Tips and Troubleshooting
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1. Overview

1.1. About This Document

This document describes technical Tips and Troubleshooting about Network VMS (Video Management System).
2. Tips

2.1. [TP0001] How we can configure event recording triggered by camera side motion detection? (SOW-E, HAW-E)

There are roughly divided into 3 steps to configure the camera VMD based recording.

1. Configure camera VMD
2. Add a device event
3. Make a Rule

1. Configure camera VMD

Network Video Management System doesn’t support a camera VMD configuration such as window / sensitivity / size. Therefore, please set up these detailed configurations via camera web setting page in advance.
2. **Add device setting**

1. Login to Management Client and register the camera.
2. Select “Events” tab in the device properties.
3. Click “Add” button and select “Motion Started(HW)” in the Select Driver Event dialog.
4. Click “OK” button.
5. Select the “Motion Window” which you want to use a trigger from 1 to 4.
6. To create “Motion Stopped(HW)” event, repeat from step 3 to step 5.

[Tips]
Motion Window list is based on the parameter in alarma data.cgi of Sony Network Camera. Thus, VMF / ROI / Tampering are shown in this list in case of camera which supports these functions.
3. Make a Rule – Step1: Type of rule

1. Right click on “Rules” and select “Add Rule…” to make a rule.
2. Open the “Manage Rule” dialog and input the name of rule.
3. Select “Perform an action on <event>”.
4. Click “event” to select an event.
6. Select “Motion Started (HW)” and click “OK” button.
7. Click “devices/recording server/management server” in rule description.
8. Open “Select devices and groups” dialog and add the camera to “Selected” list on the right side.
9. Click “OK” button.
3. **Make a Rule – Step2: Conditions**

1. When you want to use specific motion window as an event, select “Event is from <motion window>”.
2. Click “motion window” in description area and open the “Select motion window”.
3. Input the motion window name which you selected in device event setting (See P.5).
4. Click “OK” button.
3. Make a Rule – Step3: Actions

1. Check “Start recording on <device>”.
2. Click “the device on which event occurred” and select “Use triggering device” in the “Select Triggering Device” dialog.

[Tips]
“Make a new <log entry>” in actions list is helpful to check rules. When a created rule is executed, specified log message is added in “Rule Log”.

![Screenshot of Sony Network Video Management System](image.png)
2.2. [TP0002] Continuous recording within certain times and motion detection outside of those times. (SOW-S, HAW-S)

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To set the time of continuous recordings you should create 2 generic events on your Sony Network VMS server. One for starting recording, the other for stopping recording, as below.
Once this is done, set the cameras to follow both motion detection and the two events.

Now what we need to do is have the windows schedule fire start and stop events, to facilitate this we need a tool to generate generic events.

You can download the command line tool from our website
extract it into a folder, I would suggest something along the lines of c:\script_files\ however feel free to use whatever organizational method you wish.

Once extracted within that folder create 2 batch files, start_continuous_recording.bat and stop_continuous_recording.bat.

Each batch file should have the following contents.

Start_continuous_recording.bat
@echo off
REM
REM Script to start continuous recording on Server xxx
REM
REM Please contact Justin on ## ## ### #### in the event you have any queries concerning this. REM
GenericEventSendTool.exe localhost 1234 start_continuous_recording

Stop_continuous_recording.bat
@echo off
REM
REM Script to stop continuous recording on Server xxx
REM
REM Please contact Justin on ## ## ### #### in the event you have any queries concerning this. REM
GenericEventSendTool.exe localhost 1234 stop_continuous_recording

Feel free to comment the files as you see fit with version control or relative comments being sure to prefix them with the REM tag.
The exe expects the following parameters: `GenericEventSendTool.exe <hostname> <port> <text>`

The hostname is the hostname or IP of the server. The Port will be the port number used by the generic event and should be listed under the event server properties. The text is whatever you have set to trigger the event itself.

What you then need to do is tie it all together by triggering the batch files based on windows scheduler. This can, in most cases be found under control panel -> administrative tools.
To create a reoccurring task right click on the task scheduler entry and select to create a basic task.

Call it something relative and give it a meaningful description.

![Create Basic Task Wizard](image)

Click next and select the relative schedule or trigger event.
In the below configuration I am selecting to continuous record between the from 9AM – 5PM So for the start recording I set the following.

Select to start a program
And then select to use the bat file as below.

You then need to set a new stop task, follow the instruction as above, inputting a relative name and selecting the time when you want recordings to stop along with firing the stop recording.bat.

Note that with this setup you could fire any event based on the windows scheduler and having an equivalent generic event fired so feel free to be creative.
2.3. [TP0003] Change the Event Server for a master/slave setup (SOW-S, HAW-S)

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First, you need to ensure that the firewall and NAT rules on the Master Server allow slave server communications. The Event Server uses TCP at port 22331 per default. Consult the Administrators Manual for further information.

All of the below configurations are done on the Slave Server(s) only. Naturally, you have to recreate the slave events, alarms and maps for these to work on the new master event server.
1. Go to Services and stop the Event Server service.
2. Edit the Event Server service properties and change Startup type to "Disabled".
3. Open the Management Application with Administrator rights, that is Run as Administrator.
4. Right-click Server Access and select Registered Services.
5. Highlight Event Server and click Delete, then close the Registered Services dialog.
6. Save changes.

On the Master Server you should now follow the steps below to force the Event Server to reconnect to the Slave server(s):
1. Open Management Application.
2. Click Master/Slave, then click the Update button on the bottom-right of the content area of the Management. Application. You should see "Online" shown under the Status column for all Slave servers.
3. Click Services, and restart the Event Server service.
4. Re-launch the Management Application, and you should now have access to Slave servers when creating alarm definitions.
2.4. [TP0004] How to revert back to ActiveX on the new Network Video Management System Smart Client 10.2a? (SOW-S, HAW-S, SOW-E, HAW-E)

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If Network Video Management System Smart Client 2016 is unstable or not rendering video, as a workaround you can fall back to the legacy ActiveX rendering engine.

Note: If you fall back to ActiveX, the new rendering improvements on version 2016 will not be available.

1. Open Notepad as Administrator (Right-click -> Run as administrator)
2. In Notepad, select File -> Open
3. Navigate to C:\Program Files\Sony\Network VMS Smart Client\ or for a 32bit client installation, C:\Program Files (x86)\Sony\Network VMS Smart Client\ 
4. Open Client.exe.config
5. Once opened in notepad, search for this line “VideoImage.DisableAndFallbackToActiveX” and change the value to “true”.

6. Save changes, and open Smart Client again. It will now use the ActiveX-based video rendering engine instead of the new DirectX-based engine.
2.5. [TP0005] How does Network VMS Smart Client export to AVI format? (SOW-S, HAW-S, SOW-E, HAW-E)


When exporting to AVI format from the Network VMS Smart Client, the software is capable of using any third-party codecs installed on the system where the application is running.

By default Windows only includes a few codecs, such as Intel Indeo and Microsoft Video-1, which are very limited and not meant for high-quality video evidence export.

Video codecs are not made, supplied or supported by Sony, but there are many codec packs freely available on the internet. Two codecs which are free and see active development are:

DiVx: www.divx.org
xViD: www.xvid.org

For playback of recordings exported to AVI, you can use Windows Media Player or any freely available video players, such as VLC (http://www.videolan.org).
2.6. [TP0006] How to setup your NAS archive storage (SOW-S, HAW-S, SOW-E, HAW-E)


When you prepare your remote archive storage you should consider setting the proper permissions for the services and the read/write process.
Your setup depends entirely upon the configuration and capabilities of the NAS. However, as a rule of thumb, the below could be two scenarios for a valid configuration.

In case you are in a domain:
1. Pick up/create a domain account that will be used for the connection between the recording server and NAS storage.
2. Set this account as local administrator on the recording server.
3. Set this account as local administrator on the NAS drive.
4. Go to the Recording server service and set this account to be the Log On account. Restart the service.

In case you are in a WORKGROUP:
1. Create a local administrator account where the recording server resides.
2. Create a local administrator account on the NAS drive with exactly the same username and password.
3. Set this account to be the Log On account for the Recording server and Image server (in case of SOW-S or HAW-S). Restart the service.
3. Troubleshooting

3.1. [TS0001] After updating our PCs to earlier Windows 10 builds, we are unable to log into the Management Application of SOW-S and Smart Client of all NVMS products. How we can deal with this? (SOW-S, Smart Client)

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The cause is that two necessary entries are missing from the registry.

Using the Registry Editor, find the specified location:
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows NT\CurrentVersion]

Add these two entries and restart the machine:
- **RegisteredOwner**
- **RegisteredOrganization**

To add the entries, follow the steps:

1) Create a new String Value.

2) Type in **RegisteredOwner** for a name and right-click to modify.
3) Define some Value data, for example someOwnerNameText.  
   Note: The actual values assigned to Owner and Organization are not important.

4) Repeat steps 1,2,3 for the second string RegisteredOrganization.

5) Restart the machine.
3.2. [TS0002] Network VMS Smart Client login fails with "unknown error" or "an item with the same key has already been added" error message (SOW-S, HAW-S)

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Symptoms
Network VMS Smart Client login fails with "Unknown error" or "An item with the same key has already been added" error message. These messages are typically seen in Network VMS Standard Edition systems running in a master/slave configuration.

Cause
These error messages are common when one or more of the servers' configurations are in some way a clone or copy of another. It can also occur if the same camera is added to multiple servers.

Resolution
The global unique identifiers (GUIDs) on each server joined in a master/slave configuration must be unique. To check or change this:

1. On each system, navigate to C:\ProgramData\Sony\Sony Surveillance
2. Find the file 'configuration.xml' and open in a text editor, such as Windows® Notepad.
3. In the section heading <Imageserver>, note the value for <guid> (not <SiteID>).
4. On the other slave servers, check that this same value has unique GUIDs.
5. If they are the same, change at least one character or digit in the ID so it does not match those from any of the other servers.

Note. Before you change the configuration.xml like this the Service Control service needs to be stopped (stopping it stops all the services the Recording Server uses). After the change to configuration.xml start the Service Control service again. Open the Management Application, from the Management Application start all the stopped services. If only exploring the configuration.xml you do not need the stop the services,

As a general rule, if using cloned configurations to get new servers up and running quickly, you should always use the "File -> Export configuration - Clone." This generates an exact copy of the configuration, but also ensures that any unique identifiers are truly different in the resulting configuration.
3.3. [TS0003] Database queue overflow (SOW-S, HAW-S)

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Symptoms
Audio enabled on cameras causes queue overflow messages in the Recording Server logs. Database queue overflows are not due to hardware or system resources.

Troubleshooting steps
This change allows is for a larger queue of frames to be written to disk:

1. Increase queue size by copying the attached "debug.ini" file.
2. Place it into "C:\ProgramData\Sony\Sony Surveillance" folder of an affected machine.
3. Restart the machine.

Note: RAM usage might increase slightly.

The ini file applies to all camera models from all manufacturers and can be downloaded from:
https://www.sony.net/Products/CameraSystem/NVMS/technical_doc/exe/NVMSTG010/TS0003.zip
3.4. [TS0004] Problems archiving to a network-attached storage (NAS) (SOW-S, HAW-S)


Symptoms
Unable to archive to an NAS.

Cause
Network VMS Standard Edition is capable of archiving to a network-attached storage (NAS). Usually, if you are unable to archive to an NAS, it is a permission issue. Normally, Sony services run under the Local System account, and this account does not have read or write access to NAS (or local drives with modified rights).

Resolution
Change user account settings to be able to archive to NAS.

1. Click Start, right-click Computer, and click Manage.
2. Expand Services and Applications, and select Services.
3. Locate the Sony Network VMS Recording Server service, double-click it and click the Log On tab.
4. Choose This Account, provide the user name/password for the local or network user account with full read and write permissions to the desired NAS and click OK.
5. Right-click the Sony Network VMS Recording Server service and select Restart.
6. For the Sony Image Server service, repeat steps 3-5.
## Revision History

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<th>Date</th>
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<th>Description</th>
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