



Milesight-Troubleshooting Record and Playback in VMS Enterprise

VMS Version V1.2.0.1 or above	Update	2021.6.22	
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1. Introduction

For a VMS software, Live View, Record and Playback must be the three most important functions. Milesight VMS Enterprise has powerful video recording and playback, which are the critical parts of the forensic process. This document will introduce how to configure and use these two functions in order to solve some doubts and problems in use.

2. Disk Settings

Ensure that one or more of the server's disks are enabled and have space left before configuring record. In addition to local disks, NAS external storage is also supported. Select Settings→ System&Servers→ Server Settings→ Storage Management and enable one or more disks to save record. It is recommended that the hard disk is used for storing recordings only. Move the mouse to the capacity bar to display more capacity information of the disk.

	aw 30000 constant			an an track of		SS 10% 🔛 42% SS 0%	* # - & X
🛓 Live View	🕑 Playback	🖾 Smart Analysis	🖄 E-Map	🗐 Logs	🌣 Settings		💄 alison 🗸
DashBoard	Search	General Failover	Storage Management	С.			
Device S Device Management Device Configuration Device Events Camera Record Schedule	alison 192.168.5.253	Storage Disk Infor					
Constructions System Settings Event Settings Event Rule Settings User Settings Video Wall Settings		(D:) (2008 here of 20 (C:)	144.0058				
Client Settings Local Settings Group Settings Mut2:-Monitor		(F:) 100 AT GB Where of J (G:) 170, 45 GB Where of J					
		Current added cameras: 2, Number of enabled storage Maximum recording camera		s of stream, etc.			

3. Continuous Recording

3.1 Enable Continuous Record

Step1 Select *Settings→ Devices→ Camera Record Schedule→ Schedule*;

Step2 Click *Server List* or *Group List* to show devices from different servers or groups. Click one camera to configure this channel's record.

Ģ	Live View	🕑 Playback 🛛 🖾	Smart A	nalysis	;	🛍 E	-Мар		3	Lo	gs	96 F	41% 🌣	sei		-		- 🗖	
լու	DashBoard	Server List	up List	Schedu	ule	Record	Settings	5											
Bộ.		Search		Continuou	us Recorc	^{ling} ()							Select	All			Clear A	at	
	Device Management Device Configuration Device Events	 Al Al-Pro-Box 192.168.715 Al-PTZ-Dome 192.168.755 		0 Sun.	1 2 	3 4 5	67	<mark>89</mark>	10 1 		13 1 	4 15	16 17 	7 18 	19 2 	20 21	22 23 	24	
	Camera Record Schedule	🖬 Non-Al	~	Mon.															
P	System & Servers	 IoT-PTZ-Bullet 192.168.718 180°-Dome 192.168.7205 Ungrouped 	38 B	Tue. Wed.															<

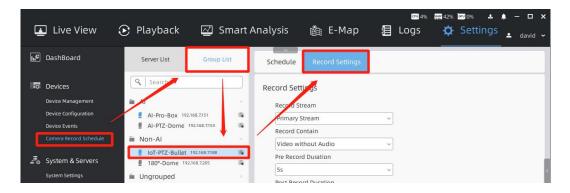
Step3 By default, the time bars in the schedule have been all selected. Click *Select All* or *Clear All* to quickly choose or clear all times. When the time bar is blank, you can select a time period by crossing over it. Click one time period and then you can modify it pecific time. Click Co to copy one day's schedule to others'.

Schedule Record Settings	Schedule Record Settings	Copy to ×
ontinuous Recording Select All Clear All	Continuous Recording Select All Clear All	🗆 All
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	0 1 2 3 4 5 6 7 R 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 08:29 - 16:37 OK Petere	🖾 Sun.
Mon.	Mon.	Mon.
Tue.	Tue.	🗆 Tue.
Wed.	Wed.	U Wed.
Fri.	Fri.	🗆 Thur.
Sat.	Sat	🗆 Fri.
Copy to Apply	Copy to Apply	□ FIL.
		🗆 Sat.
		ОК

Step4 Enable *Continuous Recording* **C** and do not forget to Click *Apply* to save.

3.2 Continuous Record Settings

Step1 Select Settings→ Devices→ Camera Record Schedule→ Record Settings,
Step2 Click Server List or Group List to show devices from different servers or groups.
Click one camera to configure this channel's record.



Step3 Configure specific settings of the camera after continuous recording is enabled. Table1 Description of the settings

Parameters	Function Introduction
Record Stream	Set record stream as primary, secondary or both of them
Record Contain	Select whether the record includes audio or not
Pre Record Duration	Set the duration of pre-recording from 1s to 10s
Post Record Duration	Set the duration of post-recording from 10s to 60s
Archive Minimum Retention Time	Set minimum time for recording to expire: Auto(delete the oldest recordings based on the disk capacity); Preset times; Custom time from 1 to 365 days
Archive Maximum Retention Time	Set maximum time for the recording to expire: Auto(delete the oldest recordings based on the disk capacity); Preset times; Custom time from 1 to 365 days
ANR	Set whether to enable ANR which needs a SD card inserted in

Milesight camera added via MSSP

3.3 Copy Record Schedule and Settings

Both Schedule and Record Settings support copy one channel's to others'. We take Record Settings as an example.

Step1 Click *Copy to* and then check the cameras you want to copy the configuration to. **Step2** You can also see all cameras from different Servers or Groups by selecting *Server List* or *Group List*.

Step3 Click *Save* and you will find the checked cameras' configuration is the same as the first one.

Primary Stream Record Contain Video without Audio Pre Record Duration Ss Post Record Duration 30s Archive Maximum Retention Time Auto OxArchive Maximum Retention Time Auto Obable	Q Search Image: David's System Image: Compare 192,168,7191 Image: David's System Image: Compare 192,168,7192 Image: David's Query Compare 192,168,7293 Image: Compare 192,168,7293 Image: David's Query Compare 192,168,7293 Image: Compare 192,168,7293 Image: David's Query Compare 192,168,7293 Image: Compare 192,168,7293	
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4. Event Record

Event Record of VMS Enterprise is based on Event Rules. So you need to set it in *Event Rule Settings* interface.

Step1 Select *Settings→ System&Servers→ Event Rule Settings* and click *Add* to set a new rule;

💶 Live View	ا 🕄	Playback	🖾 Smart.	Analysis	衛 E-Map	E Logs		ings	— □ david
Le DashBoard		Event Rule Setti	ngs						
Devices		Add	Delete	Any Trigger	✓ Any Action	✓ (९ Sea	arch	Clear	Filter
Device Management		Trigger	Source of Trigge	Action	Target of Action	Action Interval	Description of Rule	Status	Edit
Device Configuration		Front-end VCA	180°-Dome-192.168.7		180°-Dome-192.168.7	Instant	Rigion Entrance		\$
Device Events		Front-end VC4	180*-Dome-192.168./	Show Text Overlay	180°-Dome-192.168.7	Instant	Region Entrance		\$
Camera Record Schedule	-1			Show Text Overlay					
System & Servers									
System Settings									
Server Settings									
Event Rule Settings									
User Settings									

Step2 Select the event which you want to trigger the recording. We take Region Entrance in Front-end VCA as an example. Then click *<Any Camera>* and all cameras will show up in Server List or Group List. Check one or more cameras as the source and click save.

Add Rule	Server List Group List
Trigger Front-end VCA ~	۹ Search
Source 180°-Dome-192.168.7.205	 Al Al-Pro-Box 192.168.7151
Event Type Region Entrance V	 Al-PTZ-Dome 192.168.7.153 Non-Al
B Schedule	IoT-PTZ-Bullet 192.168.7388 Image: 180°-Dome 192.168.7205 Image: Ungrouped Image: Ungrouped

Step3 Click **I** to bring up the window of schedule. The way to configure it is just the same as it in Continuous Recording. Don't forget to click *Save*.

Add Rule	Schedu	le - Fr	ont-	end	Moti	on D	etect	ion												Select	All		C	lear A	ш
frigger Front-end Motion Detection	0	1	2	3 	4	5 	6 	7 	8 	9 	10 	11 	12 	13 	14 	15 	16 	17 	18 	19 	20 	21	22 	23 	24
ource	Sun.																								
<any camera=""></any>	Mon.																								
5chedule	Tue.																								
	Wed.																								
	Thur.																								
	Fri.																								
	Sat.																								

Step4 Check *Do Recording* or *Primary Emergency Recording* in Action List. *Primary Emergency Recording* is based on recording schedule, which should be configured first at *Camera Recording Schedule*. Trigger primary stream recording when event occurs.

tion List (1/13)	\frown \backsim		
Do Recording			
Target		Action List (1/13)	
🗹 Source Camera 🛛 🔽 One-to-one		Do Recording	
Action Interval		Primary Emergency Recording	
Instant		Target	
Pre Record		Source Camera 🛛 One-to-one	
10 second		Action Interval	
	•	Instant	~
Duration		Duration	
While Trigger Happening	~	While Trigger Happening	~
Post Record			
10 second	‡	Description of Rule	
Record Stream		A brief description as needed	
Primary Stream	~	Primary Emergency Recording is based on reco	ordina
Description of Rule		schedule, which can be configured at "Camera	
A brief description as needed		Recording Schedule"	
		Control Camera Output	

Table2 Description of the settings

Parameters	Function Introduction	Do Recordin g	Primary Emergen cy Recordin g
Target	Set which camera to record: Source Camera(One-to-one means that event from a particular camera triggers recordings of not all source cameras but only this camera when	\checkmark	\checkmark

	there are more than one source cameras); Custom selected cameras			
Action Interval	Set time interval between two Actions: Instant; 5s; 10s; Custom time from 1 to 3600s	\checkmark	\checkmark	
Pre Record	Set the duration of pre-recording from 0s to 10s \checkmark ×			
Duration	Set the duration of whole action: While Trigger Happening; Custom time from 1 to 3600s	\checkmark	\checkmark	
Post Record	Set the duration of post-recording from 0s to 120s	\checkmark	×	
Record Stream	Set record stream as primary or secondary stream	\checkmark	×	
Description of Rule	A brief description as needed for easily finding this rule	\checkmark	\checkmark	

Step5 Configure the event record rule as needed and click Save.

Step6 Click *Apply* to save the rule changes.

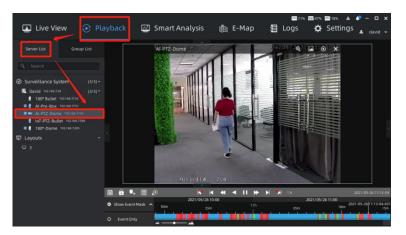
Take the following figure as an example, when Panoramic Dome Camera detects Region Entrance, it will trigger recording its video. Don't forget to click *Apply* in *Event Rule Settings* interface.

Trigger	Action List (1/13)
Front-end VCA	✓ Do Recording
Source	Target
180°-Dome-192.168.7.205	Source Camera 🔽 One-to-one
Event Type	Action Interval
Region Entrance	v Instant v
	Pre Record
B Schedule	10 second
X	Duration
	While Trigger Happening ~
	Post Record
	10 second
	Record Stream
	Primary Stream ~
	Description of Rule
	Region Entrance triggered recording.
	Primary Emergency Recording

Note: All front-end triggers should be enabled on Milesight camera side first. You can configure it in *Device Events* module.

5. Basic Playback

Milesight



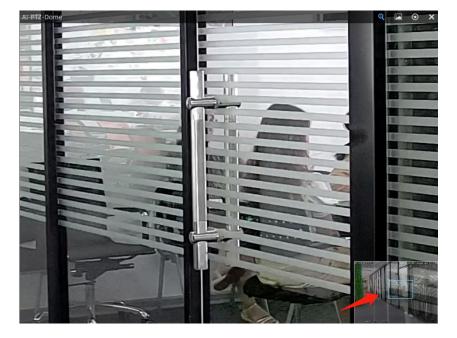
Click *Playback* on the top. And then the playback interface will show up. Choose and double click a channel from Server List or Group List to replay your recordings. The icon means this channel has recordings to play.

(1) Toolbar on the top

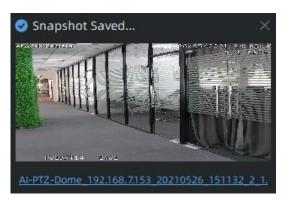
Move your mouse to the video, and then the toolbar will show on the top.

Click to turn on Speaker, and you can adjust the volume of the speaker from 1~100. This item is available only for cameras which support built-in mic or Audio I/O.

Click to enable digital zoom. A thumbnail of the enlarged position is displayed in the lower right corner. Mouse dragging and wheel scrolling to move and zoom in/out.



Click 🗖 to take a snapshot. The blue text will lead you to the snapshot storage path.



Click O to open the Fisheye toolbox. Here are a list for each icon of Fisheye toolbox.

\odot	Enable Dewarping
÷	Select ceiling mounting mode
4	Select wall mounting mode
-	Select flat mounting mode
٠	Select playback of original fisheye view
1	Select playback of 360° panoramic view
11	Select playback of two 180° panoramic views
	Select playback of four regional views
=	Select playback of one original fisheye view and three
	regional views
lt	Select playback of one 360° panoramic view and one
	regional view
II	Select playback of one 360° panoramic view and four
	regional views
ţ.	Select playback of one 360° panoramic view and six regional views
	Select playback of one original fisheye view and eight regional views

Click 🗙 to close this channel's playback.

(2) Right-Click Menu

Right click the video and the menu will show up.

Stream Type(S)	
Display Info(D)	
Split Playback(T)	Ctrl+T
Add Tag for	
Remove(R)	
Save As Layout(L)	Ctrl+S
Cell Spacing(C)	
Aspect Ratio(A)	
Pause All(P)	Alt+Shift+P
Turn on All Speakers(O)	Ctrl+Alt+O
Stream Type for All(M)	
Display Info for All(N)	
Full Screen(F)	Ctrl+Enter

The meanings of the items on the right-click menu can be referred to the table below:

Item	Description		
Stream Type	Auto, Primary and Secondary supported. Auto means the playback video will automatically switch stream according to computer performance.		
Display Info	Choose to display stream information at Left or Right, or customize the position of info. You can also hide the stream information.		
Split Playback	Divide the video files into several channels during specified time period. Users can watch playback videos of different time periods simultaneously.		
Add Tag for	Add tag for the selected cameras or all cameras in the playback panel.		
Remove	Choose Selected Views or All Views in Layout to remove the camera playback.		
Save As Layout	Click it to save the current layout to Layouts list.		
Cell Spacing	Set the cell spacing size among the live view windows in the layout. There are four options available, including None, Small, Normal and Large.		
Aspect Ratio	Choose 1:1, 4:3, 16:9, 3:4 and 9:16 to show the window aspect ratio.		
Pause/Resume all	Pause/Resume all playback in the current layout.		
Turn on/Mute All Speakers	Enable or disable the speakers of all cameras in the current layout.		
Stream Type for All	Set stream type for all cameras in the current layout.		
Display Info for All	Set to display stream information of all channels in the current layout.		
Full Screen	You can choose Layout to display all cameras in the layout to full screen. Click again the Exit Full Screen to restore the normal window.		

Right click on a position in the layout where there is no video and the menu will change

into:

Save As Layout(L)	Ctrl+S
Cell Spacing(C)	
Aspect Ratio(A)	
Pause All(P)	Alt+Shift+P
Turn on All Speakers(0) Ctrl+Alt-	
Stream Type for All(M)	
Display Info for All(N)	
Add Tag for All	
Full Screen(F)	Ctrl+Enter
Remove All Views(R) Ctrl+Alt+A	

There are two more items:

Add Tag for All	Add tag for all cameras in the playback panel.
Remove All Views	Remove all cameras' playback from this layout.

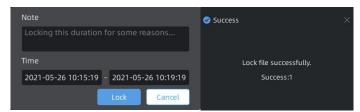
(3) Playback Toolbar



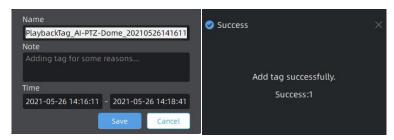
Select a certain channel in the current layout and to show the calendar. The blue date and time both indicate availability of recordings. Click the date and time you want to locate to.

<	į.	Мау	• 1	2021		* >
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	
2	3	4		6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26			
30						
<		20	21-05-	26		\rangle
00:						
04:						
08:						
12:						
16:						
20:	00	21:00	22:00 23:0		3:00	

Click for to lock recording file, and you can set locked time duration and notes.



Click **u** to add tags for selected channels, and you can set tag name, note and time duration.



Click c show Archive Management which can be used to check and retrieve tag and lock files.

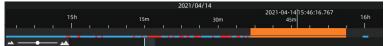


Click 🕡 to switch to Asynchronous Playing or Synchronous Playing.

Asynchronous Playing: The timeline only represents the recording of selected channel.

		2021/05/26 13:00				2021/05/20	614:00
36 m	40m	45m	50m	2021-05-26 55m	13:56:13.506 ₁₄	lh	05m
35m				ssm			usm
					_		

Synchronous Playing: Playback all channels in the current layout synchronously. The thick timeline bar represents recordings of currently selected camera, while the thin bar represents recordings of all channels in the current layout.



Click 💽 / 🕅 to play previous or next event video.

Click K / K to play previous or next frame of the recording.

Click Click M/ box to adjust the playback speed to 1/32, 1/16, 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X or 32X.

II to rewind, play or pause the video.

Click 2021-04-14 17:14:30 to move the current playback time to the center of timeline bar. The short white vertical line which represents the position of the current playback moment will move to the centre of the time bar.

Drag to zoom in/out timeline bar. Or you can just scroll the mouse wheel on timeline bar to do so.

Click

(4) Right-Click Timeline Bar

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Right-Click the timeline bar and hold down to drag to move the time bar sideways. Right-Click the timeline bar, the menu will show up as follows. If there has been a part of video selected and it contains locked video and tags, right-click menu will have more items.

	Clear Selection	
	Zoom to Selection	
	Add Tag	
	Lock File	
	Split Playback	
	Export Video	
	Start Selection	
	Unlock File	
	Edit Tag	
	Export Tag	
	Play Tag Video	
Start Selection	Delete Tag	
Show Thumbnails 🛛 🗸	Show Thumbnails	~
Show Tags	Show Tags	ç
Show Locks	Show Locks	Ŷ

The meanings of the items on the right-click menu can be referred to the table below:

Item	Description
Start Selection/End	Select start/end time of period on the timeline.
Selection	
Clear Selection	Clear selection on the timeline.
Zoom to Selection	Extend the selected period to whole timeline.
Add Tag	Add tag for the selected period.
Lock File	Lock the selected period.
Split Playback	More Details in 6.2 Split Playback
Export Video	Export the selected period.
Unlock File	Unlock the locked video file.
Edit Tag	Edit tag which you set.
Export Tag	Export tag which you set.
Play Tag Video	Play videos with tag you set.
Delete Tag	Delete tag which you set.
Show Thumbnails	Show thumbnail of the corresponding time. Users can also resize the thumbnail timeline as needed.
	Concentration Concent
	After setting the tags, you can choose the option to show the tag on the timeline
Show Tags	2021-01-27/11:57:0 11h 30m Tag demo Tag demo

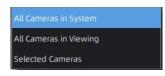
Show Locks	After setting the lock files, you can choose the option to show the lock file on the timeline
	2021-C 30m = 14h

(5) Tags for Playback

Click the Hide/Show bottom to pop-up right side menu and click the tag icon to show Tags for Playback.

*	Tags for playback			
A				
		😡 All Tags		
	₿ N	o Limit	~	
1	From			
			ଞ≣	
		kTag_Network Camera_202		
U	THE	Work Camera 4941	t Alad Kadita	

Select which channels to search tags from.



Select which types of tags to search.



Select the time duration for searching tags

No Limit	
Last Day	
Last Week	
Last Month	
Customize	

Search keyword of tags' names and notes. Refresh the tag list and chose how to sort the tag list (Tag Start Time, Tag Name, Camera Name and Create Time).

Search G E

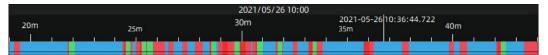
Double click the tag you want, and the video of the corresponding channel then jumps to the time of the tag and flashes the window.

Live View 💽 Pl	ayback 🛛 Smart Analysis	📾 16% 🏽 E-Map 🛛 🗐 Logs	mm 52% 23% ▲ 📌 – □ × ☆ Settings _{▲ david} →
Server List Group List			★ Tags for playback
۹ Search			All Cameras in System
 Surveillance System (1/3) ~ David's System (1/3) ~ Network Camera 192.168.7151 	Michael Contra	NO RECORDING	From
 Network Camera 192.168.72152 Network Camera 192.168.7205 			To Q Search C =
₩ Layouts			PlaybackTag_Network Camera_20210624 PlaybackTag_Network Camera 2021-06-2411:43:43 Manual Tag
			Network Camera 2021-04-21 10:18:14 PlaybackTag_Network Camera_20210421
			Network Camera 2021-04-21 09:40:44 PlaybackTag_Network Camera_20210413 Network Camera 2021-04-13 17:39:32
	Show Event Mask	▶ ▶ 1 x 2021-06-24 11:44:00 021/06/24 11:00 2021-06-24]1:	
	• Show Event Only 42m 30s • Event Only • • • • • • • • • • • • • • • • • • •	43m _{30s} 44m	

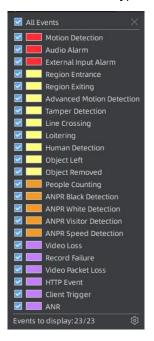
6. Event and Split Playback

(1) Event Playback

If the channel is configured with rule-triggered recording, the timeline bar of Playback will have different colors representing different events.



Click *Show Event Mask* to check event type to be shown on the timeline, the timeline will show different colors according to selected event type as below:



Click the button to enter Event Mask Colors Setting interface, it supports customizing different colors for different events according to the user's requirement.



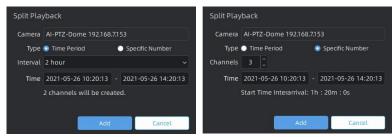
Click Event Only to exclude continuous recording.



(2) Split Playback

Split Playback allows you to divide a period time of recording into several parts when watching playback, so that users can watch videos of different time simultaneously. Split Playback setting steps are as below:

Step1: Right click the playback window of a channel and click Split Playback, or right-click the selected time period on the timeline and choose Split Playback, and a window will pop up.

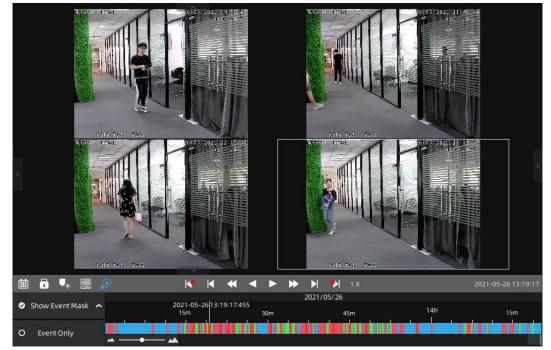


Time Period setting

Specific Number setting

Step2: Check a type to split the video file. If you choose the Time Period, and set Time Interval and Start/End Time, then the channels will be split automatically by VMS system as above. If you choose the Specific Number, and set channel number and Start/End Time, then Time Interval will be calculated and split automatically by VMS system as above.

Step3: After setting, cliqAdd, and the selected video will be split to newchannels to replay asynchronously on the playback layout as shown below:



-END-