Video Synopsis

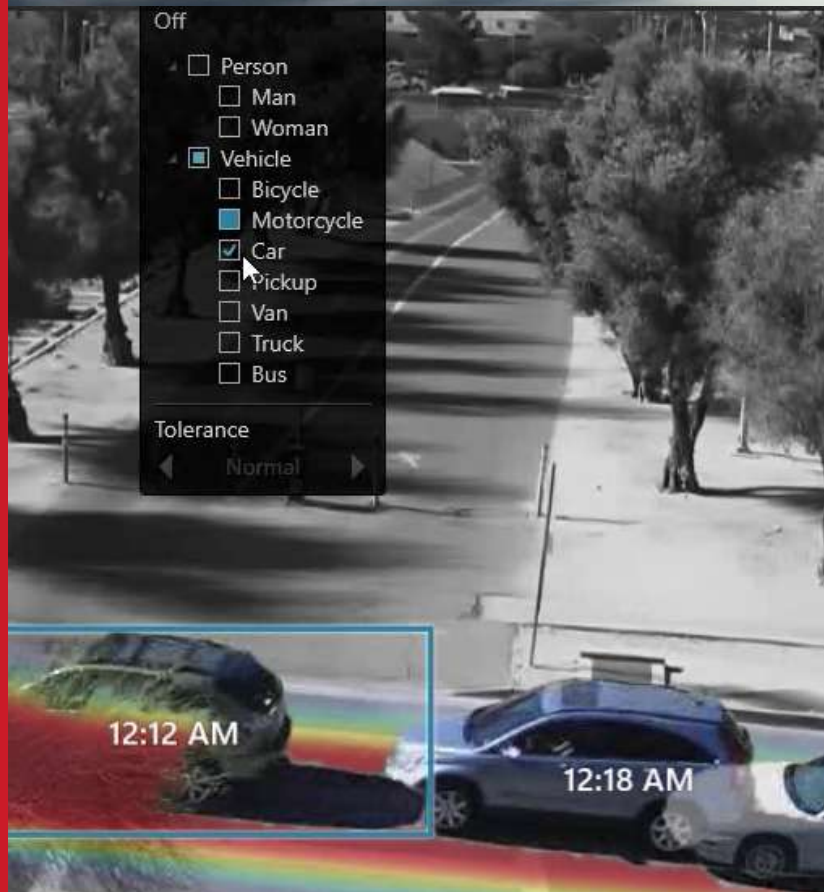## Technical Specifications

OVERVIEW

Digifort video synopsis platform is built on a unique fusion of Computer Vision and Artificial Intelligence (AI) technologies empowering new and innovative safety, security and operational efficiencies by extracting the value from video surveillance systems.

Digifort has integrated third party Video Synopsis technology which help everyone (law enforcement, government, public & private security organisation, corporate entities) to achieve rapid video review, search and analysis via simultaneous presentation of events that occurred at different times.

Digifort's Video Synopsis module offers innovative features and tools for video forensics and electronic surveillance projects. The Synopsis video module is able to reduce the review time of a particular video for forensic (investigative) purposes. Digifort Synopsis delivers agility, objectivity and speed in its search, with filters for color, size, direction of travel and schedules among others. Greatly reducing the analysis of long hours of video into minutes. Allowing easy and fast identification and location of specific individuals, objects or scenes. It's a requirement to house this module in its own server to maximize processing power and speed of use. Video Synopsis is a separate module, which requires its own license purchase.

PLATFORM MODULES

🔴 REVIEW

Quickly review hours of video in minutes or even seconds.

VMS VIDEO SOURCES

Analyze video from both live and playback video from Digifort.

CASE MANAGEMENT

Organize all video assets of an investigation in a single container, bookmark objects of interest, and summarize case findings (including all relevant exhibits) in an exportable report.

VIDEO SYNOPSIS

Automatically extracts objects from the original video and efficiently reconstructs and superimposes them back in the original scene, simultaneously displaying events that have occurred at different times. The result is a dramatically shorter video segment that fully preserves the viewer's ability to analyze the scene.
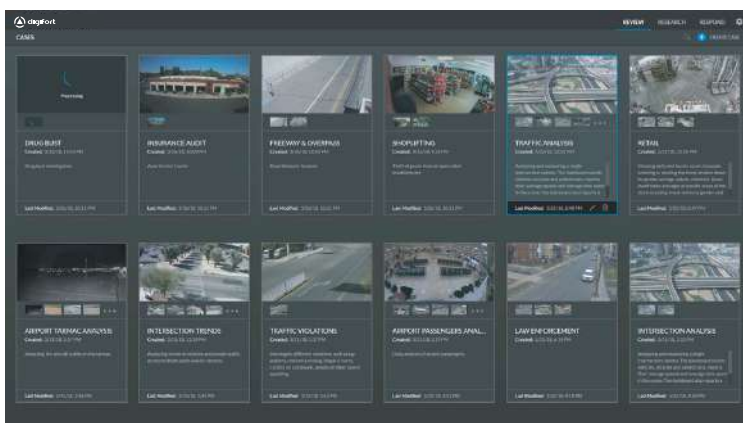
MULTI-CAMERA SEARCH

Rapidly pinpoint people and vehicles of interest, using an extensive range of appearance and movement filters, across multiple video sources.
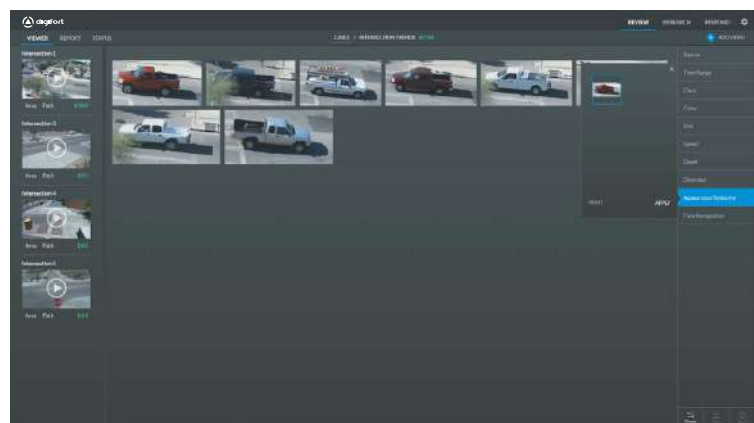
APPEARANCE SIMILARITY & FACE RECOGNITION

Rapidly pinpoint people and vehicles of interest, using an extensive range of appearance and movement filters, across multiple video sources.

FILTER PRESETS

Save filter states for later reference and retrieval across all modules.

Case Management

Appearance Similarity

RESEARCH

Leverage quantitative analysis of video data to make informed, data-driven decisions.

COMPREHENSIVE BUSINESS INTELLIGENCE PLATFORM

Dynamically visualize key performance indicators derived from extracted video objects and their classification.

TREND ANALYSIS

Compare visitor, pedestrian, and traffic patterns of any desired timeframe, i.e. days, months, years, to spot trends, outliers and insights.

CUSTOM DIMENSIONS

Define camera-specific dimensions that enable advanced, detailed analysis of KPIs:

- Area: Quantify the number of objects entering one or more user-defined 3- or 4-sided polygon areas. Support for both included or excluded areas.

- Path: Quantify the number of objects traveling along one or more user-defined paths.

- Funnel: Quantify the number of objects traveling between a user-defined series of areas.

- Duration: Quantify the number of objects dwelling for a user-defined time period within an area or along a path.

Quantitative Insights

DASHBOARD LIBRARY

Out-of-the-box, extensible library of vertical-specific dashboards for quick and easy onboarding.

RAPIDLY CUSTOMIZABLE DASHBOARDS

Easy to use, intuitive interface for rapidly customizing and creating new insightful dashboards for specific personas and use cases.

FLEXIBLE SCHEDULING

Schedule continuous, daily, weekly, monthly or one-time dashboard generation for Digifort video source.

Customizable Dashboards & Reports

> ❝
>
> *VIDEO SURVEILLANCE
> TO ACTIONABLE INTELLIGENCE
> Simply Transformational*

RESPOND

Increase safety and security with proactive response to critical events.

CUSTOMIZABLE ALERTS
Generate near-real-time alerts based on any supported search and filter criteria.

ALERT REPORTS
Summarize daily alerts in a short Video Synopsis.

CHROME NOTIFICATIONS
Send notifications to a Google Chrome browser fully integrated in Digifort.

DIGIFORT VMS INTEGRATION
Retrieve the recorded video, analyse, send alerts, and open the client inside Digifort surveillance client.

ADMINISTRATION

Flexibly manage system deployment and performance options.

DIGIFORT VMS FULL INTEGRATION
Digifort VMS providing a fast and seamless access to the events.

CAMERA MANAGEMENT
Add and view activated cameras.

USER MANAGEMENT
Add and remove users.
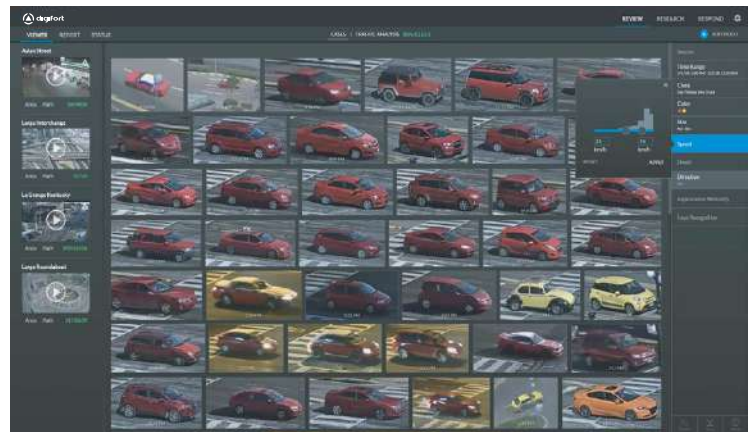
ACTIVE DIRECTORY
Assign licenses to active directory users.

PROCESSING TASKS
Display and manage current and previous processing tasks and queues.

Customizable Alerts
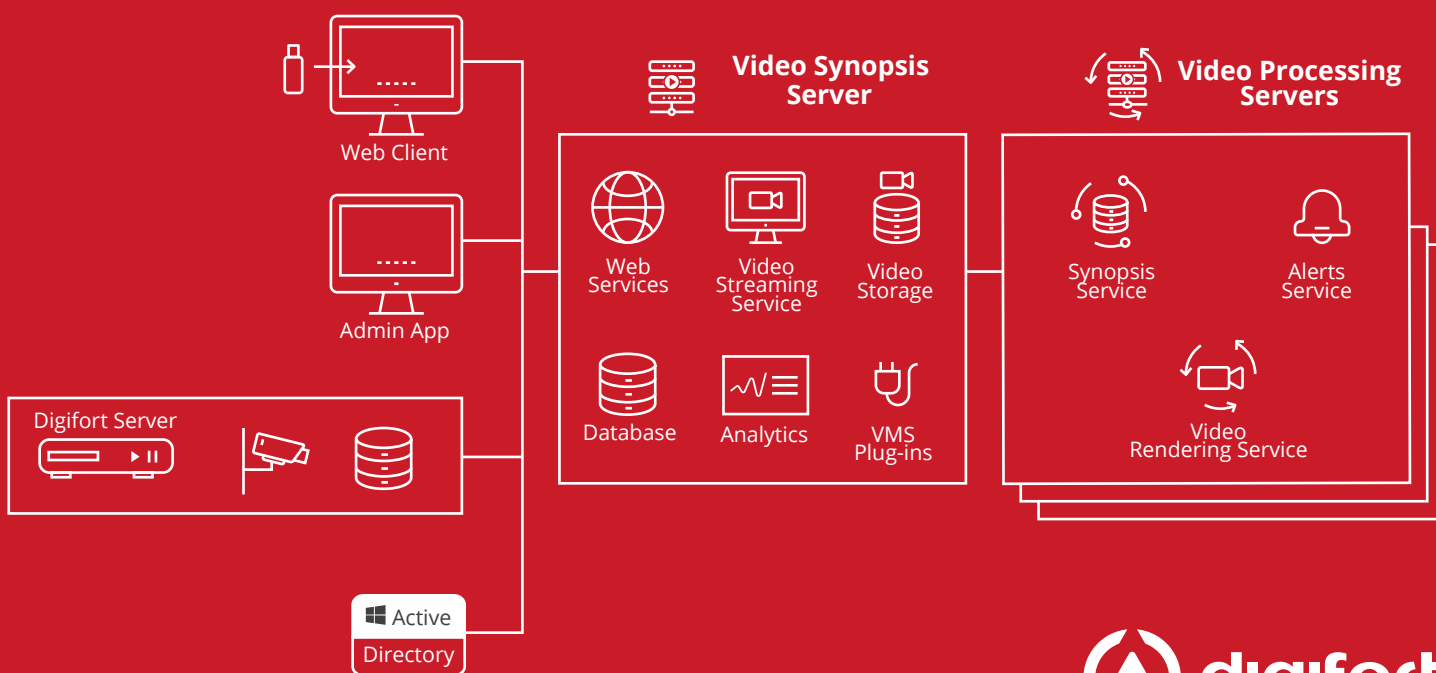

Rapid Review & Search

PRODUCT ARCHITECTURE

SOLUTION COMPONENTS

VIDEO SYNOPSIS SERVER (VS): Responsible for web, video streaming, data analytics and aggregation services, metadata database, video file storage, load balancing, Digifort VMS integration, and user management.

PROCESSING SERVER (PS): Responsible for video decoding, rendering, object extraction and classification. Comprised of single or multiple GPU cards. Multiple servers can be deployed per site depending on video processing requirements.

DISTRIBUTED ARCHITECTURE

Web Client

Admin App

Digifort Server

Active Directory

Video Synopsis Server

Web Services

Video Streaming Service

Video Storage

Database

Analytics

VMS Plug-ins

Video Processing Servers

Synopsis Service

Alerts Service

Video Rendering Service

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PLATFORM EDITIONS

RAPID REVIEW	INSIGHTS
Digifort VMS integrated	Digifort VMS integrated
Review	Review, Research, Respond
Base module including 50 cameras a 2 clients, can be extended up to 100 cameras maximum	Base module including 100 cameras and 5 clients, can be extended to unlimited cameras & clients

TECHNICAL SPECIFICATIONS

SUPPORTED RESOLUTION	Minimum CIF, Maximum 4K
SUPPORTED FRAME RATE (FPS)	8-30 frames per second
SUPPORTED CODECS	H.264, H.265/HEVC, MPEG-4, H.263
SUPPORTED CAMERA TYPES	Fixed cameras
SINGLE SIGN-ON (SSO)	Microsoft Active Directory, including user groups (OU support)
FACE RECOGNITION	Minimum Face Size: 30x30 pixels

ADMINISTRATION AND MANAGEMENT SPECIFICATIONS

STORAGE AND DATABASE	Oracle Database 11g Release 2, Express and Standard Editions. Can be hosted on a separate server.
PORTS & PROTOCOLS	HTTP/HTTPS: 80, 443, 8094, 8099, 8666, 8669 (Web Services) LDAP: 389 (Video Synopsis Sever) SQL*Net: 1521 (Oracle client)

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OBJECT FILTERS

TIME RANGE	Limit the search criteria to specific time ranges
SOURCE	Limit objects to specific cameras or files
CLASSES	Select Classes based on their category or their specific member objects: **Class Categories:** People, Two-Wheeled Vehicles, Other Vehicles, and Animals **People Class:** Man, Woman, Boy, and Girl **Two-Wheeled Vehicle Class:** Bicycle and Motorcycle **Other Vehicles Class:** Car, Pickup, Van, Truck, Bus, Train, Airplane, and Boat **Animals Class:** Dog, Cat, Bird, and Horse
ATTRIBUTES	Select Attributes within a Class to further refine the search: **Bags:** Backpacks, Handheld Bags **Hats:** Hats, No Hats **Upper Wear:** Short/No Sleeves, Long Sleeves **Lower Wear:** Long, Short
COLOR	Identify objects according to any combination of Brown, Red, Orange, Yellow, Green, Lime, Cyan, Purple, Pink, White, Grey, and Black
SIZE	Select objects based on their actual (real-life) size from a histogram of sizes relevant to a specific case
SPEED	Select objects based on their actual speed from a histogram of speeds relevant to a specific case
DWELL	Select objects dwelling for longer than a certain period in a scene
AREA	Identify objects included or excluded within one or more user-defined 3- or 4-sided polygon areas
PATH	Identify objects traveling along one or more user-defined paths
FACE RECOGNITION	**View All Faces:** View all the faces that were detected in a case **Filter by Faces:** Find faces that appeared in one or more videos
APPEARANCE SIMILARITY	**People Similarity:** Identify similar looking people **Vehicle Similarity:** Identify similar looks vehicles