MV

Cloud-Managed Smart Cameras

Second Generation (MV12, MV22, MV72, MV32)

Overview

The MV smart camera family brings simplicity and intelligence to the security camera world. Every MV model comes with a powerful processor — the same kind found in many of today's smartphones — and an innovative architecture that minimizes physical infrastructure as well as software requirements.

These smart cameras not only help ensure physical safety and security, but also provide advanced business intelligence. MV packs fast processing power, robust security features, and sophisticated analytics into a refreshingly simple package.

MV: Beyond just security

MV smart camera architecture places high-endurance storage directly on the camera, removing the need for a network video recorder (NVR). Not only does this drastically simplify both installation and scaling, it also eliminates a major network security vulnerability in the IT infrastructure.

Features like LLDP insights, offline device alerting, and built-in remote tools reduce troubleshooting time, freeing up IT resources. And, because MV is managed through the browser-based Meraki dashboard and operates using a licensing model, there's no need to purchase, download, and maintain any additional software. The Meraki dashboard ensures firmware updates and new features will continually roll out over the lifespan of the product, increasing the overall value.

Equipped with an industry-leading processor, these cameras are not only capable of providing high definition video, they also allow for machine learning-based analytics. These capabilities previously required additional software and heavy-duty hardware. Harnessing the power of computer vision and machine learning, MV smart cameras can detect objects within a frame. This simple-seeming insight builds the foundation for more effective and efficient processes, like reducing wait times, journey pathing, and safe working practices. And the best part is that they will only get smarter, and more accurate, over time.

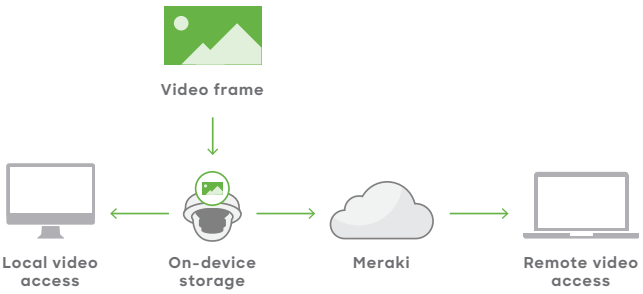
Product highlights

- Intelligent motion indexing with search engine
- Built-in motion analytics tools like Motion Search, Motion Recap, and Motion Heatmaps
- Machine learning capability for intelligent object detection
- No special software or browser plugins required
- Cloud-augmented edge storage minimizes physical infrastructure
- Secure boot and signed firmware backed by hardware security chip
- Granular user access controls
- Wireless functionality for install flexibility
- Meraki dashboard simplifies operation
- Suitable for deployments of all sizes: 1 camera or 10,000+

Cutting edge architecture with streamlined managment

Meraki MV architecture

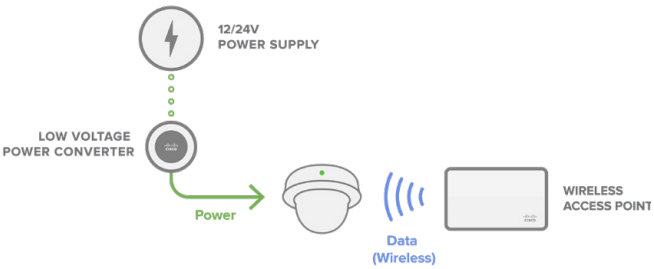
Meraki's expertise in distributed computing has come to the security camera world. With cloud-augmented edge storage, MV cameras provide ground breaking ease of deployment, configuration, and operation. Completely eliminating the Network Video Recorder (NVR) not only reduces equipment CAPEX, but the simplified architecture also minimizes lifetime OPEX costs.



Each MV camera comes with integrated, ultra reliable, industrial-grade storage. This cutting edge technology allows the system to efficiently scale to any size because the storage expands with the addition of each camera. Plus, administrators can rest easy knowing that even if the network connection cuts out, the cameras will continue to record footage.

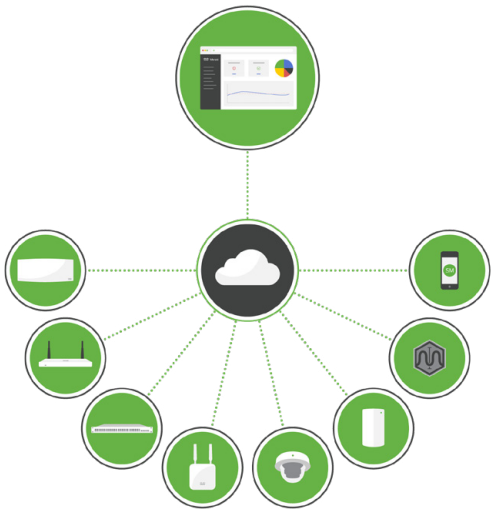
Integrated wireless for flexible deployments

As the primary storage is on the camera itself, very little bandwidth is used unless video is being watched. This unique architecture makes it possible to deploy MV smart cameras wirelessly with minimal impact to the network. All MVs have wireless functionality built in, meaning they can be deployed without having to run new cabling for connectivity. The option for wireless deployments offers organizations an easy upgrade path for analog cameras without the need for recabling, and allows greater flexibility for remote or temporary sites.



Simply cloud-managed

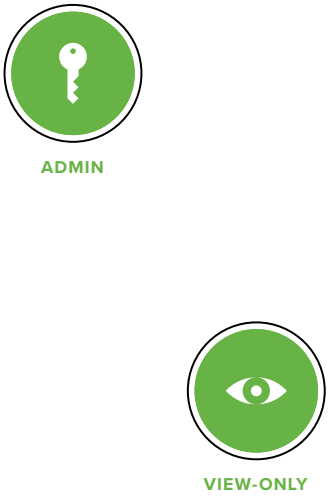
Meraki's innovative web-based dashboard has revolutionized networks around the world, and brings the same benefits to networked video surveillance. Zero-touch configuration, remote troubleshooting, and the ability to manage distributed sites through a single-pane-of-glass eliminate many of the headaches administrators have dealt with for decades. The Meraki dashboard experience makes additional video management software (VMS) a thing of the past.



Easy to access, easy to control

The Meraki dashboard allows for flexible viewing — whether locally or remotely via automatic cloud proxy. This means that users locally or remotely via automatic cloud proxy. This means that users can access video on a variety of devices, without installing software or plugins, or worrying about complicated VPN set up.

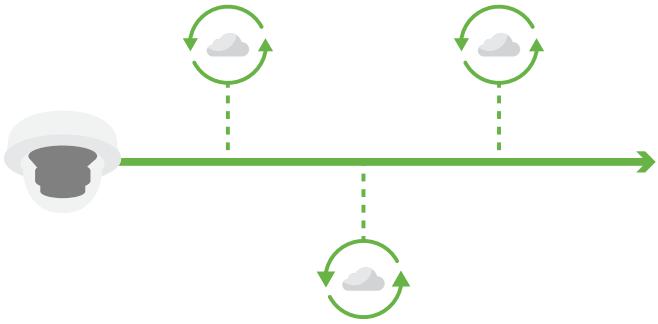
To ensure that users are only accessing video appropriate for their role, the Meraki dashboard has granular controls that allow organizations to define what a user can and cannot do. For example, a store manager would not need to change camera settings, nor access cameras at other stores they do not manage. Camera-only admin roles allow administrators to prevent security staff from changing network settings, limit views to only selected cameras, or restrict the export of video. Access logs allow network admins to audit video viewing, exports, and more.



With the Meraki cloud authentication architecture, the controls scale for any organization and support Security Assertion Markup Language (SAML) integration.

Secure and always up-to-date

Centralized cloud management offers one of the most secure platforms available for camera operation. All access to the camera is encrypted with a public key infrastructure (PKI) that includes individual camera certificates. Integrated two-factor authentication provides strong access controls. Local video is also encrypted by default and adds a final layer of security that can't be turned off.



All software updates are managed automatically for the delivery of new features and to enable rapid security updates. Scheduled maintenance windows ensure the MV family continues to address users' needs with the delivery of new features as part of the all-inclusive licensed service.

Improving processes and providing business insights

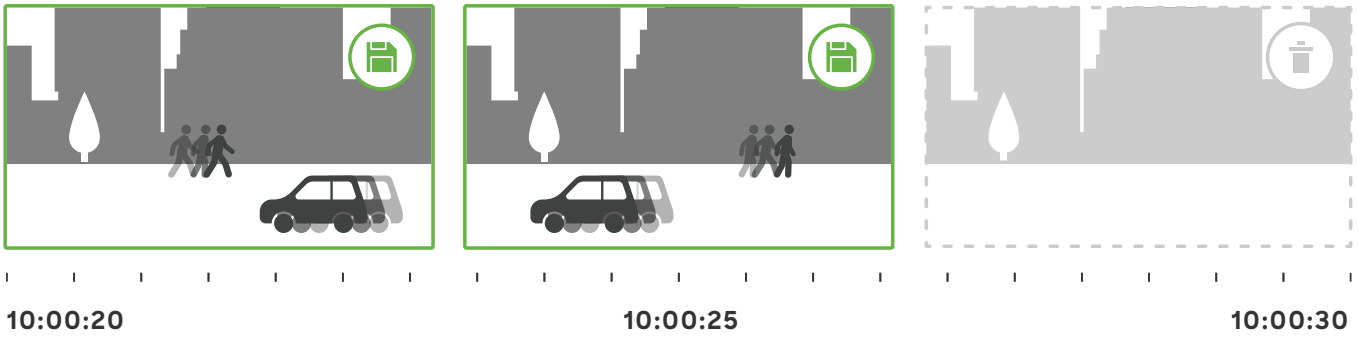
Optimized retention

MV smart cameras have flexible options for video quality and retention policies to meet a variety of deployment needs. Real-time retention estimates for each camera are provided in the dashboard, showing how different bit rate and frame rate settings, and features like motion-based retention and scheduled recordings, affect video storage.

With motion-based retention, cameras always retain continuous recording of the most recent 72 hours as a safety net. After that period, the camera intelligently trims footage that contains no motion. Motion-based retention is possible because of the unique way MV handles motion-analyzing video on the camera itself, and indexing motion in the cloud. This feature can be turned on with the click of a button, and can considerably extends the on-camera storage.

Schedules allow users to define when cameras record, and when they don't. Create schedule templates for groups of cameras and store only what's needed, or turn off recording entirely to only view live footage.

Whatever combination is chosen, the dashboard provides a real-time retention estimate for each camera. This removes the guesswork and makes it easy to define recording policies that work best for every deployment. For organizations with non- negotiable regulatory requirements surrounding storage, options for 30, 90, 180 or 365 day cloud archive are available, too.



Viewing video

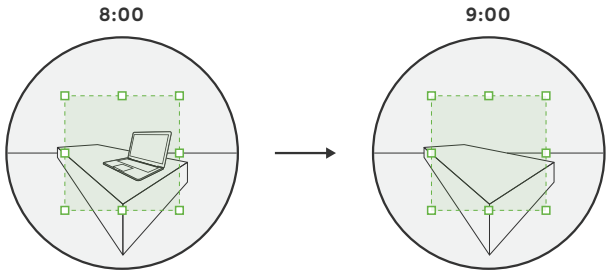
Video is streamed from the camera to the dashboard for easy, in-browser viewing from almost any device. When the dashboard detects a local connection to the camera from the viewing device, video is streamed directly from the camera, minimizing WAN usage. When viewing video remotely, the dashboard will create a cloud proxy to securely stream video to the device. All of this is done automatically, requiring no special software, plugins, or special firewall configurations.

Features like the drag-and-drop video wall help streamline video monitoring, whether on-site or remote. Video walls can be configured with up to 16 camera feeds per view wall, and set to rotate at specific intervals to allow users to cycle through multiple views. Additionally, motion alerts can be configured to send notifications of activity, including people, keeping users aware even when video is not being watched.

Isolate events, intelligently

Meraki MV smart cameras use intelligent motion search to quickly find important segments of video amongst hours of recordings. Optimized to eliminate noise and false positives, this allows users to retrospectively zero-in on relevant events with minimal effort. Simply select elements of the scene that are of interest, and the dashboard will return the activity that occurred in that area, during the specified time. Missing laptop? Drag the mouse over the area it was last seen to quickly find out when it happened and who was responsible.

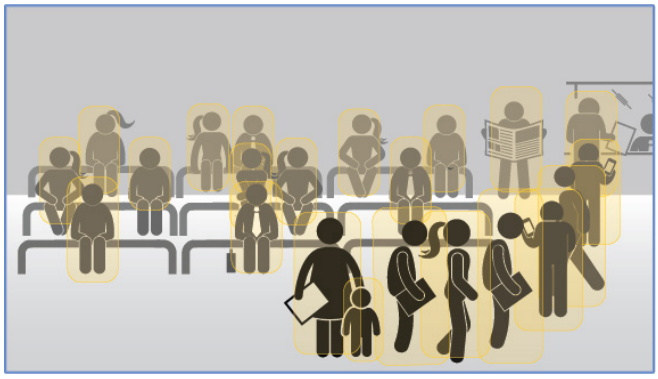
Once important footage has been identified, the dashboard makes it easy to share. Video clips can be exported from the camera, shared via a link, and downloaded into an easily viewable MP4 file. No proprietary file formats or special players are required. After video has been exported, the integrity of the file can be verified using the SHA-256 export verification feature built into the dashboard. There are also options for sharing video links, as well as a snapshot tool, useful for circulating still images.



Motion Recap further minimizes the amount of video that needs to be watched by summarizing activity in a single image. The composite image is built in the camera, and displayed as Motion Search results in the dashboard. This powerful, time saving feature allows a user to understand the events of a 30 second video clip in a fraction of a second, with just a glance.

Analytics, built right in

With an industry-leading processor onboard every MV smart camera, advanced analytics using computer vision and machine learning are now easy, scalable, and cost effective to implement. MV smart cameras can detect, classify, and track objects such as people and vehicles within a frame. This provides valuable insights into office foot traffic, or customer behavior patterns, straight from the camera, viewable in the dashboard - no servers, special software, or dedicated hardware required.



Motion heatmaps provide an overview of relative motion in a given area hour-by-hour or day-by-day. This helps paint a picture of general motion trends. These functionalities make it possible to start expecting more from cameras than just security.

Part of something bigger

Cameras are only a part of a physical security system, and the information they hold can help provide context into other system events. MV smart cameras have APIs that make it easy to get eyes on what is happening, or use video analytics to provide insight into business processes.

APIs make it possible to programmatically retrieve video links or snapshots to correspond with badge access events, or PoS transaction. MV Sense enables further use of the MV machine-learning based computer vision outputs through both REST and MQTT API endpoints. Organizations can request or subscribe to historical, current, or real-time data generated in camera to create custom business solutions. This provides organizations and developers with processed, high-value data and insights without needing any additional hardware, software, or infrastructure.