![StorMagic logo] **StorMagic**

# SOLUTION BRIEF

# StorMagic ARQvault VMS

**Video at and from the edge is significant. Keep it actionable with StorMagic ARQvault VMS.**

Surveillance video helps keep an eye on and control things. How do you keep an eye on and control your video? StorMagic ARQvault VMS is the most cost-effective way to use and retain surveillance video. It keeps all video active and significantly reduces costs with automated tiered storage.

## SURVEILLANCE VIDEO USE IS PREVALENT AND POWERFUL

The use of video surveillance systems is growing at significant rates, with 10%+ annual growth rates expected over the next few years. Surveillance is no longer just a tool "in case something bad happens," but a tool for insight and analysis for organizations of all types, from retail to commercial, public and private. But with opportunity comes challenges. More and more cameras in more and more sites with higher and higher quality creates an explosion of video data. Ideally, you want to record continuously, which creates even more video. And evolving retention, compliance, and legal requirements mean you need to retain video for longer periods of time, if not forever.

To utilize and manage video many organizations implement a video management system, or VMS. Any VMS solution should address the many facets of video use and management, including:

- Support for thousands of cameras, camera standards, and continuous recording
- Scalable and flexible viewing and video wall implementations for operator ease and insight
- Ability to retain video for long periods of time, securely, with the ability to meet any retention, compliance, and legal requirements
- Simple and intuitive search using metadata and other markers to get what is needed quickly
- Systems that are reliable, available, and easy to manage
- Systems that help provide analysis and identify new opportunities through metadata and content tagging
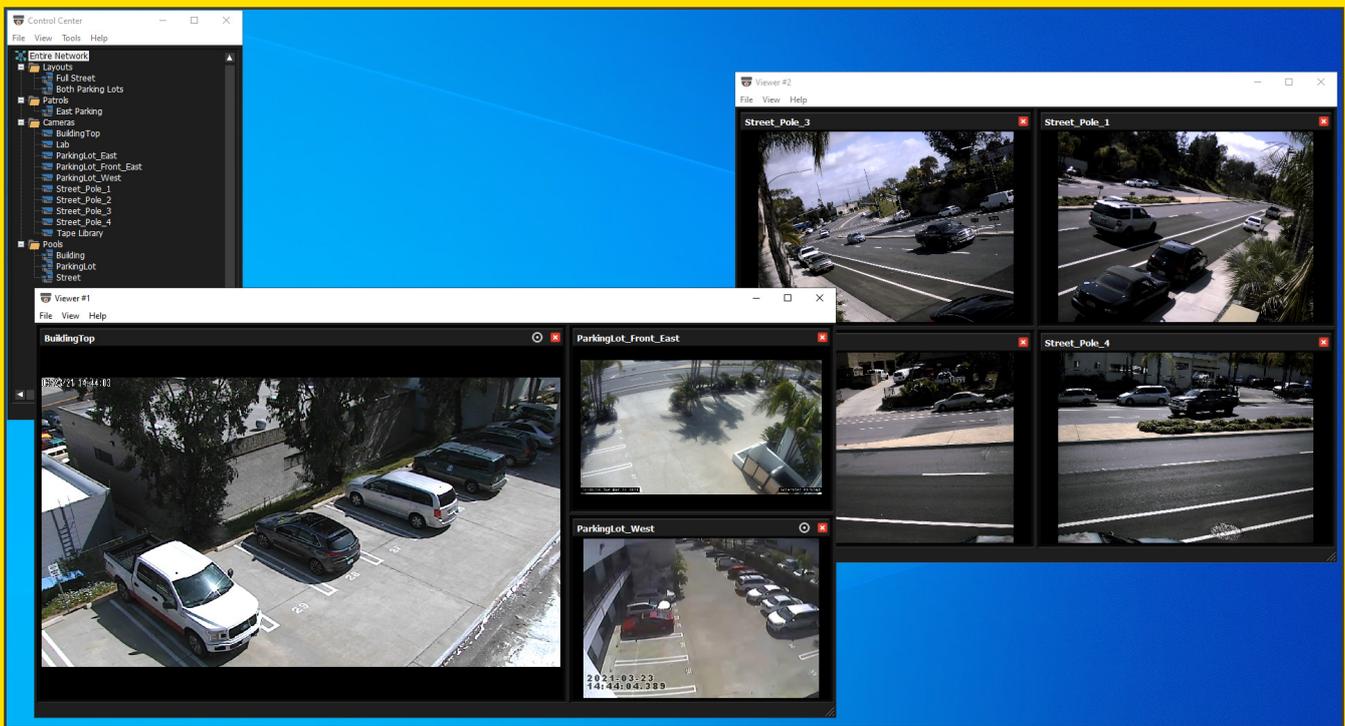- Control or reduction of costs while adding functionality

## CAPTURE

ARQvault VMS lets you capture and view surveillance video with maximum choice and control.

With support for any ONVIF or RTSP-enabled IP camera, more than 5,300 certified cameras, and the ability to ingest from other VMS systems, you can capture video just about anywhere. ARQvault VMS automatically detects any supported IP camera on the network and then easily adds it to the surveillance management system.

ARQvault VMS provides complete architectural flexibility with no vendor lock-in. It uses industry

**Fig 01:** Multiple windows on single Live View screen

standards and works with new or existing servers and storage – x86 servers and all storage types: HDD, Flash, NAS, SAN, LTO digital tape, and Sony ODA Optical. It easily scales from one to thousands of sites in any location and you can add additional cameras, sites, vaults, servers, and storage at any time.

If you already have a system for video management, you can get all the benefits of ARQvault VMS and keep your front-end with the ARQvault VMS 3rd-Party Connection Add-On. ARQvault VMS integrates easily with Milestone, Exacq, and Qognify systems and overcomes the single-tiered limitations of many VMS systems, so you can afford much longer-term retention. Plus, you will be able to manage all your captured video within a single management console.

## View and Control

ARQvault VMS provides powerful live-view capabilities and a full-featured, massively scalable video wall. Capable of supporting thousands of monitors with multiple layouts, the video wall is highly customizable. Users can access the system using an intuitive, easy to use, drag and drop interface.

Numerous settings provide controls for cameras, layout configurations, creating and utilizing

patrols, camera pooling, and multi-camera video playback. Screen pops and actions can be generated easily from programmable and analytics-based alerts and triggers. You can create camera pools within ARQvault VMS based on any criteria, such as camera location. Grouping cameras based on location makes live viewing an incident from multiple angles much easier. Camera pools can also be used during search so that only video from that group is shown in the results.

The Live View app for ARQvault VMS has multiple different layout configurations for viewing live video streams. You can view up to 36 cameras on a single monitor (6x6) if desired or customize the layout for how you want to view your cameras per monitor. Patrols can be set so that groups of cameras are cycled through during the live view and layouts and patrols can be saved and used by all.

Multiple live viewing windows can be open at the same time and layouts and patrols can be placed on different live view windows so that you maximize the number of cameras to view at once. You can also use multiple windows to view just one camera each so that you have the largest display possible. No third-party applications are needed to control cameras.

During live view, ARQvault VMS can directly control mechanical and digital PTZ cameras. ARQvault VMS provides digital PTZ even for non-PTZ cameras.

## USE

Use and manage surveillance video with ease and speed. You get quick results no matter video location or age with ARQvault VMS.

The ability to find your video quickly and use it effectively are the hallmarks of ARQvault VMS. Intelligent search provides fast results no matter where your video is located or its age. You can search using numerous search categories, including where video is stored, file attributes, access level, and any metadata that has been applied. ARQvault VMS sends a parallel search request to all vaults to provide the fastest path to your video. You even get quick results over slow or congested networks using ARQvault VMS's low-resolution proxy files.

Multiple search categories are available to refine results. You can search only certain camera pools or use thumbnail or timeline searching to home-in on areas of interest. Thumbnail searching makes it easy to locate the segment you need through a timeline of images captured every 5 minutes. Timeline searching marks areas of

interest in a video with annotations such as date and time logged, username, title, description, and color indicator and becomes searchable for later use.

### Rich Metadata

The use and inclusion of metadata throughout the ARQvault VMS solution is key to providing powerful analysis. From applying at ingest, to its use in tiering decisions, to integration with third-party analytics packages, metadata makes searches much richer and more robust. It also allows non-security professionals to search and find what they need easily. With ARQvault VMS, you can search metadata as well as video content and can apply metadata at both file and timeline levels.

ARQvault comes preloaded with canned metadata fields and there are unlimited user definable fields. All video is indexed at capture to provide content for future search and use. Metadata entries can be text boxes, a drop-down list of choices, number fields, checkboxes, and date values. These metadata values keep things easily searchable when you need to find a specific video. Metadata also provides powerful new ways to use video assets. Videos can be aggregated into searchable groups using metadata and new insights may be gleaned through common attributes. Advanced reporting and audit capabilities are provided along with integration with third-party analytics packages.
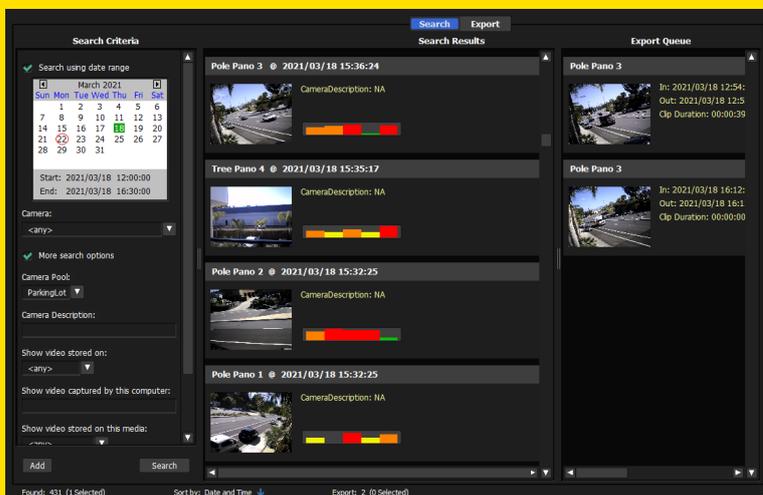


**Fig 03:** Surveillance video search



**Fig 04:** Media Viewer

## Manage with Simple, Powerful Single-Pane-of-Glass Operation

Multiple sites can be operated and managed from one central location or from multiple locations. This single-pane-of-glass operation reduces complexity and simplifies day-to-day management. The system can utilize multiple recording servers for expanded recording capabilities, all managed through one interface. Specific and/or bulk actions are easy to implement for things such as changing permissions, changing metadata, and exporting. There is complete control through policy settings on when and where to backup, migrate, replicate, and purge video from across all vaults and tiers. Effective use of these policies will prevent runaway storage issues.

## RETAIN

ARQvault VMS lets you store and protect all video for as long as needed, even forever.

The value of a video is unknown until it is needed, and when it is needed it is valuable. You can store video forever (if you want to) with ARQvault VMS's secure, easy to manage, automated tiering. You can record 24x7x365, capture everything, and never miss an important piece of video. Because of the cost-effective storage architecture of ARQvault VMS, you can keep all full high-resolution video from megapixel cameras. Large files and heavy streams are handled with ease, letting you store more high resolution for less cost.

ARQvault VMS's automated tiering optimizes performance and reduces costs across your implementation. You decide, through policies, what video gets moved to lower cost storage tiers and when. You have complete control over what tier your video starts on, how long it stays there, and when to move high-res video to slower, more cost-effective tiers.

This policy-based automatic tiering has a big impact on reducing the costs to store video. Storage is usually the largest expense in any

video surveillance solution and ARQvault VMS can save you up to 50% in storage costs alone. The efficient (and effective) use of optical and tape as an active part of the solution is a huge benefit, as tape is typically 10% of the cost of spinning disk. And with the simplified, automated processes, operating costs are reduced too, as there is no need to manually move video from storage type to storage type. Video is automatically redistributed to its optimal place based on policies and preferences. Investments in existing storage are utilized as ARQvault's distributed client/server architecture transforms current storage resources into a centrally managed, multi-tiered, federated repository providing for effective use and retention of all surveillance video.

ARQvault VMS can automatically create a low-resolution version of high-res video that takes approximately 5% of the original file's space while retaining fully intact high-resolution originals. These low-resolution proxies have great clarity and can be used to review video and identify segments for export. This means faster search and smoother playback without straining the network. Videos moved to optical or tape are not "archived and forgotten" – they remain an active part of the repository and can be retrieved when needed exactly as any other video on disk.

### Complete Video Lifecycle Management

From capture and ingest to purge, you have complete control over all video with ARQvault VMS. You can easily export and share video in-house and with constituents or third parties. And ARQvault VMS's simplicity helps meet regulation, compliance, and legal requirements.

You can create multiple segment clips from a video for streamlined export. For example, instead of having to export 5 hours of video, a user can select multiple clips from within a video, reducing the export to only the video content of interest. These clipped segments are exported while still maintaining a full chain-of-custody and video can always be exported in original format or another format for specific needs.

Video can be shared within your organization and with external entities via a web link. The

# PURPOSE BUILT FOR VIDEO

ARQvault VMS uses the ARQvault Active Intelligent Repository (AIR) architecture, which was purpose-built to manage video and other unstructured data. Ideal for capturing, using, and retaining surveillance video, ARQvault VMS is an:

## ACTIVE

All storage is an active part of the repository, which means all video is readily accessible. ARQvault VMS knows where all video is stored and actively seeks, finds, and retrieves any video in real time. Secondary storage, such as LTO tape libraries and Sony optical systems, and even offline storage are all an active part of the repository.

## INTELLIGENT

ARQvault VMS uses policies to move video to different storage tiers and creates low-resolution proxies of high-resolution video for fast search, playback, and viewing. The use of metadata and customizable fields, and integration with analytics packages, provides for rich data analysis and discovery of new relationships and business assets.

## REPOSITORY

ARQvault VMS is a collection of vaults creating a federated repository. It combines different and distributed storage resources into an integrated system shared across the network.

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web link is secure and has configurable sharing limitations. A user can set an expiration on the link, maximum amount of viewing times, and designate who can use the link to view. This gives easy, secure access to video assets to anyone authorized inside or outside your organization – no more copying to portable media.

### Video Is Always There and Protected

ARQvault VMS provides three levels of access security at the vault, storage, and file levels. It integrates with Active Directory or local authentication and there is a complete audit trail. You will know the who, what, when, and where about your video and its use from initial ingest until final removal.

ARQvault makes sure your video remains unaltered using a digital fingerprint (SHA-256) and provides a full chain-of-custody history to ensure that the video being used is the same as when it was originally written. You will know who has accessed a video, when it was migrated to different tiers of storage, and can see a history of both. As additional users need access there

is no need to manually add them – users and groups from Active Directory are automatically recognized and can be used to set permissions and accessibility into the ARQvault video management system.

All the video optimization and search capabilities are useless if video is not available. With ARQvault VMS, video is always there. ARQvault VMS uses a distributed architecture with no single point of failure. You can store, move, and retrieve videos to and from any vault, anywhere, whether at the same site, or to and from any other vault on the network.

Resiliency is built in, as ARQvault continues to operate if any component fails, so video is always safe and available. If a failure occurs while storing, ARQvault VMS automatically finds an alternate path and location and keeps writing. If a failure occurs when accessing, ARQvault VMS automatically finds an alternate copy and keeps reading.

## ALL STORMAGIC PRODUCTS ARE:

**FLEXIBLE, ROBUST, SIMPLE TO USE, AND COST-EFFECTIVE**

### HOW IS ARQvault VMS FLEXIBLE?
- Supports thousands of cameras and camera standards
- Provides configurable live-views and a massively scalable video wall
- Works with existing servers and storage, integrates with other video management systems

### HOW IS ARQvault VMS ROBUST?
- Offers extensive camera controls
- Is always available, with distributed and replicated video storage
- Provides security and complete chain-of-custody reporting

### HOW IS ARQvault VMS SIMPLE?
- Is easy to use and manage, from a single console or multiple locations
- Finds what's needed fast with intelligent search using rich metadata
- Expands easily, by adding servers, storage, and/or vaults

### HOW IS ARQvault VMS COST-EFFECTIVE?
- Saves up to 50% on storage vs. other solutions
- Can use existing servers and storage
- Reduces network congestion with low-res proxies

## CONCLUSION

Video surveillance keeps growing, camera technology is evolving, and use cases are expanding. That is good news. To take advantage of these changes, video surveillance solutions must be easy to use and manage, be reliable, secure, and available, and provide powerful search capabilities, all while not breaking the budget.

The ARQvault VMS video surveillance solution meets these criteria. ARQvault VMS lets you capture and view video with maximum choice and control, use and manage surveillance video with ease and speed, getting quick results no matter video location or age, and retain and protect all video for as long as needed, even forever. And ARQvault VMS can improve network performance, reduce operational costs, and provide savings on storage costs up to 50% less than other solutions.

## MORE INFORMATION

There are additional resources available covering ARQvault capabilities and features on the **StorMagic website** and the **ARQvault VMS data sheet**.

Test ARQvault VMS in your environment free of charge. Simply download our fully functioning **free trial from the website**.

If you have questions, or you would like a demo of ARQvault VMS contact the StorMagic team at **sales@stormagic.com**.

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