

Compact Guide



MOBOTIX CLOUD

Simply secure. Easy for sure.

Compact Guide

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1. MOBOTIX CLOUD – Cyber-Secure Cloud VMS With Flexible Software Subscription



Video Surveillance as a Service (VSaaS): Benefit from the new MOBOTIX CLOUD

Network-based video technology has long since replaced analogue video technology as a worldwide standard. In line with the general trend in other industries, video surveillance is now increasingly shifting to the cloud, primarily due to the significantly increased availability of bandwidth in many places. VSaaS (Video Surveillance as a Service) is now the internationally used term for hosted cloud-based video surveillance solutions. Storage and video management at a central location or directly in each camera is replaced by a complete video management system (VMS) in the cloud. This means via internet connected, worldwide accessible data centers, with the highest demands on availability and cyber security!

The MOBOTIX CLOUD solution includes the MOBOTIX Bridge hardware component as well as the services available in a conventional VMS with local data storage devices: event-controlled video recording, archiving, live remote access to each camera, notifications, user management, Internet security and much more. And all this is available in an attractive monthly subscription model - without the need for your own storage devices, additional video servers and additional IT personnel for the video system.

Since we sell the MOBOTIX CLOUD, just like our cameras, exclusively through our worldwide partner network, MOBOTIX CLOUD partners are available to all end customers for the following services:

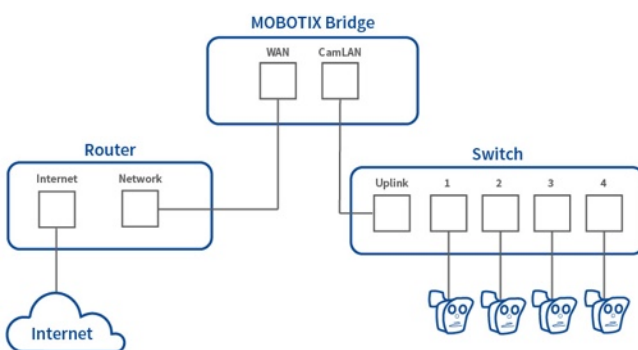
- When consulting and selling our cameras
- When installing and cabling the cameras and setting up the MOBOTIX CLOUD software for the first time (possible via mobile device and desktop PC)
- When the monthly CLOUD invoice is issued to the customers

2. The MOBOTIX CLOUD Architecture



Each camera communicates with the MOBOTIX Bridge using a securely encrypted outgoing connection. Cameras are integrated into the MOBOTIX CLOUD via ONVIF-S profile (using the H.264 and MJPEG video codecs). A single bridge can be connected locally to up to 15 ONVIF-S network cameras via a switch (the number of bridges depends on the resolution; several bridges per location are possible if more cameras are needed). The bridge replaces the VCR and streams the video data to the MOBOTIX CLOUD. It allows intelligent bandwidth management and, thanks to the integrated hard disk, local buffering of the video in case of bandwidth fluctuations up to 48 hours of network downtime. All video recordings are secure and stored for a - per individual camera - freely definable archiving period in freely definable resolution (7 days to 5 years, VGA to 10 MP) in highly available CLOUD data centers. Cameras and the bridge are not part of the MOBOTIX CLOUD subscription and must be purchased separately.

- Cybersecure connection to the nearest MOBOTIX CLOUD data center of each customer
- Secure end-to-end encryption of all data stored and transferred in the system
- Integrated hard disk as a memory buffer in case of interrupted or bad connection to the cloud
- Compact and fanless device design for highest reliability
- Dimensions (L x W x H): 127 x 127 x 45 mm (5" x 5" x 2.75")
- Connections: AC power supply (adapter included), 2x ETH (1x for PoE switch for local cameras, 1x for Internet router), monitor and keyboard (optional)



The MOBOTIX CLOUD video management system combines comprehensive security with a scalable infrastructure. It is suitable for video systems of all sizes. The CLOUD solution is particularly attractive and easy to manage, especially for projects with a large number of different locations (e.g. retail stores, franchises in gastronomy) and users (e.g. security personnel in public buildings).

Note: Currently, only the video analysis functions available in the MOBOTIX CLOUD software can be used, **but not the video analysis functions integrated in the MOBOTIX camera firmware.** However, it is possible to use a MOBOTIX camera in the MOBOTIX CLOUD **and** in the MxManagementCenter in the local network in parallel, but **completely independent** of each other.

3. MOBOTIX CLOUD App and End Devices




Everything happens now in the MOBOTIX CLOUD. This applies not only to the everyday **operation** of the video system by the end customer, but also to the entire user administration:

The **initial setup** of a new MOBOTIX CLOUD customer access, the **configuration** of a bridge, the integration of the cameras, **alarms and events**, the creation of **camera location maps** (via Google Maps) and any number of **camera grids**, the addition and removal of cloud users, the booking of the desired price-relevant CLOUD options (resolution, recording duration, analysis functions) is possible from anywhere in the world with Internet access.


- Either by desktop PC via the MOBOTIX CLOUD portal: <https://mobotixcloud.com>
- Or via smartphone and tablet with the **MOBOTIX CLOUD App**, which is available free of charge in the Google Play Store and Apple iOS Store.

4. Decisive Advantages Speak For The MOBOTIX CLOUD Solution

Simple use of a professional video system - the cloud solution with real MOBOTIX DNA


 The MOBOTIX CLOUD combines the use of high-quality MOBOTIX cameras with extremely simple and convenient operation. The user interface of the CLOUD is limited to the essentials for efficient everyday use, making it easy for users without IT or MOBOTIX knowledge to get started in the cloud world.

Highest level of cyber security


 MOBOTIX waited with its own cloud solution until it was able to meet our basic demand on our own products: the highest possible level of cyber security! The MOBOTIX CLOUD reduces possible weak points: There are no open ports, no local firewalls and no local software.

- No firewall installation required
- No incoming Internet connections allowed
- Cameras are not directly connected to the Internet (bridge as intermediary)
- No open network connections
- MOBOTIX CLOUD data centers are well protected against malware
- Encryption for cached and locally recorded video


Data storage in the cloud brings special security advantages

 When a video is stored in the cloud, it is safe from equipment failure, damage, and theft. But also from other unforeseeable events such as fire or water damage. The MOBOTIX CLOUD data centers, which are currently located at more than a dozen locations worldwide, offer triple failure safety. This means that multiple copies of a video are always stored in the data center nearest to the end customer. The MOBOTIX Bridge also allows the cameras to continue recording even during an internet failure.

Compatible with all current MOBOTIX cameras


 The MOBOTIX CLOUD requires only one H.264 stream from a video source and is therefore compatible with all current MOBOTIX camera models of the Mx6 series, the MOBOTIX 7 series and the MOBOTIX MOVE models. Both digital and mechanical PTZ functions can be controlled via the MOBOTIX CLOUD. Thanks to a special dewarping function, the MOBOTIX CLOUD can also display the 360° original images of a MOBOTIX Hemispheric camera (e.g. Q26) in a user-friendly equalized format. Users can apply the preset dewarping to their video in single, double 180°, quad and 360° view. These views can be converted to layouts as if they were separate cameras. Existing third-party cameras with ONVIF-S profile can also be used in the MOBOTIX CLOUD.

Cost advantages of the MOBOTIX CLOUD

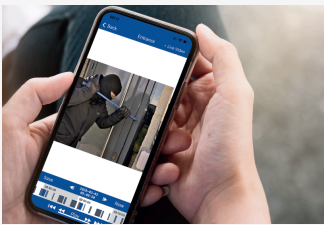
 End customers save money with the MOBOTIX CLOUD. There is no need to buy and maintain software, storage devices or additional servers. You pay a small initial amount and then decide on the basis of a flexible cost plan by paying only what you need. Regular updates of the MOBOTIX CLOUD software ensure that the system is always up to date. For a lifetime.

5. MOBOTIX CLOUD: Hardware And Software Products Offered

MOBOTIX CLOUD: Order information MOBOTIX Bridge, price on request from MOBOTIX partners

Mx-S-BRIDGEA-DT-15	Description
	<p>High-security connection box for the MOBOTIX CLOUD VMS • Locally connected to the Internet and up to 15 ONVIF IP cameras • Cybersecure connection to regionally available MOBOTIX CLOUD data centers • Secure end-to-end encryption of all data stored and transferred in the system • No data loss in case of up to 2-day Internet outage: Integrated hard disk as a memory buffer in case of interrupted connection to the cloud • No data loss due to Internet bandwidth fluctuations: Automatic data buffering in the BRIDGE • Ultra flexible cloud data storage with individually selectable retention period (max. 5 years) • Compact and fanless device design for highest reliability • Dimensions (LxWxH): 127 x 127 x 45 mm (5" x 5" x 2.75") • Connections: AC power supply (adapter included), 2x ETH (1x for PoE switch for local cameras, 1x for internet router), monitor and keyboard (optional)</p>

MOBOTIX CLOUD: monthly subscription options per camera

	Description
	<p>Monthly subscription to use a single camera in the MOBOTIX CLOUD • Archiving of recordings (7 to 1825 days, then automatic deletion from the CLOUD) • Max. Resolution for Event Recording: SD1/HD1-10 (selected resolutions are maximum values and may not always be fully usable depending on the camera) • Free use of the MOBOTIX CLOUD app for desktop PCs and mobile devices (Android and iOS) • MOBOTIX CLOUD access portal: https://mobotixcloud.com • Subscription can be cancelled/adjusted at any time at the end of the month • Each subscription includes the event-controlled recording function for detected movements in the image or in the freely configurable detection area (Video Motion Detction) • Additional video analysis functions are subject to a fee and must be ordered and activated separately for each camera</p>

	SD1	HD1	HD2	HD3	HD4	HD5	HD10
7 days	Individually selectable combinations of storage duration and maximum resolution for each camera, prices on request from MOBOTIX partners						
14 days							
30 days							
60 days							
90 days							
180 days							
1 year (365 d.)							
2 years (730 d.)							
3 years (1095 d.)							
5 years (1825 d.)							

MOBOTIX CLOUD: Video analysis functions, monthly subscription options, prices on request

Order Number	Description
Mx-CL-Sub-ANA-001-1	MOBOTIX CLOUD Analytics: Line Crossing (of virtual lines in the image)
Mx-CL-Sub-ANA-002-1	MOBOTIX CLOUD Analytics: Counting (people and objects counted when a line is crossed)
Mx-CL-Sub-ANA-003-1	MOBOTIX CLOUD Analytics: Area Intrusion (entering virtually defined areas in the image)
Mx-CL-Sub-ANA-004-1	MOBOTIX CLOUD Analytics: Camera Tamper Detection (fluctuations/movement of the image)
Mx-CL-Sub-ANA-005-1	MOBOTIX CLOUD Analytics: Loitering (detection of people who have been in the image area for too long)

6. What Do The Individual Image Resolution Levels Of The MOBOTIX CLOUD Mean?

Image resolution level	The maximum usable resolution of a camera in the MOBOTIX CLOUD
SD1	up to 0,3 Megapixels/VGA (640 x 480 pixels)
HD1	up to 1 Megapixels (1280 x 720 pixels)
HD2	up to 2 Megapixels (1920 x 1080 pixels)
HD3	up to 3 Megapixels (2048 x 1536 pixels)
HD4	up to 4 Megapixels (2688 x 1520 pixels)
HD5	up to 5 Megapixels (2592 x 1944 pixels)
HD10	up to 10 Megapixels (3648 x 2752 pixels)

The images or videos of a camera in the MOBOTIX CLOUD can be displayed in the maximum resolution specified for the individual levels "SD1" to "HD10". If, for technical reasons, the camera only supports a smaller native maximum resolution in ONVIF-S mode (H.264; MJPEG is only used for preview streams), the maximum image size of a camera in the MOBOTIX CLOUD is reduced to this technical limitation of the camera. If the H.264 codec is activated, the MOBOTIX CLOUD limits the MOBOTIX IoT cameras of the Mx6 series to 3MP and the MOVE cameras (depending on the model) to 2MP or 4MP maximum resolution.

Additional information on the highest resolution level "HD10":

This level must be selected for a camera with a technically required maximum resolution of over 5 to a maximum of 10 megapixels if the camera is to be displayed in the MOBOTIX CLOUD with its technically highest possible resolution quality.

A sensor image of a MOBOTIX 4K camera (e.g. MOBOTIX M73) can be displayed with a maximum resolution of 8 megapixels (3840 x 2160 pixels) in this level. Camera resolutions of more than 10 megapixels are currently not supported, but you can still use corresponding cameras in the MOBOTIX CLOUD.



Please note: The maximum resolutions for multi-sensor cameras always refer to the active camera image sensor only. This also applies to the MOBOTIX Day & Night dual cameras with one color and one black & white sensor each. These cameras automatically switch to the appropriate sensor when the ambient brightness changes, thus always delivering only the image of the active image sensor. However, when the MOBOTIX CLOUD is launched, all MOBOTIX multi-sensor cameras with more than one simultaneously active image sensor (e.g. S16 in dual image mode for monitoring two rooms simultaneously) will also be able

to transfer only one sensor image from the camera to the CLOUD. However, this temporary restriction will be removed when updating the MOBOTIX CLOUD software at a later date.

7. Important: Take Into Account Locally Available Internet Bandwidth For Data Upload

As a basic principle, it should always be checked whether the Internet bandwidth available locally at the end customer for data upload to the Web (or from the bridge to the CLOUD) is also compatible with the number and desired resolutions of the cameras activated at a location.

As a **simple rule** for initial orientation, a **minimum upload speed** in Mbit/s of 50 percent of the camera resolution in megapixels is required. For example, a 3MP camera requires at least 1.5 Mbps for the video stream to the MOBOTIX CLOUD.

Cameras with the following resolutions then have this bandwidth requirement (upload speed, determined at medium image quality, event recording with 40% event frequency, low complexity): **VGA** > 0,3 Mbit/s • **720p** > 0,4 Mbit/s • **1080p** > 0,5 Mbit/s • **3MP** > 1,5 Mbit/s • **4MP** > 2Mbit/s • **5MP** > 2,5 Mbit/s • **10MP** > 5 Mbit/s

However, there is no reason to fear a general loss of data or recordings, since the MOBOTIX Bridge always acts as a data buffer and, in addition to bandwidth fluctuations, can even bridge a two-day complete failure of the Internet connection.



Appendix (for MOBOTIX partners): This is how a MOBOTIX CLOUD transaction works



Here the process steps to be passed through are described if a new installation for the cloud service is to be carried out:

1. The direct customer contacts his responsible MOBOTIX sales team and concludes a CLOUD dealer contract with MOBOTIX. Afterwards, he will receive an account as a reseller in the MOBOTIX CLOUD portal (<https://mobotixcloud.com>) and purchases the bridge devices from MOBOTIX. He can either put them in stock or resell them directly.
2. If the direct customer is a MOBOTIX Distributor, he resells the Bridges to a Tier 2 partner and applies for a new reseller account for the MOBOTIX CLOUD portal (<https://mobotixcloud.com>) for this partner (only when purchasing a Bridge for the first time).

If the direct customer is a Tier 2 partner, MOBOTIX will create an account for him/her in the MOBOTIX CLOUD portal (only) when purchasing a bridge for the first time.

3. The registered new CLOUD partners (Tier 2) will then automatically receive their personal initial access data to the MOBOTIX CLOUD portal by email (password will be assigned by the partner during the registration process).
4. The Tier 2 partner himself now logs in to the MOBOTIX CLOUD portal (<https://mobotixcloud.com>) with these data and creates an account for each end customer, registers the bridges, connects the cameras and carries out the configuration. MOBOTIX recommends all Tier 2 partners to set up the end customer accounts in a way that all cost-relevant configurations (resolution, recording duration, cameras and analysis functions can only be changed/added by the Tier 2 partner himself. This ensures that the partner is aware of all changes and can adjust his billing accordingly in time.
5. With the activation of the cameras, the cloud service starts and is subject to charges. At the end of each month, MOBOTIX invoices the costs incurred for each individual bridge and provides all direct customers with a CSV file containing a breakdown of the services and costs used in addition to the invoice PDF. This breakdown is designed so that the invoice can be sent immediately to the downstream Tier 2 partner or end customer.
6. Subscriptions booked in the first month of activation will only be billed **from the beginning of the following month**. Billing will then always be in advance for the following month. Changes to current subscriptions take effect immediately, but are only invoiced from the beginning of the following month. A cancellation of the subscription is possible at any time to the end of the month.

