Redundancy Management Framework

Redundant Data Centers Made Easy

Vega

Introduction

The Redundancy Management Framework (RMF) is a plugin for Milestone XProtect VMS. It consists of multiple components designed to facilitate and leverage redundant XProtect Data Centers.

Customers who use RMF with XProtect benefit from a highly available VMS deployment. Even database corruption at a single site does not affect security in certain architectures.

Vega Systems provides software and expertise to design robust video data center architectures.
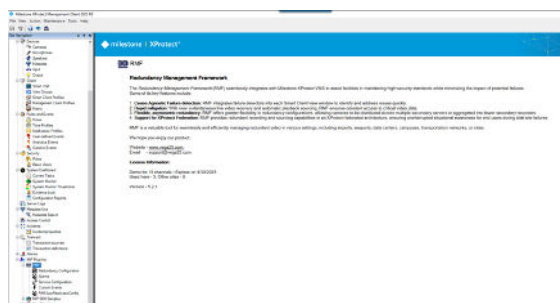
RMF is deployed at airports, campuses, seaports, power plants, and military installations in several countries.
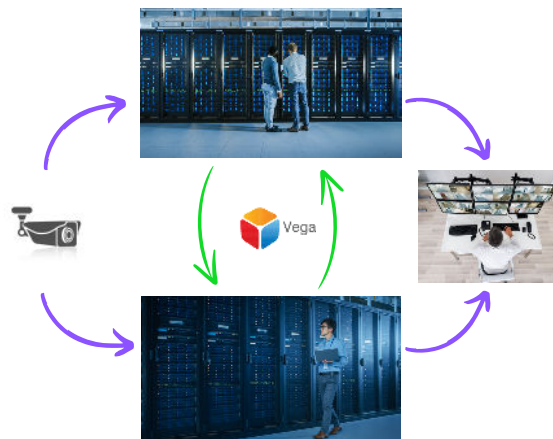
Key Features

Seamless XProtect Integration

Seamless integration with Milestone XProtect, simplifies use by offering a single pane of glass experience.

Pricing Model

- Single perpetual license per device.
- One device is one MAC Address.
- An encoder consumes a single license, as does a multi-lens camera.

Active-Active Redundancy

We exclusively support redundant active-active architectures, ensuring that both data centers are fully operational and accessible to deliver services around the clock. All video resides in each data center.

Client Side Intelligence

Detect failure events in each client window. Independently. Democratically. Align with the end-user's perception of failure. Catch a broad spectrum of failure events that impact end users, big and small.
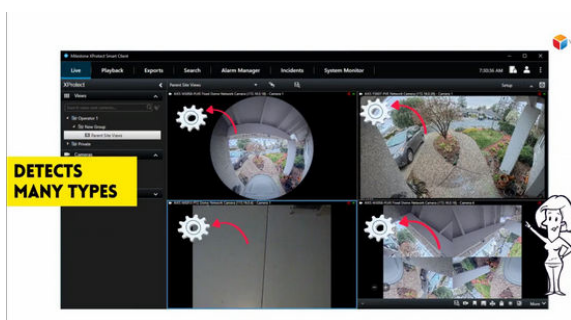
Multi Architecture Support

Choose a clustered architecture. Or choose a Federated architecture to keep databases insulated. Or even, have Independent sites. We support them all.

Key Mirroring Features

Site Mirroring

A CPU-efficient Smart Synchronization Service enables site mirroring across Federated or Independent XProtect Architectures. Enables use of the secondary site if the primary fails.
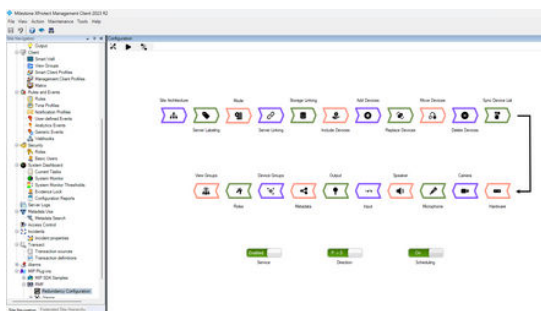
Asymmetric Redundancy

Liberate your redundant infrastructure design from the limitations of one-to-one recording server mapping. Choose different stream definitions for primary and redundant streams. Unlock a range of cost-performance architectures. You have options.
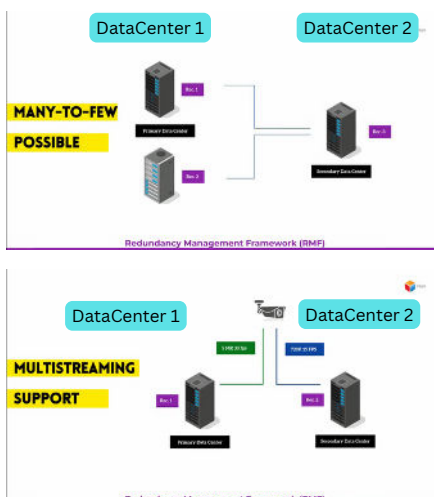
Bi-Directional Synchonization

Synchronize Devices, Streams, Roles, Views, and more from the Primary Site to the Secondary Site or from the Secondary to the Primary Site. Restore accidentally modified configurations with ease.

Scheduling

Run Synchronization on a schedule, or run at will. You choose.

Device Add, Delete, Replace, Move

Add devices on the primary data center and see them appear on the secondary. Or, Delete, Replace or even move devices and see them mirrored.

Device Groups

Add, Delete, and Rename groups. Or move cameras between groups in the primary site. RMF mirrors these changes on licensed devices.

Roles

Add, Delete, or modify roles. Add, remove, or modify user permissions. We mirror these changes to the extent of MIP support.

Views

We replicate all smart client view groups to ensure a consistent user experience when logging in to secondary sites.

Fine Grained Sync. Control

Synchronize, just a chosen set of devices, Roles, Streams, or synchronize everything in either direction.
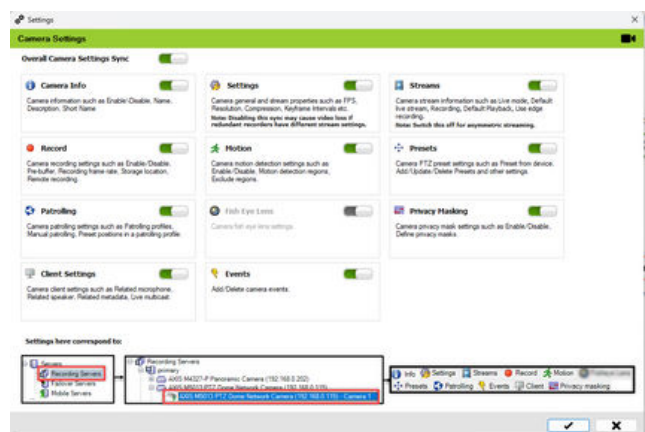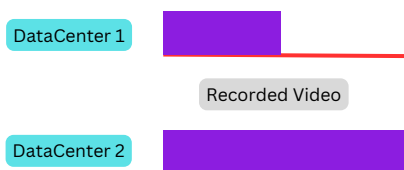
Key Client Side Features

Dual Recording Reduces Missing Footage

With RMF, every camera streams independently to each data center. There is ZERO wait time to start servers or streams when one data center fails. So, there is no lost footage during failure episodes.

DataCenter 1

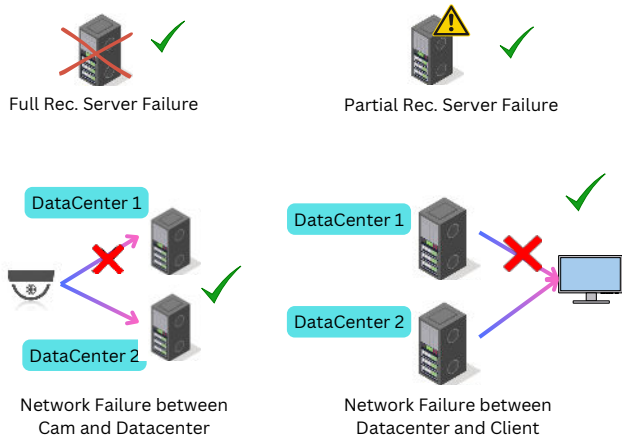Recorded Video

DataCenter 2

Rapid Live Video Recovery

Client-side intelligence enables near-instantaneous live video recovery in the client from alternate data centers. Operators hardly notice live video loss, allowing them to provide higher levels of security. It is the *fastest in the industry*.

DataCenter 1   Gap End / Gap Start   DataCenter 2

Live Video
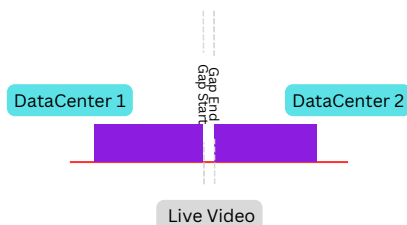
Cause Agnostic Mitigation

Client-side intelligence mitigates video losses due to many types of failure.

Full Rec. Server Failure ✓

Partial Rec. Server Failure ✓

DataCenter 1 / DataCenter 2 — Network Failure between Cam and Datacenter ✓

DataCenter 1 / DataCenter 2 — Network Failure between Datacenter and Client ✓

REST API

Empower other authenticated components in the deployment ecosystem, such as PSIM and Analytics, to leverage video redundancy.

Simplify Password Updates in Redundant Systems

Effortlessly update passwords across multiple cameras and data centers in a redundant architecture. Update passwords frequently and uphold high-security standards while experiencing minimal disruption.

Load Balance Recorders

Serve some cameras from Primary Data Centers and others from Secondary Data Centers while operating in Clustered or Federated Architectures.

Flex Licenses

Assign licenses to a set of devices. Later, move those licenses to other devices. Buy and use what you need.

Automatic Playback Switching

When users play back archived footage within the RMF Smart Client plugin, the content will automatically be played back from the redundant site if the primary site is missing content.

DataCenter 1   DataCenter 2   DataCenter 1

Playback

Bookmarks: Redundant Save/Retrieval

Saving bookmarks from within the RMF Smart Client plugin saves it on both the primary and secondary recorders.

Other Features

High Availability Alarms

Leverage Redundant Events in an active-active architecture to generate High Availablity Alarms.

True Video Backfill

Copy missing video content between data centers. (This is under development and will be available Dec 2024)

Application Verticals

✈ Airports 🔗

Any loss of situational awareness at an airport poses a risk to public safety and is not acceptable. Our solutions provide cause-agnostic failure detection and rapid mitigation for various failures, making us a compelling choice.

🚢 Seaports 🔗

Essential, revenue-generating port operations heavily depend on live video feeds. A disruption in real-time video can directly result in significant revenue losses. Read more to learn how we help.

🖳 Data Centers 🔗

Data Centers require compliance with strict physical security standards. Our solutions help data centers in exceeding these standards.

🏛 Campus 🔗

As university campuses continue to shift towards using multiple data centers for video security, choosing suitable video architectures and software is paramount for maintaining uninterrupted service delivery.

▶ Design

Mitigation Simulator 🔗

Visualize the impact of failures of key XProtect components in a myriad of redundant deployment architectures. See how our solutions help mitigate them.
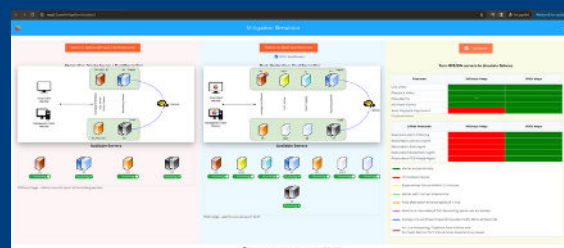
Design Assistance

The path to High Availability can be confusing, with many redundancy options available at different failure tolerances and cost points. We've navigated them all, and we're here to guide you. Share your objectives with us, and we'll help you design a redundancy architecture that meets your needs and budget.
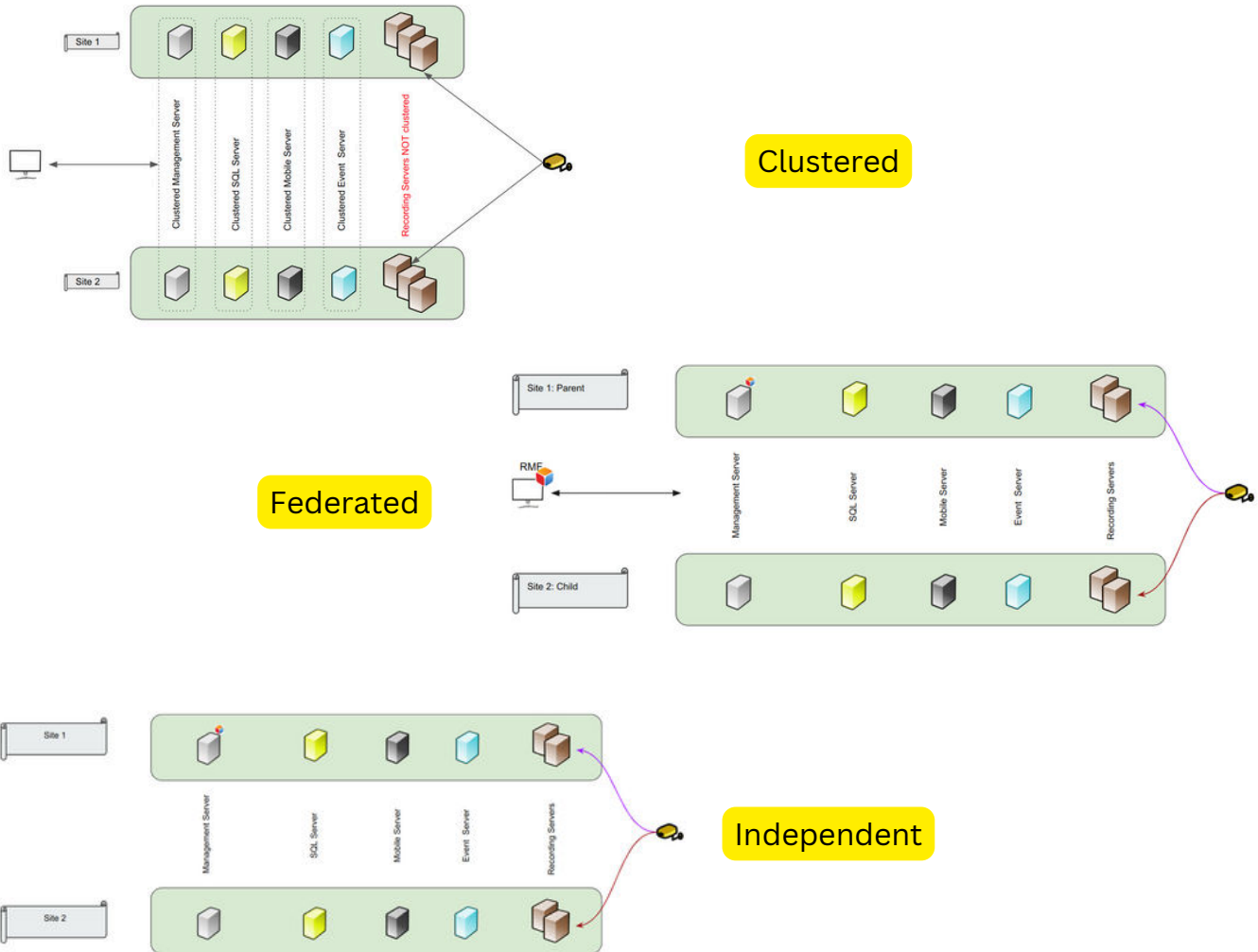
🚆 Transportation 🔗

Transportation networks, like railways, cover large areas but must be managed as a unified video security system. Our solutions are well-suited for distributed deployment and consumption needs, serving video consumers near the cameras and at remote central facilities.

🏭 Utilities 🔗

Nuclear power utilities necessitate rapid live video recovery, low-latency event alarms, and compatibility with third-party software. We proudly provide these essential features, and are adopted in this industry.

Multi-Architecture Support

Clustered

Federated

Independent