

BVMS 11.0 BLUEPRINTS



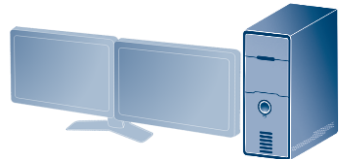
BVMS Blueprints

Different key components



- ✓ Licensing
- ✓ User Authorizations
- ✓ System logging (SQL)
- ✓ Alarm management
- ✓ Configuration management

BVMS Server



Operator client




Monitor Wall



- ✓ SW DYNAMIC TRANSCODING
- ✓ WEB BROWSER CONNECTION
- ✓ iPhone/iPad CONNECTION
- ✓ Max of 20 CONNECTIONS / MVS
- ✓ Max 5 x MVS / BVMS Server

Mobile Video Service

- ✓ Person identification
- ✓ Up to 8 cameras
- ✓ Up to 25 PID / BVMS Server



PID

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s




- ✓ RECORDING MANAGEMENT
- ✓ 2000 CAMERAS
- ✓ 2 MILLION OF 1Gbit/s BLOCKS
- ✓ STORAGE VIRTUALIZATION

VRM Server



- ✓ VRM
- ✓ VSG
- ✓ iSCSI
- ✓ HW DYNAMIC TRANSCODING

DIVAR IP AIO



- ✓ iSCSI only
- ✓ HIGH DENSITY
- ✓ 1050 MB WRITE
- ✓ 200 Mb READ

DSA E-series



- ✓ ONVIF CAMERAS
- ✓ H264 via RTSP
- ✓ JPEG via HTTP
- ✓ 32 CHANNELS / VSG

Video Streaming Gateway

BVMS PROFESSIONAL PLUS LITE

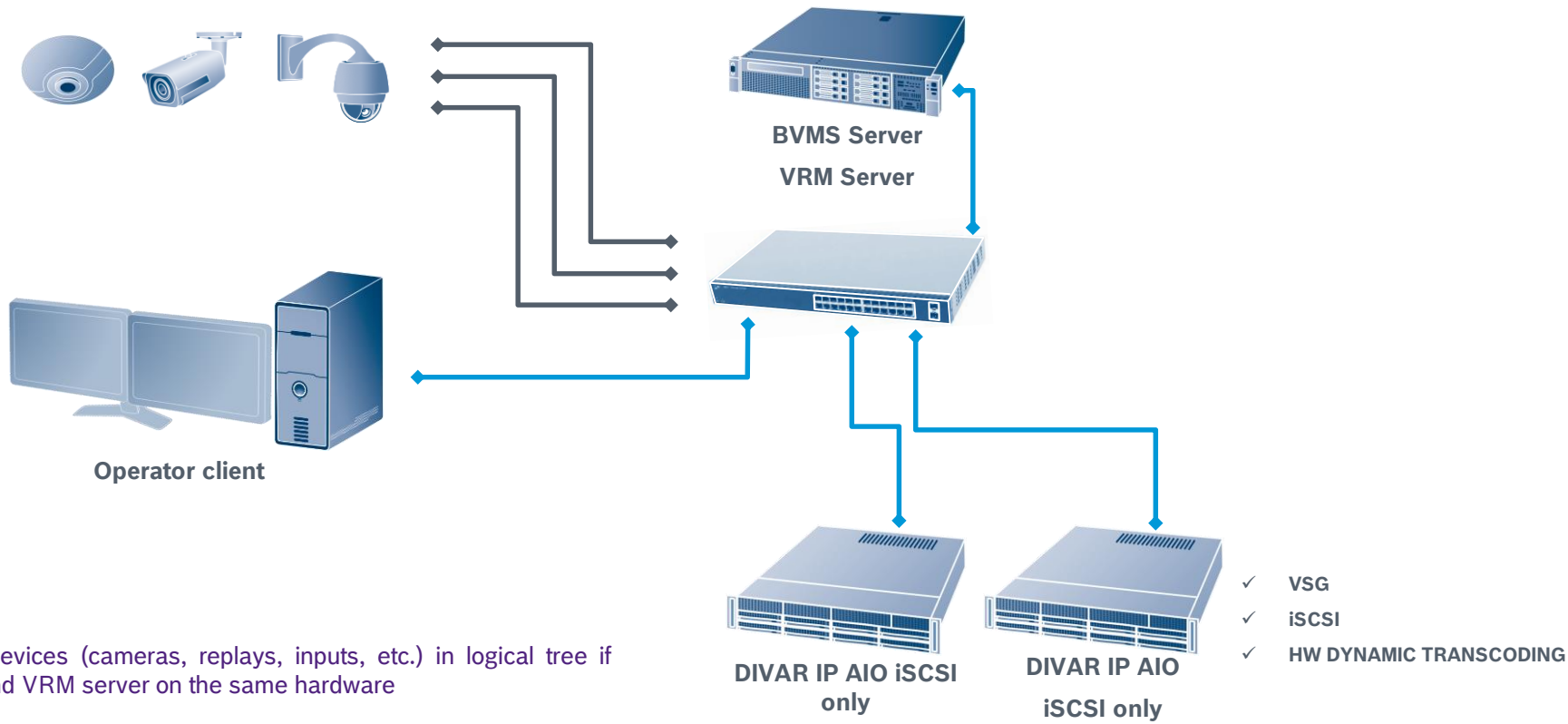
BVMS Blueprints

BVMS all in one

Cameras
500*
max

CLIENTS
10
max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



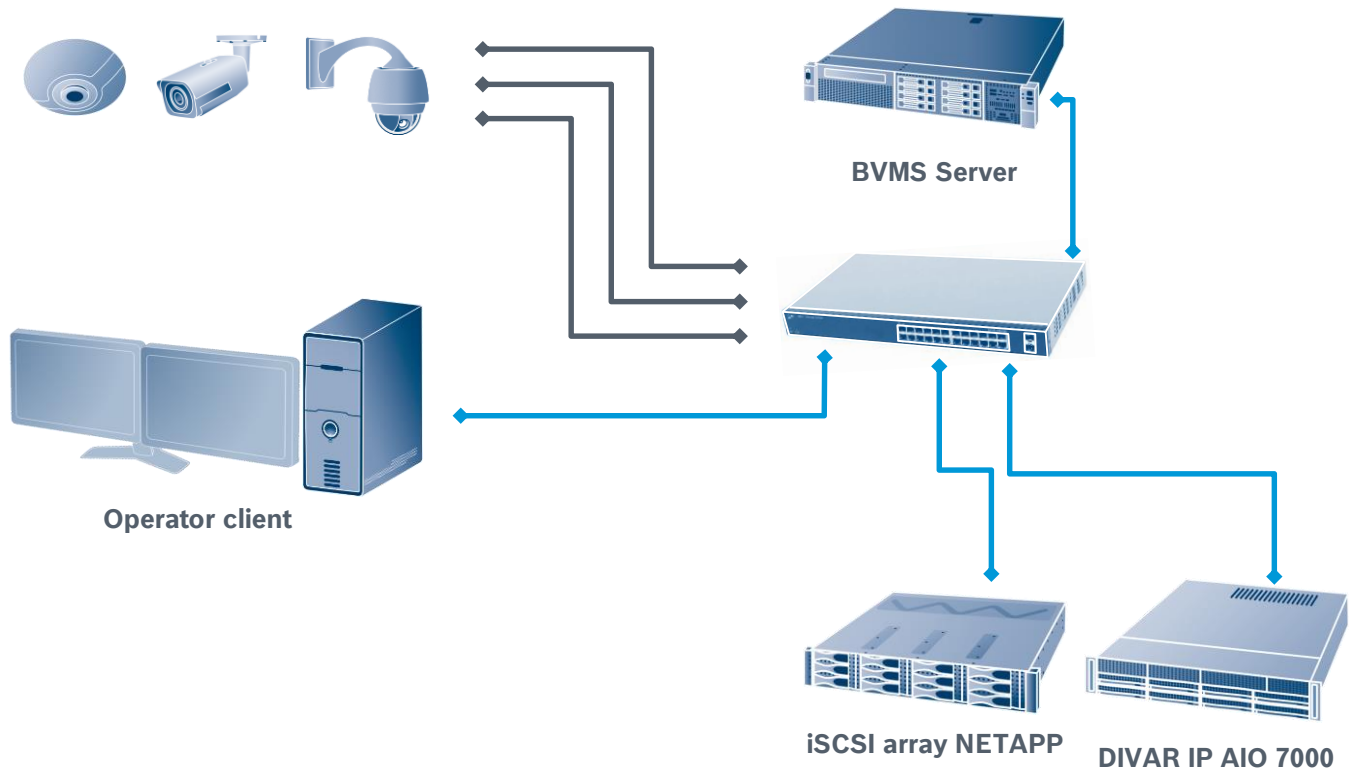
* Max 500 devices (cameras, replays, inputs, etc.) in logical tree if BVMS MS and VRM server on the same hardware

BVMS Blueprints

Embedded VRM's

CAMERAS	CLIENTS	VRM
2000	100	125
max	max	max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s

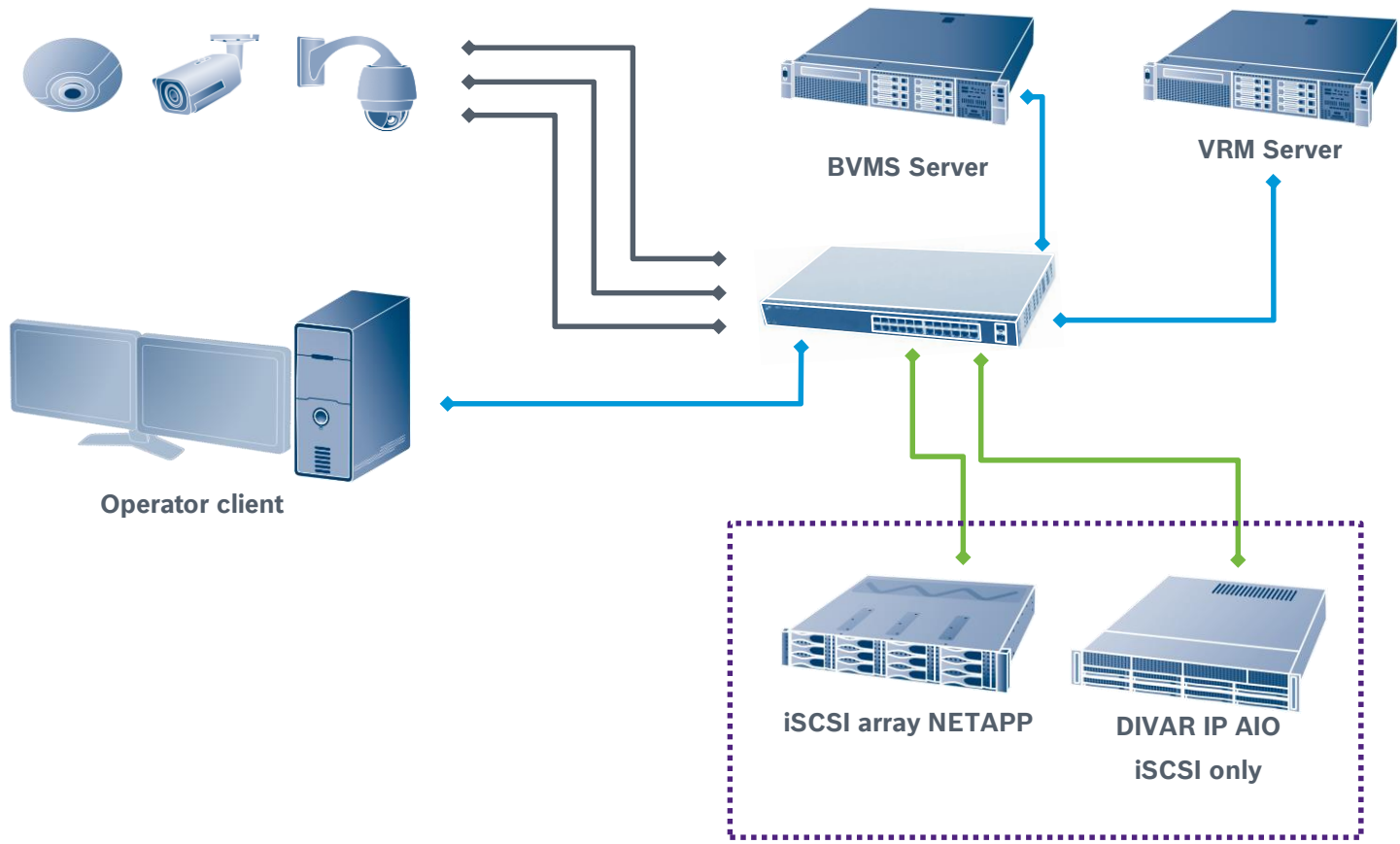


BVMS Blueprints

Dedicated VRM

CAMERAS	CLIENTS	VRM
2000	100	125
max	max	max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s

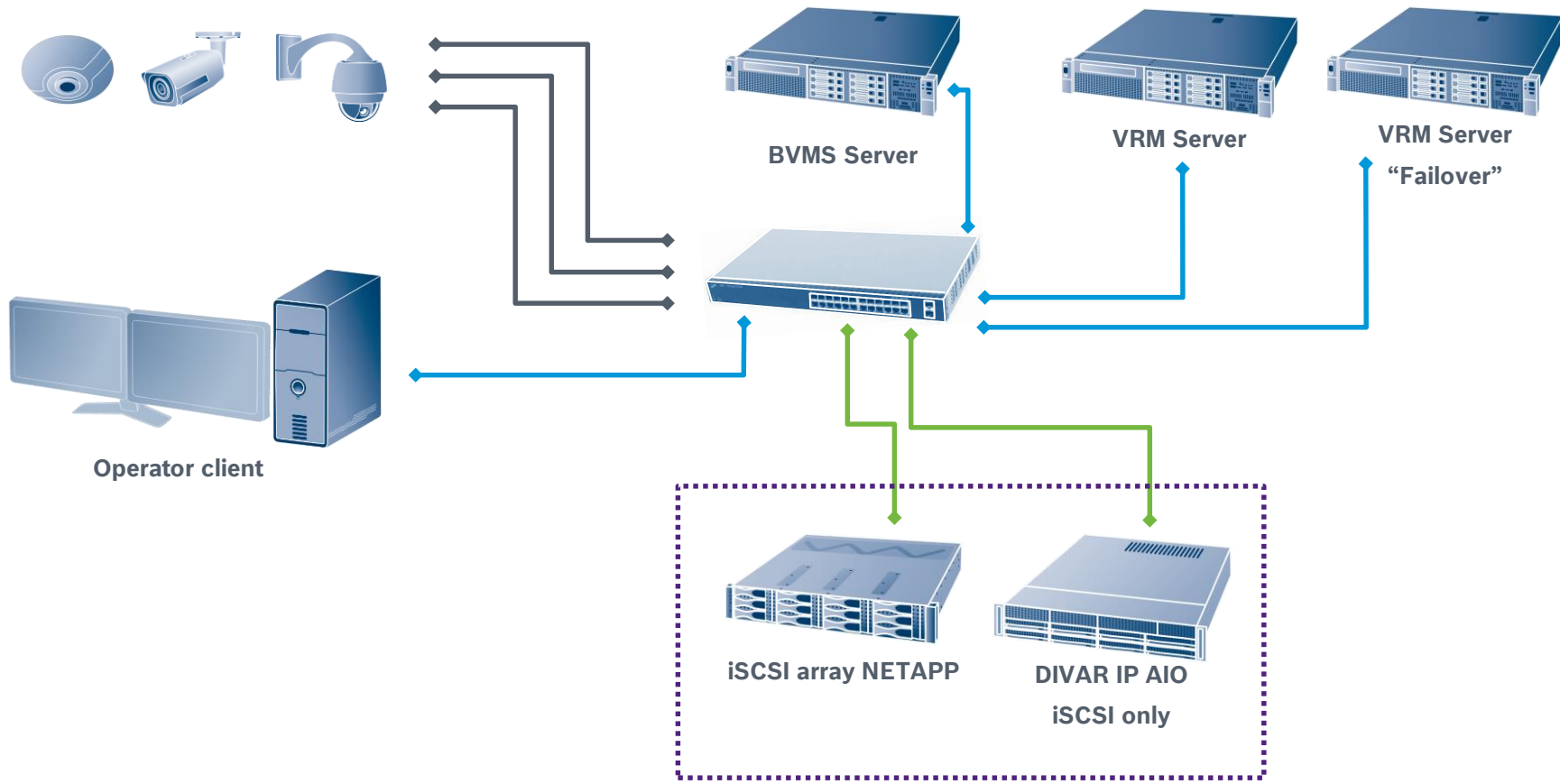


BVMS Blueprints

Dedicated VRM & Failover

CAMERAS	CLIENTS	VRM
2000	100	125
max	max	max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s

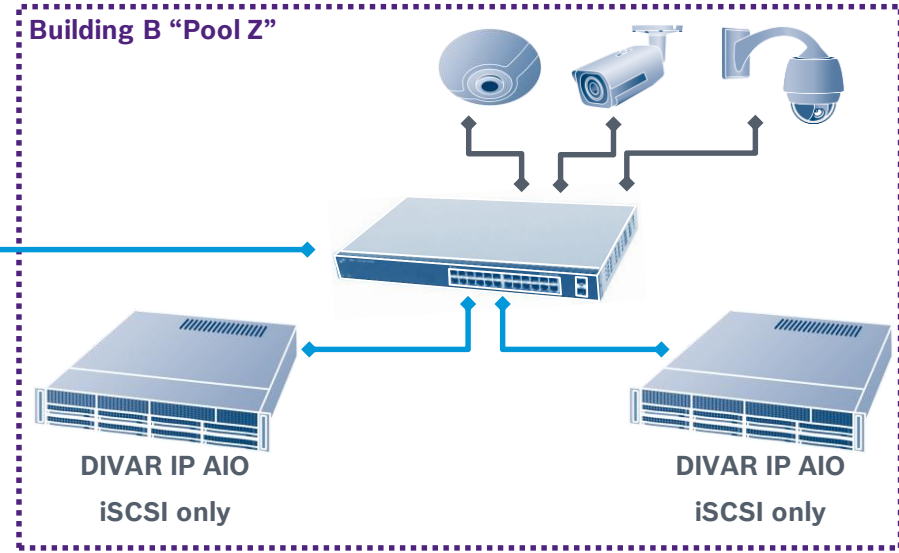
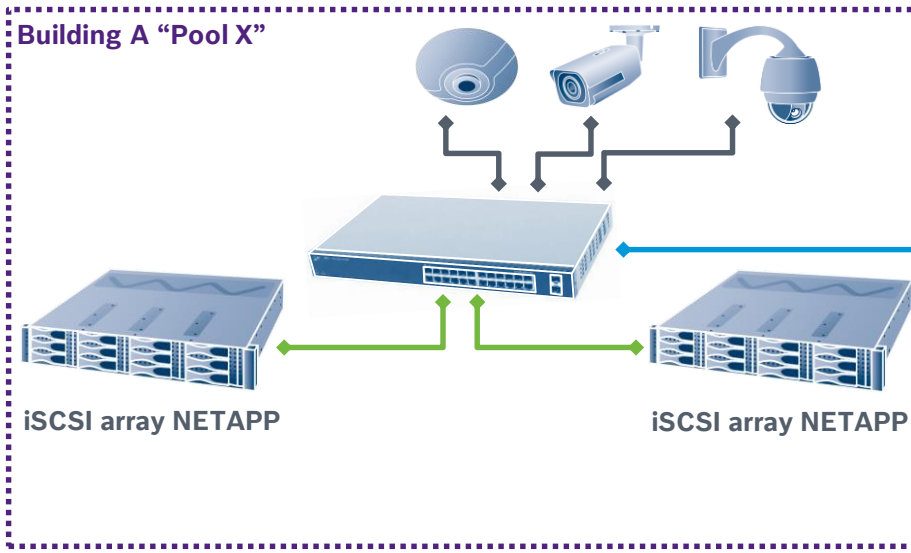
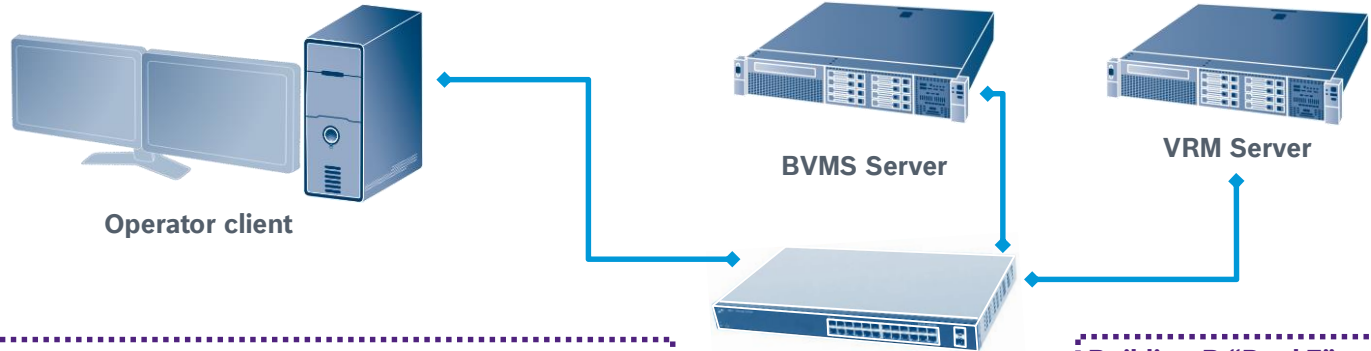


BVMS Blueprints

Distributed storage

CAMERAS 2000 max	CLIENTS 100 max	VRM 125 max	POOL 120/VRM max
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- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s

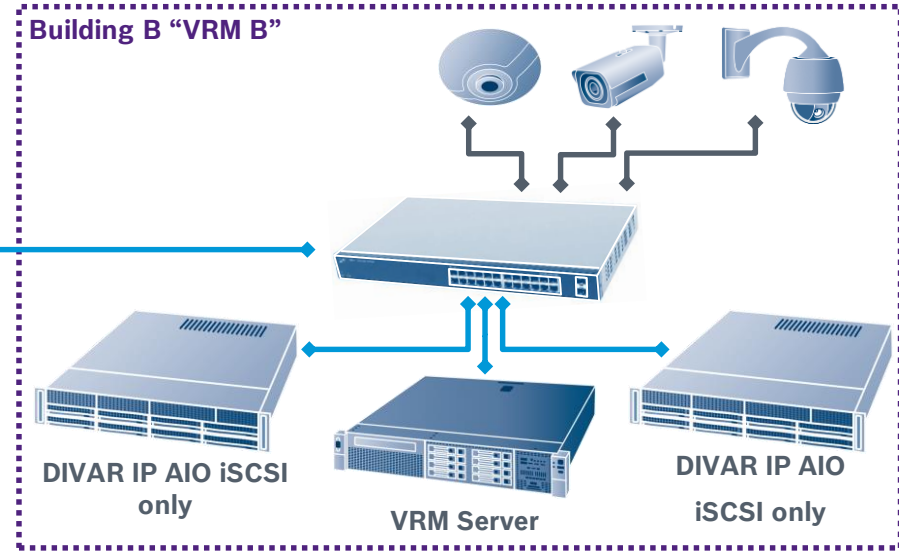
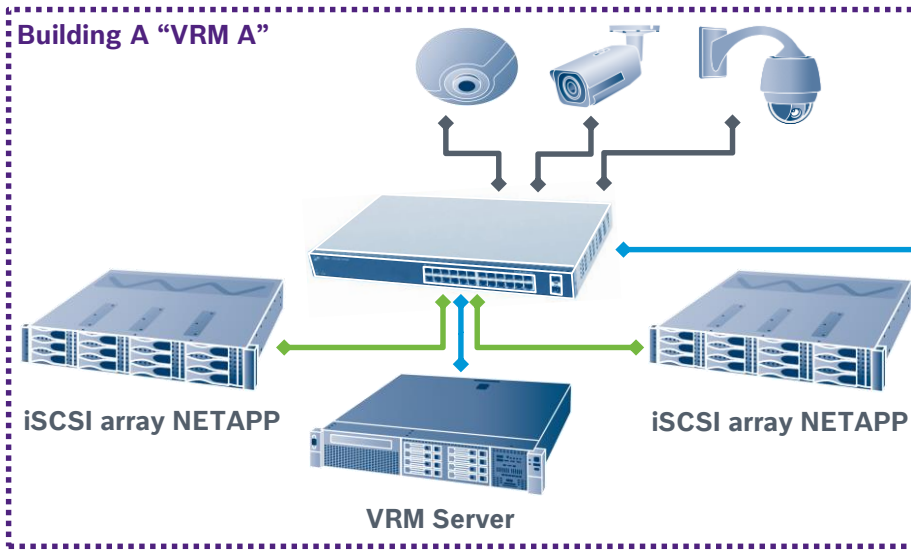
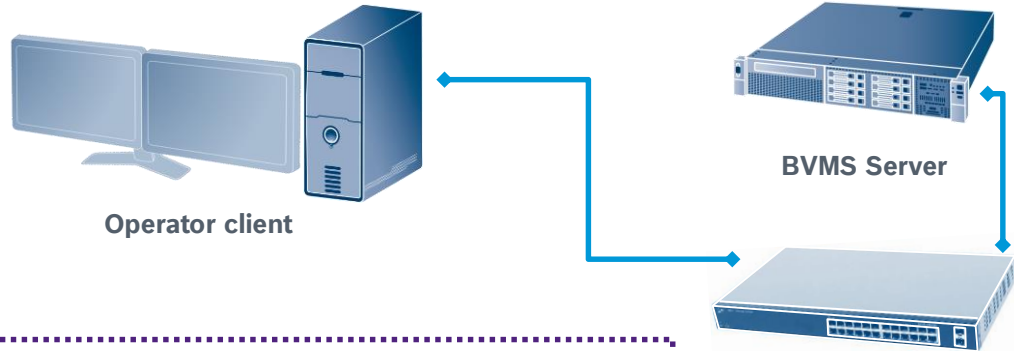


BVMS Blueprints

Distributed VRM's

CAMERAS	CLIENTS	VRM
2000	100	125
max	max	max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



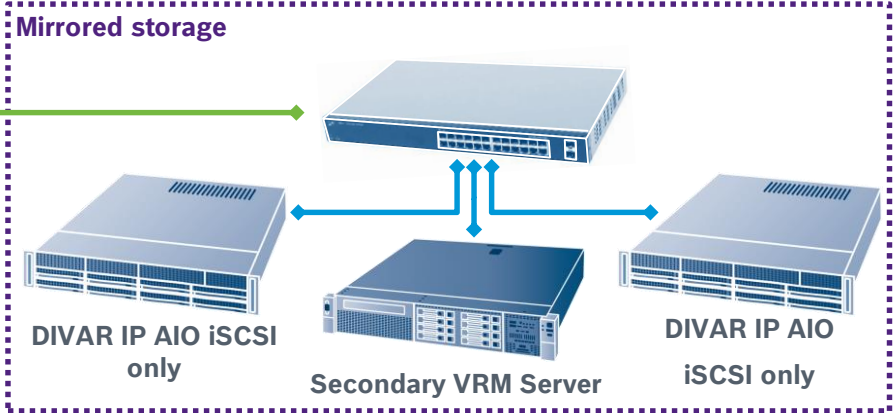
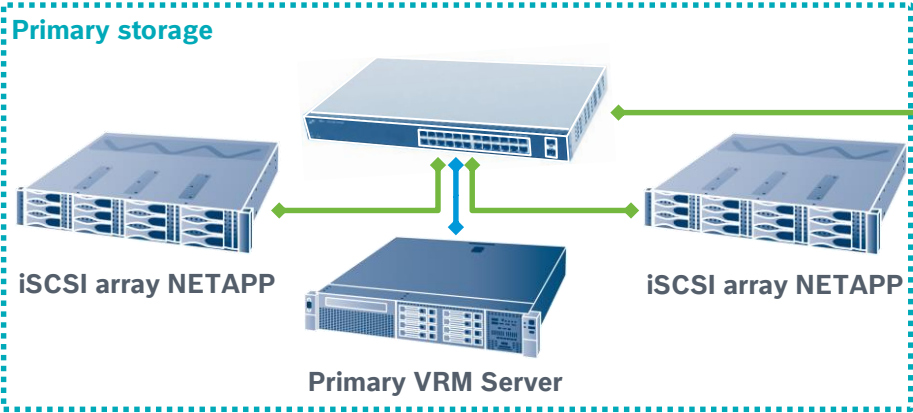
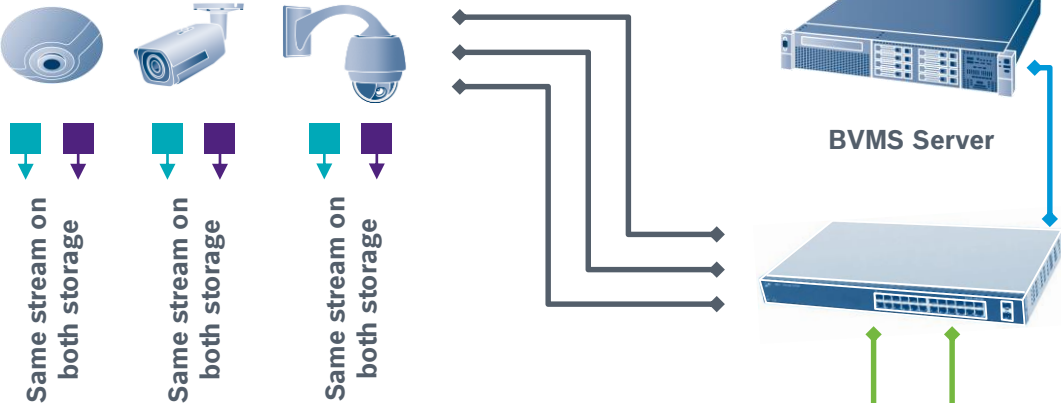
BVMS Blueprints

Mirrored recording

CAMERAS
2000
max

CLIENTS
100
max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



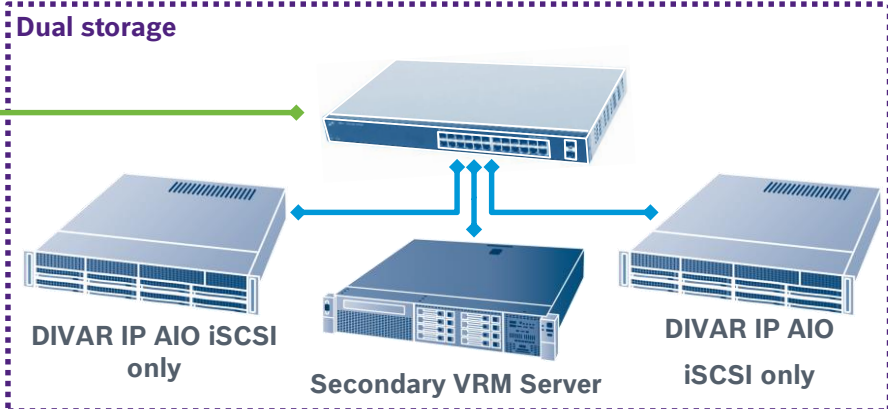
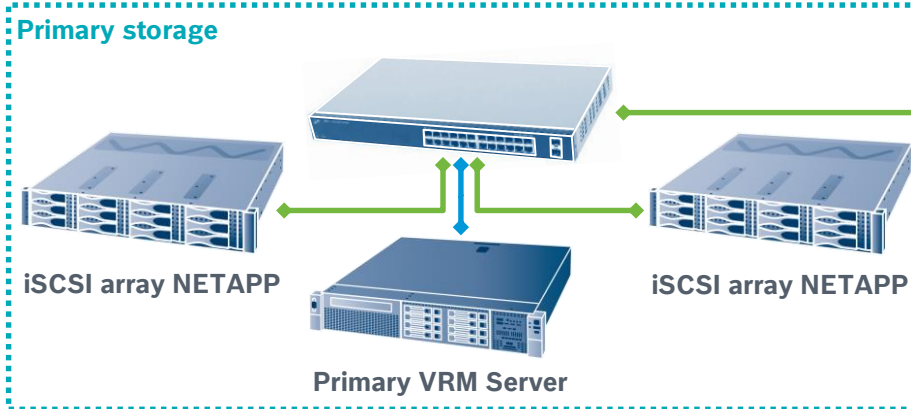
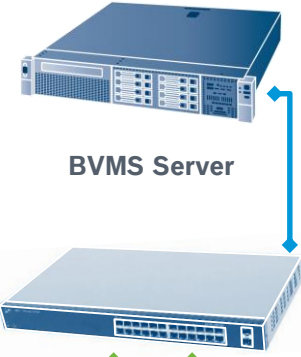
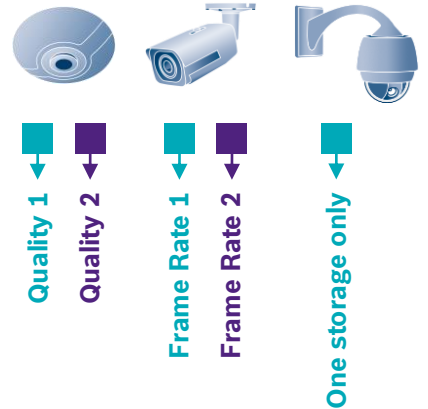
BVMS Blueprints

Dual recording

CAMERAS
2000
max

CLIENTS
100
max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



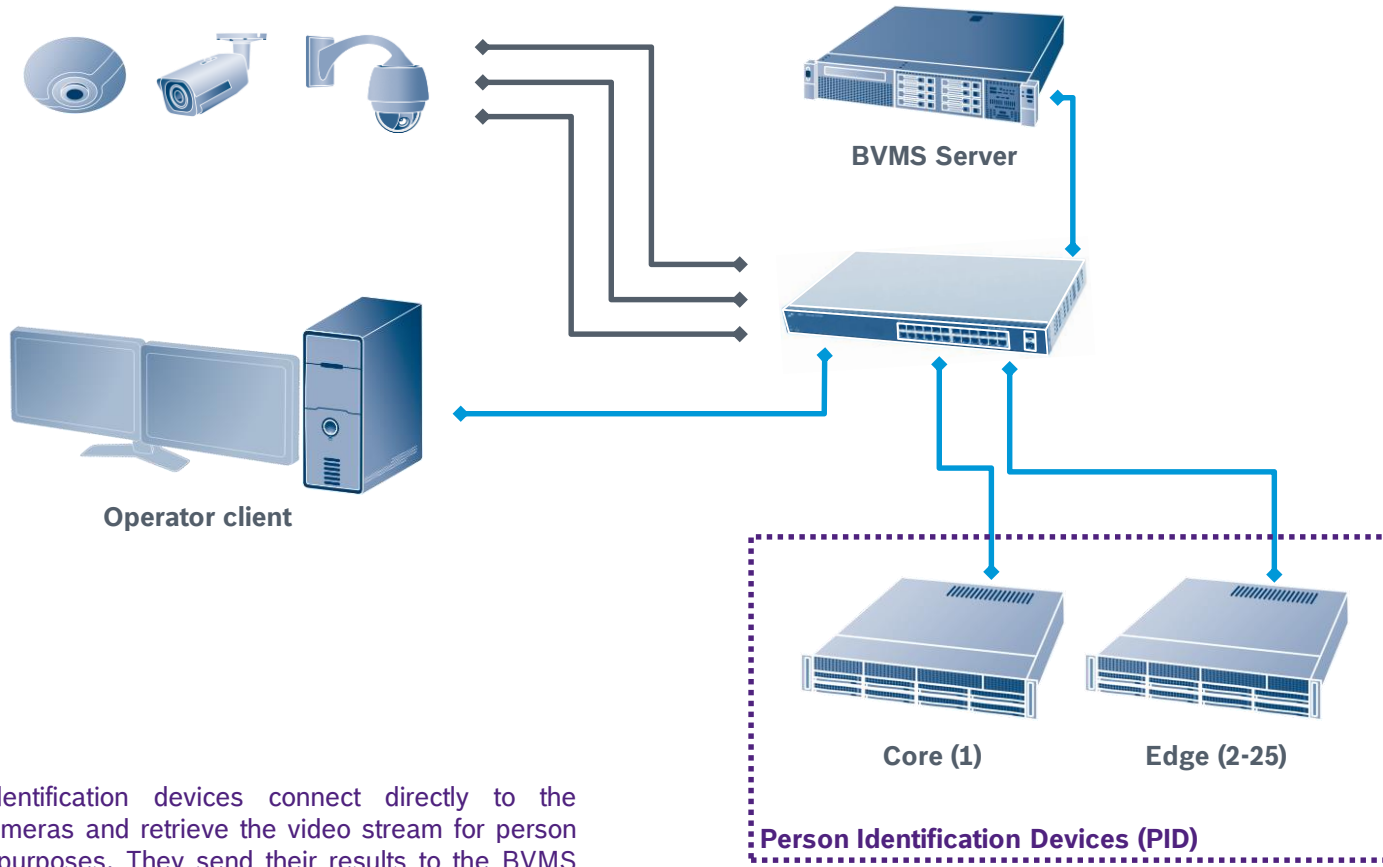
BVMS Blueprints

BVMS and Person Identification

Cameras
200
max

PID
25
max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



* Person Identification devices connect directly to the configured cameras and retrieve the video stream for person identification purposes. They send their results to the BVMS Server.

BVMS ENTERPRISE

SCALABLE ARCHITECTURE

BVMS Blueprints

Enterprise environment – Multi-servers

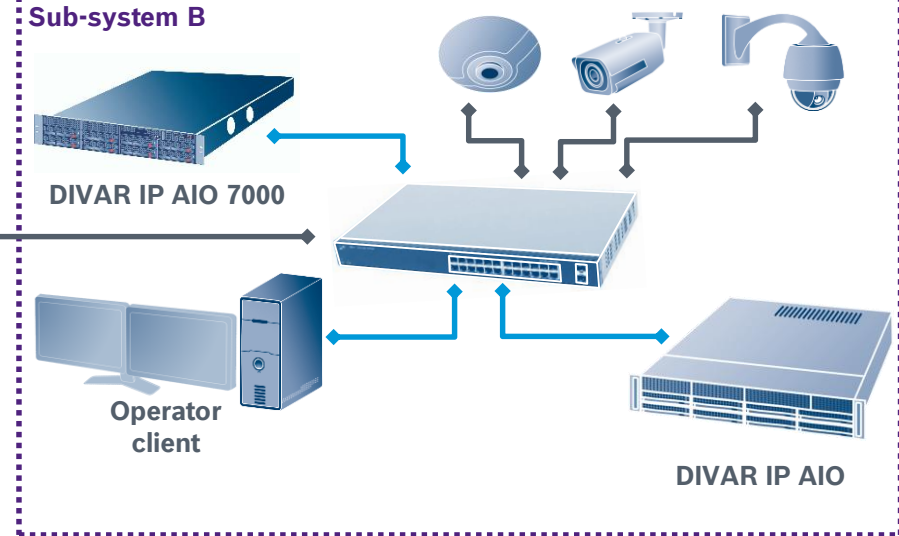
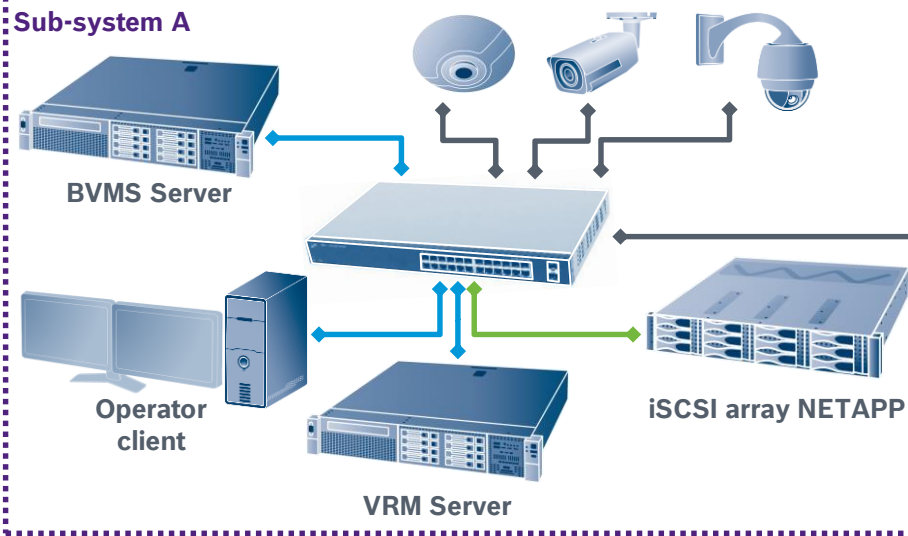
CAMERAS	CLIENTS	SUBSYSTEMS
10.000	100	100
max	max	max

- ❖ **BLACK** = 100Mbit/s
- ❖ **BLUE** = 1Gbit/s
- ❖ **GREEN** = 1Gbit/s - 10Gbit/s

Up to 2.000 cameras per subsystem.
 Up to 10.000 cameras per user-group.
 Up to 200.000 cameras per environment, spread over 20 user-groups.
 Subsystems: BVMS (Lite, Plus, Professional), DIVAR IP3000, 7000, DIVAR IP AIO 5000, 7000



We do not recommend to use port forwarding due to security risks. We recommend to use a secure connection, for example, a VPN, to allow multiple locations to communicate.



Minimum speed: 10Mbit/s.
 Recommended speed: 100Mbit/s
 (network speed has an impact on the start-up time of the enterprise operator client and the number of video streams that can be displayed).

BVMS Blueprints

Enterprise – BVMS Plus

CAMERAS 10.000 max	CLIENTS 100 max	SUBSYSTEMS 20 max
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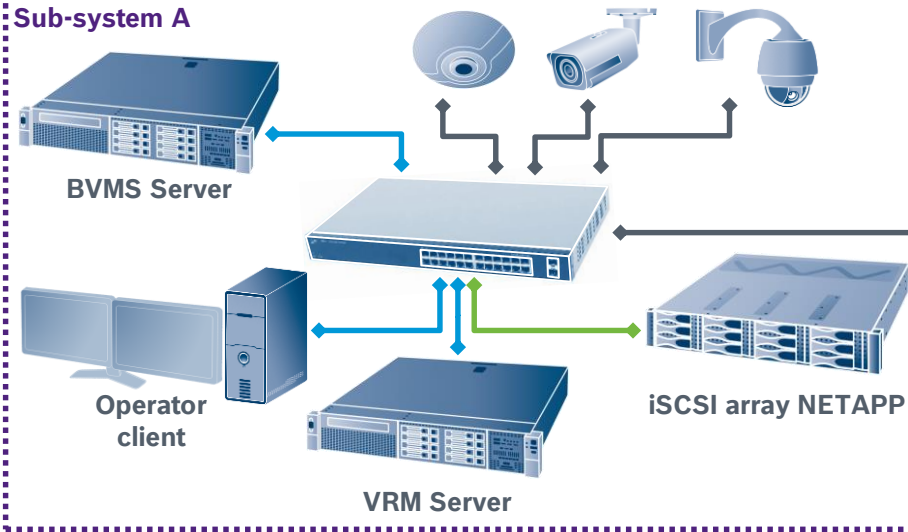
- ❖ **BLACK = 100Mbit/s**
- ❖ **BLUE = 1Gbit/s**
- ❖ **GREEN = 1Gbit/s - 10Gbit/s**

Up to 2.000 cameras per subsystem.
 Up to 10.000 cameras per user-group.
 Up to 20.000 cameras per environment, spread over 20 user-groups.
 Central server: BVMS Plus or DIVAR IP AiO 7000
 Subsystems: BVMS (Lite, Plus), DIVAR IP3000, 7000, DIVAR IP AiO 5000, 7000



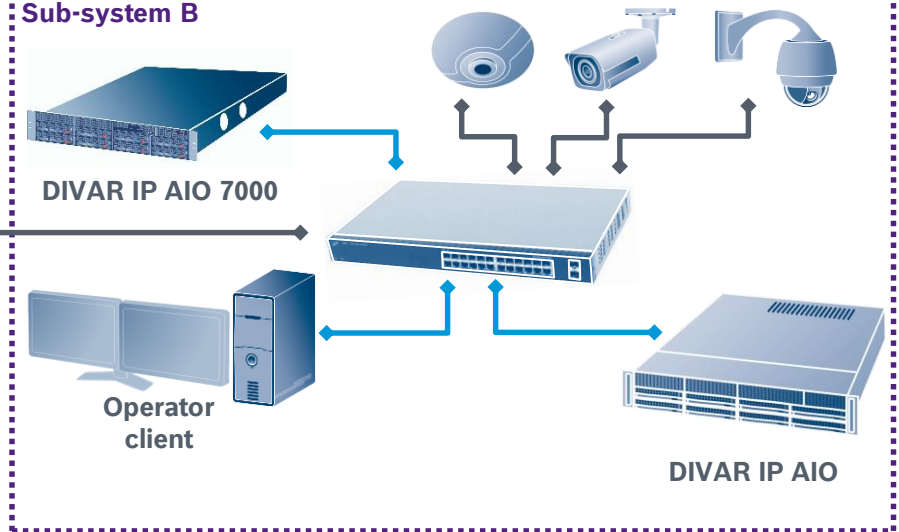
We do not recommend to use port forwarding due to security risks. We recommend to use a secure connection, for example, a VPN, to allow multiple locations to communicate.

Sub-system A



Minimum speed: 10Mbit/s.
 Recommended speed: 100Mbit/s
 (network speed has an impact on the start-up time of the enterprise operator client and the number of video streams that can be displayed).

Sub-system B



BVMS Blueprints

Enterprise – Multi-servers (SSH)

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s

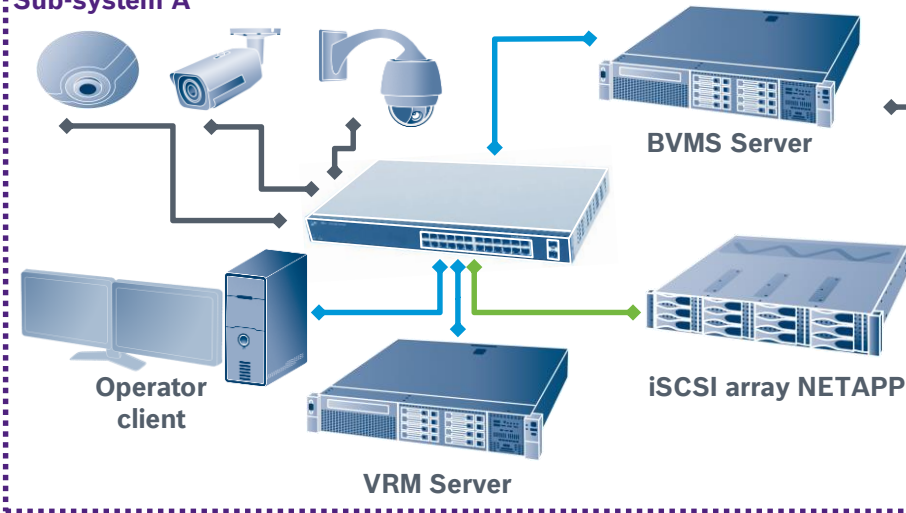


SSH connectivity between Enterprise Operator client and Enterprise subsystem.

BVMS Management Server or DIVAR IP AIO can route at least 50Mbit/s between Enterprise network and video network.

We do not recommend to use port forwarding due to security risks. We recommend to use a secure connection, for example, a VPN, to allow multiple locations to communicate.

Sub-system A

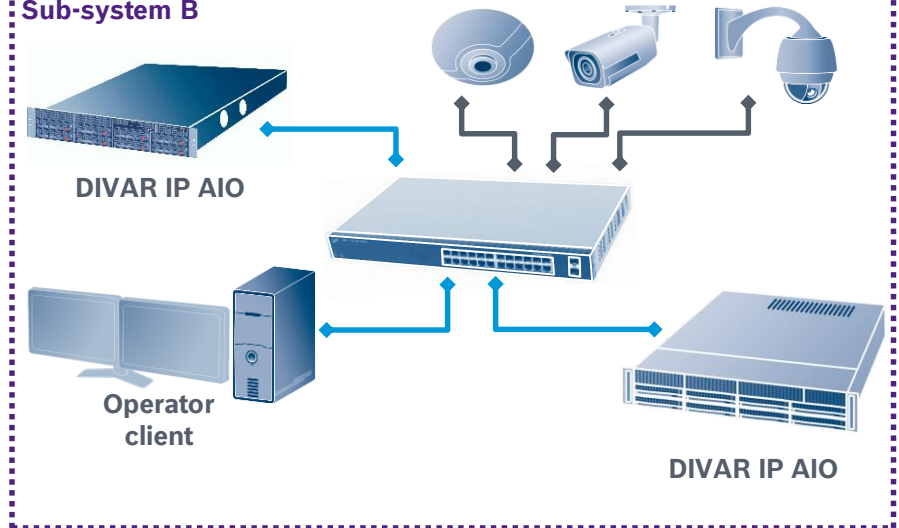


BVMS Server or DIVAR IP AIO acts as bridge between Enterprise and Video network.

Minimum speed: 10Mbit/s.

Recommended speed: 100Mbit/s (network speed has an impact on the start-up time of the enterprise operator client and the number of video streams that can be displayed).

Sub-system B



BVMS UNMANAGED SITES

LOW BANDWIDTH CONNECTIONS

BVMS Blueprints

Unmanaged sites

SITES
9999
max

CLIENTS
100
max

DEVICES
5 max
per site

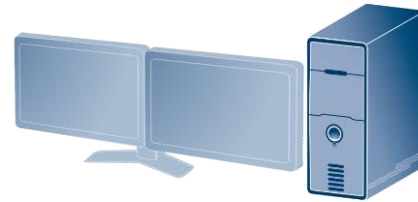
NO ALARM

NO STATUS

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s
- ❖ RED = >1Mb



BVMS Server

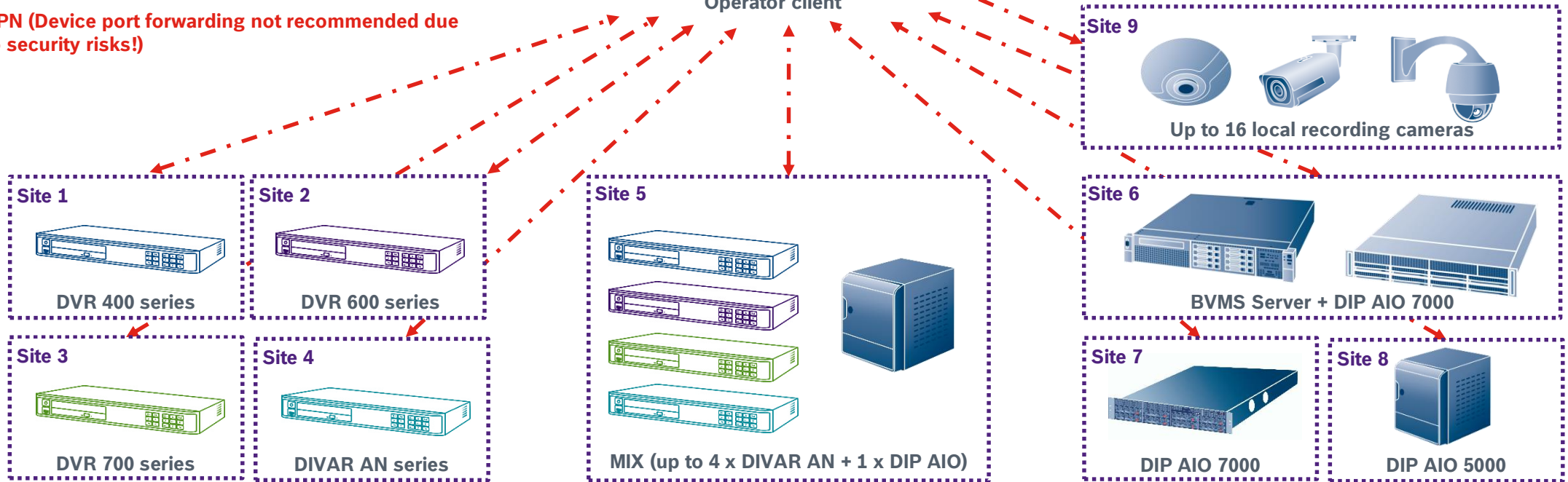


Operator client

CONNECTION ON DEMAND

(max 20 simultaneous connections / client)

VPN (Device port forwarding not recommended due to security risks!)



Setup DVR cameras profil and bandwidth limits accordings to the available bandwidth and simultaneous video streams to be transmitted via WAN

BVMS APPLIANCES

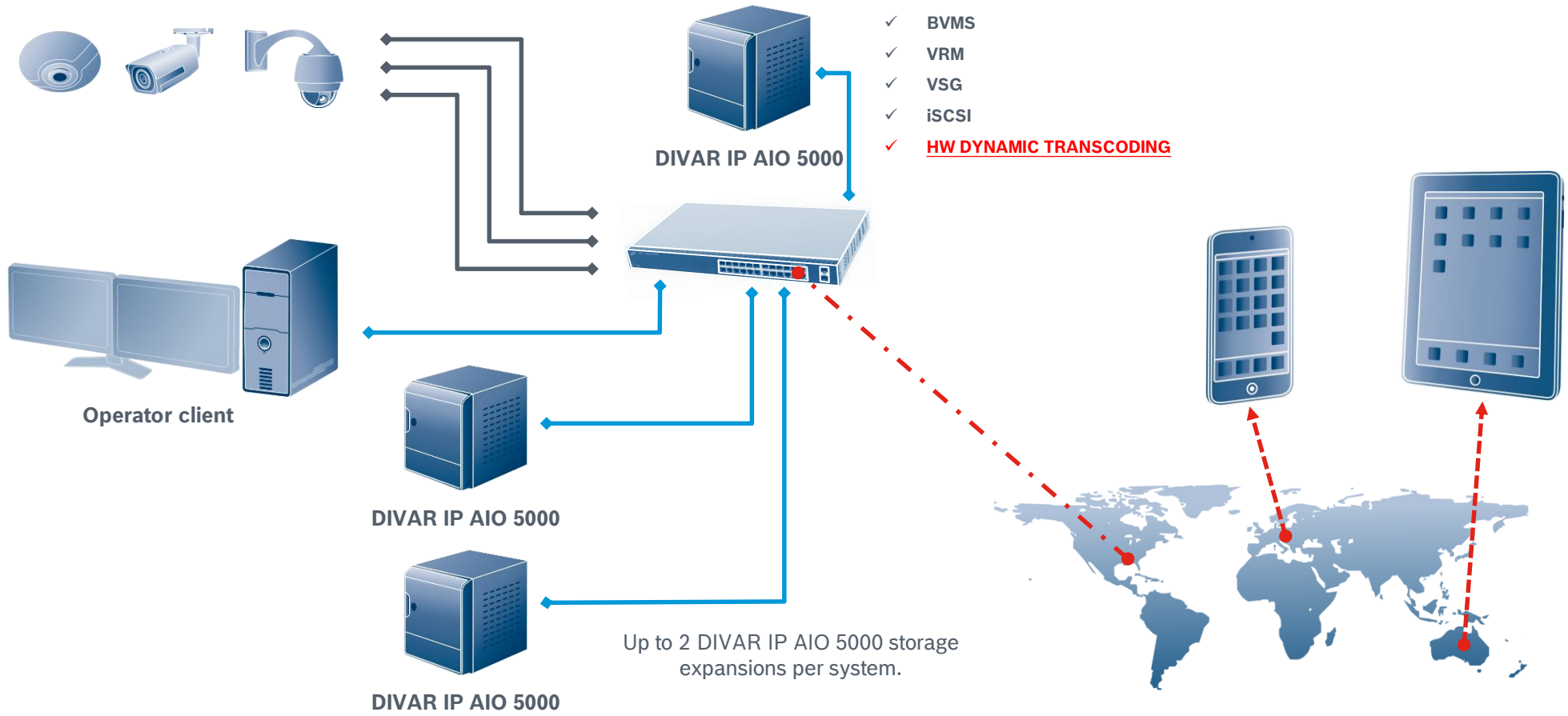
DIVAR 7000 R2
DIVAR IP AIO 5000/7000

BVMS Blueprints

DIVAR IP AIO 5000

CAMERAS	CLIENTS	Expansion
42	5	2
max	max	max

- ❖ BLACK = 100Mbit/s
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- ❖ GREEN = 1Gbit/s - 10Gbit/s

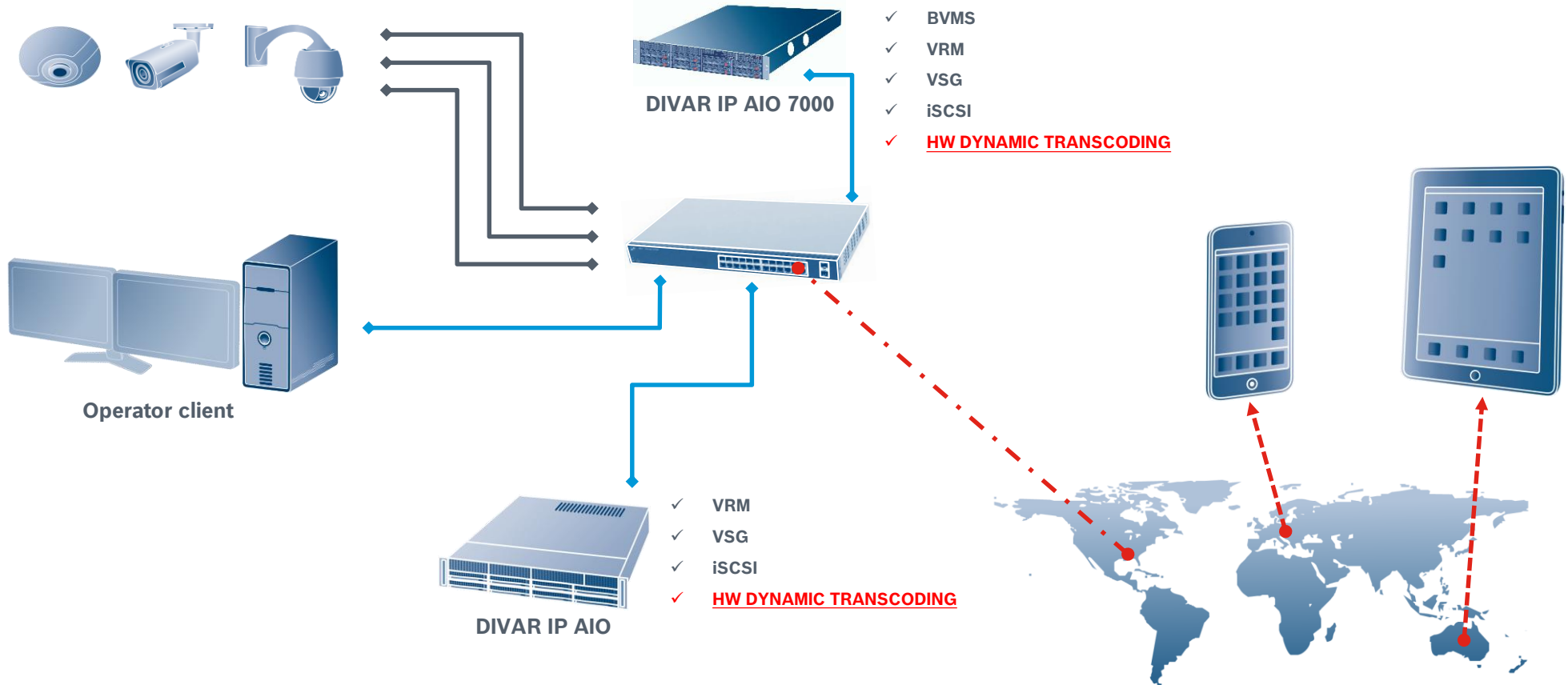


BVMS Blueprints

DIVAR IP AIO 7000 + Storage

CAMERAS	CLIENTS	Expansion
256	10	4
max	max	max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



BVMS OPENNESS

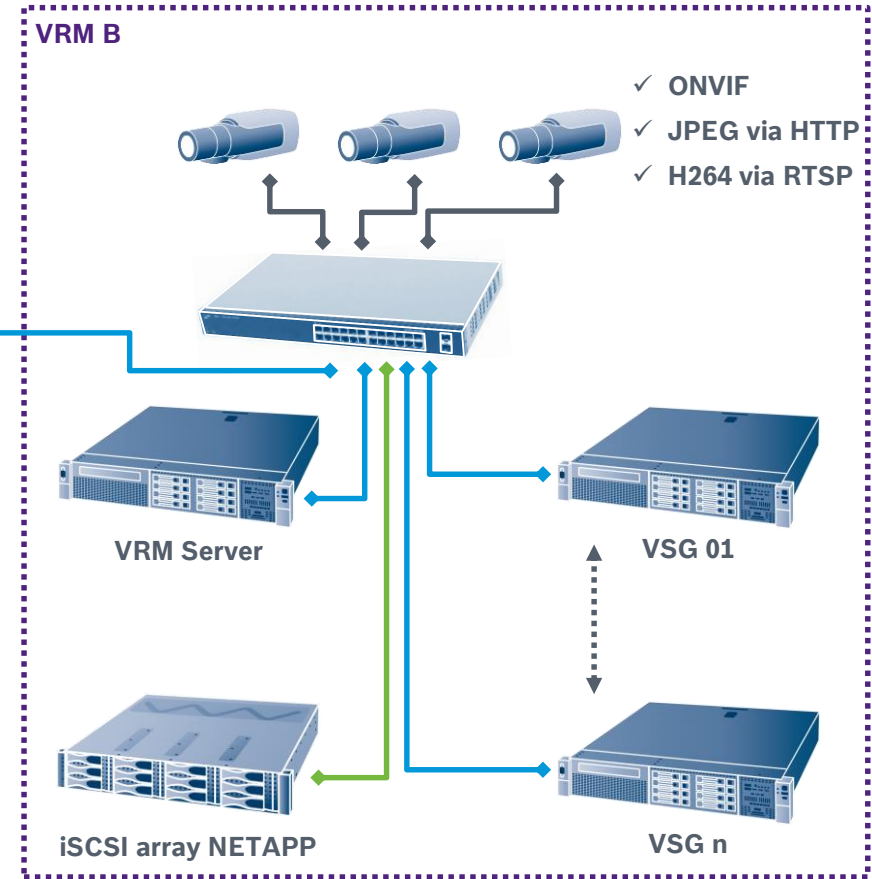
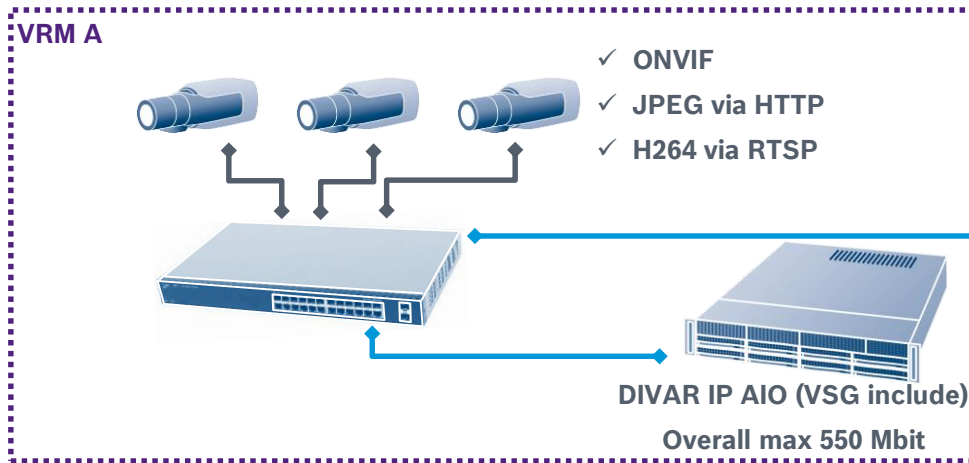
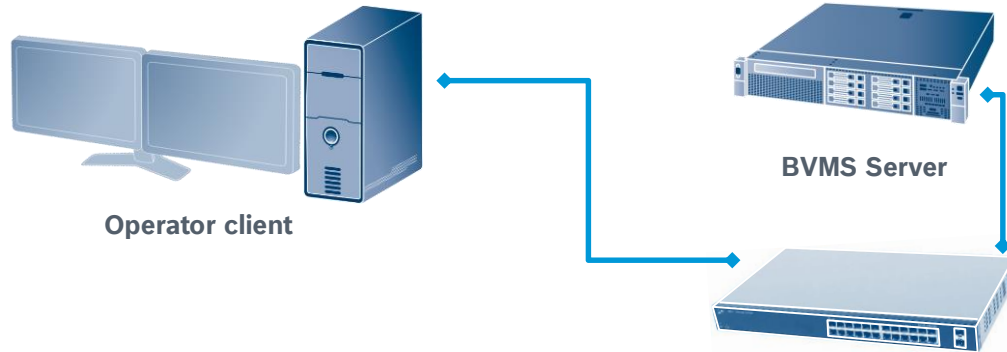
VIDEO STREAMING GATEWAY

BVMS Blueprints

Video Streaming Gateway

CHANNELS
32/VSG
max

- ❖ BLACK = 100Mbit/s
- ❖ BLUE = 1Gbit/s
- ❖ GREEN = 1Gbit/s - 10Gbit/s



BVMS & AMS

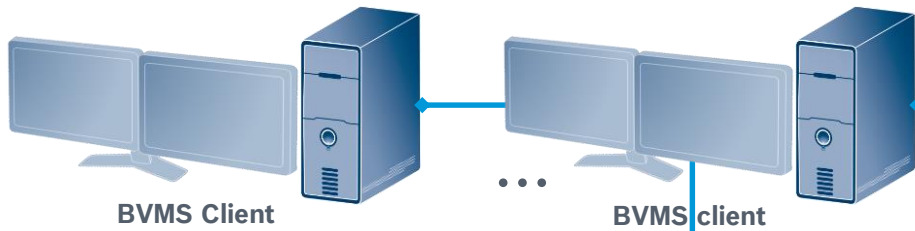
Combining access control and video management

BVMS & AMS systems integrated

Unified security operation

- ❖ BLACK = 100Mb
- ❖ BLUE = 1Gb
- ❖ ORANGE = Wiegand
- ❖ GREEN = I/O

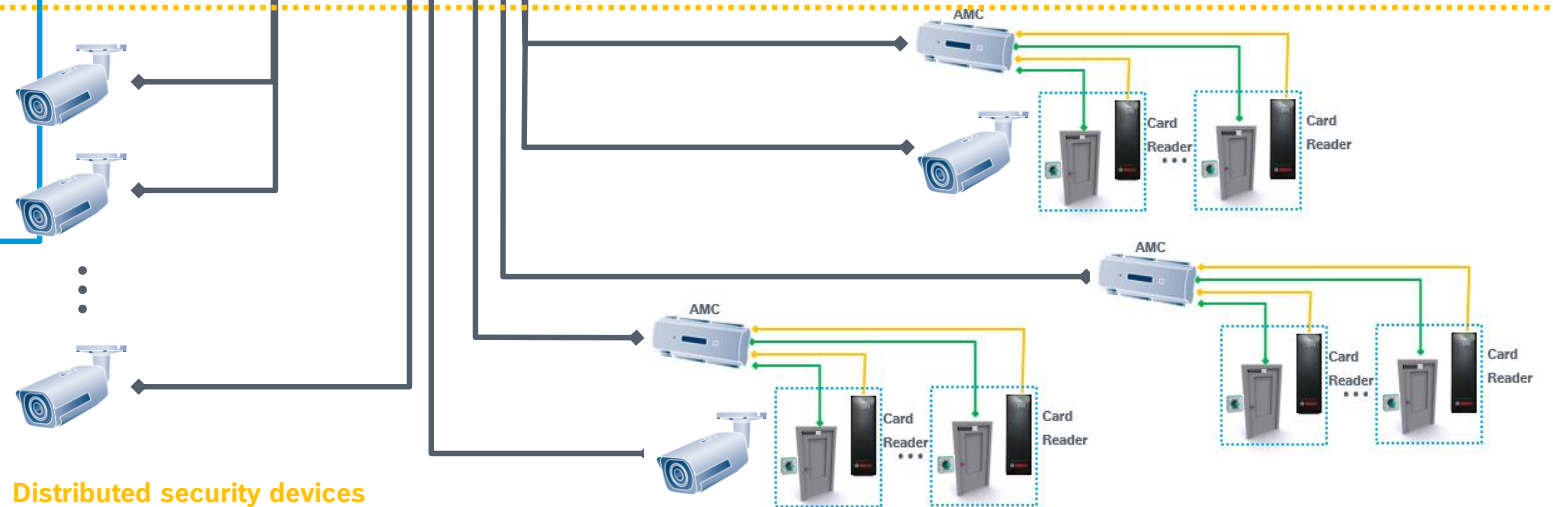
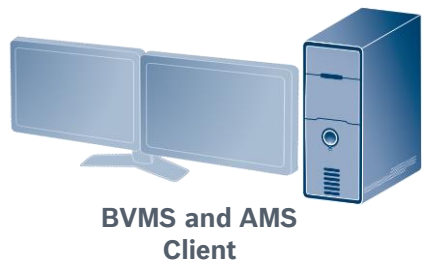
Security control room: Unified security operation Video & Access



Server room: BVMS and AMS servers coexist in separated servers



Reception: Enrolment process and basic video verification



Distributed security devices

BVMS VIEWER

BVMS Blueprints

BVMS Viewer

CAMERAS
500
max

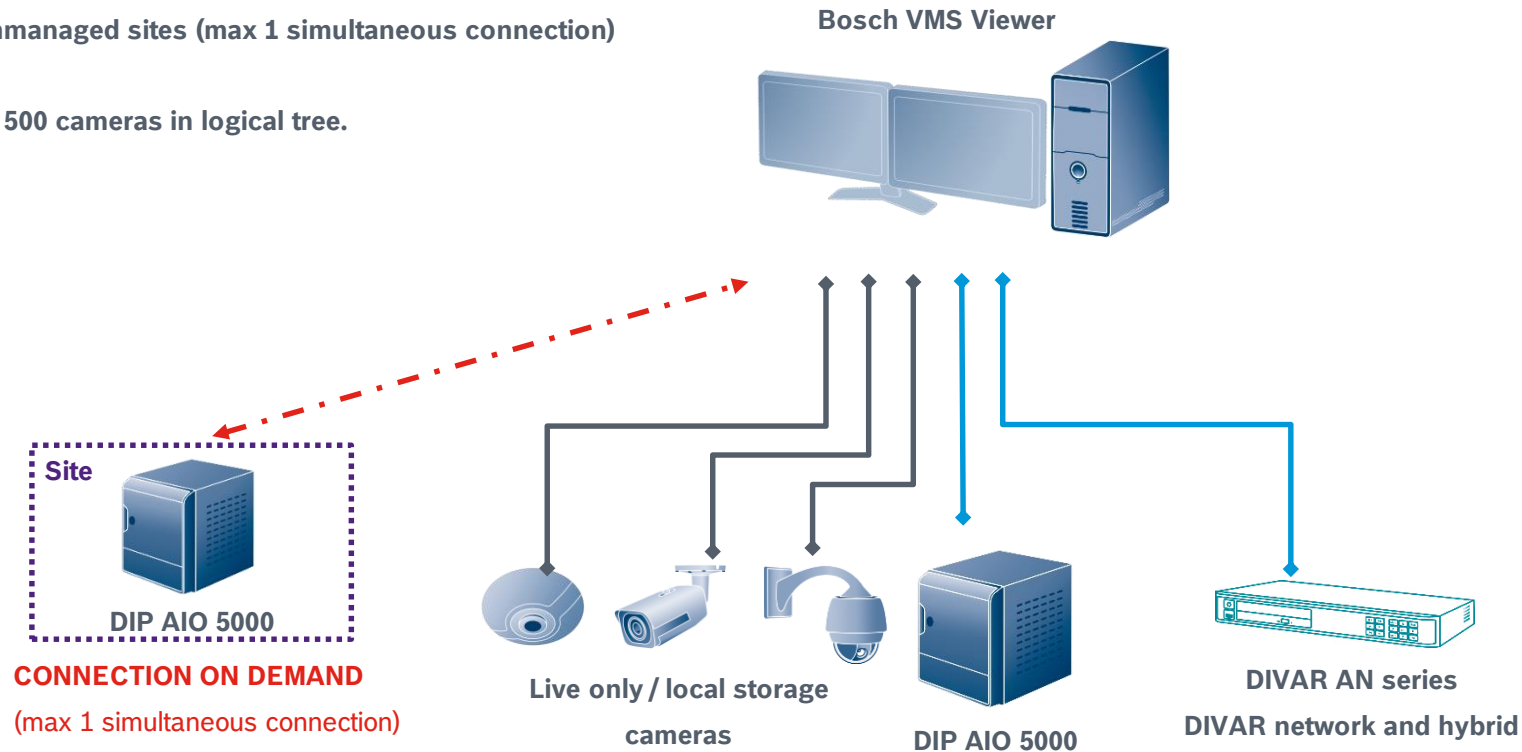
CLIENTS
1
max

- ❖ **BLACK** = 100Mbit/s
- ❖ **BLUE** = 1Gbit/s
- ❖ **GREEN** = 1Gbit/s - 10Gbit/s

Free of charge:

- 16 live only / local storage cameras
- 5 Recording solutions (DVR, VRM device)
- 16 unmanaged sites (max 1 simultaneous connection)

Max limit: 500 cameras in logical tree.



BOSCH VIDEO MANAGEMENT SYSTEM

