

## Bosch Cloud VMS



Bosch offers a complete solution for Video Surveillance as a Service (VSaaS). This solution builds on the infrastructure of the Bosch Security Cloud, the Bosch Remote Portal for device management and the Bosch Cloud VMS.

The Bosch Cloud VMS is the cloud-hosted platform for Alarm Management, Alarm Transmission and Cloud Storage.

It provides users with all features required to configure and use video surveillance functions such as alarm message list, video verification view including event timeline, video investigation live-view with audio intercom, PTZ control, metadata visualization, geolocation maps, VCA metadata overlay, event and video storage, trouble and tamper notification.

- The Alarm Management component includes several ready-to-use functions, such as 24/7 Live Intervention, Video Verification, Virtual Guard Tours, Virtual Assistant and Smart Notification. Alarm Management is optimized to the needs of alarm operators in multi-location medium enterprises, retailers, quick service restaurants, remote utilities, control rooms and Smart City surveillance.
- The Alarm Transmission component allows forwarding of alarm scenarios from Alarm Management to external recipients. With the licensed feature Cloud Alarm Transmitter, existing alarm automation software of many major brands can be integrated. This allows outsourcing

- ▶ Operated, secured, maintained by Bosch as multi-tenant or dedicated Cloud VMS with 24/7 support
- ▶ Scalable from single cameras to unlimited number of sites and cameras from Bosch or 3rd parties for multi-location use-cases
- ▶ Forwarding of alarms from individual cameras or on-site Alarm Management to central monitoring centers. Integration with more than 20 leading certified alarm automation solutions available
- ▶ Encrypted communication between cameras, cloud and clients according to new IEC/ EN 62676-2-33 cloud uplink standard

of alarm processing to partners such as professional or certified central monitoring stations (CMS).

- The Cloud Storage component allows storage of video from Bosch and 3rd party cameras with different retention times independent of Alarm Management.

To use the Bosch Cloud VMS, any Bosch IP camera with firmware version 6.40 and later must be connected to the [Bosch Remote Portal](#) first. It is required that the camera is either equipped with a local SD card or a managed recording target (iSCSI NAS, Video Recording Manager, DIVAR IP). 3rd party cameras are currently connected directly to the Bosch Cloud VMS and are not supported on the Bosch Remote Portal.

On the Bosch Remote Portal, individual functional components of the Bosch Cloud VMS can then be activated per camera. Additional hardware such as a cloud gateway is not required to connect a camera to the Bosch Remote Portal.

The Bosch Remote Portal offers further services for connected devices such as device management, value-added services or application management.

For more details on 3rd party camera compatibility, refer to the appropriate documentation.

## System overview

The Bosch Cloud VMS is available as individually set-up dedicated (private) cloud or via ready-to-go multi-tenant clouds (currently available in EMEA, North America, Asia-Pacific). An account to a multi-tenant system in your region is available from [support.security-cloud@bosch.com](mailto:support.security-cloud@bosch.com) upon request. A private cloud is set-up on-demand after purchasing the dedicated cloud package.

Private data-center (“on-premise”) hosting of the platform is only offered use-case dependent as a managed service.

The usage of functional components like Alarm Management, Alarm Transmission and Cloud Storage requires license activation on the Bosch Remote Portal.

The Bosch Remote Portal is a separate cloud platform in the Bosch Security Cloud for Video Surveillance as a Service.

The following services are available via the Bosch Remote Portal:

- Configuration Manager access for remote camera configuration.
- Remote video in combination with the free-of-charge Bosch Video Security Client for Windows, Android and iOS:
  - Live viewing and local recording playback of multiple cameras, timeline, calendar search, PTZ control, export, forensic search for specific events: motion, line crossing, face-detection etc. on timeline and calendar with activity graph for results.
  - Geolocation maps for camera and moving object positions.
  - Intuitive PTZ control with touch and mobile position detection.
- Remote Alert: e-mail notifications of technical camera issues.
- Counter Reports: browser-based application for users to access business reports such as Counter Reports.
- In-store Analytics for camera metadata visualization in location maps and dashboards.

Note the individual availability and service level provisions of the Bosch Remote Portal for these functions.

In the Bosch Cloud VMS the following interfaces are available after deployment and respective license activation:

- **Remote Configuration:**  
Browser-based interface for user management and configuration of alarm scenarios. Configuration settings include:
  - Account management and mobile access.

- Remote configuration of camera settings (for example IVA, PTZ) and configuration of alarm events.

- Event-based recordings, schedules and action plans.

- **Event Monitor:**

Browser-based application for operators that handle alarms at front desks, in security operation centers (SOC) or central monitoring stations (CMS). The Event Monitor can be used at mobile clients and is suitable for:

- Viewing, managing and processing triggered device or system alarms, events and trouble notifications.
- Access to live views or video cloud storage.
- Interaction with the scene and control of action plans for interventions.

- **Site Monitor app:**

End-user application available for iOS and Android smartphones and tablets. Supports live viewing of video from authorized devices, push notifications (Service **Smart Notification**) for subscribed events and arming/disarming for authorized sites. Also available as a stand-alone function for Remote Portal connected cameras.

- **Workflow integration:**

The integration with alarm automation platforms via Cloud Alarm Transmitter is optional. Integration with certified alarm handling is available for more than 15 vendors.

- **Advanced Diagnosis** (only available for dedicated cloud and users with Config Agent role):

- Audit Event Log database for cloud recordings: Gives access to alarm video clips and event-based recordings of the configured retention time to investigate incidents for the purpose of loss-prevention etc.
- Audit user actions: Provides audit trails of user actions, for example for quality assurance on alarm operator actions.
- Diagnosis: Provides statistical and summary information of various system parameters, for example alarm, device, site, account status and trouble reports with the most important ones listed below.
- Alarm diagnosis: Provides a statistical overview on all sites to optimize during initial field-tests and maintenance to optimize the VCA camera settings. Reduce false-alarms together with the triggering Alarm Object Image and check camera sensitivity at night time.

- Site status diagnosis for installers:  
Provides an installer dashboard about the status of the local video system in terms of recording, video and network quality etc.
- Device Inventory:  
Overview of installed devices with firmware version.
- Cyber Hygiene Status:  
Overview of device Firmware Management status including update history

## Functions

Alarm Management in the Bosch Cloud VMS comes with a number of pre-defined functions. The included functions are:

- **Video Verification:**  
Video verification of intrusion events, for example from Bosch B-Series and G-Series panels with live and recorded video from associated camera.
- **24/7 Live Intervention:**  
Camera-generated events (detected motion, IVA, virtual and digital inputs and outputs) are pre-processed by the cloud application according to set filtering rules and optionally forwarded to remote monitoring centers/control monitoring stations for certified verification and intervention. Will store a 10-second alarm clip for quick investigation, review and export.
- **Virtual Guard Tour:**  
Prompts the operator to perform visual checks of selected cameras at scheduled intervals.
- **Virtual Assistant:**  
Remotely prompts the operator for assistance by means of push-button or other devices connected to a camera.
- **Live View:**  
Select from your list of sites any location and cameras from the map for permanent video live monitoring either low-bandwidth high-priority streaming with full control (PTZ, Audio, Intercom, etc.) or secondary video display and for possibly needed Intervention actions (open doors, switch light, e-mail notification of site owners etc.). The operator can manually adjust for image quality or frame rate. Integrated 3rd party systems may offer this site access under a static reusable URL.
- **Smart Notification/Alarm Notification:**  
Push Notification Service in combination with the Bosch Site Monitor app notifying customers or security guards about relevant events from their sites. These events could be the same events received by the central station but could also be events where no professional intervention is required but the user wants to be informed about, for example warehouse access during business hours. The user can access the related event clips.

This function is also available as a stand-alone function when the license **Alarm Notification** is activated on the Bosch Remote Portal.

### Available but not included in Alarm Management:

- **Cloud storage\*\*)**  
On top of real-time alarm handling, the Bosch Cloud VMS offers cloud storage functionality for continuous or event-based recording of Bosch cameras and 3rd party cameras. Cloud storage is offered in different packages of retention and quality settings. Cloud storage is also available as a stand-alone functionality and needs to be ordered and activated separately. For more details, refer to the respective data sheet.  
**\*\*)** Cloud storage may be offered in a separate cloud application/instance from other functions. False alarms shall be avoided by proper VCA configurations, for example with masking disturbances such as moving lights, foliage, objects, etc.
- **Alarm transmission**  
Integrates the Bosch Cloud VMS alarm scenarios with supported 3rd party alarm automation platforms.

### User management

Bosch Cloud VMS users are defined by roles and are assigned appropriate permissions according to their service task. This user management is independent from the Bosch Remote Portal user management:

- Configuration Agent (only available for dedicated option):  
Access to all system components for system administration, configuration and diagnostics.
- Alarm Agent (operator):  
Access limited to the Event list, for operation of applicable service, for example live image, time of alarm, reference image for alarm verification. This access can be limited to certain accounts, for example to support multiple enterprise customers with their own in-house control rooms with a single Alarm Management cloud application.
- Integrator (technician with configuration permissions):  
Access to the system components of all accounts assigned to his installer company for the turn-key configuration and administration of all related services, sites, and cameras.  
This access is limited to the accounts of the installer company.
- User (customer, site owner, security guard):  
Access live stream of customer site's cameras and change arming state (on configured sites) via mobile device. Receive Smart Notifications via push messages, view event list and access related event clips.

## Configuration Interface

Browser-based application providing following functions:

- Location: `<cloud application URL>/config`
- Access Configuration via dedicated Config Agent user ID and password.
- Manage customer and installer company accounts with name and logo. Customer accounts provide logical grouping of sites and access to control to these sites.
- Remotely commission cloud enabled cameras (connected via Bosch Remote Portal).
- Manage and configure sites with name, identifier and optional geodata. Geodata is used for map display of a site in a mobile application. Sites can be configured to be always armed, armed by camera input or manually from the Site Monitor app.
- Manage and configure schedules in 15-minute increments in addition to the default "Day", "Night", and "Weekend" schedules. Add date-based schedules for special days, for example holidays. Schedules are defined per account and can be used across sites and services of an account.
- Manage actions: e-mail (recipients and customized message content), camera ("relay on"/"relay off", move to pre-defined PTZ position, AUX command), play pre-recorded audio, push notifications (to compatible devices) and forward actions to the control center. Actions can be executed automatically or manually during alarm processing.
- Manage user credentials with first name, last name, e-mail address and user role. New users receive an e-mail with login information upon creation or when requested manually by Config Agent to reset password.
- Customize content of system generated e-mail messages (for example for new users or password reset).
- Remote access to installed camera's configuration page, initial configuration for optimum operation with Alarm Management, save/load configuration per camera. Remote update of firmware (limits site access to camera with update in progress). Assign video channels to sites.
- Add virtual inputs to a site. Update virtual input token.
- Activate trouble forwarding to the control center (tamper and malfunction events, trouble message if the device cannot be accessed, trouble message for monitored functions such as recording).
- Set current image as a reference image for camera.
- Retrieve device parameters, including MAC address, device type, firmware version, local IP address and device passwords.
- Enable audio verification, audio intervention and configure audio device.

- Configure 24/7 Live Intervention and Virtual Guard Tours services:  
24/7 Live Intervention can be configured with triggering device, trigger event, schedule, action and video channel to be displayed and action to be performed manually in the event of an alarm. For Virtual Guard Tours, a schedule and a camera selection can be configured.
- Configure Smart Notifications:  
Smart Notifications can be configured with site, triggering device, trigger event, schedule, action and video channel and the user recipients list that will receive push notifications when triggered.

## Event Monitor Interface

Browser-based application that supports viewing and processing events during evaluation or troubleshooting. The application offers Alarm Management for selected customer accounts independent of workflow integration with 3rd party alarm automation systems:

- Location: `<cloud application URL>/eventmonitor`
- Access via user ID (with assigned role) and password or via browser certificates.
- 24/7 Live Intervention:  
Split-display of alarm, time and live images from selected cameras. Incident evidence image is displayed and replaced by a ten second video clip (centered on time of alarm) when upload from camera is completed. When available, allows audio intervention to selected camera. View reference images from all cameras of the site, manually snooze further site alarms for variable time. Configured alarm intervention actions can be executed manually (trigger relay, move to pre-defined PTZ position).
- Virtual Guard Tours:  
Split-display shows live images from all cameras to be verified (highlighted in yellow) and reference images set for each camera. When available allows audio intervention to selected camera. View reference images from all cameras of the site. Configured alarm intervention actions can be executed manually (trigger relay, move to pre-defined PTZ position).
- Live view via Site-list or integrated 3rd party systems may offer this site access under a static reusable URL.
- Virtual Assistant Interface
- Trouble:  
Split-display shows live image from affected camera. Trouble event, time off, and whether trouble continues to persist are displayed; any other cameras with trouble status are highlighted as well. When available, allows audio intervention to selected camera.

Summary trouble report is displayed. View incident intervention image and reference images from all cameras of the site are available.

- View cameras or perform site actions (snooze site, enable maintenance mode).
- Review of event-based recordings with site, time/date and event filter.

### Diagnosis Interface (only available for dedicated cloud)

Browser-based application, provides summary information of various system parameters, for example alarm, device status or site trouble reports.

- Location: `<cloud application URL>/diagnosis`
- Access Diagnosis Module via Configuration Agent user ID and password.
- Hardware Status menu: Help ensure all devices are up to date and stable for Alarm Management operations.
- Site Status menu: Support analysis of site connectivity and activity.
- Operator Performance menu: Support evaluation of operator performance in Alarm Management video events.
- Operator Capacity menu: Support operator capacity planning to handle contracted services and alarm load.
- Alarm Rates menu: Supports smart adaptation of camera analytics to generated alarms and changing conditions over time.
- Service Operation documentation: Provides audit trail of every alarm operation.
- Customer Base: Support analysis of customer and service sale evolution over time.

### Site Monitor app

The Site Monitor app provides the following functions:

- Site list map view.
- Thumbnail view of cameras per site.
- Live video stream.
- Selected device alarms received by push notification, directly connect to device.
- Access to all event clips through event list.
- Remotely arm/disarm site.
- Password-protected, SSL/TLS encrypted connection.
- iOS and Android smart phone and tablet platforms supported.

## Technical specifications

### Device compatibility and settings

Bosch IP cameras with firmware version 6.40 or later connected to the Bosch Remote Portal or supported 3rd party cameras. For more details on 3rd party camera compatibility, refer to the appropriate documentation.

It is recommended to adapt the initial camera configuration for the Alarm Management use-cases to ensure best performance.

### Digital Video Recorders

In a Cloud VMS system setup, the cameras will always directly connect to the application (as opposed to connecting through the DVR) and record locally to SD-cards or any iSCSI medium such as direct iSCSI, Video Recording Manager or DIVAR IP:

- DIVAR IP 2000/6000
- DIVAR IP 3000/7000

However, cameras may record in parallel to the following local digital video recorders:

- Bosch Recording Station
- 3rd party video management systems and network video recorders (non-Bosch iSCSI recording based)
- DIVAR network and DIVAR hybrid (IP cameras only)

### Network

Internet connection from connected devices to the Bosch Remote Portal is required. No further network configuration (for example port forwarding) required after connection to the Bosch Remote Portal.

### Bandwidth

- Minimum recommended upstream: 512 kbit/s
  - Minimum recommended downstream: 512 kbit/s
- Mobile wireless network connections have less availability, influenced by uncontrollable parameters, such as the weather, number of network users etc. A mobile wireless network connection may only be used if the application allows for a lower level of availability. The available bandwidth must be repeatedly determined and averaged using appropriate testing tools.

The unique Bosch iDNR® streaming technologies and long GOP rates make the Bosch Cloud the best choice for limited bandwidth connections such as 3G. Minimum upstream for event-based recording: Upstream rate of each site needs to be higher than the average event and motion activity of all cameras respecting the selected video recording profile. Check whether the network parameters on-site support the system set-up. Contact your local Bosch representative to use our comprehensive trial options.

### Browser

Compatibility of web applications has been tested with latest versions of Internet Explorer.

### Integrations with alarm automation platforms (optional via Cloud Alarm Transmitter)

The Bosch integration team will set-up a dedicated mediator between your Bosch Cloud VMS and your alarm automation platform. Alarm Management can optionally be integrated with the below listed alarm

automation platforms. This ensures seamless operation of Alarm Management functions within a legacy in-house Monitoring Control Center or certified Central Monitoring Station environments. For all integrations, the appropriate number of Cloud Alarm Transmitter licenses needs to be activated. Events that are configured to be forwarded to the central monitoring station, will be displayed in the respective alarm automation platform's alarm stack similar to other signals. When an operator selects an alarm to be processed, or a site, Event Monitor is launched for quick and effective verification and intervention.

The following software is supported for Alarm Transmitter:

- SafeCon - Alcensoft
- Bold Technologies - Manitou
- AzurSoft - Horus AMS
- Innovative - interVIEW
- Digital Monitoring Products, Inc. (DMP) - Entré Alarm Software
- MasterMind - MasterMind
- MKS (Micro Key) - Millenium Monitoring
- Security Information & Management Systems, Inc. - SIMS
- DICE - Matrix Monitoring Software
- Secure Global Solutions (SGS) - stagesTM
- European Systems Integration (ESI) - V1
- Computer Monitor System Ltd - Sentinel
- Monitor Soft - Sentinel
- Sureview - Immix
- Suretek
- Netcom
- Any SIA DC09 compatible Alarm Receiver SW
- and others (refer to the compatibility document)

### Camera feature support

The operator can remotely control/use the following features and key technologies of Bosch cameras during alarm operation via the operator interface:

- Live video streaming with metadata overlay
- Alarm clip/snapshots with Alarm Synopsis/event-based clips
- Audio in/out
- Digital and virtual in- and output(s)

The following features of Bosch cameras are also supported:

- Motion detection (IVA/EVA/Motion+)
- Camera event buffering for network disconnections and replenishment of alarms and clips
- PTZ control, prepositions and commands
- Tamper detection

For more information on 3rd party camera support, refer to the 3rd party compatibility document.

### Site Monitor app

- iOS Version for iPhone/iPad: iOS 10 or later
- OS Version for Android Phones and Tablets: OS 5.0 or later.
  - Note:** The app is not intended to permanently access cameras and is not a self-monitoring tool. For these cases, use the Video Security Client (Windows, iOS, Android).
- Camera performance and bandwidth is shared between all accessing apps, with too many parallel connections image transmission may fail or get cancelled.

### Cloud Storage

Included cloud storage for Alarm Management services of video alarm recordings, events, user actions come with a retention time (default) of 30 days and a maximum of 200 alarms and 50 GB per channel and month for 10-second alarm clips. With cloud storage services, further extensions are available.

### Availability

The multi-tenant Bosch Cloud VMS and its functions are offered as a managed, cloud-based service licensed via the Bosch Remote Portal.

Such services provided via the Bosch Remote Portal that are subject to charges are provided with an availability in our area of responsibility of 95 %, averaged throughout the year.

For more information, refer to the Terms and Conditions on <https://remote.boschsecurity.com>.

For the Bosch Cloud VMS, an empirical availability of above 99 % throughout the year is measured. A dedicated operations team is monitoring all cloud applications 24/7 and is minimizing any service interruption based on automated uptime monitoring. This team will react to any monitored service interruption of the Bosch Cloud VMS, for example inhibiting the use of Alarm Management to receive and investigate alarms, in less than one hour. The team will provide a workaround in less than 12 hours and solve the issue in less than 5 business days. In the case of a monitored service impairment, for example the inability to configure Alarm Management, the team will react in less than 24 hours and provide a workaround in less than 2 business days.

The same availability principles apply to any dedicated cloud application of the Bosch Cloud VMS unless otherwise and individually agreed. For more information, contact your local Bosch representative. For non-critical support cases Bosch offers dedicated support access for the functions of the Bosch Cloud VMS. Requests for support may be submitted at any time via e-mail to [support.security-cloud@bosch.com](mailto:support.security-cloud@bosch.com). Here, Bosch will process and provide support during regular business hours.

Should separate service level agreements with dedicated access to the operations teams and agreed response, workaround and resolution times be required, contact your local Bosch representative to find out how Bosch supports business critical applications.

### Supported operator user interface languages

- English
- German
- Dutch
- Italian
- Portuguese
- Spanish
- Swedish
- French

### Ordering information

#### **CBS-ALMGT-CLOUD Alarm Mgmt. Dedicated Cloud 100Cams 1Y**

Set-up of a dedicated (private) Bosch Cloud VMS system, including 100 CBS-ALMGT-CAM licenses. Alarm forwarding optional.

Order number **CBS-ALMGT-CLOUD | F.01U.389.295**

### Software Options

#### **CBS-ALMGT-CAM Alarm Management for 1 Camera (Yearly)**

License to use Alarm Management functions for 1 camera for 1 year. Account available upon request. Alarm forwarding optional.

Order number **CBS-ALMGT-CAM | F.01U.389.294**

#### **CBS-ALMGT-CAT Alarm Transmitter for ALMGT 1 Cam 1Y**

License to connect 1 camera with activated Alarm Management to external alarm automation platforms. Also available as 25 QTY pack.

Order number **CBS-ALMGT-CAT | F.01U.389.298**

#### **CBS-ALMGT-CAT25 Alarm Transmitter for ALMGT 25 Cams 1Y**

License to connect up to 25 cameras with activated Alarm Management to external alarm automation platforms. Also available for single cameras.

Order number **CBS-ALMGT-CAT25 | F.01U.389.299**

#### **CBS-ALMGT-NOTI1 Alarm Notification for 1 Camera (Yearly)**

License for 1 camera to receive camera VCA events on a mobile device with the Bosch Site Monitor app.

Order number **CBS-ALMGT-NOTI1 | F.01U.389.296**

#### **CBS-EBR-CAM Event-based recording for 1 Camera 1Y**

License to activate cloud storage (advanced) for 1 camera for 1 year, with a monthly storage limit of up to 500 GB.

Order number **CBS-EBR-CAM | F.01U.389.301**

### Services

#### **CBS-ALMGT-CUST Custom Setup for Alarm Management**

Bosch customer service for special deployments or adaptations of the dedicated Alarm Management. Contact your local sales representative.

Order number **CBS-ALMGT-CUST | F.01U.389.297**

#### **CBS-ALMGT-CATX Custom Setup for Alarm Transmitter**

Bosch customer service for special integration of protocols or adaptations to Alarm Transmitter (CBS-ALMGT-CAT). Contact your local sales representative.

Order number **CBS-ALMGT-CATX | F.01U.389.300**

#### **CBS-EBR-CUSTOM Custom Setup for Event-based recording**

Bosch customer service for special deployments or adaptations of event-based recording functions. Contact your local sales representative.

Order number **CBS-EBR-CUSTOM | F.01U.389.302**

#### **CBS-PORTAL-CUST Remote Portal Custom Services**

Bosch customer service for special deployments or adaptations to Bosch Remote Portal. Contact your local sales representative.

Order number **CBS-PORTAL-CUST | F.01U.389.306**

#### **CBS-PORTAL-TOFF On-Site Training Day for ALMGT EBR**

Bosch training on Bosch Remote Portal, Alarm Management and Alarm Transmission, at customer site. Contact your local sales representative.

Order number **CBS-PORTAL-TOFF | F.01U.389.304**

#### **CBS-PORTAL-TON Online Training Session ALMGT EBR**

Bosch training on Bosch Remote Portal, Alarm Management and Alarm Transmission, online. Contact your local sales representative.

Order number **CBS-PORTAL-TON | F.01U.389.303**

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