Video Management Software

eocortex

Eocortex is a global provider of an Open-Platform Video Management Software (VMS) with the added strong intelligence of video analytics

About us

eocortex

2008
company founded

21
Video Analytics

5 000+
camera models compatible
+ ONVIF, + PSIA

10 min
time required
for installation
and configuration

15 000+
projects done

700 000+
cameras operating
on Eocortex VMS

5 000+
partners
in the world

85+
countries

$0
cost of technical support

$0
cost of personnel training
and certification

$0
pre-sale service cost
for your projects

$0
cost of all Eocortex
VMS updates

Eocortex in the World

Australia

Bahrain

Belgium

Canada

Czech Republic

Denmark

Egypt

France

Germany

Hungary

India
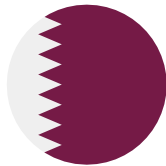
Iran

Italy

Kuwait

Luxembourg

Malaysia

Netherlands	Oman	Pakistan	Poland

Portugal	Qatar	Saudi Arabia	Slovakia

South Africa	Spain	Tunisia	Turkey

UAE	UK	USA	Vietnam

Eocortex Big Projects

Prison in Izmir, Turkey

> 1000 IP cameras / ULTRA

CCTV tasks

- to create the centralized control system of 6 prison site
- to provide 24/7 control with remote access
- to check the status of all the components of the surveillance systems
- to integrate CCTV with Fire Alarm system

Eocortex advantages

- Free integration
- System Health Check
- Free updates: saves the budget for expanding the CCTV system
- Compatibility
- User-friendly interface
- Videowall

Modifications

- Integration with the Fire Alarm system

Politizone ARRO Ieper, Belgium

> 500 IP cameras / ULTRA

CCTV tasks

- to update the existing CCTV system
- to keep the existing cameras and integrate them with the new VMS
- to add new cameras to the CCTV system
- to create the centralized control system of the united police departments

Eocortex advantages

- Easy to use by a police employee
- Flexibility and reliability
- Free updates: saves the budget for expanding the CCTV system
- Suspect Search module
- Videowall

Modifications

- Integration with Mobotix cameras (MxPEG)

Hulamin aluminium factory, South Africa

> 1000 IP cameras / ST license

CCTV tasks

- to provide the required level of security at the factory and to monitor personnel activity
- to update the existing CCTV system with saving of existing NVR and video equipment
- to provide continuous system upscaling

Eocortex advantages

- Free of extension of the project
- Compatibility
- User-friendly interface
- Flexibility and reliability
- Lifelong licenses without maintenance plan
- Free updates of VMS

2016

The VMS manages something that a lot strive for but often miss: it offers a high degree of flexibility and advanced operations in a simple-to-use package. The GUI for the installer is functional and well laid out, while the end user gets a clean and sleek display which offers intuitive operation.

In the majority of applications, it delivers more than enough in terms of customization. For mainstream surveillance and management needs, it has to be recommended and is worth a closer look.

2017

The installation requires no intervention, and complete fairly rapidly. Some automated installers can take some time but the process was finished in approximately four or five minutes. The software installation process is very straightforward, there will be no challenges for any competent installer or integrator.

Visually the interface is both intuitive and simple to follow. The functionality on offer is very good and allows the creation of a bespoke and proactive surveillance system.

2018

Recommended for: the installer or integrator who is new to VMS, Macroscop / Eocortex represents a flexible and efficient product that is simple to install and configure. The software installation is fully automated and works well. The functionality on offer from Macroscop / Eocortex is surveillance-focused and is ideal for mainstream applications.

2019

In 2019, the number of Eocortex intelligent modules reached twenty. Every module is used to solve a wide range of industrial tasks in more than 20+ vertical solutions.

The company kept expanding. Now Eocortex software is used in 50 countries of the world.

Eocortex VMS Capabilities

Quick Installation

No special admin or programming skills are required.

Initial installation and setup regularly take no more than 10 minutes.

Simple Functional Interface

The Eocortex IP camera software is simple to use and easy to learn.

Its advanced functionality means the system can be configured in a bespoke way to answer individual operational needs.

Easy-to-use Navigation

Eocortex offers users several ways to view cameras on the system.

One of which is the flexible planning tools that allow users to move among cameras at multiple locations by uploading a map and placing cameras on to the plan.

Lifetime licensing

Eocortex licensing policy is simple, you just buy the amount of the required licenses for the needed number of channels and that's it, you can use it. Licenses are for life. Maintenance and updates with no ongoing charges.

Working with Cameras and Displays

5 options for working with cameras

ONVIF UPnP

Automatic search of the cameras which support ONVIF or UPnP search protocol in the local network

IPv6

Connection of cameras with IPv6 addresses, including automatic search for such cameras in the network

Diagnostics of cameras from the Menu (Configurator) to detect possible issues with their connection and functioning

IP cameras group setup

Pluggable driver package ensures backwards compatibility of camera drivers and devices and allows to connect new integrated cameras and devices without the need to update the software

2 modes of working with PTZ camera presets

Toggling between turning camera's presets

Creation of user-defined routes for toggling between presets

2 modes of working with audio

Broadcasting and recording IP camera audio to archive

Transmitting the sound from operator workstation to camera loudspeaker or audio output

2 options for large-scale video surveillance systems

Creating a video wall from a combination of multiple screens

Internal chat for messaging between system operators

User Scenarios and System Access

6 ways of site plan support

- ✓ Visualization of two-dimensional site plans
- ✓ Displaying cameras, sensors, and relays on site plans
- ✓ Binding external sensors to camera signal inputs
- ✓ Binding of external devices to camera signal outputs
- ✓ Camera field of view visualization
- ✓ Visualization of data of separate intellectual Video Analytics on camera fields of view

7 user scenarios for response to events

- ✓ E-mail notifications
- ✓ SMS notifications
- ✓ Push notifications
- ✓ Recording to archive control
- ✓ Sending signals to camera outputs
- ✓ Launching external applications
- ✓ Messenger notifications

5 ways to access the system remotely

- ✓ Via desktop application
- ✓ Via web interface
- ✓ Via mobile application
- ✓ Via API
- ✓ Via messengers

Working with Archive

8 scenarios for recording to archive

1 Continuous recording

2 Recording by operator's command

3 Recording by camera motion sensor

4 Recording by Eocortex software detector

5 Scheduled recording with the ability to combine recording modes

6 Recording by system event / scenario

7 Simultaneous viewing of archive form SD cards of various cameras

8 Synchronization of video server archive with camera SD card (if the camera worked offline) or with video recorder

4 archive viewing modes

Viewing of archive via a separate channel

Archive export

Simultaneous viewing of archive on various channels

Reverse playback

4 ways to protect your archives

1 Automatic archive replication on a specially designated replication server

2 Archive backup – recording to the backup archive within the same server

3 Hot server standby: in case of failure of one of the servers, recording of video archive and broadcasting video from its assigned cameras is performed by other servers

4 Automatic creation of database backup copies and automatic database recovery in case of failure

3 archive management options

Creating reports regarding depth of archive for each camera, visualization of archive presence by days

Decimation of archive while recording, allowing to record lower resolution video to archive

Time-based decimation of archive, allowing to reduce quantity of frames in the archive on expiration of a set period of time

Monitoring, diagnostics, and automatic update

3 monitoring and system diagnostics options

Self-diagnostics, reporting problems in subsystems, troubleshooting recommendations

Automatic diagnostics and recovery of archive and event data base

Monitoring system components' status:
• availability of hosts
• central processor, RAM, host network adapter load ratio
• availability of cameras
• archive recording subsystems status
• client connections to servers

2 automatic update options

Automatic update of client software when connecting to server

Update from server software configurator for integrated servers

Video Analytics

Smoke and Fire Detection
To detect smoke and fire in camera field of view

Face Recognition
To arrange for controlled automated access of persons to the premises

Loud Sound Detection
To register noise level surpassing the preset limit

People Counting
To perform visitor counting

License Plate Recognition
To arrange for controlled automated access of cars to the premises

Heat Map
To monitor routes of moving and stopping of visitors, evaluate people flow intensity

Crowd Monitoring
To count people in a crowd, to notify about crossing of a preset threshold

People Counting in Queue
To count people in a line, to notify about crossing of a preset threshold

Shelf Fullness Check
To monitor the fullness of shelves in a store in order to fill them with merchandize in time

Face Detection
To detect a face and enter it into a database

Suspect Search
To track movement of a person among the cameras, to search for a suspect in the archive

Hard Hats Detection
To detect, register and notify presence of people not wearing hard hats

Video Analytics

Personnel Monitoring
To monitor presence and activity of personnel on their workplace

Abandoned Object Detection
To detect an abandoned object and find a person who left it

Unique Visitor Counting
To generate unique visitor counting reports based on detecting and recognizing faces

Tracking
To perform perimeter control of selected area, border, or line

Audio Stream Processing
To record and transmit sound in both directions

Face Mask Detection
To generate unique visitor counting reports based on detecting and recognizing faces

Additional options

Failover
To ensure uninterrupted video stream and recording to archive, notwithstanding force majeur factors

PTZ camera control
To pan, tilt, zoom, and control a camera

Frame area blurring
To blur the specified areas of the frame on a real-time video

Sabotage detection
To detect camera sabotage or faults

Fisheye dewarping
To view expanded panorama or panorama split into 2 or 4 frames

Video Wall
To build a video wall, consisting of any number of separate monitors

Eocortex Compatibility

AVIGILON

AXIS COMMUNICATIONS

BOSCH

dahua TECHNOLOGY

Dallmeier

D-Link

Hanwha

HIKVISION

Honeywell

LILIN

Panasonic

PELCO

VIVOTEK

ZAVIO

Onvif

Eocortex Compatibility

Brickcom

CISCO

GANZ

GeoVision Inc

IDIS

LG

SONY

uniview

And other 100+ manufacturers

PSIA

MOBOTIX

Vertical Solutions

Intellectual Video Analytics	Business Facilities				Leisure & Entertainment	Safe & Smart City			Public Transport & Parking		
	Banking	Retail	Hotels	Buildings & Offices	Stadiums	Hospitals	Education	Streets	Airports	Railway Stations	Parking
Smoke and Fire Detection	●	●	●	●	●	●	●	●	●	●	●
Tracking	●	●	●	●	●	●	●		●	●	●
Abandoned Object Detection	●	●	●	●	●	●	●		●		●
Face Detection	●	●	●	●	●	●	●		●		●
Suspect Search	●	●	●	●	●	●	●	●			●
Loud Sound Detection	●	●	●	●		●	●				●
Crowd Monitoring							●	●	●	●	
Face Recognition	●	●	●	●	●	●	●		●	●	
License Plate Recognition	●	●	●	●	●		●	●			●
People Counting	●	●		●	●	●	●	●	●	●	●
Audio Stream Processing	●	●	●			●	●	●	●	●	●
Personnel Monitoring	●	●	●	●		●	●		●	●	●
Heat Map	●	●					●				
People Counting in Queue	●	●					●		●	●	
Hard Hats Detection											
Failover	●	●	●	●	●	●	●	●	●	●	●
Sabotage Detection	●	●	●	●	●	●	●	●	●	●	●
PTZ Camera Control	●	●	●		●	●	●	●			●
Fisheye Dewarping	●	●	●	●		●	●		●	●	●

Intellectual Video Analytics	Public Transport & Parking		Industrial		Government Facilities		Logistics	
	Underground	City Transport	Manufacturing	Constructing Manufacturing	Government Facilities	Prisons & Correctional Facilities	Ports	Warehouses
Smoke and Fire Detection	●	●	●	●	●	●	●	●
Tracking	●		●	●	●	●	●	●
Abandoned Object Detection	●	●			●			
Face Detection	●	●			●		●	●
Suspect Search	●				●	●	●	●
Loud Sound Detection	●		●	●	●	●	●	●
Crowd Monitoring					●			
Face Recognition			●	●	●	●	●	●
License Plate Recognition			●	●	●	●	●	●
People Counting	●				●			
Audio Stream Processing	●				●	●		
Personnel Monitoring			●		●	●		●
Heat Map								
People Counting in Queue								
Hard Hats Detection			●	●			●	
Failover	●	●	●	●	●	●	●	●
Sabotage Detection	●	●	●	●	●	●	●	●
PTZ Camera Control	●	●	●	●	●	●		●
Fisheye Dewarping	●		●	●	●	●	●	●

Remote access to your CCTV system

To get mobile access to your video surveillance system, you can use mobile applications on iOS, Android and through web client via the browser.

Video stream formats supported by mobile clients: MJPEG, MPEG-4, MxPEG, H.264, H.265 and any versions of operating systems.

Features and functions

Watch online	Android / iOS	Web-client	Messengers
View images from cameras online	+	+	+
Configure the frame rate for viewing	+	+	+
Adjust the number of IP cameras in a multipicture	up to 15	up to 5	-
Scale the image	+	+	-
Drag a channel in a multipicture grid	+	+	-
Take screenshots	+	+	-
Listen to the sound from cameras	+	+	-

Manage online	Android / iOS	Web-client	Messengers
Control PTZ cameras	+	+	-

Receive notifications online	Android / iOS	Web-client	Messengers
Receive push-notifications about events that are configured in video analytics	+	+	+

Work with the video archive	Android / iOS	Web-client	Messengers
Play the archive, search for frames by date and time	+	+	+
Speed up archive viewing 20-fold and slow down 10-fold	+	+	-

Meet Eva – your personal voice assistant

What can she do?
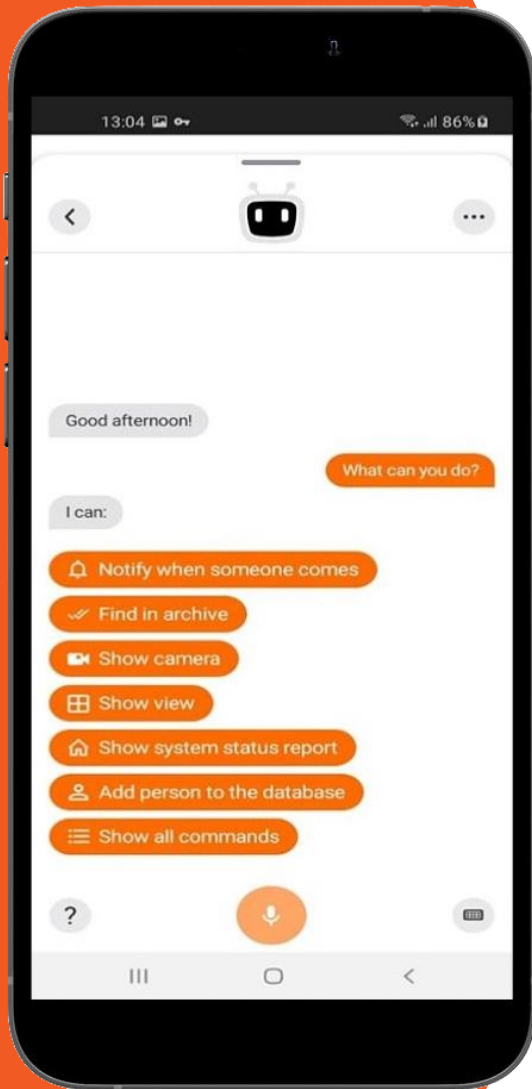
- to remove a person from the face database
- to add a person to the face database
- to open any available camera
- to find an event
- to open any available view
- to assign a person to a group
- to notify about the appearance of a person in the area

Eocortex Licenses

	Eocortex ML	Eocortex LS	Eocortex ST	ULTRA
Number of IP cameras per system	1– 20	1– 400	unlimited	unlimited
Number of IP cameras per 1 server	up to 20	up to 80	unlimited	unlimited
Number of servers	1	up to 5	unlimited	unlimited
Number of workstations	up to 2	up to 10	unlimited	unlimited
	Software for creating smaller systems. The ML version does not support Video Analytics, but may be upgraded to LS or ST version.	The version aimed at creating middle size IP video surveillance systems and to connect the variety of intelligent Video Analytics. Additional Video Analytics. for the LS version are available at extra charge. The LS version may be upgraded to ST version.	The most powerful and functional version among the Eocortex software products. The ST version comes with the number of free intelligent Video Analytics. Additional Video Analytics are available at extra charge.	The high-end solution by Eocortex is represented by ULTRA license that allows to build a video surveillance system of any size. All the analytics are included into one license along with the in-build solution for video wall, archive mirroring, backup drives and internal cha between operators.

The licenses can be upgraded at any time with payment for difference in prices of licenses or Video Analytics if you would like to add.

Downgrade of licenses is not possible (including downgrade from bigger to smaller number of licenses per one license key).

Video Analytics

● Free of charge   ○ Available at additional charge   – Not supported

	Eocortex ML	Eocortex LS	Eocortex ST	ULTRA
Sabotage detection	●	●	●	●
Audio stream processing	●	●	●	●
PTZ camera control	●	●	●	●
Face detection	–	○	●	●
Suspect search	–	○	●	●
Tracking	–	○	●	●
Abandoned object detection	–	○	●	●
People Counting	–	○	○	●
Crowd monitoring	–	○	○	●
Heat Map	–	○	○	●
People Counting in queue	–	○	○	●
Personnel monitoring	–	○	○	●
Smoke and fire detection	–	○	○	●
Loud sound detection	–	○	○	●
Fisheye dewarping	–	○	○	●
Hard hats detection	–	○	○	●
Shelf fullness check	–	○	○	●
Failover	–	○	○	●
Face recognition	–	○	○	○
Unique visitor counting	–	○	○	○
License place recognition	–	○	○	○

Eocortex Licensing Features

Single Eocortex license permits the connection of one IP camera. Only the server side software is subject for licensing.

All client applications are provided free of charge. Eocortex user may select one of two options to access the software: USB key or Soft key.

USB key

A physical security key and an electronic license file installed on the server. It can be moved from one server to another, without additional payments for the new keys during the system migration.

Installation package
- USB security key.
- CD with software installation package and license file (available on the web site).

Installation
1. Connect USB key to the server.
2. Install Eocortex software package on the server.
3. Install the security key by connecting to license server or requesting it via email from Eocortex representative.

Soft key

The user should supply Eocortex with file containing parameters of the server where the software is going to be installed. Configuration file is processed with Eocortex server software. Electronic activation key is generated and sent to the user.

Installation package
- Soft key is sent by an email.
- Software installation package can be download from website.

Installation
1. Download software installation package from website and install to the server.
2. Obtain key ID from Eocortex representative.
3. Activate automatically the soft key using the configuration tool.
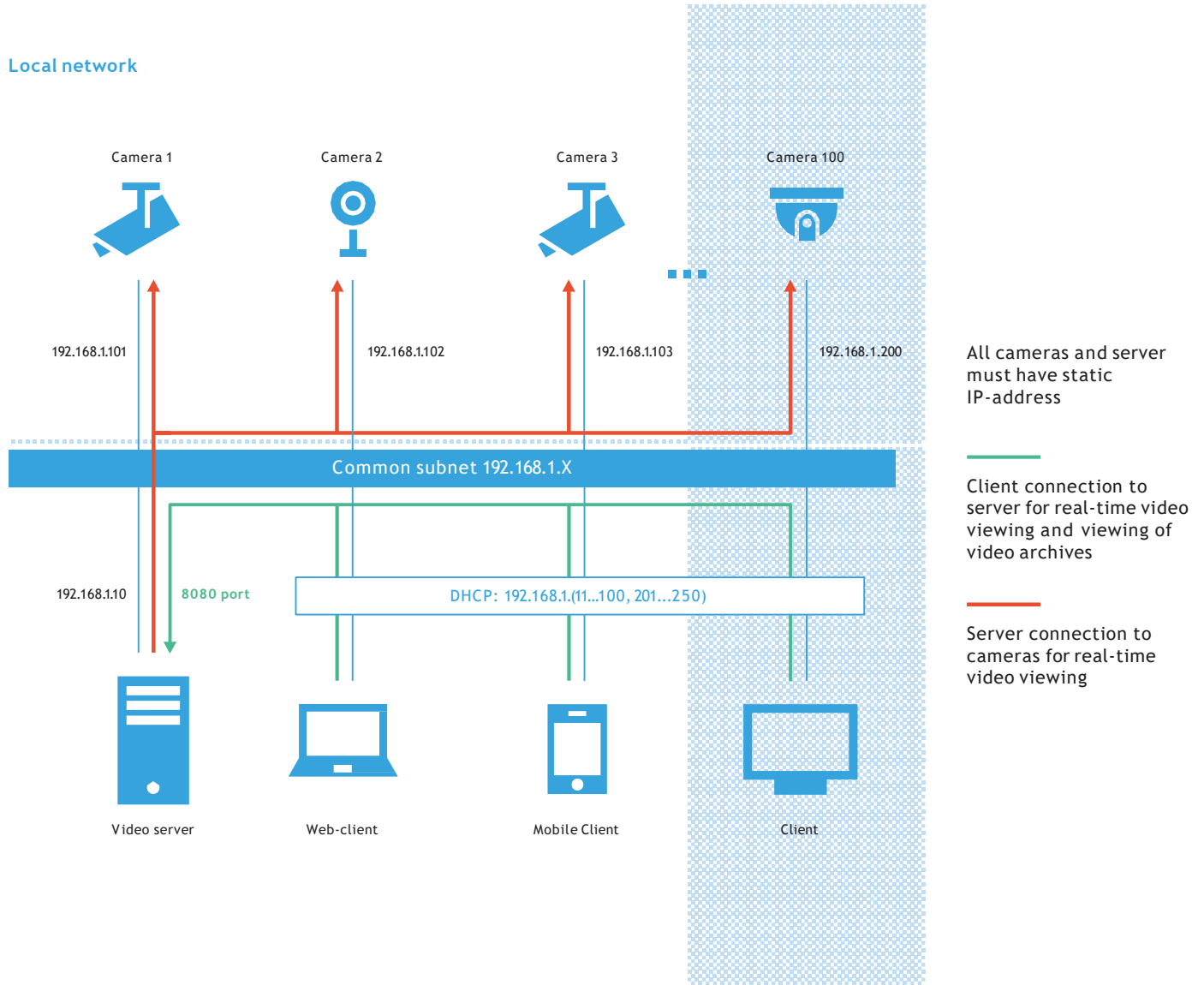
Eocortex Trial version

- Test licenses are ST or ULTRA version, full-function (including LPR and FaceRec), time-limited by **30 days** from the date of issuance

- For projects with 50+ cameras it's possible to order **60-90 days test license**

- Test license key can be extended only once, after that it will be possible to extend it only after paying for licenses

Typical options of video surveillance system based on Eocortex

Eocortex in a local network with one common subnetwork

Local network

Camera 1	Camera 2	Camera 3	Camera 100

192.168.1.101   192.168.1.102   192.168.1.103   192.168.1.200

All cameras and server must have static IP-address

Common subnet 192.168.1.X

Client connection to server for real-time video viewing and viewing of video archives

192.168.1.10   **8080 port**   DHCP: 192.168.1.(11...100, 201...250)

Server connection to cameras for real-time video viewing

Video server	Web-client	Mobile Client	Client

Eocortex server
internet access

Local network

Camera 2.1 Camera 2.2   Camera 2.N   Video server   Camera 1.1   Camera 1.2   Camera 1.N   Client   Client

192.168.2.1   192.168.1.10
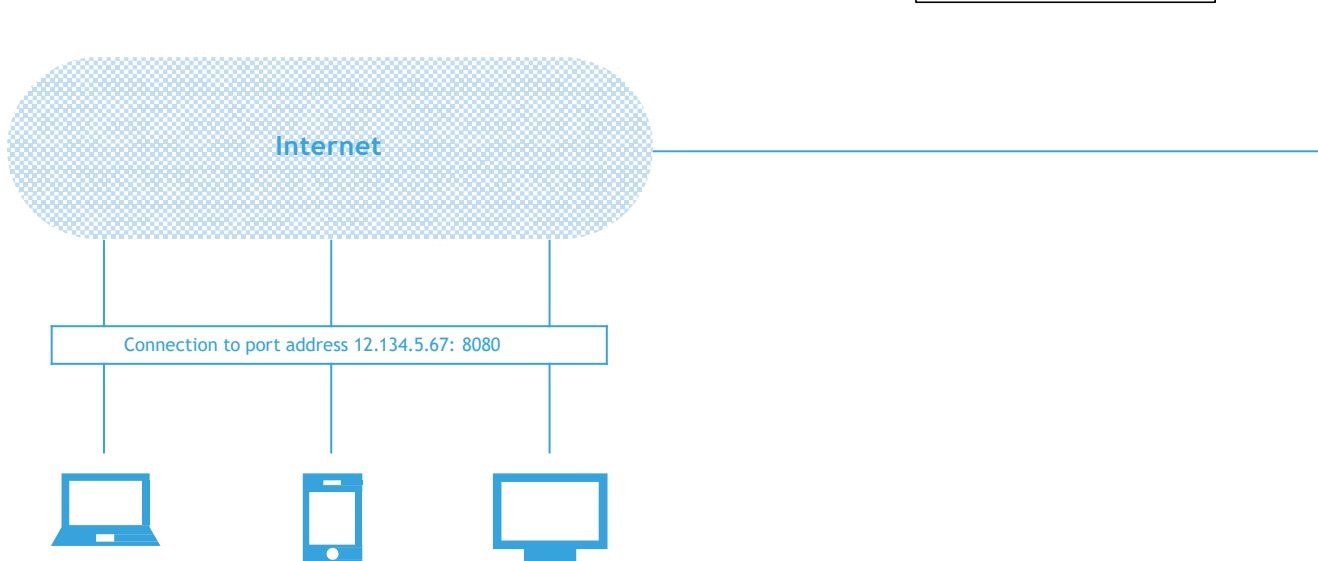
Camera subnet 192.168.2.X   Common use subnet 192.168.1.X
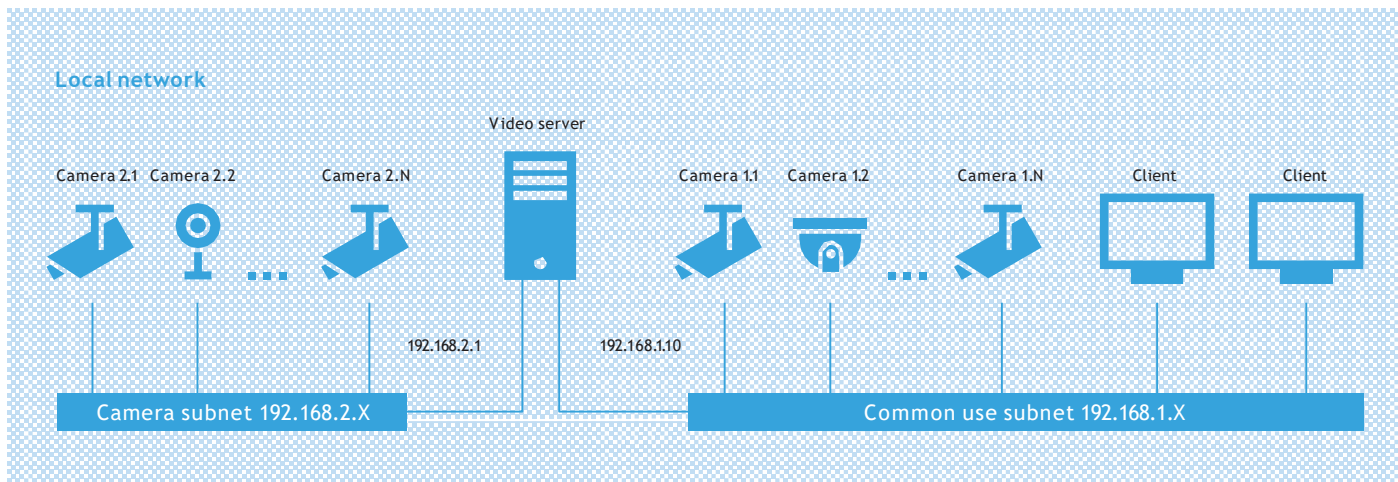
Static IP-addresses are recommended for all cameras, servers and gateways.
The above devices should be accessed with the domain name in case the use
of dynamic IP-address.

NAT Table (example)	
192.168.1.10:	8080 ⟷ 8080

Internet

Connection to port address 12.134.5.67: 8080

Camera access at remote sites

Local network

Video server

Camera 2.1 Camera 2.2 Camera 2.N Camera 1.1 Camera 1.2 Camera 1.N Client Client

... ...

192.168.2.1

192.168.1.10

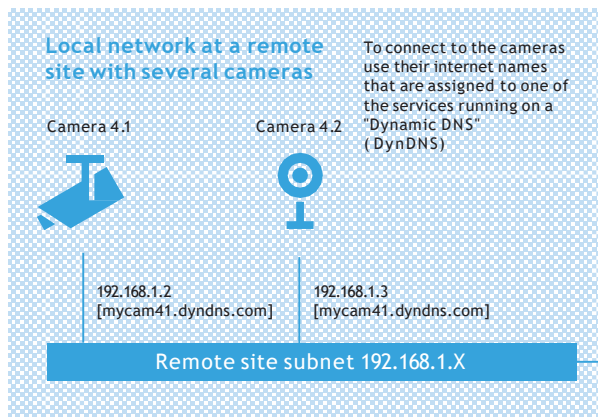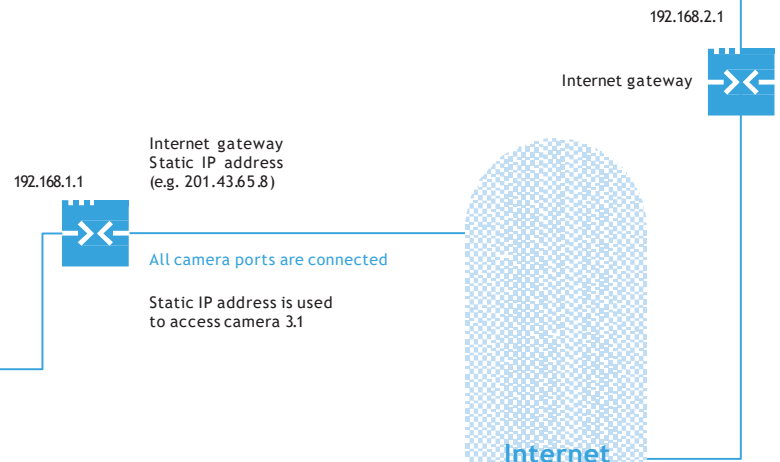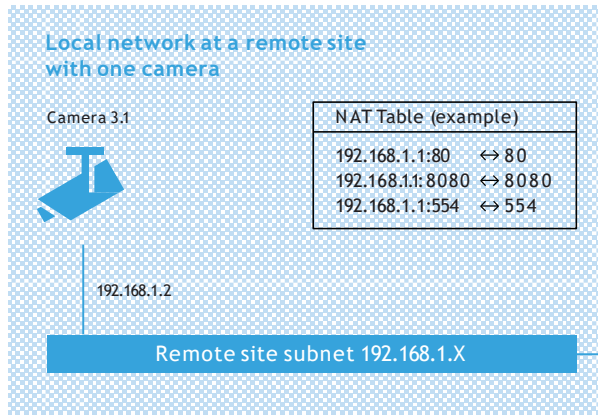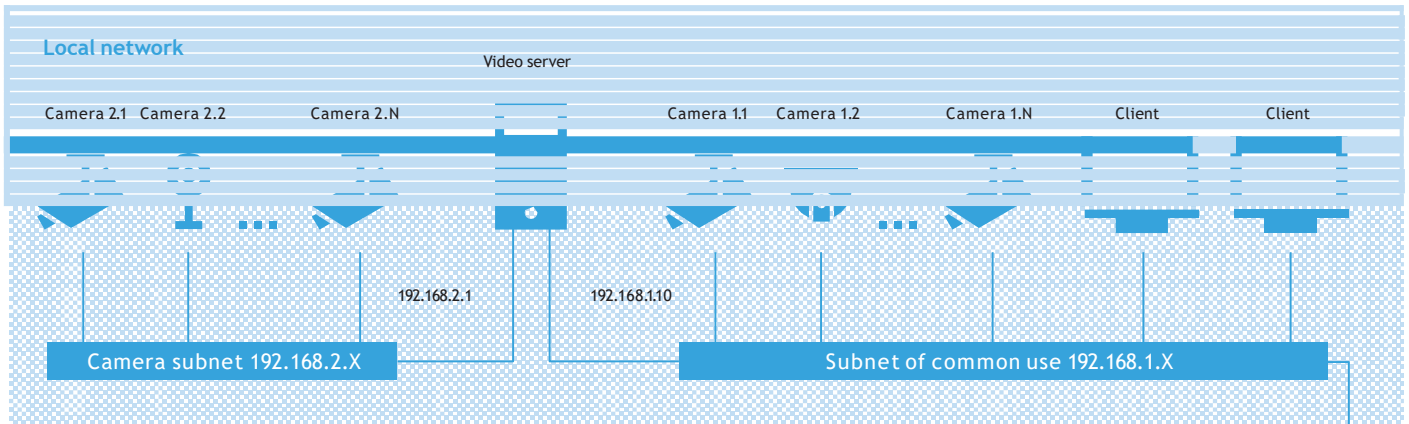Camera subnet 192.168.2.X

Subnet of common use 192.168.1.X

192.168.2.1

Internet gateway

Local network at a remote site with one camera

Camera 3.1

NAT Table (example)

192.168.1.1:80   ↔ 80
192.168.1.1:8080 ↔ 8080
192.168.1.1:554 ↔ 554

192.168.1.1

Internet gateway
Static IP address
(e.g. 201.43.65.8)

All camera ports are connected

Static IP address is used
to access camera 3.1

192.168.1.2

Remote site subnet 192.168.1.X

Internet

Local network at a remote site with several cameras

To connect to the cameras
use their internet names
that are assigned to one of
the services running on a
"Dynamic DNS"
(DynDNS)

Internet gateway
Dynamic
IP address

192.168.1.1

Camera 4.1

Camera 4.2

192.168.1.2
[mycam41.dyndns.com]

192.168.1.3
[mycam41.dyndns.com]

Remote site subnet 192.168.1.X

Eocortex in a multi-server distributed system

Local network

Client

Video server

Subnet of common use 192.168.1.X

Internet gateway static IP address 201.43.65.8

Internet gateway Static IP address 41.202.340.244
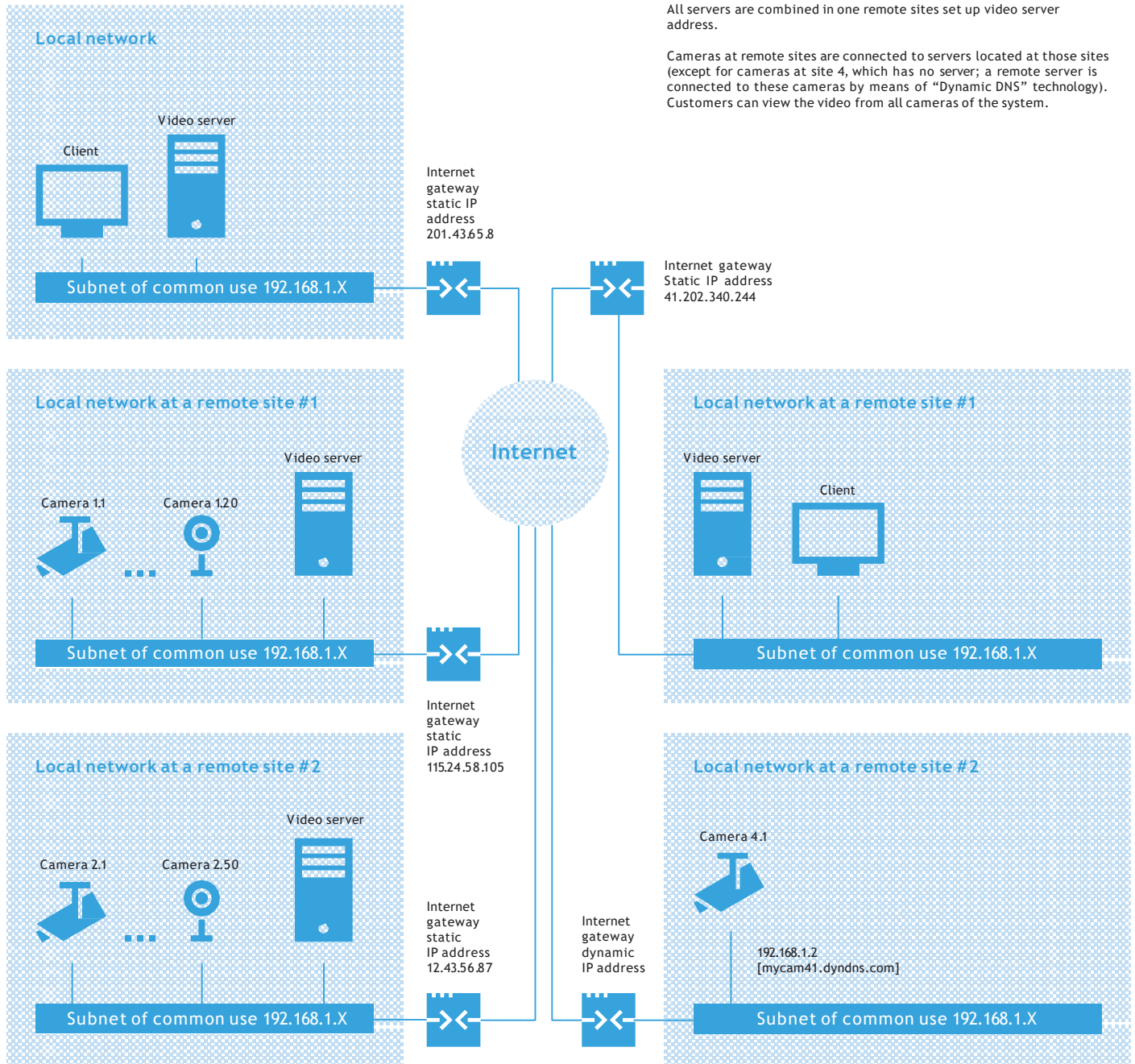
All servers are combined in one remote sites set up video server address.

Cameras at remote sites are connected to servers located at those sites (except for cameras at site 4, which has no server; a remote server is connected to these cameras by means of "Dynamic DNS" technology). Customers can view the video from all cameras of the system.

Local network at a remote site #1

Camera 1.1   Camera 1.20

Video server

Subnet of common use 192.168.1.X

Internet

Local network at a remote site #1

Video server

Client

Subnet of common use 192.168.1.X

Internet gateway static IP address 115.24.58.105

Local network at a remote site #2

Camera 2.1   Camera 2.50

Video server

Subnet of common use 192.168.1.X

Internet gateway static IP address 12.43.56.87

Internet gateway dynamic IP address

Local network at a remote site #2

Camera 4.1

192.168.1.2
[mycam41.dyndns.com]

Subnet of common use 192.168.1.X

You are welcome
with your questions
and projects

eocortex