Ocularis 5

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*For full list of features, see the Ocularis Architecture &
Engineering (A&E) document, available by request.*

Ocularis is OnSSI's innovative and cost effective open platform Video Management Software (VMS) designed to enhance your security while simplifying your daily workload. From convenience stores to citywide deployments and everything in between, Ocularis can scale up to accommodate an infinite number of cameras to match your growing system needs.

Ocularis lets you record both analog video and video from newly integrated IP network cameras, and can become your Physical Security Information Management (PSIM) platform, putting you in control of advanced tools and enhanced integrations like smart motion detection, access control, biometrics, and behavior analytics.

The Ocularis platform is offered in three feature sets – Professional, Enterprise and Ultimate – to meet the needs of organizations of all sizes and types.

The Ocularis Enterprise feature set is designed for large organizations with extended command and control needs. Ocularis Enterprise provides centralized recording server management, an unlimited number of cameras, as well as compatibility with the VideoWall add-on, which allow for collaborative control of video walls at multiple sites.

FULL-FLEDGED VMS WITH PHYSICAL SECURITY INFORMATION MANAGEMENT (PSIM) FUNCTIONALITY

Ocularis manages video and event data received from cameras connected to multiple recording servers, as well as from physical security, content analytic, environmental detection, transaction and other enterprise systems.

DESIGNED FOR INTEGRATION

Ocularis allows the integration of a host of add-on components via integration tools including Data Link integration events, API commands, contact closure and more. A free Software Development Kit (SDK) is also available for 3rd-party manufacturers to integrate their systems into Ocularis.

OPEN-ARCHITECTURE NON-PROPRIETARY TECHNOLOGY

Ocularis runs on off-the-shelf PC hardware and supports leading manufacturers' cameras and devices, and all industry-standard compression formats (MPEG-4, MJPEG, H.264 and MxPEG) and the ONVIF and ONVIF Profile S standards. Ocularis Base and Ocularis Recorders are also fully supported in virtual environments such as VMWare and Microsoft Hyper-V.

CAMERA NVR SUPPORT

Axis and Samsung cameras can be used directly – utilizing the native recording capability of the camera – eliminating the need for a PC-based NVR.

PRIORITY CAMERA RECORDING

Cameras can be prioritized to ensure that critical areas are recorded in the event that disk space is limited.

ALARM RECORDING

Alarm recording, based on motion detection and other inputs, can be configured with different retention policies from standard recording to ensure that critical events are saved.

OCULARIS MIX & MATCH

Ocularis allows the use of multiple different recorders under the same Base. This allows users to tailor the system to meet their needs. Ocularis Mix & Match allows an Ultimate user to install Professional and camera NVRs – as well as legacy Ocularis 4.x recorders – in the same system with centralized user and event management.

CENTRALIZED RECORDING SYSTEM MANAGEMENT

Ocularis Enterprise provides centralized system management that dramatically reduces the complexity of managing edge devices, hardware and networking. All recording servers, cameras and connected devices, are managed from a single administration application, including configuration of entire device groups connected to multiple recorders, without the need to access each recording server individually.

DYNAMIC DATA MANAGEMENT

Ocularis Enterprise features efficient and dynamic data management with automatic load balancing and no archiving requirements. Multiple storage zones can be configured with storage quotas.

FULLY REDUNDANT MANAGEMENT SERVICES

Ocularis Enterprise features fully redundant recorder management services that do not require the use of high availability or clustering technologies.

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CRITICAL CAMERA FAILOVER

Ocularis Client features automatic switching of interrupted or disconnected video streams in any live view – including maps and blank screen events – to designated alternate camera streams.

END-TO-END DATA ENCRYPTION

Ocularis features encryption of all communication between servers and clients, and also supports HTTPS encryption between devices and recorders.

CENTRAL MANAGEMENT FOR ALERTING, SHARED EVENT HANDLING, CLIENT ASSET AND USER AUTHORIZATION DATA

All hardware and system operators are managed by the Ocularis Base, which coordinates all event and alert handling, manages users' rights to specific cameras and functions system wide (Active Directory supported), and distributes all shared assets.

USER AUDIT LOGGING

All user activity may be logged by enabling auditing in Ocularis Base. An easy-to-use query tool provides easy-to-read, color-coded results and export capability for further investigation and statistical reporting.

COMPOSITE EVENTS ('EVENT FUSION')

Composite Events are created by linking two camera events or alerts, configured by sequence order, time interval and logical conditioning (e.g. 'If Door "A" opens, but no motion detection on Camera "N", within 15 seconds'). Composite Events can be fused with other events to create complex detection scenarios, and assigned priority for push video and handling by Ocularis Client operators.

EVENT PRIORITIZATION

Events can be prioritized from 0-10 with a corresponding color code and can also be assigned customizable audio alerts. Events handling options are configurable as well.

SMART CAMERA DRIVERS

Smart camera drivers for Arecont, Axis, Canon, Hikvision, Interlogix, Northern, Samsung, Sony, and W Box allow the use of new camera models immediately without waiting for a model-specific driver. Ocularis 5 also supports thousands of cameras from dozens of technology partners, and also includes full support for ONVIF and ONVIF Profile S.

SERVER-BASED MOTION DETECTION

Ocularis 5 includes efficient server-based motion detection with multiple regions of interest, each with their own sensitivity and threshold adjustments.

AUTOMATIC RECORDER PATCH UPDATES

Recorder patch updates can be automatically downloaded and applied in Ocularis 5, keeping the system up-to-date. Administrators may also choose to download and install patches manually.

AUTOMATIC RECORDER FAILOVER

Ocularis Enterprise includes recorder failover to automatically move cameras from a failed recorder to another recorder in the system.

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FEATURES

SHARED EVENT HANDLING

All events generated within the Ocularis system, or detected by external/add-on devices, are entered in a dynamically-updated list, shared among all authorized users. Users are able to access, investigate and handle events directly from a dedicated event handling interface, with an on-map indicator of the camera that triggered the event and dual video panes displaying the recorded event and a live stream. Handled events may be accessed by the administrator for continued handling.

INTUITIVE UNIFIED VIDEO CLIENT

Ocularis Client offers a user-friendly operator interface for both desktop and control room video-wall environments, with only minimal training required for full proficiency. Ocularis Client is also available in a 64-bit version for high video demand environments, supporting a higher number of video streams, as well as 4K and other high resolution cameras.

LIVE MONITORING WITH INSTANTANEOUS INVESTIGATION

While monitoring live video feeds, users can perform basic investigation on individual cameras – playback, digital PTZ and optical PTZ (for PTZ cameras) – without the need to switch to a dedicated investigation mode.

EXCLUSIVE INVESTIGATION TOOLS

Ocularis Client's dynamic TimeSlicer™ senses motion in an area and brings the operator right to that video thumbnail in seconds instead of hours or even days. The Kinetic Timeline™ provides fast access to continuous historical data with a backwards and forwards swipe navigation and color codes to help identify recorded video.

360-DEGREE CAMERA DE-WARPING

Ocularis Client features native de-warping of 360-degree cameras from Bosch, OnCam Grandeye, Samsung, Sentry 360, and Vivotek as well as for cameras equipped with the ImmerVision Panamorph lens.

MIXED CONTENT VIEWS

Users can select among unlimited views of different sizes (up to 8 x 8 panes), consisting of camera streams, carousels, hotspots, web pages and Blank Screen panes for receiving automatic (on-event) and manual (peer-to-peer) push-video alerts.

COMPLETE VIDEO WALL MANAGEMENT

Utilizing Ocularis Client's map-based navigation, the Ocularis VideoWall feature (local or optional remote add-on) allows sending cameras and camera groups to any monitor, eliminating the need for any video matrix hardware.
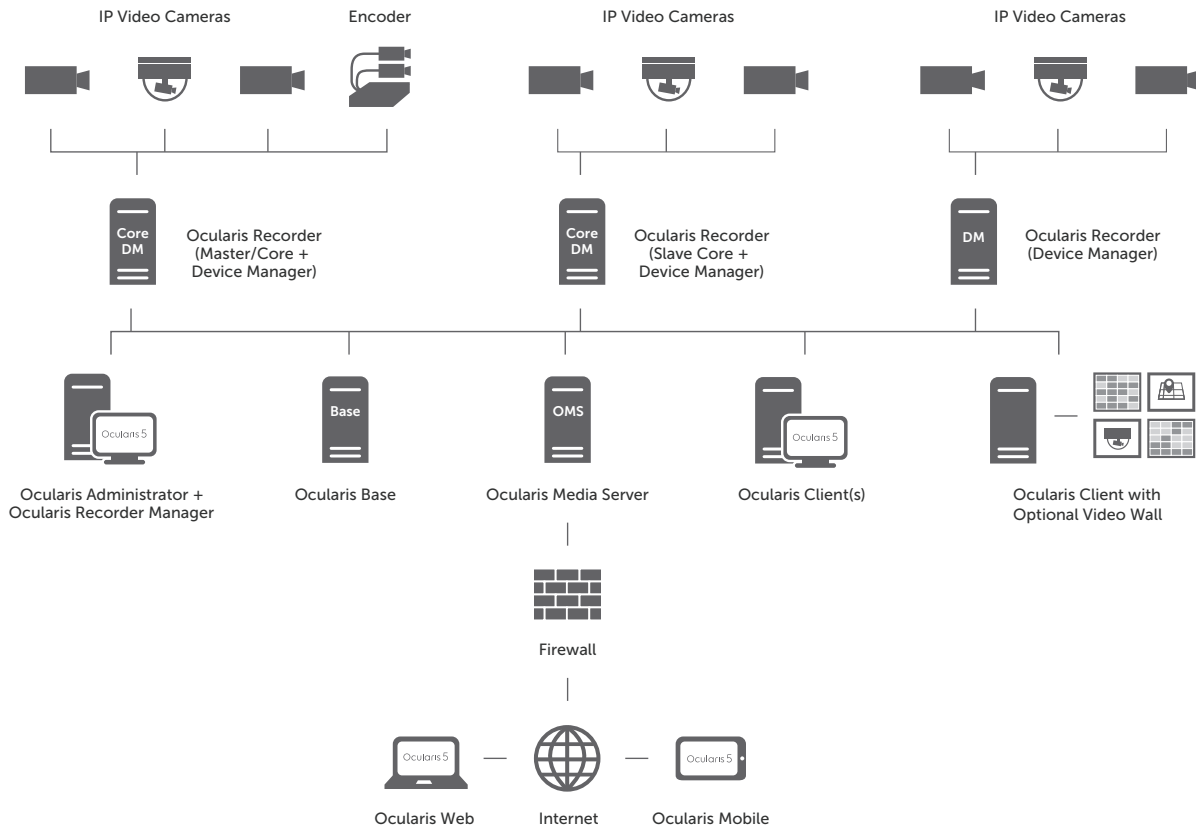
MULTI-LANGUAGE SUPPORT

Ocularis Client includes support for Arabic-Modern Standard, Chinese (simplified), Dutch, English, Finnish, French, German, Hebrew, Italian, Korean, Portuguese, Russian, Spanish and Swedish.

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IP Video Cameras   Encoder   IP Video Cameras   IP Video Cameras

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Core DM — Ocularis Recorder (Master/Core + Device Manager)

Core DM — Ocularis Recorder (Slave Core + Device Manager)

DM — Ocularis Recorder (Device Manager)

Ocularis 5 — Ocularis Administrator + Ocularis Recorder Manager

Base — Ocularis Base

OMS — Ocularis Media Server

Ocularis 5 — Ocularis Client(s)

Ocularis Client with Optional Video Wall

Firewall

Ocularis 5 — Ocularis Web

Internet

Ocularis 5 — Ocularis Mobile

SYSTEM COMPONENTS

OCULARIS CLIENT

Unified operator interface for live monitoring, playback and investigation, alert management, map navigation and VideoWall control. Includes map-based local VideoWall control for connected displays and optional remote VideoWall control for operator collaboration in command and control applications.

OCULARIS RECORDER (CORE AND DEVICE MANAGER)

Manages camera connections, recording parameters and video data.

OCULARIS BASE

Manages the flow of event, user and system status data from the various system components. Provides Active Directory authentication for client operators.

OCULARIS MEDIA SERVER

Provides bandwidth-optimized, full-frame-rate video to remote web and mobile users as well as standard video to local web users.

FEATURE SET COMPARISON

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OCULARIS SYSTEM FEATURE	PROFESSIONAL	ENTERPRISE	ULTIMATE
Number of cameras per system	Unlimited	**Unlimited**	Unlimited
Number of recorders per system	Unlimited	**Unlimited**	Unlimited
Number of concurrent client connections	10	**Unlimited**	Unlimited
Ocularis Mix & Match - combining multiple recorder types in a single system	Yes	**Yes**	Yes
Ocularis OpenSight™ option for sharing video between Ocularis systems	Remote	**Remote**	Main/Remote
Compatible with Ocularis 4.x and earlier recorders	Yes	**Yes**	Yes
Compatible with Axis and Samsung camera NVRs	Yes	**Yes**	Yes
Critical Camera Failover for camera failure protection	Yes	**Yes**	Yes
Centralized user management	Yes	**Yes**	Yes
Active Directory support for client authentication	Yes	**Yes**	Yes
Integration with 3rd party access control	Yes	**Yes**	Yes
Integration with 3rd party analytics	No	**Yes**	Yes
Integration with 3rd party License Plate Recognition (LPR) systems	Yes	**Yes**	Yes
Data Link event integration	Yes	**Yes**	Yes
Event Fusion / Composite Events	Yes	**Yes**	Yes
Ocularis Media Server with HDIS for web and mobile	Yes	**Yes**	Yes
Event Actions including move-to-PTZ-preset, email, TCP/UDP and HTTP messaging	Yes	**Yes**	Yes
OCULARIS CLIENT FEATURE			
Unlimited views and view groups	Yes	**Yes**	Yes
Multi-level map navigation with live camera previews	Yes	**Yes**	Yes
Support for 8 independently controlled displays from a single workstation	Yes	**Yes**	Yes
Touchscreen support	Yes	**Yes**	Yes
Interactive overlay controls with instant playback capability	Yes	**Yes**	Yes
Local VideoWall control of workstation connected displays	Yes	**Yes**	Yes
Remote VideoWall control for command and control centers	No	**Optional**	Included
Dynamic TimeSlicer thumbnail search with time, motion and sequence options	Yes	**Yes**	Yes
Kinetic timeline for quick and easy investigation	Yes	**Yes**	Yes
Full encryption for client-server communications	Yes	**Yes**	Yes
Secure multi-camera database export with included Viewer	Yes	**Yes**	Yes
Snapshot still image export and printed incident report	Yes	**Yes**	Yes
Case builder with bookmarking	No	**Yes**	Yes
Support for USB joysticks	Yes	**Yes**	Yes
Alert management	Yes	**Yes**	Yes
OCULARIS RECORDER FEATURE			
Number of cameras per server	128	**Unlimited**	Unlimited
Centralized recorder management	No	**Yes**	Yes
Recorder management partitioning	No	**Yes**	Yes
Fully redundant recorder manager without using clustering	No	**Yes**	Yes
Automatic recorder patch update service	Yes	**Yes**	Yes
Automatic failover of recording servers	No	**Yes**	Yes
Efficient and dynamic disk load balancing with no archiving requirements	Yes	**Yes**	Yes
Video data aging (grooming) for long term storage	No	**No**	Yes
Automatic edge recording retrieval after network disconnect	No	**No**	Yes
Automatic scheduled export of video data	Yes	**Yes**	Yes
Batch device configuration	Yes	**Yes**	Yes
Server-based motion detection and support for camera-based motion detection	Yes	**Yes**	Yes
MJPEG, MPEG-4, MxPEG and H.264 support	Yes	**Yes**	Yes
ONVIF and ONVIF Profile S support	Yes	**Yes**	Yes
Generic RTSP and MJPEG camera support	Yes	**Yes**	Yes
Universal Smart Drivers for Arecont, Axis, Canon, HikVision, Interlogix, Northern, Samsung, Sony and W Box	Yes	**Yes**	Yes
HTTPS (SSL) encryption for camera to recorder communication	Yes	**Yes**	Yes
Digital input/output device support (number of devices)	5	**Unlimited**	Unlimited
Alarm recording with separate retention policy	Yes	**Yes**	Yes
Incoming audio recording	Yes	**Yes**	Yes
Multicast from recorder to Ocularis Client	No	**No**	Yes
No device registration or device MAC address required	Yes	**Yes**	Yes

SYSTEM REQUIREMENTS

Ocularis Base Server

• CPU: Intel Core i3 or better

• RAM: 4 GB (8 GB if using 64-bit OS)

• Hard Drive: minimum 250 GB (dependent

of recording/archiving needs)

• Operating System:

Microsoft Windows® 7 Professional, Ultimate or Enterprise (32 & 64-bit)

Microsoft Windows® 8 / 8.1 (Standard, Professional, Enterprise) (32 or 64 bit)

Microsoft Windows® 10 (Professional, Enterprise)

Microsoft Windows Server® 2008

(Standard, Enterprise) (32 or 64 bit)

Microsoft Windows Server® 2008 R2

(Standard, Enterprise) (32 or 64 bit)

Microsoft Windows Server® 2012

(Standard, Datacenter) (32 or 64 bit)

Microsoft Windows Server® 2012 R2

(Standard, Datacenter) (32 or 64 bit)

• Software: Microsoft .NET 4.0 Framework;

IIS 6.0 or newer

Ocularis Recording Server

Core Server:

Recommended:

• CPU : Intel Core i7-4930K @ 3.40GHz or Intel Xeon E5-2640 v3 @ 2.60GHz

• RAM : 16 GB (< 1000 video channels) , 24 GB (> 1000 video channels)

• HDD : 500 GB free disk space @ 7200 RPM for OS and Applications

Additional storage as required for video storage

• Network: Ethernet with 1000 MBit/s

Minimum:

• CPU : Intel Core i3 M 370 @ 2.40GHz

• RAM : 8 GB

• HDD : 100 GB free disk space for OS and Applications

Additional storage as required for video storage

• Network : Ethernet with 1000 MBit/s

• Operating System:

Microsoft Windows® 7 (Home Premium, Professional, Ultimate, Enterprise) 64-bit

Microsoft Windows® 8 / 8.1 (Standard, Professional, Enterprise) 64-bit

Microsoft Windows® 10 (Professional, Enterprise)

Microsoft Windows Server® 2008 (Standard, Enterprise) 64-bit

Microsoft Windows Server® 2008 R2 (Standard, Enterprise) 64-bit Recommended

Microsoft Windows Server® 2012 (Standard, Datacenter) 64-bit

Microsoft Windows Server® 2012 R2 (Standard, Datacenter) 64-bit

Core Service + Device Management (DM) (Installed on the same server)

Recommended:

• CPU: Intel Core i7-4930K @ 3.40GHz or Intel Xeon E5-2640 v3 @ 2.60GHz

• RAM: 16 GB (< 250 video channels), 24 GB (> 250 vc), 32 GB (> 1000 vc)

• HDD: 500 GB free disk space @ 7200 RPM for OS and Applications

Additional storage as required for video storage

• Network: Ethernet with 1000 MBit/s

Minimum:

• CPU: Intel Core i3 M 370 @ 2.40GHz

• RAM: 8 GB

• HDD: 100 GB free disk space for OS and Applications

Additional storage as required for video storage

• Network: Ethernet with 1000 MBit/s

• Operating System:

Microsoft Windows® 7 (Home Premium, Professional, Ultimate, Enterprise) 64-bit

Microsoft Windows® 8 / 8.1 (Standard, Professional, Enterprise) 64-bit

Microsoft Windows® 10 (Professional, Enterprise)

Microsoft Windows Server® 2008 (Standard, Enterprise) 64-bit

Microsoft Windows Server® 2008 R2 (Standard, Enterprise) 64-bit Recommended

Microsoft Windows Server® 2012 (Standard, Datacenter) 64-bit

Microsoft Windows Server® 2012 R2 (Standard, Datacenter) 64-bit

Device Manager:

Recommended:

• CPU: Intel Core i7-4930K @ 3.40GHz or Intel Xeon E5-2640 v3 @ 2.60GHz

• RAM: 16 GB

• HDD: 500 GB free disk space @ 7200 RPM for OS and Applications

Additional storage as required for video storage

• Network: Ethernet with 1000 MBit/s

Minimum:

• CPU: Intel Core i3 M 370 @ 2.40GHz

• RAM: 8 GB

• HDD: 100 GB free disk space for OS and Applications

Additional storage as required for video storage

• Network: Ethernet with 1000 MBit/s

• Operating System:

Microsoft Windows® 7 (Home Premium, Professional,

Ultimate, Enterprise) 64-bit

Microsoft Windows® 8 / 8.1 (Standard, Professional, Enterprise) 64-bit

Microsoft Windows Server® 2008 (Standard, Enterprise) 64-bit

Microsoft Windows Server® 2008 R2 (Standard, Enterprise) 64-bit Recommended

Microsoft Windows Server® 2012 (Standard, Datacenter) 64-bit

Microsoft Windows Server® 2012 R2 (Standard, Datacenter) 64-bit

Ocularis Client (32-bit)

• CPU: Intel Core i5 or better (Intel Core i7 or better for 20+ megapixel streams)

• RAM: Minimum 4 GB

  (8 GB if using 64-bit OS)

• Operating System:

  Microsoft Windows® 7 Professional,

  Ultimate or Enterprise (32 & 64-bit)

  Microsoft Windows® 8 / 8.1

  (Standard, Professional, Enterprise)

  (32 or 64 bit)

  Microsoft Windows® 10 (Professional, Enterprise)

• Graphics adapter: PCI-Express, minimum 256 MB RAM, Direct 3D supported.

• Guidelines for video RAM requirements:

  20 simultaneous video streams:

  256MB minimum 50 simultaneous video streams: 512MB minimum

Ocularis Client (64-bit)

• CPU: Intel Core i5 or better (Intel Core i7 recommended)

• RAM: Minimum 8 GB (16 GB suggested)

• Operating System: Microsoft Windows® 7 Professional, Ultimate or Enterprise (64-bit)

  Microsoft Windows® 8 / 8.1 (Standard, Professional, Enterprise) (64-bit)

  Microsoft Windows® 10 (Professional, Enterprise)

• Graphics Adapter: PCI-Express, 128 MB RAM, Direct 3D supported

• Guidelines for Video RAM Requirements:

  20 simultaneous video streams: 256MB minimum

  50 simultaneous video streams: 512MB minimum

Note:

Ocularis Client (64-bit) may not be installed on a PC also running Ocularis Base, Ocularis Administrator, Ocularis Event Proxy or Ocularis Media Server. Use Ocularis Client (32-bit) if any of these applications are installed on the same PC.

Ocularis Media Server

• CPU: Intel Core i7, 3rd or 4th generation,

  3.0 GHz or faster

• RAM: 8GB

• Operating System:

  Microsoft Windows® 7 Professional,

  Ultimate or Enterprise (32 & 64-bit)

  Microsoft Windows® 8 / 8.1 (Standard, Professional, Enterprise) (32 or 64 bit)

Ocularis Version 5.2, June 2016

On-Net Surveillance systems raises safety standards with its award-winning IP-based surveillance software, Ocularis. OnSSI can help you increase security, reduce costs, and get you closer to prevention — while putting intelligence, automation, and intuition at your fingertips.

With its headquarters in Pearl River, New York and a regional development, sales and support center in Bruchsal, Germany, plus representation in over 100 countries around the globe, OnSSI is transforming safety standards in schools, banks, cities, offices, stadiums , and airports. OnSSI is committed to powering your surveillance system so you can truly stay one step ahead.