

Milestone Systems

Milestone CCure 9000 Video Push

Manual



Contents

C	ppyright, trademarks, and disclaimer	4
Ιn	troduction	. 5
	Introduction	. 5
	Revision history	. 5
	Version compatibility	6
	XProtect & CCure license requirements	. 7
	Feature list	. 8
	Integration components (explained)	.10
	Integration limitations (redundancy & encryption)	. 10
	Integration architecture options	.11
Ιn	stallation	. 14
	Installing prerequisites	. 14
	CCure licenses	15
	Installation process (explained)	. 16
	Install the Milestone MIP SDK	.16
	Install the CCure server components	. 17
	Install CCure client components	. 19
	Uninstalling integration	20
Ba	asic Configuration	. 21
	Configure the CCure 9000 server	. 21
	Configure a Recording Server in CCure 9000	. 23
	Configure the Recording Server connection	.25
	Configure Recording Server properties	28
	View cameras live	. 30
	Live video controls in CCure 9000	.32
	Viewing recorded video	34
Αd	lvanced Configuration	.37
	CCure events (explained)	37

	Configure events with video in CCure 9000	39
	Configure Milestone user-defined event triggers within CCure 9000	45
	XProtect analytics events as actions triggered by CCure 9000 events (explained)	. 49
	Configuring analytics events in XProtect	50
	Configuring analytics events in CCure 9000	52
	Viewing CCure 9000 events in Smart Client	55
	Milestone camera and Recording Server alarms (explained)	55
	Configure CCure 9000 alarms triggered with Milestone custom events	56
	Configure CCure 9000 recorder and device alarm actions	58
	Configuring CCure 9000 Enterprise MAS/SAS scenario	61
Tr	oubleshooting	. 63
	Ports required for video from XProtect	63
	Database errors	63
	Invalid object name	63
	A database object error occurred	64
	H.265 video support	. 65
	MIP SDK upgrade error 2803	. 65
	General troubleshooting of the XProtect integration with CCure 9000	. 66
	Upgrading with certificates to version 3.2.3	67
	Ignoring repeated XProtect event notifications	69
	Troubleshooting Milestone XProtect VMS video driver	70
	Troubleshooting log file locations	71
	Troubleshooting event acknowledgement in CCure	71

Copyright, trademarks, and disclaimer

Copyright © 2025 Milestone Systems A/S

Trademarks

XProtect is a registered trademark of Milestone Systems A/S.

Microsoft and Windows are registered trademarks of Microsoft Corporation. App Store is a service mark of Apple Inc. Android is a trademark of Google Inc.

All other trademarks mentioned in this document are trademarks of their respective owners.

Disclaimer

This text is intended for general information purposes only, and due care has been taken in its preparation.

Any risk arising from the use of this information rests with the recipient, and nothing herein should be construed as constituting any kind of warranty.

Milestone Systems A/S reserves the right to make adjustments without prior notification.

All names of people and organizations used in the examples in this text are fictitious. Any resemblance to any actual organization or person, living or dead, is purely coincidental and unintended.

This product may make use of third-party software for which specific terms and conditions may apply. When that is the case, you can find more information in the file 3rd_party_software_terms_and_conditions.txt located in your Milestone system installation folder.

Introduction

Introduction

This document provides instructions of how to integrate Milestone XProtect VMS with Software House CCure 9000 Access Control System.

The purpose of the integration is to enable you to view live and recorded video from Milestone XProtect video management system (VMS) from inside the CCure user interface. The integration blends CCure data and Milestone video into a single, integrated application, instead of requiring two separate applications. This integration brings the basic features of the Milestone VMS into the CCure system.

To access the comprehensive features of the Milestone VMS system, use the XProtect Smart Client.

Revision history

Rev Date	Author	Summary of changes
2012 Jan 12	SR	Initial Version 1.21
2012 Oct 22 2013 Nov 1 2013 Nov 7	SR SR SR	Support CCure v2.10 Support v2.10 R2, and trigger Milestone Events. Support v2.20
2015 Apr 8	JFM	Support v2.30
2015 Oct 23	JFM	Support v2.40, added support for all Milestone camera and recorder events and custom events.
2016 Dec 15	JFM	Support v2.50
2017 May 31	JFM	Added support for Analytic events.
2017 Sep 11	SRB	Added support to acknowledge Milestone alarms automatically.

2017 Oct 19	SRB	Support v2.60
2017 000 19	טונט	σαρροιί νε.σο
2017 Dec 12	SRB	Added new troubleshooting subsection.
2017 Dec 19	SRB	Updated Compatibility, Limitations, and Feature Matrix sections, and updated installation snapshots.
2018 Feb 15	SRB	Updated all screenshots.
2018 Apr 25	SRB	Enterprise support and version compatibility.
2018 May 17	вна	Support v2.70 SP2.
2019 May 14	SRB	Support for XProtect 2019 R1, with encryption.
2020 May 28	SRB	Support v2.80 SP2.
2021 April 30	MJT	Support v2.90, support XProtect 2020 R3.
2022 August 11	МЈТ	Support CCure version 3.0 and XProtect version 2022 R2. Added record on demand functionality. Upgraded pre-requisites to include 2022 R1 MIP SDK.
2024 June 6	МЈТ	Support XProtect version 2023 R3. Updated MIP SDK support for alternate installation directories.
2024 Sept 12	МЈТ	Support for XProtect 2024 R1 and CCure 3.00.3

Version compatibility

Milestone XProtect VMS has many different product levels. The integration with CCure 9000 is compatible with the following XProtect VMS products:

- XProtect Corporate
- XProtect Expert
- XProtect Professional+

To find a list of supported versions of the following software components, please refer to the compatibility document hosted at the download site where you obtain the plug-in.

- CCure 9000 access control software
- · XProtect video management software
- CCure 9000 Video Push plug-in

XProtect & CCure license requirements

One license file is associated to each unique Milestone XProtect Software License Code (SLC) used with the integrated XProtect VMS. Contact Milestone sales for more information.

XProtect Integration License Details:

Milestone License Name	Milestone Part Number	MSRP	Notes
Milestone CCure 9000 Plugin license	XPCOO9	\$1500.00	One license per XProtect SLC

CCure Integration License Details:

CCure License Name	CCure Part Number	MSRP	Notes
Milestone XProtect Corporate	CC9-MSTVID+	Varies	



The CC9-MSTVID+ license SKU will vary based on the size of the access control system (number of doors). This will impact the final SKU and the price - however. Tyco only needs this SKU in order to get the order processed.

Feature list

Video feature	Mark an "X" where comply	Special notes	CCure min. version supported
Live video	X		2.70
Text overlay	Not supported		-
Pre-recorded video playback	X		2.70
Status	X		2.70
Export to AVI	Not supported		-
Time synchronization	X		2.70
Record start (on demand)	Not supported	CCure journal entry "bookmark" is created. Recording not triggered in XProtect.	-
Frame rate definition	Not supported.	Configurable in XProtect system.	-
Record stop (on demand)	Not supported.		-
PTZ (domes only)	X		2.70
Video alarms	Х	Video loss, motion, recording events in this version.	2.70
Video tour	X		2.70
Video view up to 16 cameras	X		2.70
Presets & patterns	X (only presets)	(patterns not supported)	2.70

View live & recorded video from more than one camera via popup in single window	Supported with live video. Not support with recorded video.	With recorded video more than one single window can run at the same time.	2.70
PTZ presets & presets based on event, alarm input	Supported (only presets)	(patterns not supported)	2.70
Replay up to 4 cameras for same time interval	Not supported.	Playback from 1 camera only with single command.	-
Toggle video window size from 1X to 4X	X		2.70
Display up to 4 live video windows based on event	х	Use views for this.	2.70
Original recorded video is secured	х		2.70
Playback and recorded video in one window	Not supported.		-
Bi-directional actions	Х		2.70
Support for all camera and recorder events in CCure	х		2.70
Support for XProtect custom events in CCure	х		2.70
Support for XProtect analytic events	х		2.70
Support for XProtect alarm acknowledgment	X		2.70
CCure Enterprise: Master Application Server (MAS)/Satellite Application	x	Please see Configuring CCure 9000 Enterprise MAS/SAS scenario on page 61	2.70

Server (SAS)			
Support for Milestone XProtect Recording Server data encryption	X	Please see Integration limitations (redundancy & encryption) on page 10	2.70

Integration components (explained)

The administration and configuration of the integration takes place in the CCure Administration Station and Server Configuration Applications.

The solution requires that:

- Integration server components are installed on the CCure server.
- Integration client components are installed on all required CCure client machines.
- The Milestone MIPSDK x86 redistributable is installed on all client machines.



If you remove earlier versions of the Milestone integration, you will not remove Milestone objects from Cross Fire database.

This integration uses the same Milestone objects from earlier versions of the integration. When you upgrade, all Milestone video servers and cameras set up with earlier versions of the integration will continue to exist.

Integration limitations (redundancy & encryption)

See the user manuals and documentation for CCure 9000 and Milestone XProtect for a comprehensive description of the limitations of the respective systems.

- Milestone XProtect Corporate Video Management System
- Software House CCure 9000 Access Control System



This integration does not support the CCure 9000 Clustering/Redundancy solution. Traditional clustered and redundant Milestone systems are supported by this integration.

The CCure 9000 Video Push integration is compatible with Milestone XProtect Recording Server data encryption. The Recording Server data encryption feature introduced with XProtect 2019 R1 works with CCure 2.70 and up.

For CCure 2.70 and up, you must install the appropriate certificate and make sure it is trusted on the client machines (where video is displayed) for this integration to work when the Recording Server data encryption feature is enabled. See to the Milestone XProtect user manuals below for more details.

- XProtect Certificates Guide
- Milestone Systems Cybersecurity Hardening Guide

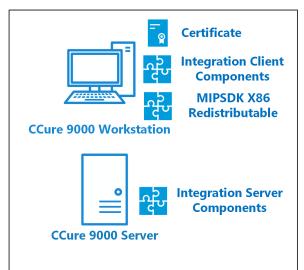


When data encryption is enabled, live and playback video cannot work with earlier versions of CCure (2.60, 2.50, 2.40 and 2.30). The integration will work as expected if you turn off the encrypted data feature and existing recording server data is not encrypted.

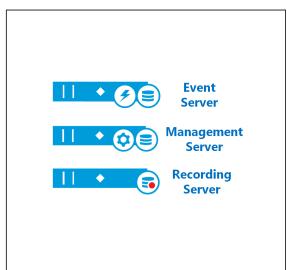
Integration architecture options

Single system installations, where Milestone XProtect consists of a single Management Server and a single Recording Server, and the CCure 9000 system consists of a single CCure 9000 Server should have an architecture similar to the diagram below.

CCure 9000 ACS

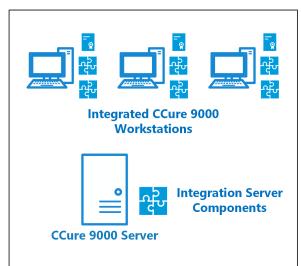


Milestone XProtect VMS

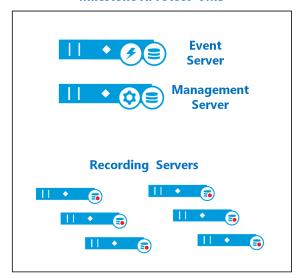


As systems scale in size, the two most important components in this integration are CCure 9000 workstations, and Milestone XProtect Recording Servers. For each CCure 9000 workstation added to the system, it will need all three of the components listed above, the certificate, the integration client components and the MIPSDK X86 Redistibutable. You must configure each Milestone XProtect Recording Server individually.

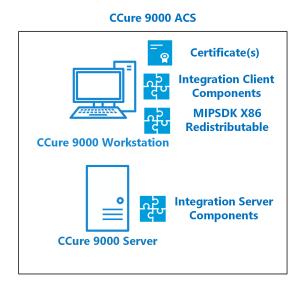
CCure 9000 ACS

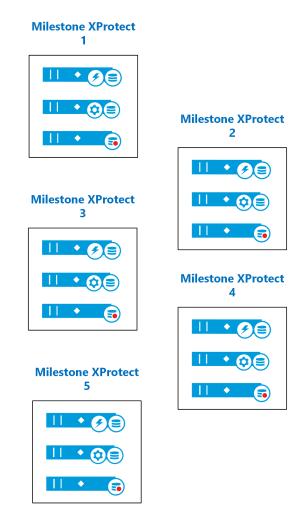


Milestone XProtect VMS



Scaling the number of cameras and Recording Servers can also include adding more Management Servers and Event Servers. This is also explained in the Configure the Recording Server connection on page 25 section. The primary complication in this particular scenario is the requirement for a specific certificate on each CCure 9000 workstation that matches each individual XProtect VMS system.





Many other architectural options are available. Please consult Milestone Systems if your desired option is not listed.

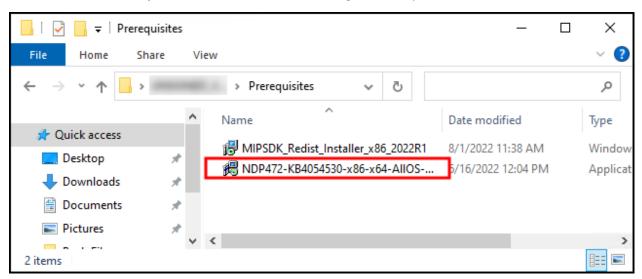
Installation

Installing prerequisites

Before you install the integration:

- Make sure that CCure 9000 server and CCure clients are configured and working.
- Make sure that the Milestone XProtect VMS and cameras are installed, configured, and working.
- Make sure the .NET Framework 4.7.2 is installed if you are using version 2.70 or 2.80 of CCure 9000

When you integrate with the CCure 9000 2.70 or 2.80 versions, you must install Microsoft Windows .NET Framework 4.7.2. before you install the server and client integration components.



This prerequisite package is for all CCure 9000 client and server locations. You must install the .NET Framework 4.7.2 components and reboot each server or workstation prior to installation of the integration components. The runtime installation application is available in the Prerequisites folder of the installation package, available at:

• CCure 9000 Video Push download site



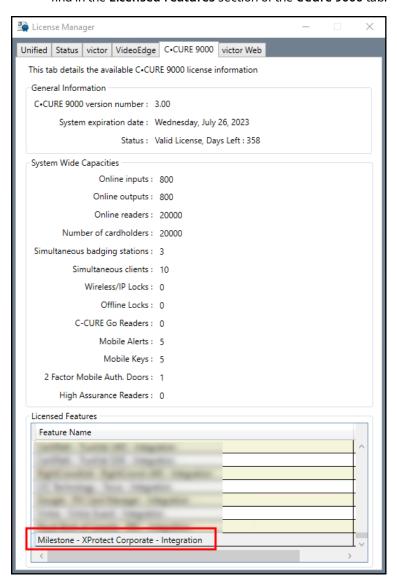
2.90 and higher versions of CCure 9000 include the .NET components, so they don't need the same prerequisites as earlier versions.

For more information, see the user manuals and documentation for CCure 9000 and Milestone XProtect for a comprehensive description of the installation, configuration, and features of the respective systems.

CCure licenses

You can get the integration license from Software House and apply this license with CCure **License Manager** tool.

• To apply the license, you must enable the "Milestone XProtect Corporate" license option which you can find in the **Licensed Features** section of the **CCure 9000** tab.





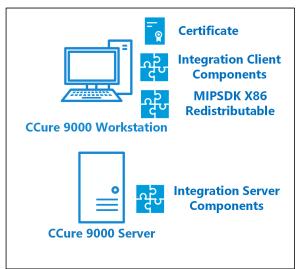
This license does not have anything to do with the version of XProtect (XProtect Professional+, XProtect Expert, XProtect Corporate ...etc.) used with the integration. This name merely covers the name of the license that CCure has chosen to use. Also, the license name will look slightly different between CCure version 3.0 and CCure versions 2.9 and lower. However, the name of the license is still "Milestone XProtect Corporate."

Installation process (explained)

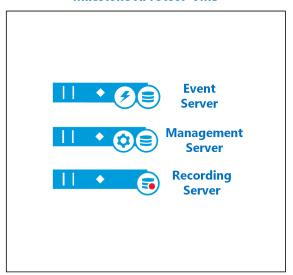
The following sections describe the steps needed to install the different parts of the integration:

- Server components on the CCure 9000 server machine.
- Client components on all CCure 9000 client machines.
- Milestone MIPSDK x86 redistributable on all CCure 9000 client and server machines.

CCure 9000 ACS



Milestone XProtect VMS



Install the Milestone MIP SDK

You must install the Milestone MIPSDK x86 redistributable on all CCure 9000 client and server machines that need access to Milestone video. This component is included in the Prerequisites folder of the installation package which is available at the CCure 9000 Video Push download site.

Note: Starting with CCure 2.70, version 2022 R1 of MIPSDK x86 Redistributable is required.

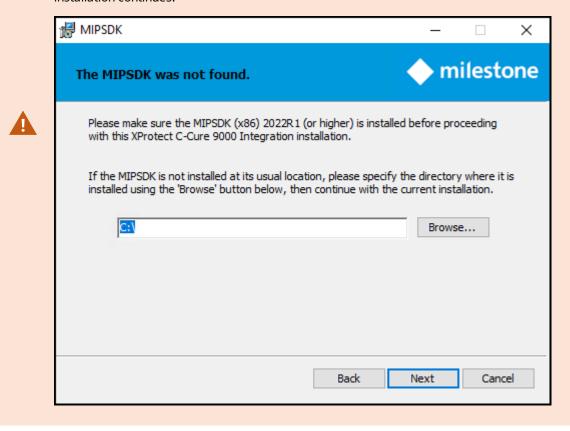
CCure 9000	MIPSDK x86	Filename
2.70 and up	2022 R1	MIPSDK_Redist_Installer_x86_2022R1.msi

- 1. Click MIPSDK_Redist_Installer_x86_2022R1.msi to start the installation.
- 2. Click **Next** as needed to complete the installation. There are no other options or settings in the installation wizard. Complete the wizard to finish the installation.

The default installation location for the MIP SDK redistributable software components is:

C:\Program Files (x86)\Milestone\MIPSDK

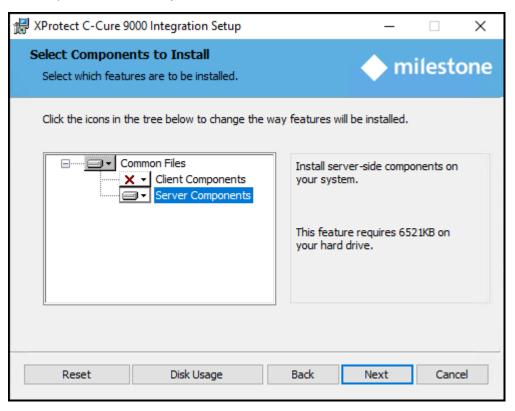
If your installation requires a different location for these components, please contact Milestone Technical Support for assistance with the installation. When the MIP SDK components are installed in a different directory, the CCure 9000 Video Push integration software installation wizard detects the absence of the components at the default location and requires user input specifying the alternate directory before the installation continues.



Install the CCure server components

You must install integration software components on the CCure 9000 server.

- 1. Double-click the XProtectVideoPush-v3_XX-CCure9k-vX-XX.msi file to start the installation.
- 2. Click **Next** to enter the component selection step. When you install on a CCure 9000 server that will not require the client components, open the **Client Components** list and select the **Entire feature will be unavailable** option.
- 3. Open the Server Components list and select the Will be installed on local hard drive option.



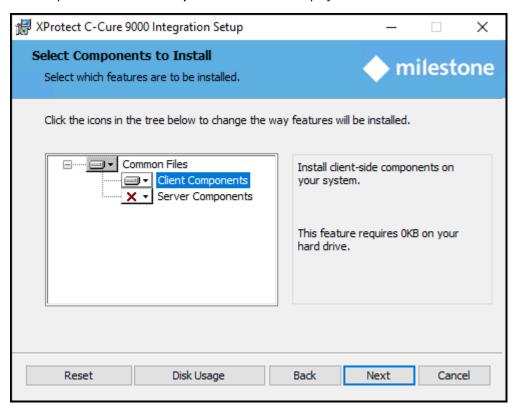
- 4. Click **Next** to continue. The default installation location is: C:\Program Files (x86)\Tyco\
- 5. Click **Install** to complete the installation process.



The installation location for the CCure 9000 Video Push components is controlled by the MIP SDK redistributable software components. These two software packages need to be installed on the same drive. Without technical support assistance, the MIP SDK components can only be installed on the C:\ drive. The location of the CCure 9000 Video Push server components and client components is not changeable. If the MIP SDK is installed in a different location, the wizard must be directed to this location before it can continue with the installation.

Install CCure client components

- 1. Install the **Client Components** on all CCure client machines where you need the Milestone video integration.
- 2. Click XProtectVideoPush-v3_XX-CCure9k-vX-XX.msi to start installation.
- 3. Click **Next** to enter the component selection step. If you are installing the components on a client machine only, open the **Client Components** list and select the **Will be installed on local hard drive** option. The **Server Components** list should display a red X icon.



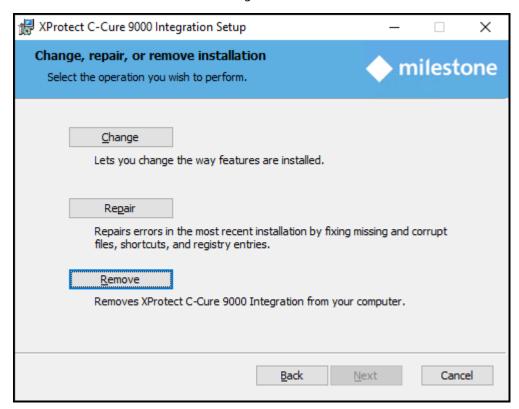
4. Click Next to continue. Click Install to start the installation process.



The installation location for the CCure 9000 Video Push components is controlled by the MIP SDK redistributable software components. These two software packages need to be installed on the same drive. Without technical support assistance, the MIP SDK components can only be installed on the C:\ drive. The location of the CCure 9000 Video Push server components and client components is not changeable. If the MIP SDK is installed in a different location, the wizard must be directed to this location before it can continue with the installation.

Uninstalling integration

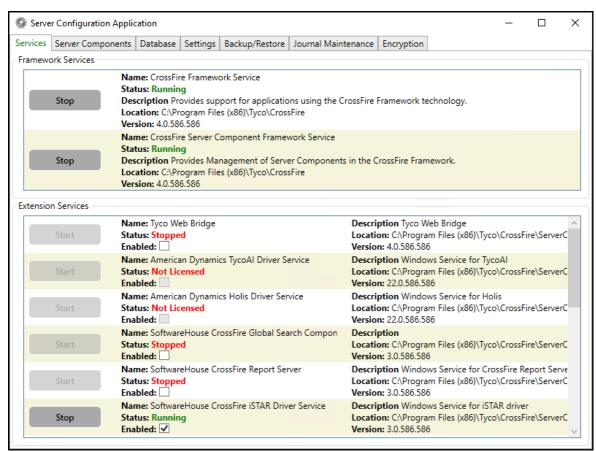
You can uninstall the server and client software components by running the XProtectVideoPush-v3_XX-CCure9k-vX-XX.msi installer and selecting Remove.



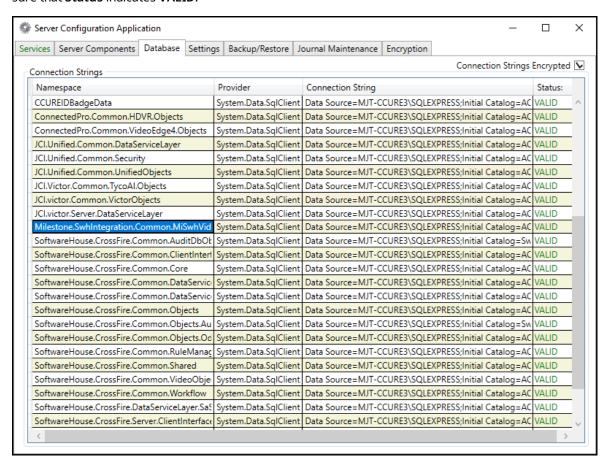
Basic Configuration

Configure the CCure 9000 server

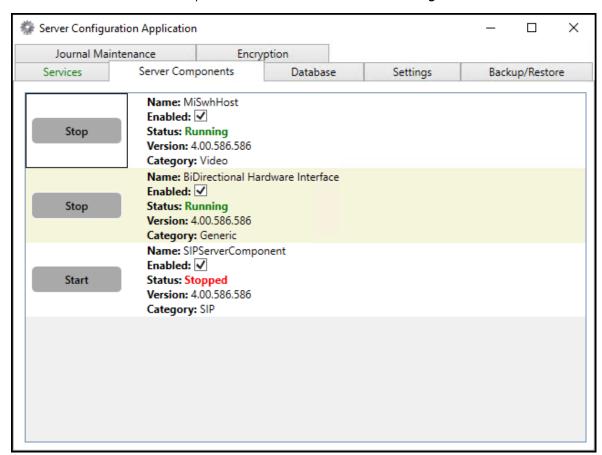
- 1. In Windows, go to the **Start** menu and select **Server Configuration** from the **Tyco** folder in the programs list.
- 2. In the **Services** tab, check the status of the two services **CrossFire Framework Service** and **CrossFire Server Component Framework Service**. What you must do in the next step, depends on their status.
- 3. Depending on the status of the services, you have two options:
 - If green status of **Running**: restart the services one by one by first stopping the service. Click the **Stop** service button, and then start the service again by clicking **Start** service button.
 - If red status of **Stopped**: start the services by clicking on the corresponding **Start** service button. Make sure that the status changes to **Running**.



- The Database tab displays the status of all connection strings. By default, the list is in alphabetical order by Namespace. If the Status column indicates INVALID for the
 - Milestone.SwhIntegration.Common.MiSwhVideoObjects item, edit the **Connection String** to point to the correct path of the CCure Database, then restart the CrossFire services.
 - Check the Server Configuration Application and verify the connection string of another Namespace object that uses the Initial Catalog variable similar to: Initial Catalog=ACVSCore
- 5. Next, make sure that the connection string for the Milestone integration component is identical. Make sure that **Status** indicates **VALID**.

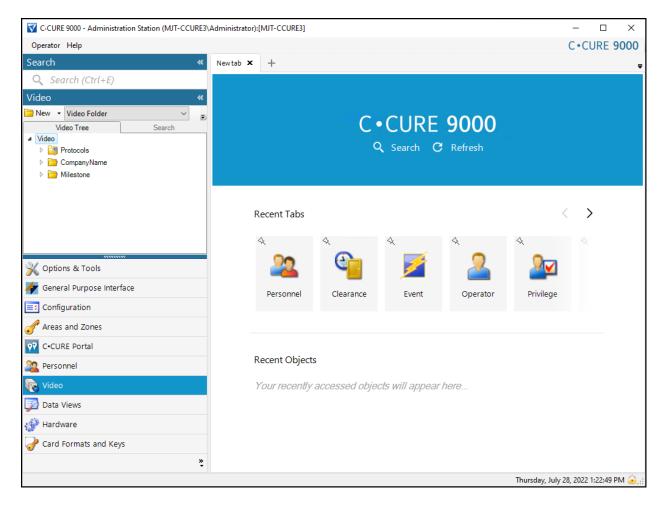


6. On the Server Components tab, on the line indicating the Category: Video, observe the status for the MiSwhHost server component. If the status indicates Stopped, select the Enabled checkbox and click the Start button. This server component should indicate a status of Running.

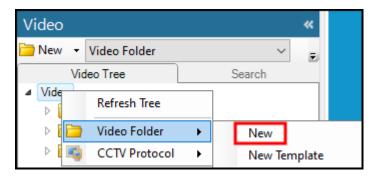


Configure a Recording Server in CCure 9000

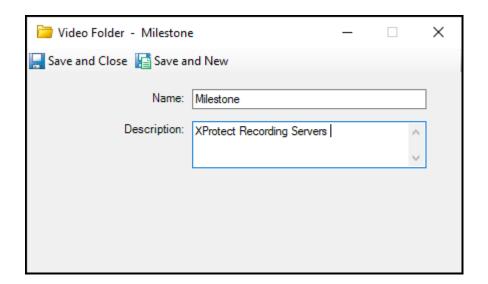
- 1. To begin, start the CCure 9000 **Administration Station** application by selecting **Administration Workstation** from the **Tyco** folder in the programs list of the **Start** menu. You can also search for Administration Station using the Windows Search function, then open the application.
- 2. Select the Video tab from the bottom left menu of the application to display the video tree.



3. Right-click the Video Tree folder, expand the Video Folder option, and select New from the menu.



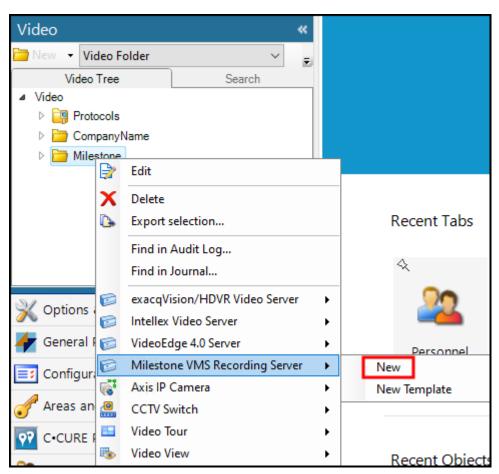
4. Enter a Name and Description, then click Save and Close to create the new folder under Video.



Configure the Recording Server connection

To connect to a Milestone XProtect Management Server follow these steps:

1. Right-click the newly created folder, expand the **Milestone VMS Recording Server** object, and select **New** from the shortcut menu.



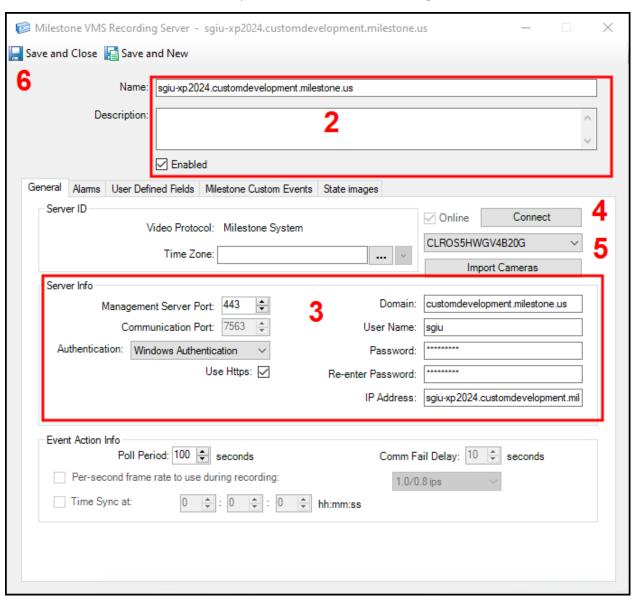
2. Enter a Name, Description, and select the Enabled option. See details for each option below these steps.

Name	Name the connection to identify the Recording Server if there are more than one.
Description	Add any description, useful details, or identifying information in this field.
Enabled	Select this option to make the connected Recording Server available.

3. Next, fill out the required Server Info.

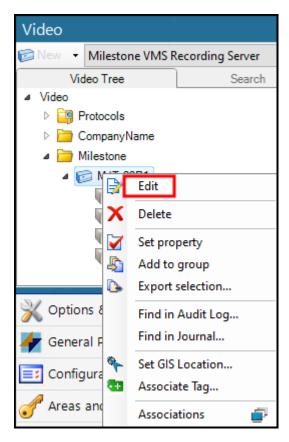
Domain	The Domain of the Milestone XProtect Management Server.
User Name	User credentials for an authorized XProtect VMS user.
Password / Re-enter Password	Password information for the user credentials entered above.
IP Address	IP address, DNS address, or Hostname for the Milestone XProtect Management Server.
Management Server Port	443 if we are using HTTPS, otherwise it is 80.
Communication Port	Should not be modified. Value adjusts automatically to 7563 for Milestone XProtect.
Authentication	Choose between Windows Authentication and Basic Authentication Server Info Management Server Port: 443 Domain: Communication Port: 5000 User Name: Authentication: Windows Authentication Windows Authentication Windows Authentication Re-enter Password: IP Address:
Use Https	Enable or disable the use of HTTPS.

- 4. Click the **Connect** Button. The system will connect to the Management Server and retrieve the list of Recording Servers. This list is available below the **Connect** Button after successful connection.
- 5. Open the Recording Server list to select a Recording Server from the connected VMS.
- The first Recording Server found on the Management Server connects by default, choose the required server from the list.
- If the chosen Recording Server is online the **Import Cameras** button is active.
- If the **Online** check box does not show up as selected, edit the settings and click Connect again to reattempt connection to the Management Server.
- 6. **Save and Close** the window to complete the creation of the Recording Server.

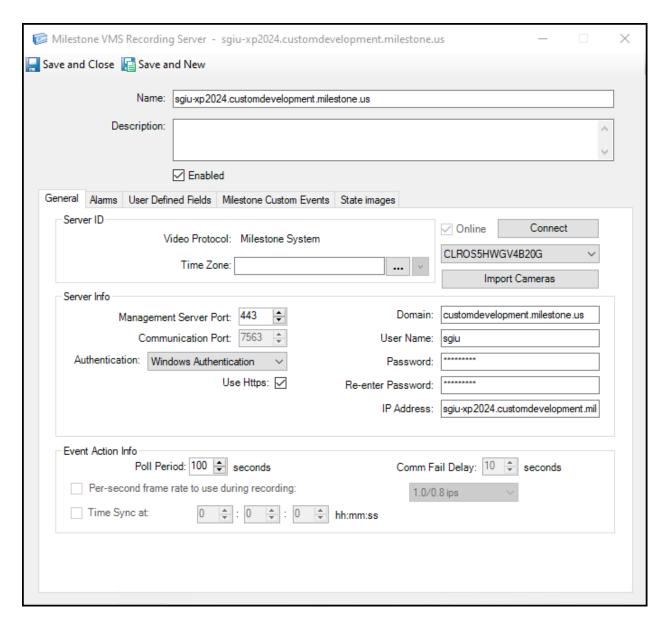


Configure Recording Server properties

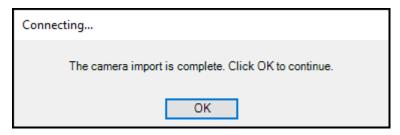
1. Open the folder containing the connected Recording Server(s). Right-click the Recording Server object and select **Edit** from the shortcut menu.



2. If the settings and credentials are correct, the system connects to the Milestone XProtect Recording Server. The **Online** check box fills and becomes unavailable, and the **Import Cameras** button enables. Edit any of the settings from this window.

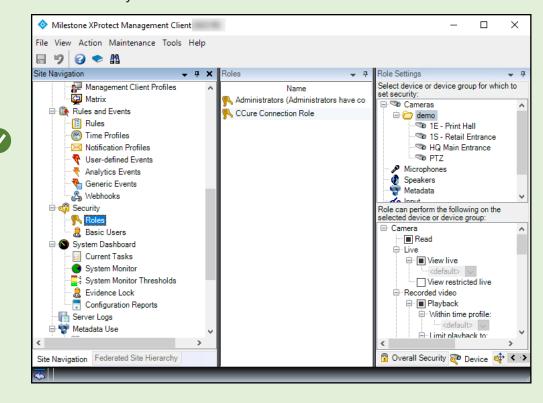


3. Click on the **Import Cameras** button.



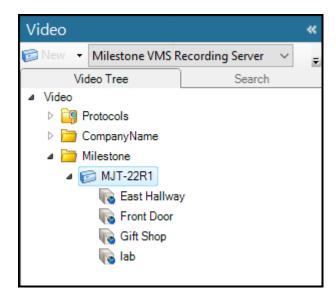
- 4. Click Save and Close on the Edit screen to save the imported cameras into the system.
- 5. To integrate multiple Milestone XProtect Recording Server to the same CCure 9000 system, follow the steps listed in the Configuring the Recording Server Connection section.

The XProtect user account used to establish the connection to CCure 9000 determines the availability of cameras during the Recording Server Import Cameras operation. If there is a requirement to limit the cameras which are imported into the CCure 9000 system, it is recommended to create a special Role in XProtect with customized device permissions, and assign the same user used to establish the connection to that Role. Read more about Roles and security in XProtect at this link.

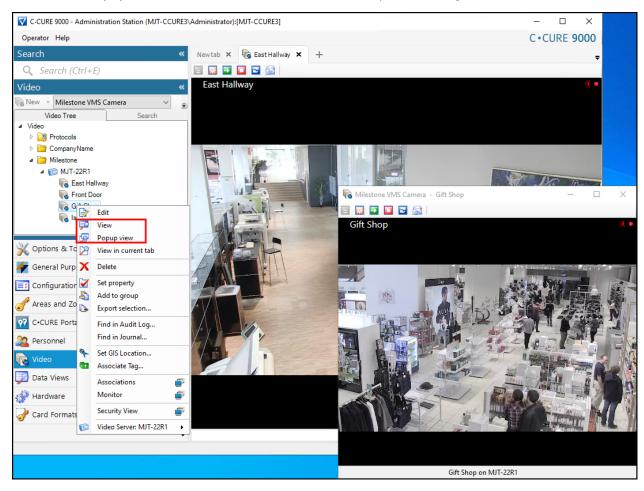


View cameras live

1. Expand the Recording Server object to view the list of cameras.



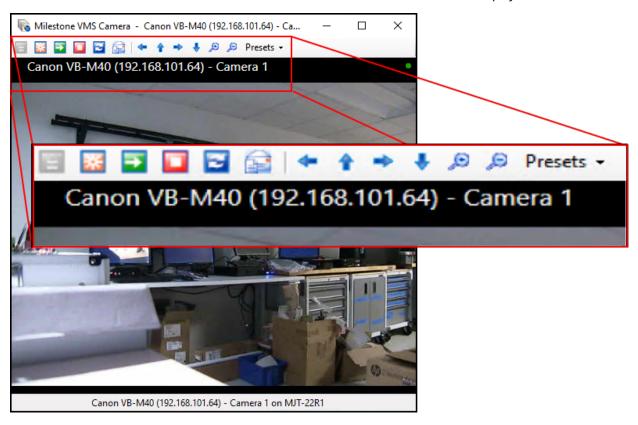
- 2. To view video from Milestone cameras, right-click any camera on the list and select the View option from the menu to start a live video pane in the main window of the CCure 9000 Administration Station application.
- 3. Select **Popup View** from the menu to view the video in a separate floating window.



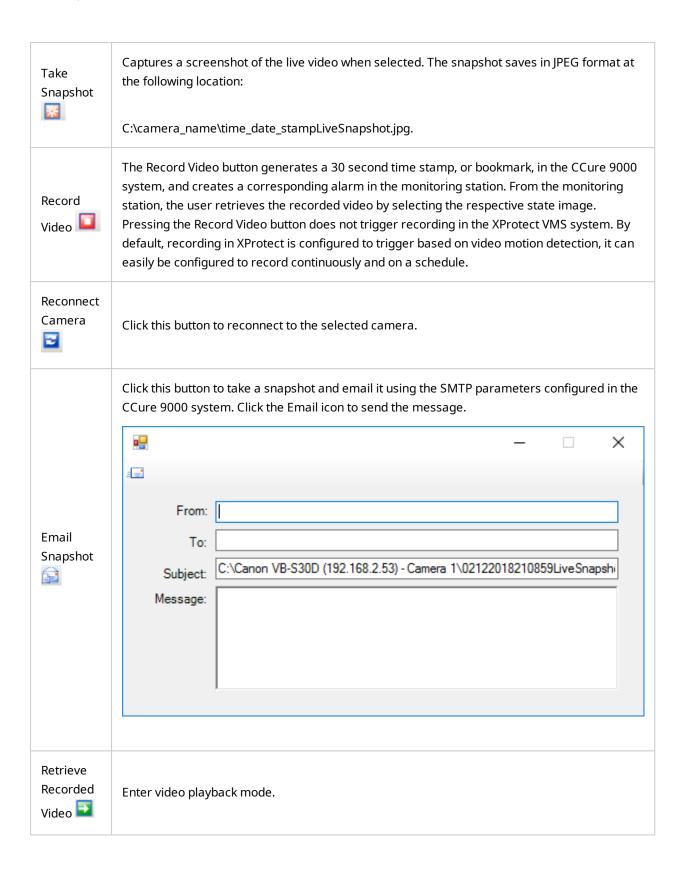
4. Cameras display live video by default.

Live video controls in CCure 9000

The following list of buttons and procedures include all options to control live video inside the CCure 9000 workstation client. There are function buttons above each camera view window that displays live video.

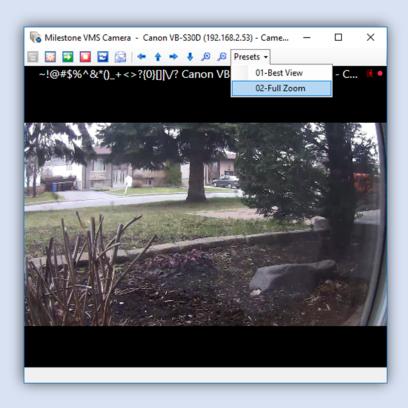


PTZ Movement	PTZ movement buttons for connected PTZ cameras. Up, down, left, right, zoom-in and zoom-out.
PTZ Presets Presets •	If the selected camera has programmed Preset positions, the Preset list is available. To move the camera to the required Preset, choose the Preset from the list.
Show Overlay	Not supported.



All PTZ preset positions created in the XProtect VMS system should follow this naming convention: "nn-XXXXXXXXXX." The 'n' represents number characters and 'X' represents letter characters.

For example "01-Best View" and "02-Full Zoom" follow this convention. While "North Door" does not follow the recommended naming convention. If the Milestone system does not use this convention, Preset lists in CCure 9000 are re-sorted and assigned new indexes when adding Presets to existing cameras. This can cause CCure 9000 events to trigger the wrong Preset. The CCure system automatically sorts all Presets by alphabetical order, adding a numbered prefix keeps the preset positions in the chosen order.



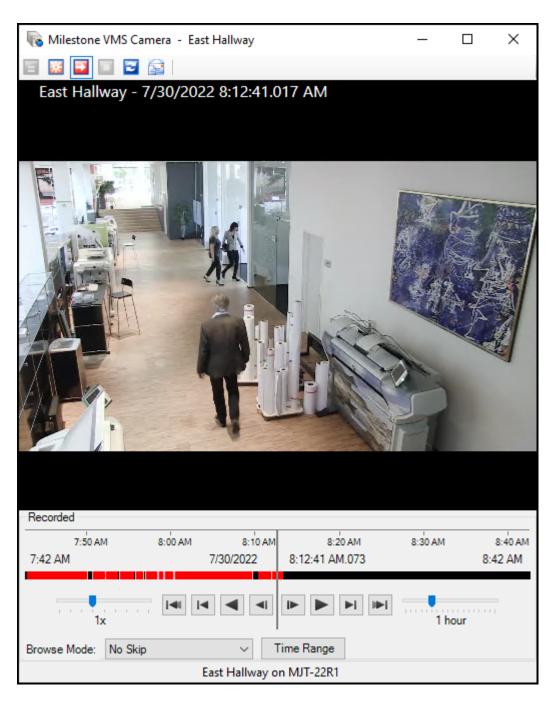
Viewing recorded video

The camera playback menu includes buttons and video browsing controls to perform various operations. The Snapshot, Email Snapshot, and Reconnect Camera buttons are available on recorded video views and have the same functions as on live video views.

The Go to live video button

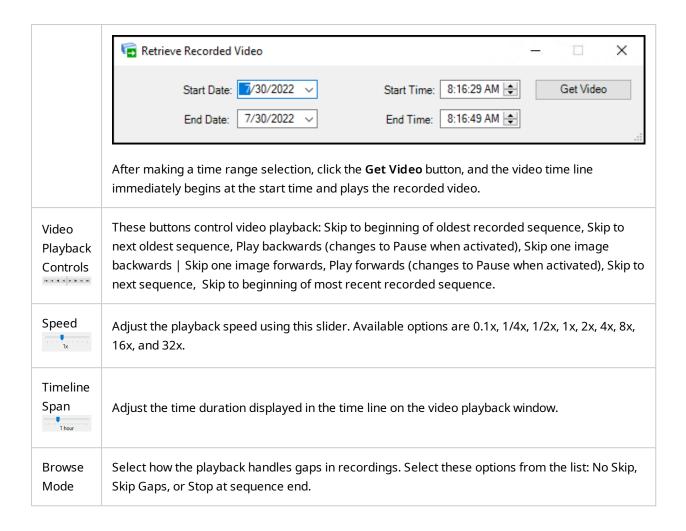


will return the selected camera to live video.



The options for controlling video playback are all included at the bottom of the video playback window.

Time Range (Button)



Advanced Configuration

CCure events (explained)

Anything that CCure 9000 can manage can generate an event, and the event can trigger any action.

There are three broad categories of events:

- 1. Time-based events activated on a schedule
- 2. Industrial control events activated by hardware inputs
- 3. Events that respond to error situations Door Held, Door Forced...etc.

It's impossible to document a full list of all CCure events. The hardware connected to the system, the design and configuration of the system itself, and the events added to the system through integrations make most systems unique in their type and number of potential events. However, an example list of events that a CCure system has by default can help illustrate the available events.

The below list of events is from XProtect Access when it connects to a CCure 9000 system.

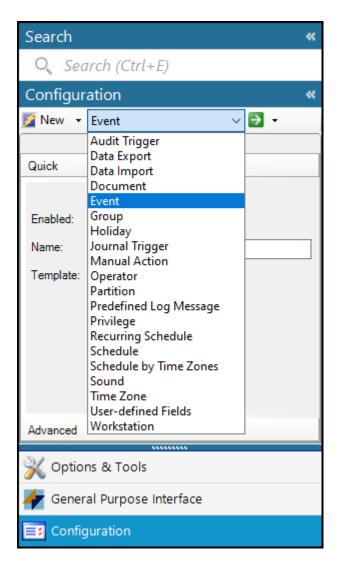
- *** Badge Message ***
- Application Server Activity
- Area Activity
- Audit Trigger Activity
- Card Admitted
- Card Rejected
- CCure Door Forced
- CCure Door Held
- CCure Server Offline
- CCure Server Online
- Device Activity
- Double Swipe
- Email Sent Failure
- Email Sent Failure with Issuer
- Event Assess Message
- · Firmware Flash Activity
- General Messages Logged
- General Purpose Interface Activity
- Guard Tour Activity
- Incident Activity
- Intrusion Zone Activity
- Intrusion Zone Error
- Journal Trigger Activity
- Keypad Command Activity
- Log Message
- Log Migration Activity
- Manual Action



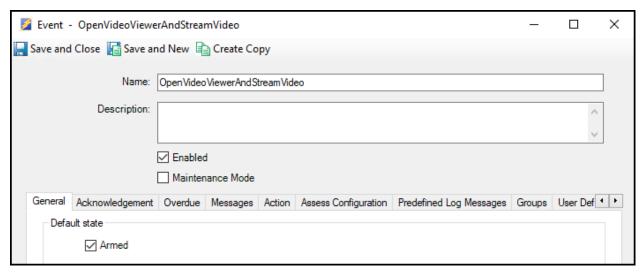
- Network Video Activity
- Object Changed State
- Operator Activity
- Operator Login
- Point of Sale
- Push Update
- System Activity
- System Error
- Temporary Credential
- Video Activity
- Video Alarm
- Video Clip
- Video Device Configuration
- Visitor Management

Configure events with video in CCure 9000

1. In the Administration Station application, click the **Configuration** tab. Open the **New** list at the top of the **Configuration** menu and select **Event**.



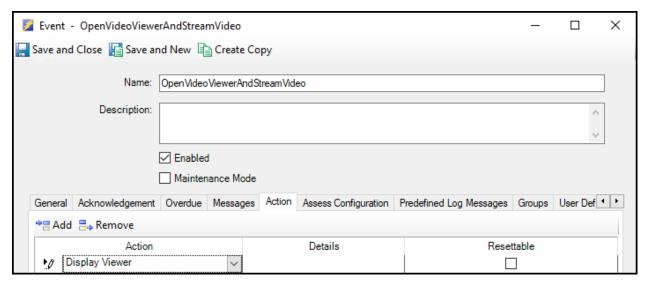
 Click the New button next to the list to open the Event configuration window. Enter a Name and Description for the event. Select the Enabled checkbox. Check the Armed checkbox in the General tab.



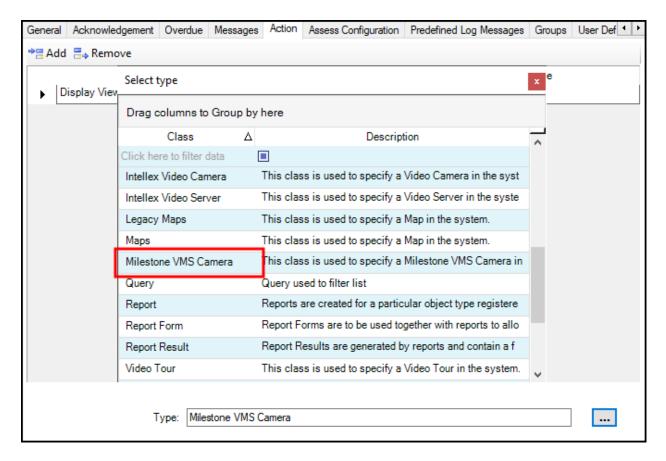


This process details the steps needed to create an event to open a camera window and stream video. There are many other types of event triggered actions available. Open the Action list in the Action tab to view all available actions. Multiple actions can be triggered by a single event.

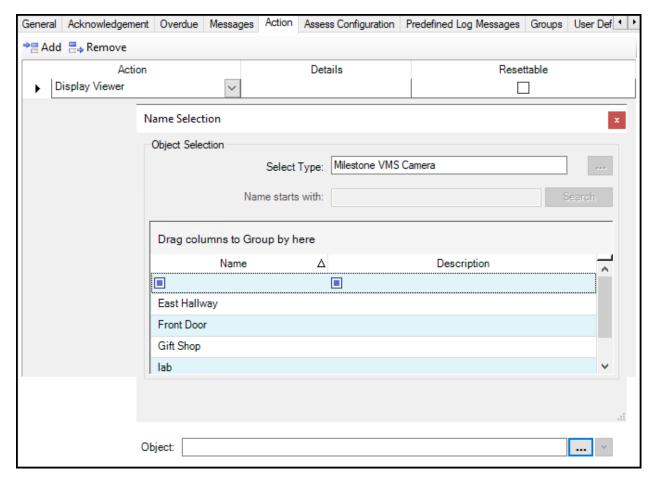
3. Next, Select the **Action** tab. Click the **Add** button, and under the **Action** list, select **Display Viewer**.



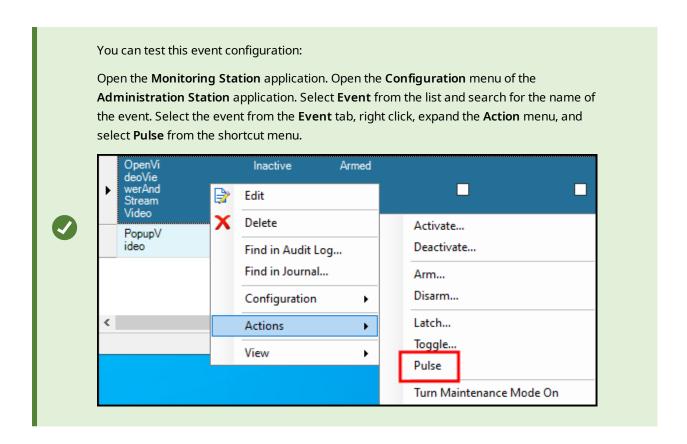
4. With the **Display Viewer** action selected, at the bottom the event window, open the **Type** list and select **Milestone VMS Camera**.



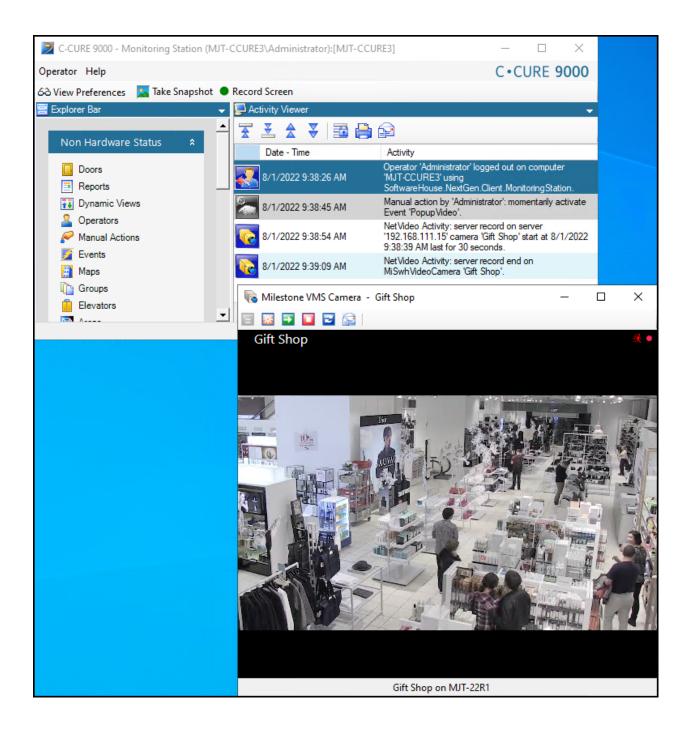
5. Open the **Object** list and select a camera.



6. Click **Save and Close** to complete Event setup.



7. When the event is triggered, a **Video Viewer** window opens in the **Monitoring Station** and streams video from the chosen camera.

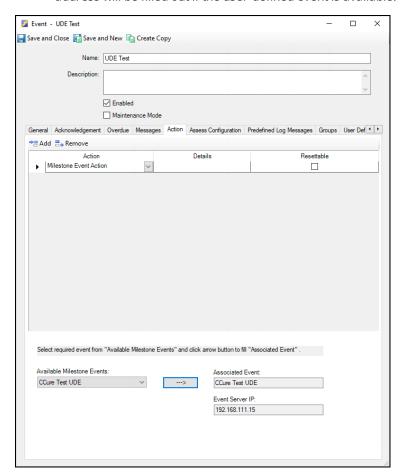


Configure Milestone user-defined event triggers within CCure 9000

You can assign user-defined events in Milestone to actions for CCure 9000 events. When CCure 9000 events occur, the Milestone user-defined events are triggered. Any alarms or rules configured in the Milestone system can be triggered by a user-defined event.

The user-defined event must already exist in the Milestone XProtect VMS for this configuration to work. Follow these steps to configure:

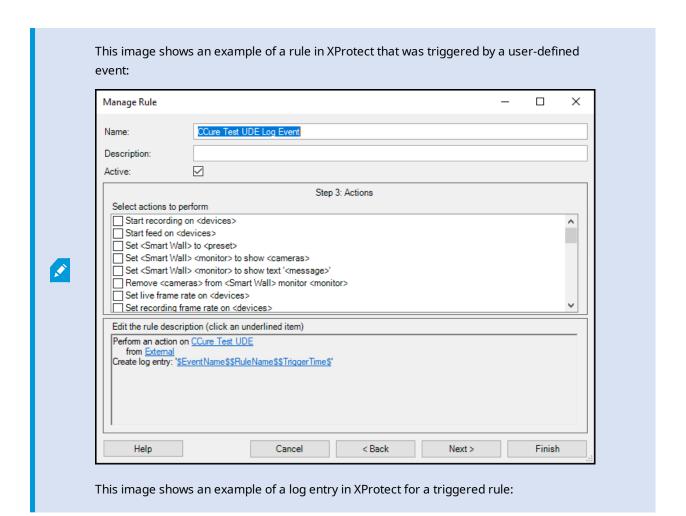
- 1. In the CCure 9000 Administration Station application, select the **Configuration** tab, open the list and select **Event**.
- 2. Click the **New** button to open the **Event** configuration window.
- 3. Enter a Name and Description for the event, select the Enabled checkbox.
- 4. On the General tab, select the Armed checkbox in the General tab.
- 5. On the Action tab, click Add, then select Milestone Event Action from the list.
- 6. At the bottom of the **Event** configuration window, open the **Available Milestone Events** list and select the already existing user-defined event.
- 7. Next, click the arrow button to move the selected event to the **Associated Event**. The **Event Server IP** address will be filled out if the user-defined event is available.

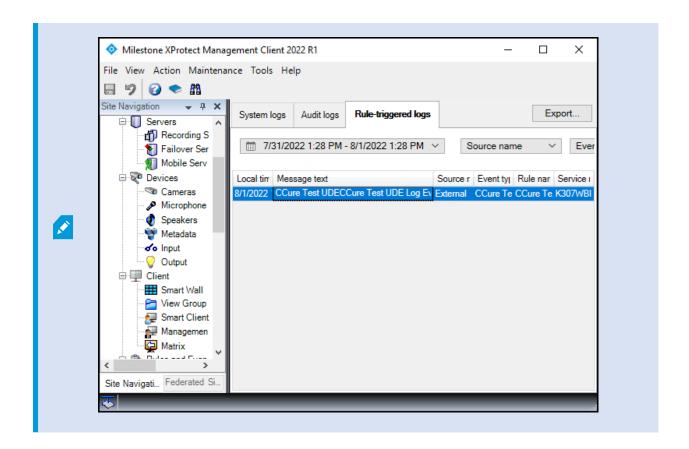


- 8. Click on Save and Close.
- 9. To test the alarm setup: open the **Configuration** menu of the **Administration Station** application. Select **Event** from the list and search for the name of the event.
- Select the event from the Event tab, right click, expand the Action menu, and select Pulse from the menu.

to verify that the event was triggered.

11. The selected user-defined event can trigger rules and alarms in Milestone XProtect. Check the Event log





XProtect analytics events as actions triggered by CCure 9000 events (explained)

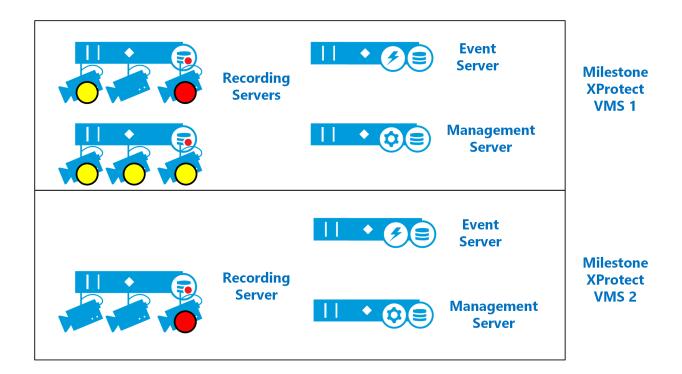
You can assign Milestone analytics events as actions triggered by CCure 9000 events. Then, when CCure events occur, the assigned Milestone analytics event triggers, displaying any associated cameras. Any alarms or rules you have configured to respond to the Milestone analytics event, are also triggered in the XProtect VMS. This means that any event in CCure 9000, such as a door forced, can trigger an analytics event in XProtect, which can start recording, display cameras on client workstations or send alarms and emails.

Associated cameras are only available from the XProtect VMS system with the analytic event.

- Recording servers from different XProtect VMS systems (different management servers and events servers) cannot share one analytic event.
- Recording servers from the same XProtect VMS system (identical management servers and event servers) can share the same analytic event.

Example:

There are two XProtect VMS systems in the diagram below. Both integrated to the same CCure 9000 server. All nine cameras in this diagram would appear in the Available Cameras lists. To configure an event trigger that includes all cameras marked with yellow circles, it would take just one analytic event. However, to configure an event trigger that includes the two cameras marked with red circles, it would require two analytic events, one for each individual XProtect VMS system.

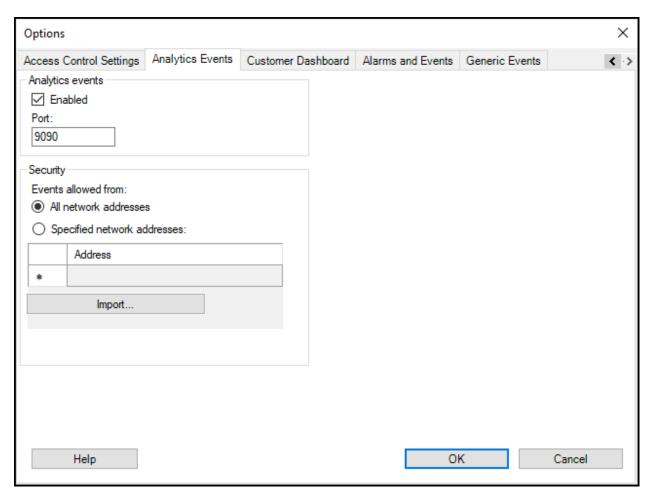


Configuring analytics events in XProtect



The CCure 9000 Video Push integration uses a feature of XProtect known as analytics events to send real-time event data into the XProtect VMS. This feature is available through the MIP SDK, and allows CCure 9000 to easily send events into XProtect. This feature of the CCure 9000 Video Push integration does not provide intelligent video analysis, analytics metadata, or any other video related information. Read more about this feature of the integration.

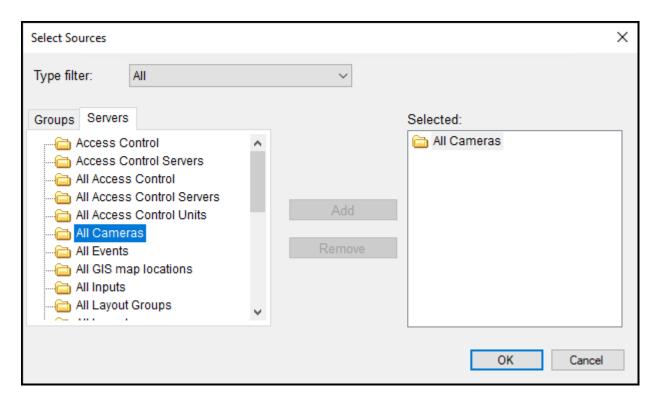
- 1. In the XProtect Management Client, go to the **Tools** menu and select **Options**.
- 2. In the **Analytics Events** tab of the **Options** window, select the **Enabled** option and verify the selection of port **9090** and **All network addresses**.



- 3. Create an analytics event. In the Rules and Events section in the Site Navigation pane, click on the Analytics Events menu, then right-click the Analytics Events on the Analytics Events tab, then select **Add New**. Add a name for the analytics event, then save.
- 4. Create an alarm that the analytics event triggers. In the Alarms section in the Site Navigation pane, click on the Alarm Definitions menu. Right-click Alarm Definitions in the Alarm Definitions window, then select Add New.
- 5. Name the alarm definition and select Analytics Events from the Triggering event list. Select the specific analytics event as a trigger for the alarm. Select the sources of the triggering event.
- 6. In the Select Sources window on the Servers tab of the left-hand side, go to the All Cameras folder, then add the All Cameras folder as the selected source.



The CCure Event Trigger includes each included camera's FQID as the source. Because the included camera can change, using the All Cameras group ensures the event triggers.



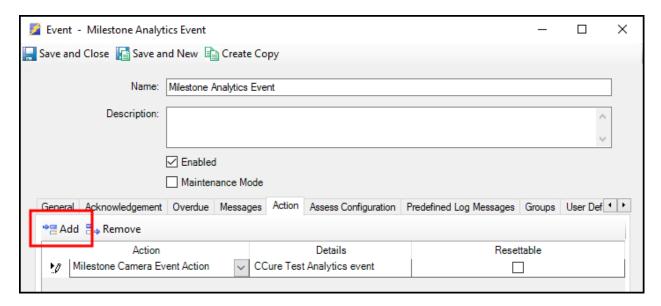
7. Save the alarm definition.

Configuring analytics events in CCure 9000



The CCure 9000 Video Push integration uses a feature of XProtect known as analytics events to send real-time event data into the XProtect VMS. This feature is available through the MIP SDK, and allows CCure 9000 to easily send events into XProtect. This feature of the CCure 9000 Video Push integration does not provide intelligent video analysis, analytics metadata, or any other video related information. Read more about this feature of the integration.

- Select an event to trigger a Milestone camera action. Search for an event in the Configuration menu of the Administration Station application, then double-click the event in the event list to open the Event configuration window.
- 2. On the **Action** tab, click the **Add** button to add a new action.

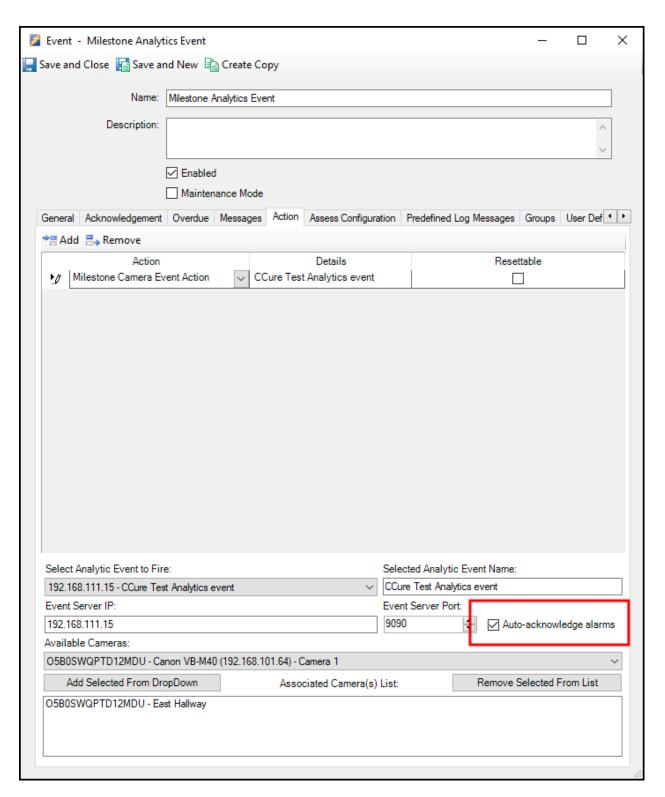


- 3. Next, select the Milestone Camera Event Action from the Action list. The Milestone camera action menu is available at the bottom of the **Event** configuration window.
- 4. Open the Select Analytic Event to Fire: list and select the analytics event that you have configured in the XProtect VMS. The selected analytics event name and event server IP information appears. If the list does not contain the correct analytics event, you must edit the selected analytic event name and the event server IP.



To support alarm acknowledgment in all scenarios, Milestone recommends that you enable automatic alarm acknowledgment by selecting the Auto-acknowledge alarms option. This allows alarms manually acknowledged by operators in the CCure Monitoring Station to have $their \, status \, automatically \, synchronized \, as \, acknowledged \, in \, the \, XProtect \, VMS.$

Analytics alarms generated with this integration and acknowledged in XProtect Smart Client are not automatically acknowledged in the CCure system.



5. The list of available cameras contains all cameras from all connected Milestone recording servers. You must configure the **Event Server IP** with the IP address of an event server that can connect to the Management Server of the selected available cameras.

To add or remove selected cameras from the Available Cameras list, select the cameras from the
 Associated Camera(s) list and click the Add/Remove button. When you have selected cameras, save the
 event by pressing Save and Close or Save and New.

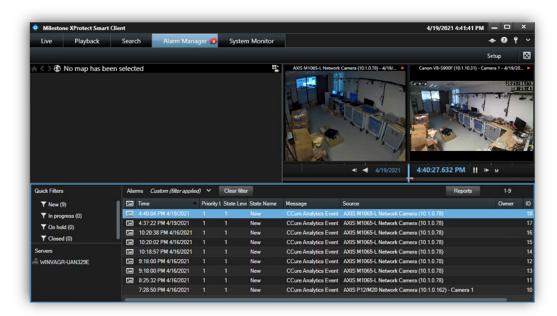
Viewing CCure 9000 events in Smart Client



The CCure 9000 Video Push integration uses a feature of XProtect known as analytics events to send real-time event data into the XProtect VMS. This feature is available through the MIP SDK, and allows CCure 9000 to easily send events into XProtect. This feature of the CCure 9000 Video Push integration does not provide intelligent video analysis, analytics metadata, or any other video related information. Read more about this feature of the integration.

To verify that the CCure 9000 to XProtect analytics event configuration is working as expected:

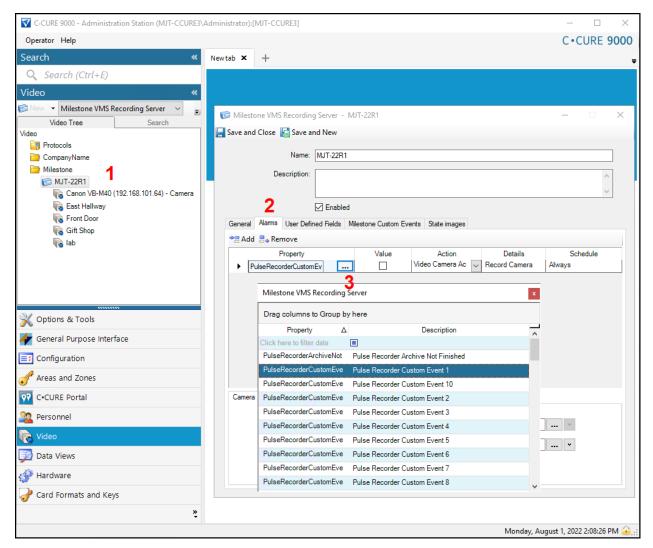
- 1. Go to the **Configuration** tab of the Administration Station application on the CCure 9000 server.
- 2. Search for your event. Right-click the event in the event list, then select **Pulse** from the **Actions** menu of the shortcut menu. This triggers the alarm in the XProtect VMS associated to the selected cameras.



Milestone camera and Recording Server alarms (explained)

You can use all camera and recorder alarms in the CCure 9000 system with the XProtect Video Push integration. Alarms are available in the individual camera or recorder configuration windows in the Administration Station application. To do this:

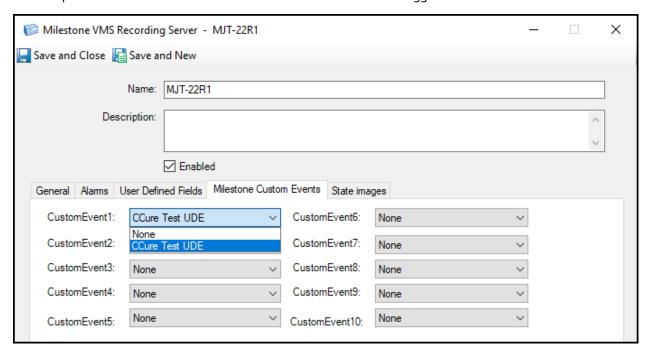
- 1. From the Video menu. double click on any Recording Server or camera
- 2. Go to the **Alarms** tab in the configuration window, then open the **Property** list to view the full list of alarms.
- 3. There are 48 different recorder alarms and 115 different camera alarms.



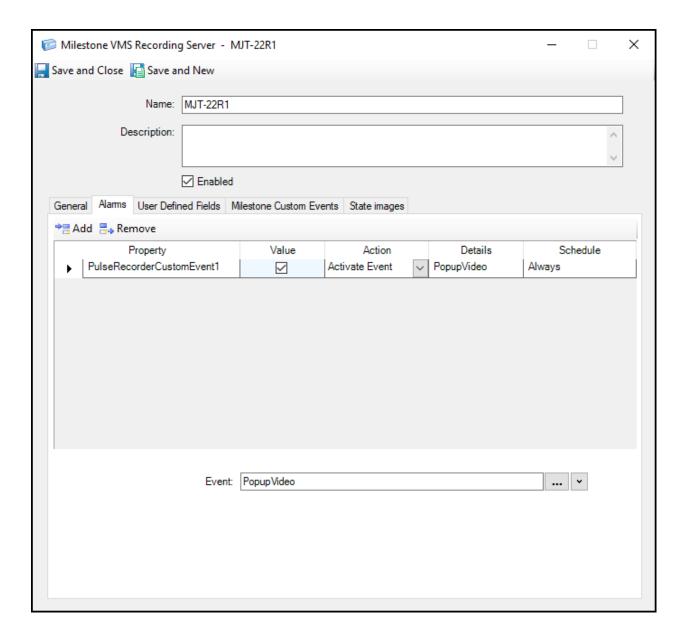
Configure CCure 9000 alarms triggered with Milestone custom events

Using the Milestone Custom Events functionality, XProtect's user-defined events can trigger recorder and camera alarms within CCure 9000.

- 1. Select the Milestone Custom Events tab from the configuration window of any recorder or camera.
- 2. There are 10 custom event slots per recorder or camera. Each custom event number corresponds to the same Pulse Recorder/Device Custom Event number, which is available as an alarm on that recorder or camera.
- 3. Open the **CustomEvent** list and select a user-defined event to trigger the custom event.



- 4. Select the **Alarms** tab on the recorder or camera.
- 5. Click the **Add** button.
- 6. Open the **Property** list and select the Pulse Recorder/Device Custom Event with the matching number from the custom event above.
- 7. Select the **Value** option to trigger the alarm in real-time.

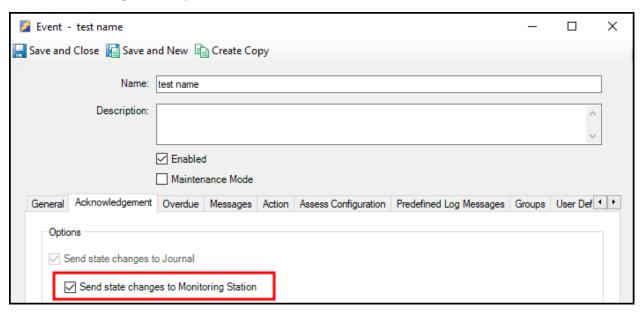


Configure CCure 9000 recorder and device alarm actions

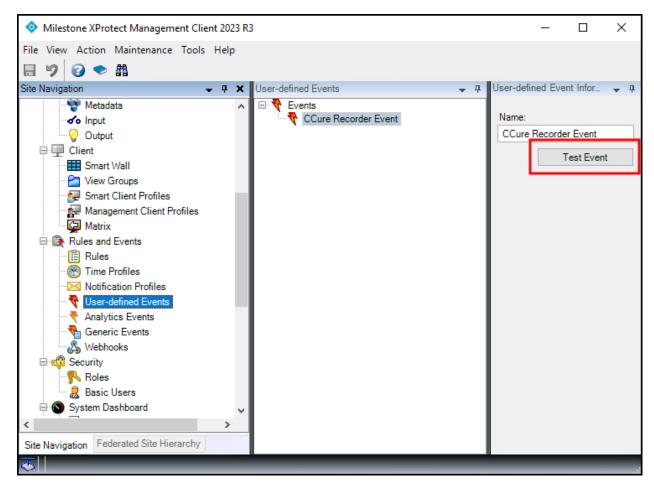
You can configure actions to take place triggered by an alarm. Such actions include video camera actions, such as video recording. Actions can also include activating events, both new events and predefined events. To do this:

- 1. Select an event you want to change, go to the **Action** tab, add a new action to the list, and select **Activate Event**.
- 2. Click the down arrow button and select New.

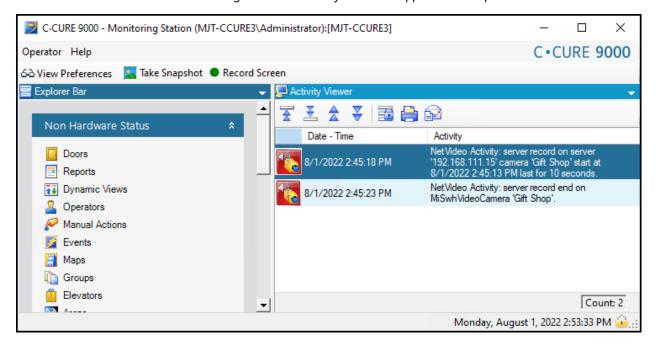
3. In the new Event configuration window, name the event, choose the enabled option, and in the Acknowledgment tab, select the Send State Changes to Journal option, and the Send state changes to Monitoring Station option.



4. Next, test the event. Go to the **User Defined Event** menu of the XProtect Management Client. Select the event and click the **Test Event** button.



5. Go to the CCure 9000 Monitoring Station and verify the event appeared as expected.



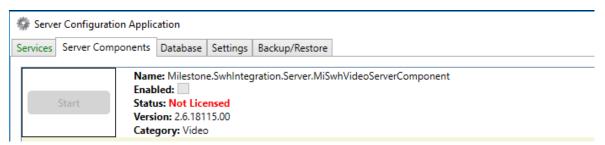
Configuring CCure 9000 Enterprise MAS/SAS scenario

In a CCure Enterprise setup, you must install the client and server components of the integration on every CCure server (including the MAS and on every SAS).

When you have installed the integration on a SAS, you must configure it as a regular CCure installation by following all the steps described in the previous sections.

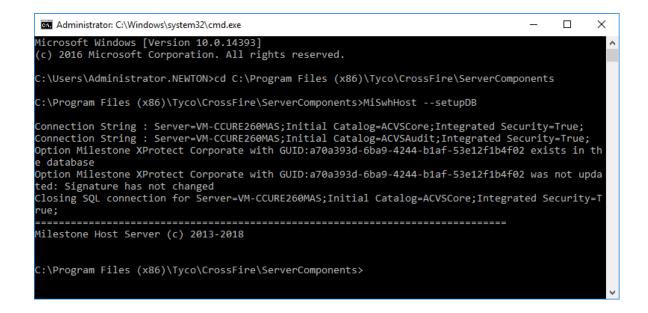
When you have installed the integration on a MAS, you should go through the following steps:

- 1. Install both the client and server components of the integration on the MAS.
- 2. Even if you are required to install the server components of the integration on the MAS, there is no requirement to have a license to run the server components on the MAS. The CCure Server Configuration Application will display that the MiSwhVideoServerComponent is not licensed. However, this should not be a cause of concern, because while you must install the component, it doesn't need to run on a MAS.



3. For the integration to work correctly on the MAS, you must make some changes to its database. To prepare the MAS database for the integration, open a Windows command prompt at the following path, then run the following command:

Path:	<pre>C:\Program Files (x86)\Tyco\CrossFire\ServerComponents</pre>
Command:	MiSwhHostsetupDB





When you run this command, make sure that the currently logged Windows user has access to the MAS database.

4. Close and re-open the CCure Server Configuration Application.

The Status column under the Database tab should now show VALID, in green, next to the Milestone.SwhIntegration.Common.MiSwhVideoObjects item.

ConnectedPro.Common.VideoEdge4.Objects	System.Data.SqlClient	Data Source=VM-CCUKE2bUMAS;Initial Catalog=ACVSCore;Integrated Security=Irue	VALID	
Milestone.SwhIntegration.Common.MiSwhVideoObjects	System.Data.SqlClient	Data Source=VM-CCURE260MAS;Initial Catalog=ACVSCore;Integrated Security=True	VALID	T
SoftwareHouse CrossFire Common AuditDhOhiects	System Data SolClient	Data Source-VM-CCLIRE260MAS:Initial Catalon-SwhSystemAudit:Integrated Security-True	VΔLID	

Troubleshooting

Ports required for video from XProtect

Connecting to Milestone XProtect Recording Servers, connecting to cameras, viewing video, and receiving status updates from a Milestone XProtect system, requires ports opened. There is a list of all the ports required to authenticate with, view video from, and receive status or event updates from a XProtect VMS here.

This link shares a complete list of the ports required to communicate with XProtect. Here is a shorter list of ports known to impact communication for this integration:

Port	Protocol	Direction / Service(s)	Usage
80	НТТР	In & Out-bound / Management Server & Clients	Authentication
443	HTTPS	In & Out-bound / Management Server & Clients	Authentication
7563	ТСР	In-bound / Clients	Video, Audio & PTZ
22331	ТСР	In-bound / Clients	Alarms & Events
9090	ТСР	In-bound on XProtect Event Server (not open by default)	Alarms & Events

Database errors

Database errors can occur in the CCure Administration Station client after installing or upgrading the integration, and they can prevent adding new servers or cameras to the system. The error messages indicate that the system cannot access the SQL database, or that there is an error interacting with objects in the database. The exact error messages we have documented in multiple support cases are listed below:

- A database object error occurred processing the current request. Please check the server's event log for more information.
- Invalid object name.

These errors require different solutions, which are listed individually below.

Invalid object name

The invalid object name ACVSCore.Access.MiSwhVideoCamera error happens when trying to connect to Milestone XProtect in the CCure Administration Station client, and it prevents adding a Recording Server to CCure. The error is caused when two tables are not created in the AVCSCore SQL database during the

installation of the integration. The missing tables are **MiSwhVideoCamera** and **MiSwhVideoServer**. If these tables are missing, the Milestone Video Driver service is designed to create them. However, without a connection, or the correct permissions, the service cannot access the SQL database.

- 1. Verify the Milestone XProtect Corporate Video Driver Service is running under a Windows user account with sysadmin privileges to the AVCSCore database. The required tables are created by this service, so it needs permissions to do so.
- 2. Verify in the CCure Server Configuration Application database tab that the Connection String for Milestone.SwhIntegration.Common.MiSwhVideoObjects is correct and shown as VALID.
- Open the Windows Registry Editor and navigate to: HKEY_LOCAL_
 MACHINE\SOFTWARE\Wow6432Node\Sensormatic Electronics Corporation\SWHSystem\Setup
- 4. Modify the WixDBIsLocal value to 0
- 5. On the Server Components tab of the Server Configuration Application, stop the Milestone.SwhIntegration.Server.MiSwhVideoServerComponent, then start it again.



Assuming this resolves the reported issue, modify the WixDBisLocal value back to 1.

A database object error occurred

General database object errors happen when the services on the CCure system cannot connect to the SQL database.

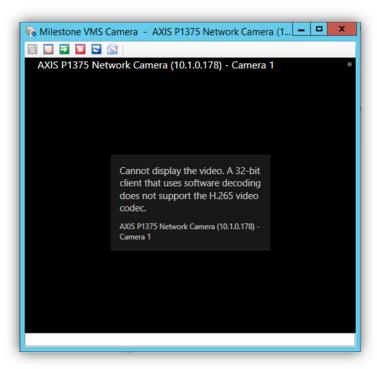


This error can happen when trying to access cameras, add new cameras, change Recording Server configurations or add new Recording Servers. To fix this error change the default service account (Local System) that is logged on and running the following services to a Windows user account that has administrative access (sysadmin) to the SQL server database used for CCure 9000.

- Milestone XProtect Corporate Video Driver Service
- CrossFire Framework Service CrossFire Server
- Component Framework Service
- 1. Open services.msc on the CCure 9000 host server. And find the three services on the list.
- 2. Right click on each service and select Properties from the shortcut menu.
- 3. Switch to the Log On tab and choose an account that has the proper privileges.
- 4. Restart the services after changing the service that they will "run-as." It should be fixed.

H.265 video support

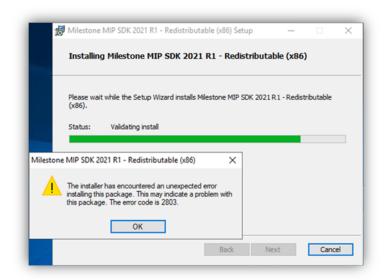
When you view Milestone cameras in the CCure 9000 client application, the following message appears when the camera is streaming H.265 video:



The CCure 9000 client does not support H.265 video from the XProtect VMS. The client component of the CCure 9000 system is currently only available in a 32-bit option. Also, the 32-bit compatible MIP SDK from Milestone currently does not support H.265.

MIP SDK upgrade error 2803

When you upgrade the integration from an older version to a newer version, one of the components that is required to upgrade is the Milestone MIPSDK. During the upgrade process, the MIPSDK installation wizard can create an error if services or applications that are using the MIPSDK files are still running because they are being upgraded.



Milestone recommends that you continue the upgrade process, and restart all services and applications afterward to ensure they are using the newest versions of the required MIPSDK files. Read the Milestone knowledge base troubleshooting article for more information.

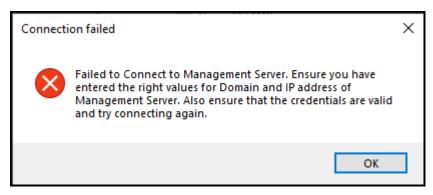
General troubleshooting of the XProtect integration with CCure 9000

- Is the Milestone system licensed and are the cameras configured inside the Milestone system?
 - Ensure your Milestone XProtect VMS is licensed, and all cameras are configured.
 - Ensure you can view Milestone video within the Milestone XProtect Smart Client.
 - Integration with CCure system should only be performed after the standalone Milestone system is configured and running as required.
 - Ensure the integration license from Software House is applied.
 - If the problem is with video only (black tiles) and Recording Server data encryption is enabled in XProtect, verify that the appropriate certificate is installed and trusted on every CCure client machine where video is displayed (see Limitations section for more details).
- **Milestone VMS Recording Server** does not show up for creating the Recording Server object in Administration Station:
 - Ensure **Milestone.SwhIntegration.Server.MiSwhVideoServerComponent** is enabled and running in Server Configuration Application under **Server Components** tab.
 - Ensure Milestone integration Client Components are installed in the Client machine.
 - Ensure Milestone SDK Redistributable is installed in the client machine.

- Online checkbox is not selected which indicates system is not online in the Milestone VMS Recording
 Server object edit screen:
 - Ensure IP address field has the IP address of the Milestone XProtect Management Server.
 - Ensure Domain field has the domain value of the Milestone XProtect Management Server.
 - Ensure correct values are entered for username and password.
 - Ensure the appropriate Recording Server is selected in the drop down.
 - Clicking the Connect button might give more details about what the connection problem is.
- Import Cameras button is not enabled in the Milestone VMS Recording Server object edit screen:
 - Ensure cameras are available, configured, and streaming video within Milestone system. Use the XProtect Smart Client to verify.
 - Ensure online checkbox shows up as selected in the **Edit** screen which indicates system is online. See the previous note about online checkbox.
- Milestone cameras do not show up after clicking Import Cameras.
 - Ensure Save and Close button is clicked after Import Cameras process succeeds.

Upgrading with certificates to version 3.2.3

After upgrading the Video Push integration software to the latest version (3.2.3) error messages can appear if the system is using certificate based encryption for authentication with the XProtect Management Server.





Systems which are already using certificates should skip steps three and four in the list below.

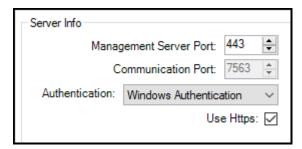
The latest version of the integration (3.2.3) now supports more authentication methods, ports, and encryption options. Older versions of the integration only support using port 80 for all authentication methods. Follow the steps listed below to upgrade an existing system to version 3.2.3 with certificates and HTTPS secure communications.

- 1. Upgrade the Video Push integration software components to version 3.2.3. Installation process (explained) on page 16.
- 2. Existing XProtect Recording Servers will continue working.
- 3. Verify XProtect is using secure communications. Installing and distributing certificates manually.
- 4. Install the required client certificates on the CCure host machines as needed.

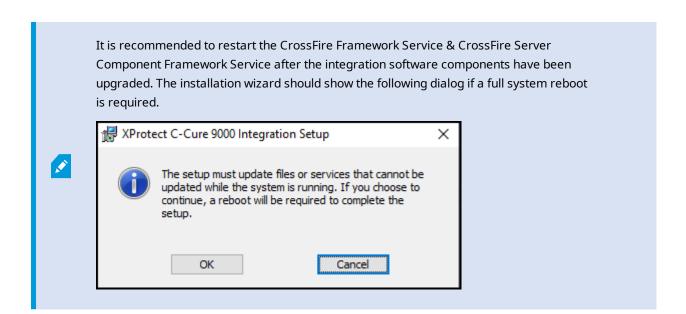


Client certificates should be installed on any CCure host which requires an authenticated connection to XProtect, or encrypted XProtect video streams. This includes all CCure workstations, and the CCure 9000 database server.

- 5. In the CCure Administration Station application, select a Milestone Recording Server and click the Edit button.
- 6. Click OK.



- 7. Update the Recording Server Server info properties. Select the **Use Https** option.
- 8. Click Connect.
- 9. Open the Recording Server list below the Connect button and select a Recording Server. Verify the newly edited Recording Server is online.
- 10. Save and close.



Ignoring repeated XProtect event notifications

This topic describes a method used to permanently remove unwanted event notifications from appearing in the CCure 9000 Video Push integration.

- 1. Go to the CCure 9000 server.
- 2. Open the following file with Notepad or a similar text editing application C:\ProgramData\VideoOS\MiSwhHost\MiSwhHostSettings.json

```
MiSwhHostSettings - Notepad
  Edit Format View Help
 "Version": "1.1",
 "Settings": {
   "IgnoreDeviceMotion": false,
   "IgnoreDeviceRecording": false,
   "ExcludeEventsFromPollingLoop": [],
   "StatusPollingServerTimeoutMilliseconds": 10000,
   "StatusPostProcessingTimeoutMilliseconds": 5000,
   "MonitoringEventListChangesTimeoutMilliseconds": 10000,
   "OnErrorRetryDelayMilliseconds": 5000
 }
                           Ln 1, Col 1
                                             100%
                                                    Windows (CRLF)
                                                                    UTF-8
```

3. Change the default false value to true on the following lines of code and save the file.

```
"IgnoreDeviceRecording": false,
```

4. This will prevent the XProtect motion detection, and video recording events from displaying in the CCure 9000 alarm list.

Troubleshooting Milestone XProtect VMS video driver

Video Driver logs are controlled by the settings available in the following config file:

• ACVS.Enterprise.Server.Configuration.exe.config

The file location:

• C:\Program Files (x86) \Tyco\CrossFire

File location (in an upgraded system):

• C:\Program Files (x86)\Software House\SWHSystem\CrossFire

The config file can be edited to contain this setting:

<appSettings>

<add key = "TraceViewer.Enable" value="true"/>

</appSettings>

The value parameter can be set to true or false to enable or disable logging.

- Open the Server Configuration Application in CCure 9000. Select the **Diagnostics** tab. Click on **Connect**. Several modules appear. Select **MileTraceSwitch** and set the trace value.
- · Red for Error
- · Yellow for Warning
- · Purple for Info
- Green for Verbose

Troubleshooting log file locations

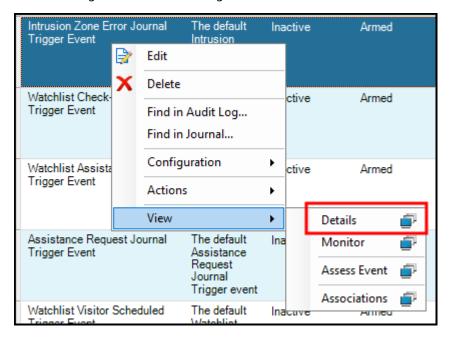
Additional logs are created (and configured) under the %ProgramData%\VideoOS folder.

A subfolder is created for every CCure process that loads this integration.

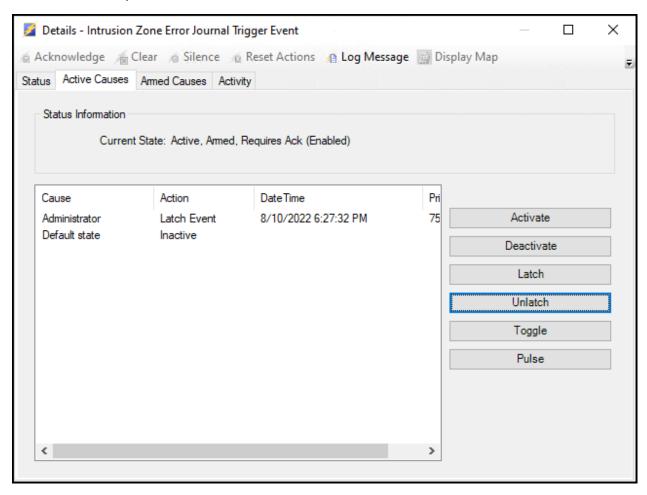
Troubleshooting event acknowledgement in CCure

When a CCure event is marked as **This event requires acknowledgment**, under certain circumstances, it can be impossible to acknowledge it (the acknowledge button remains disabled in the user interface). When this situation occurs, follow the steps below:

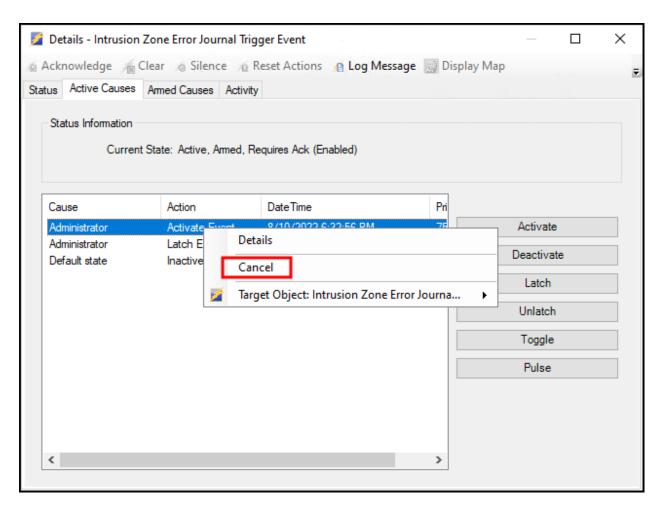
1. Open the event **Details** dialog (from either the Administration Station or the Monitoring Station) by right-clicking an event and selecting **Details** from the **View** menu:



2. Go to the **Active Causes** tab and make sure the event is not latched (**Unlatch** button should be disabled). If it is latched, click the **Unlatch** button to unlatch it.



3. Make sure there are no **Activate Event** or **Deactivate Event** actions in the **Cause/Action** list on the left. If there are actions in the list, right-click on each and select **Cancel**.



4. Note that you should enable the **Acknowledge** button.



helpfeedback@milestone.dk

About Milestone

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone Systems enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone Systems is a stand-alone company in the Canon Group. For more information, visit https://www.milestonesys.com/.









