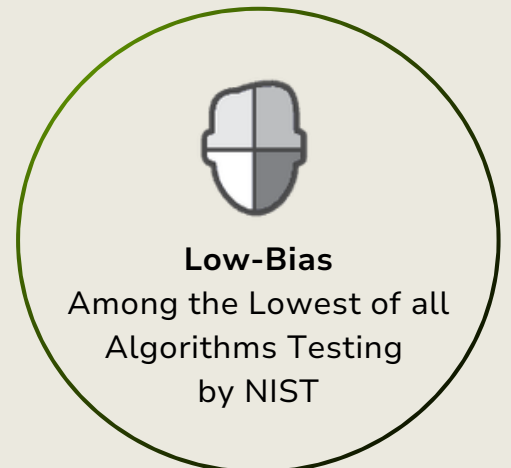
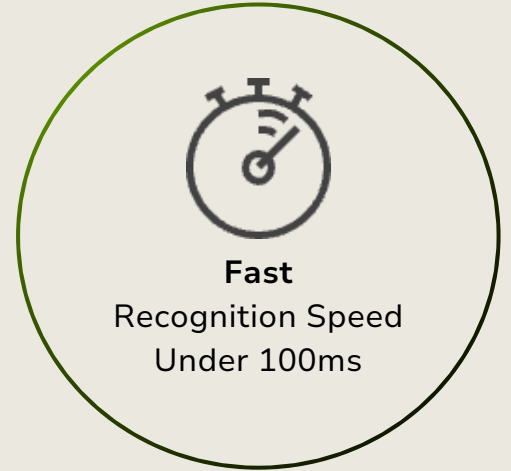
Powered by SAFR's proprietary face matching technology, it analyzes live video streams in real time, delivering actionable intelligence without the need for additional hardware.

## Key Capabilities:

- Real-time alerts for watchlist subjects
- Manage restricted areas for access control
- Detect patterns to help prevent crime and fraud
- Monitor occupancy and accurate people counting

## Additional Features:

- Attendance Reporting
- Multi-Factor Authentication
- Anti-Spoofing Mechanism
- Direction of Travel
- Retail Analytics
- Loitering & Vagrancy Detection



# VMS Integrations

Bounding box and name overlays on live and recorded video

Alarms and notifications are configurable by person type and threat level

Automatic bookmark creation and custom bookmark generation

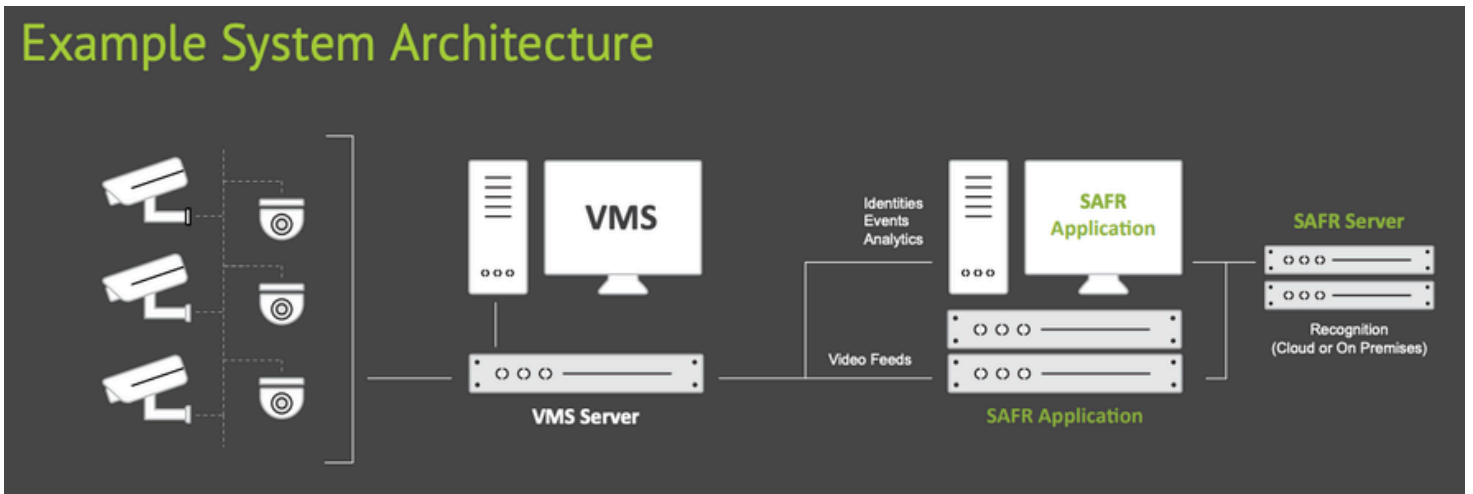


Search video archives **instantly** by name, threat level, person type, date range, or camera using built-in VMS search features

## How SAFR Works Within Your Existing Infrastructure

Seamlessly integrates with your VMS to deliver real-time recognition and analytics.

### Example System Architecture



01



Optimized to reduce latency and minimize false positives

03



Can be installed on Windows, or Linux

02



Architected to distribute the workload in a more cost-effective way, which greatly reduces OVERHEAD and bandwidth requirements

04



Can be deployed on premises, in the SAFR cloud, in your cloud or hybrid



Leverage Existing Cameras



Ethical AI with Privacy at the Forefront

## System & Network Requirements

<b>Facial Recognition Server Platforms</b>	<p>The Facial Recognition server shall run on the following platforms:</p> <ul style="list-style-type: none"> <li>• Linux (Ubuntu 16, Ubuntu 18, CentOS 7.5, and Amazon Linux)</li> <li>• Windows 8.1 or higher, Windows Server 2016 or higher</li> <li>• NVIDIA Jetson Xavier, TX2, Xavier NX, and Nano</li> </ul>
<b>Hardware Performance References</b>	<p>Facial recognition shall be exceptionally light on CPU/GPU requirements to reduce the total cost of ownership and shall comply with the following reference performance:</p> <ul style="list-style-type: none"> <li>• Detection speed: 15–60ms @1080p on a 4 core, 1.8GHz x86 processor (no GPU)</li> <li>• Recognition speed: &lt;100ms</li> </ul>
<b>Network Bandwidth Requirements</b>	<p>Facial Recognition shall operate efficiently by separating detection and recognition and bringing video processing close to the source. Detection shall occur at the edge, near or on the cameras, and recognition shall occur in a centralized service either on premises or in the cloud. Facial Recognition shall also perform both detection and recognition on the edge, allowing it to operate in a completely offline fashion.</p> <p>If running locally (both detection and recognition on edge), then no network connection is required for recognition or age and gender detection.</p> <p>If running recognition in the cloud or on premises (separate from the edge), then maximum 20 kbps per face shall be required to perform recognition or age and gender detection.</p>
<b>High Availability</b>	<p>Facial Recognition shall support a server deployment architecture that facilitates high availability and resilience to failure of one or more nodes.</p> <p>Identities and events can be replicated across every database node. Failure of any one node shall not result in any loss of data.</p> <p>Object storage nodes can be configured as fully redundant. Multiple nodes' service requests and data can be stored on highly available NAS storage. Failure of any one node will have no impact on system operation.</p> <p>Recognition and other web services shall operate on multiple nodes, and through external load balancing, any one node can be brought offline with no impact to ongoing system operation.</p>