

Security Management System Configuring Secondary Storage Access from CMS

Introduction

‘Security management system server’ software supports secondary recording feature, in which the camera streams are recorded to primary storage as well as to secondary storage simultaneously. This document describes configuration steps to set up secondary storage and to configure secondary storage access from CMS server (Central Monitoring Server).

This document describes steps to configure

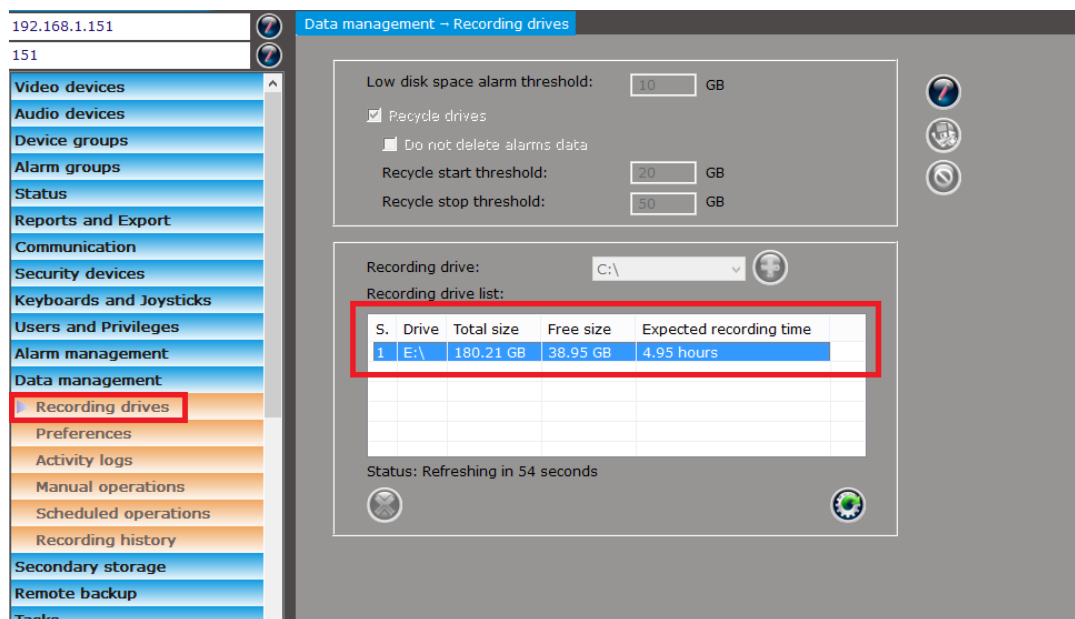
1. VMS server - ‘Security Management System Server’ software (VMS server) which is configured to record camera streams to primary storage as well as to secondary storage.
2. CMS server - ‘Security Management System Server’ software which is configured as CMS server. Video channels from one or more VMS servers are added to the CMS server, and secondary storage direct access is configured in the CMS server, as an option.
3. CMS client - ‘Security Management System Client’ software, which connects to one or more CMS servers and accesses primary storage or secondary storage; as per user inputs

VMS server configuration

Primary storage

Primary storage is mandatory and is always available in Security Management System server software.

The drives for primary storage can be selected from 'Data management -> Recording drives' page.

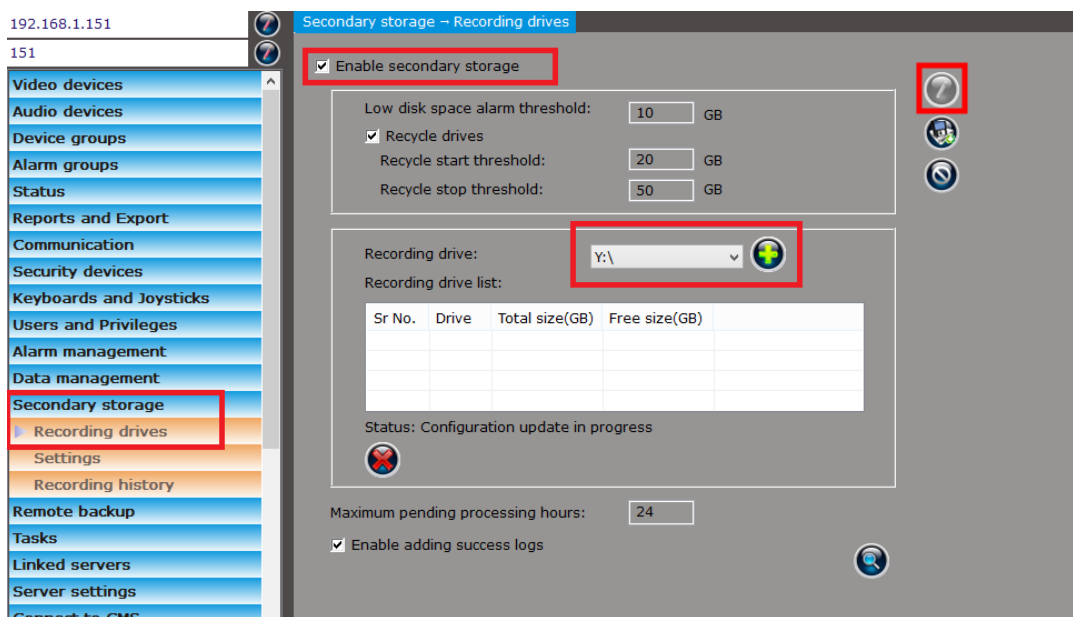


Security Management System server software intelligently assigns recording drive for each of the camera added, with an option for users to over-ride the drive assignment for the cameras.

Secondary storage

Security Management System provides fully flexible configuration for secondary storage. Secondary storage configuration is optional. Also the secondary storage configuration can be done only for some cameras, leaving out cameras which do not require secondary storage feature.

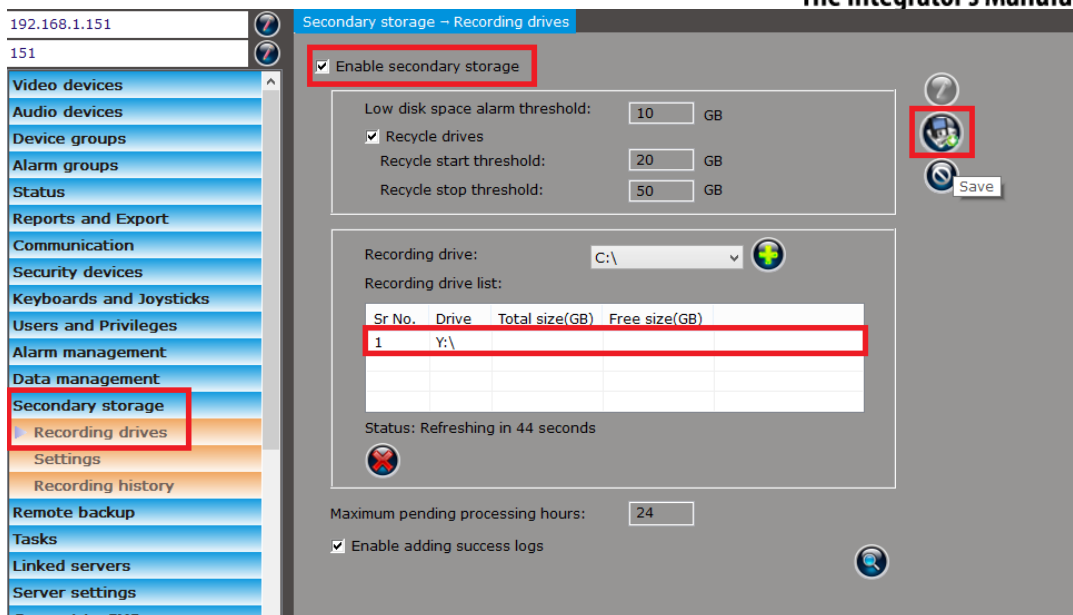
To enable secondary storage, please access the “Secondary storage-> Recording drives” menu from the left hand side navigation control



Click on the ‘Edit’ button available on the right hand side, which will enable the GUI and will allow editing the settings.

Click on ‘Enable secondary storage’ check box to enable it.

Select recording drive from available recording drives list and then click on ‘Add’ button to select recording drive for secondary storage. It will be added to the list of ‘Recording drive list’.



It is possible to add multiple drives for secondary recording by selecting another drive and clicking on 'Add' button.

To remove any drive from 'Recording drive list, use 'Remove' button.

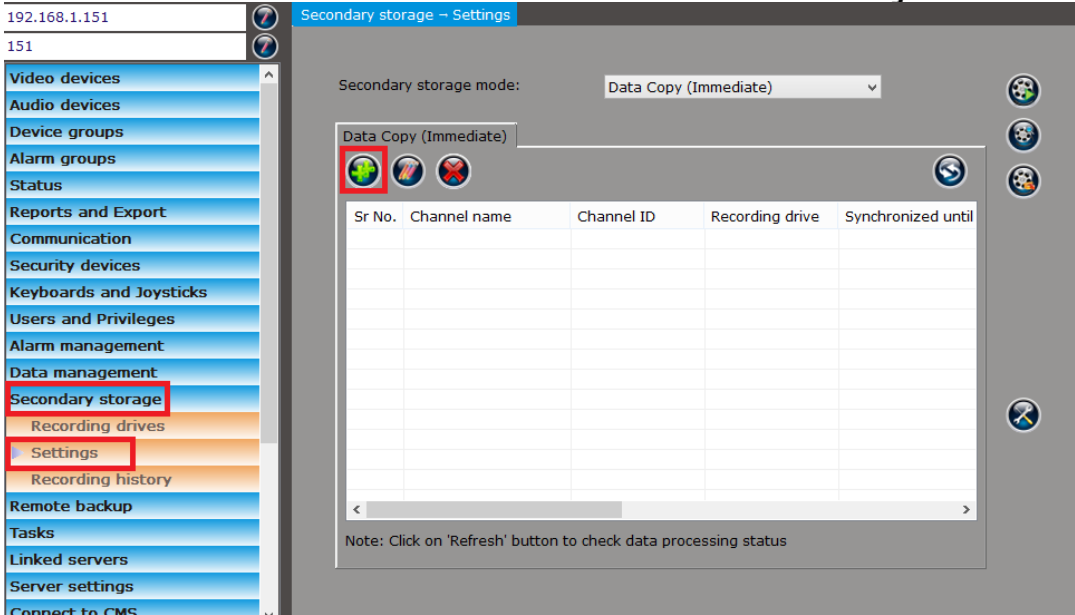
Click on 'Save' button to complete configuring recording drives.

Note – It is recommended to use different drives for primary recording and for secondary recording. Using same drive for primary recording as well as secondary recording would cause problems in storage recycle operations

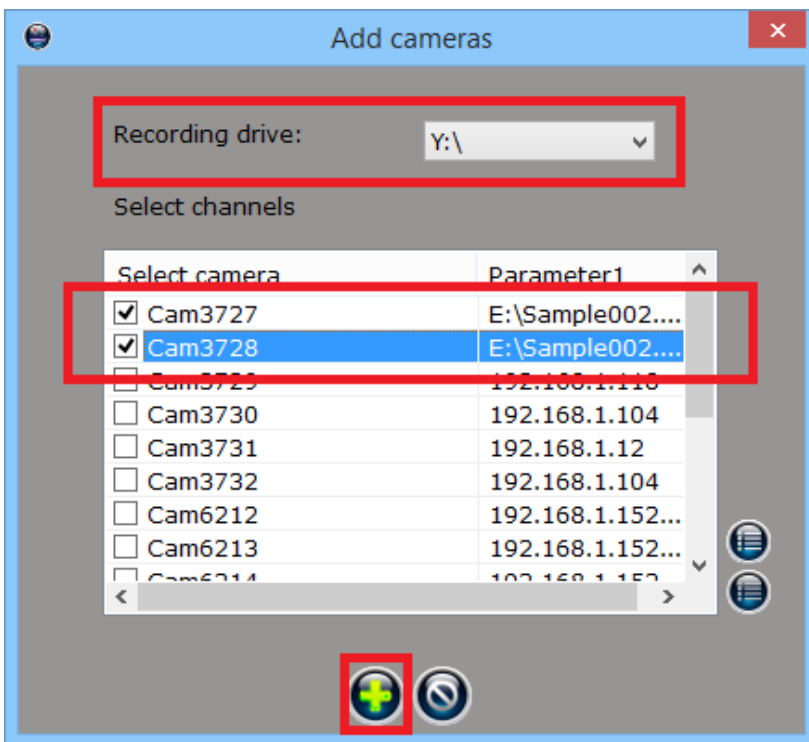
The secondary recording configuration is not complete yet.

Required channels are needed to be added to the list of secondary storage enabled cameras. Security Management System server software provides flexibility to configure only few channels for secondary storage.

Please access the 'Secondary storage-> Settings' menu from the left hand side navigation control



Keep 'Secondary storage mode' as 'Data Copy (Immediate)' and click on 'Add...' button. This will pop up the 'Add Cameras' dialog box.

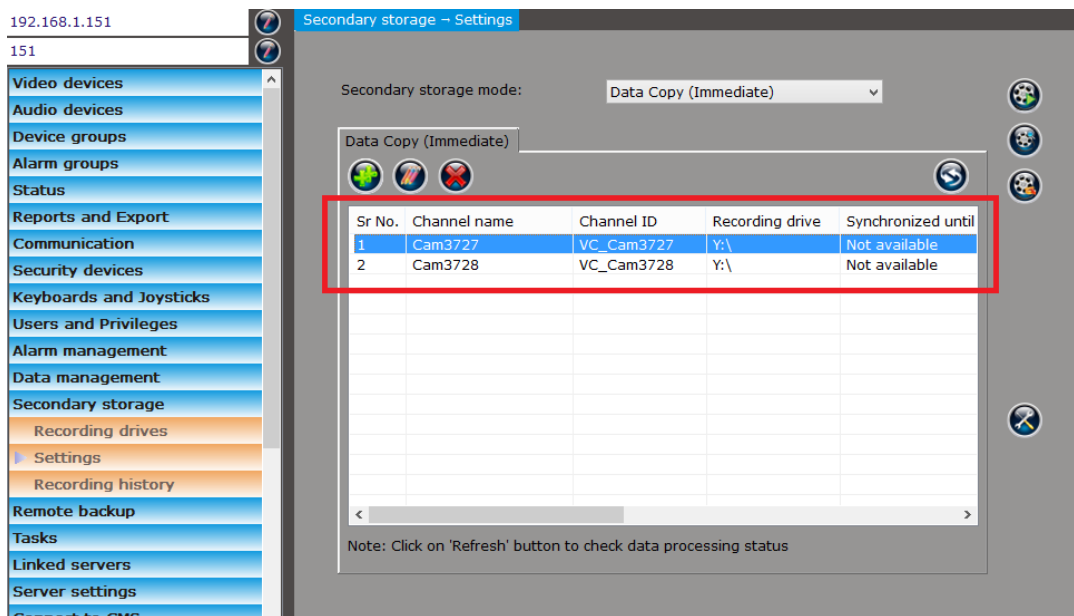


Select recording drive from available options

Select cameras which are expected to use the selected drive for 'Secondary storage'.

Click on 'Add' button, to finish adding the cameras.

The configured cameras will be displayed in the list.
Associated secondary recording drive will also be displayed for each of the cameras.
Secondary recording will be processed for the cameras present in this list.



'Add' button can be used to configure more cameras for secondary recording.
'Delete' button can be used to remove selected cameras from secondary recording.
'Edit' button can be used to update secondary recording setting for any of the cameras in the list.

Please use 'Refresh' button to check data processing status for secondary storage.

At any stage, the primary storage recording and secondary storage recording can be compared using 'Compare' button

Secondary storage data can be accessed using the 'Playback', 'Export' and 'Video search' buttons

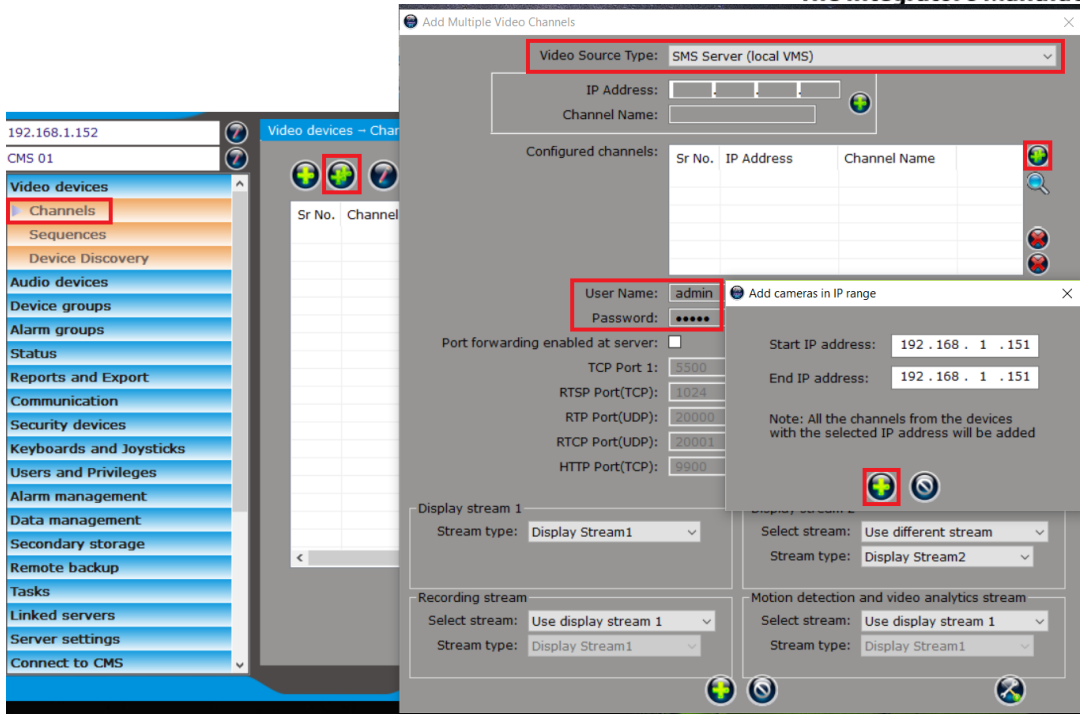
CMS server configuration

Add cameras from VMS software

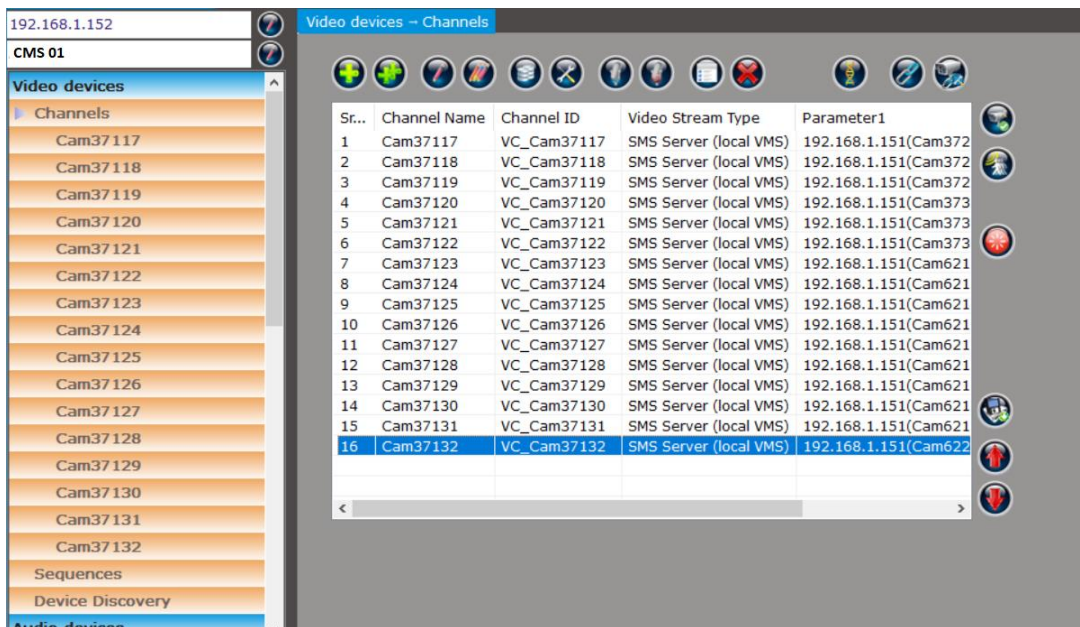
There is no separate CMS server (Central Monitoring Server) software. Security Management System server software can be configured as CMS server. Please install Security Management System server software on the CMS server computer.

The CMS server monitors the cameras already added in the VMS software. The recording of the cameras is managed by the VMS server. CMS server allows centralized management of cameras from multiple VMS servers.

1. In the CMS server software, navigate to the 'Video devices -> Channels' page.
2. Click on 'Add multiple video channels' button to pop up dialog box.
3. Select 'Video source type' as 'SMS Server (local VMS)', provide user name and password configured in the VMS server software
4. Click on 'Add cameras in IP range...' button which will pop up dialog box to enter IP range. Input IP address range (these are the IP addresses of the VMS softwares) and click on 'Add button to add all cameras from selected VMS softwares into CMS'.



The video channels will be listed in 'Channels' list.



The 'video source type' 'SMS Server (local VMS)' indicates that the server software is only monitoring this camera. Actual recording is managed by the local VMS server where this camera is added

Configure secondary storage access mode

1. Please navigate to the 'Status-> Local VMS' page.
2. This page displays the list of VMS servers added in this CMS software

192.168.1.152
CMS 01

Device groups
Alarm groups
Status
Channel status
Recording status
Bandwidth status
Video analytics status
Storage space
Video parameters
Camera parameters
Connected clients
Phone communication
SD card
Diagnostic tests
Local VMS
Local VMS (Push Mode)
Alarms report
Disk usage
Memory allocations
Motion Detection
Reports and Export

Status - Local VMS

List of configured Local VMS servers:

| Sr No. | Site Name | Site ID | Local VMS IP | Total Channels |
|--------|-----------|-------------------|---------------|----------------|
| 1 | 151 | Site_74867A59E2FD | 192.168.1.151 | 16 |

192.168.1.152
CMS 01

Device groups
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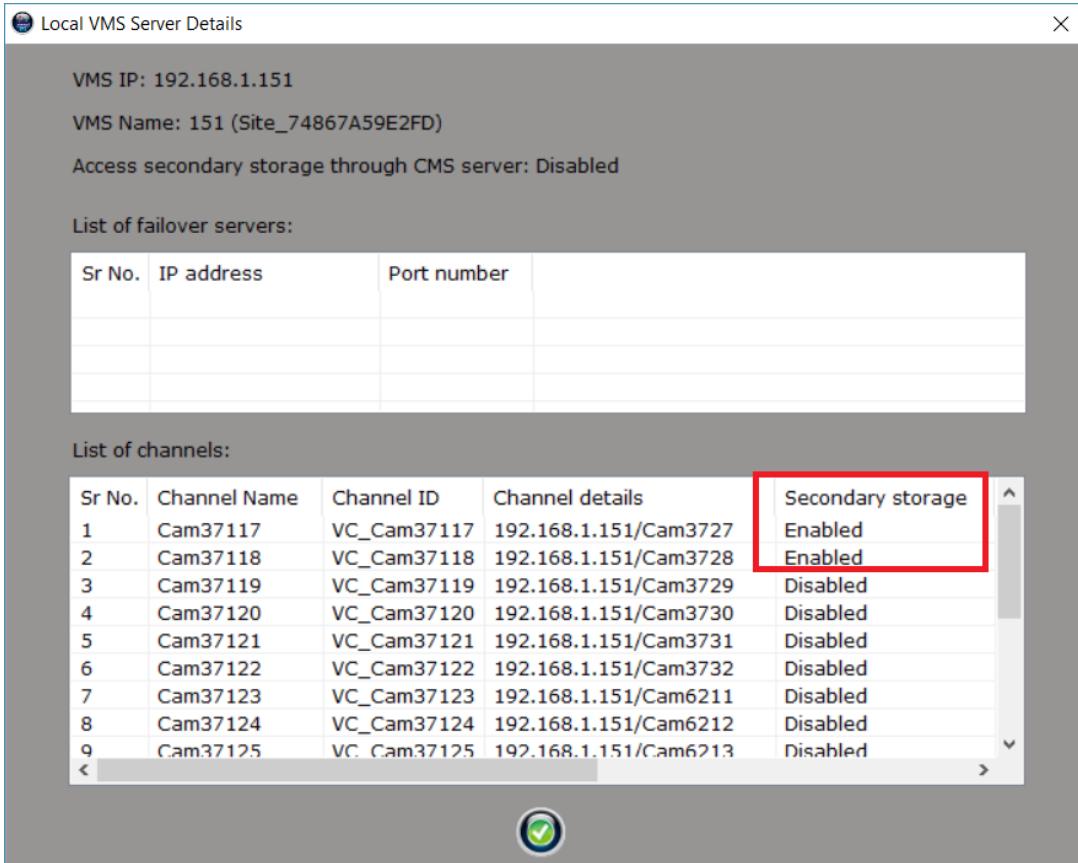
Status - Local VMS

List of configured Local VMS servers:

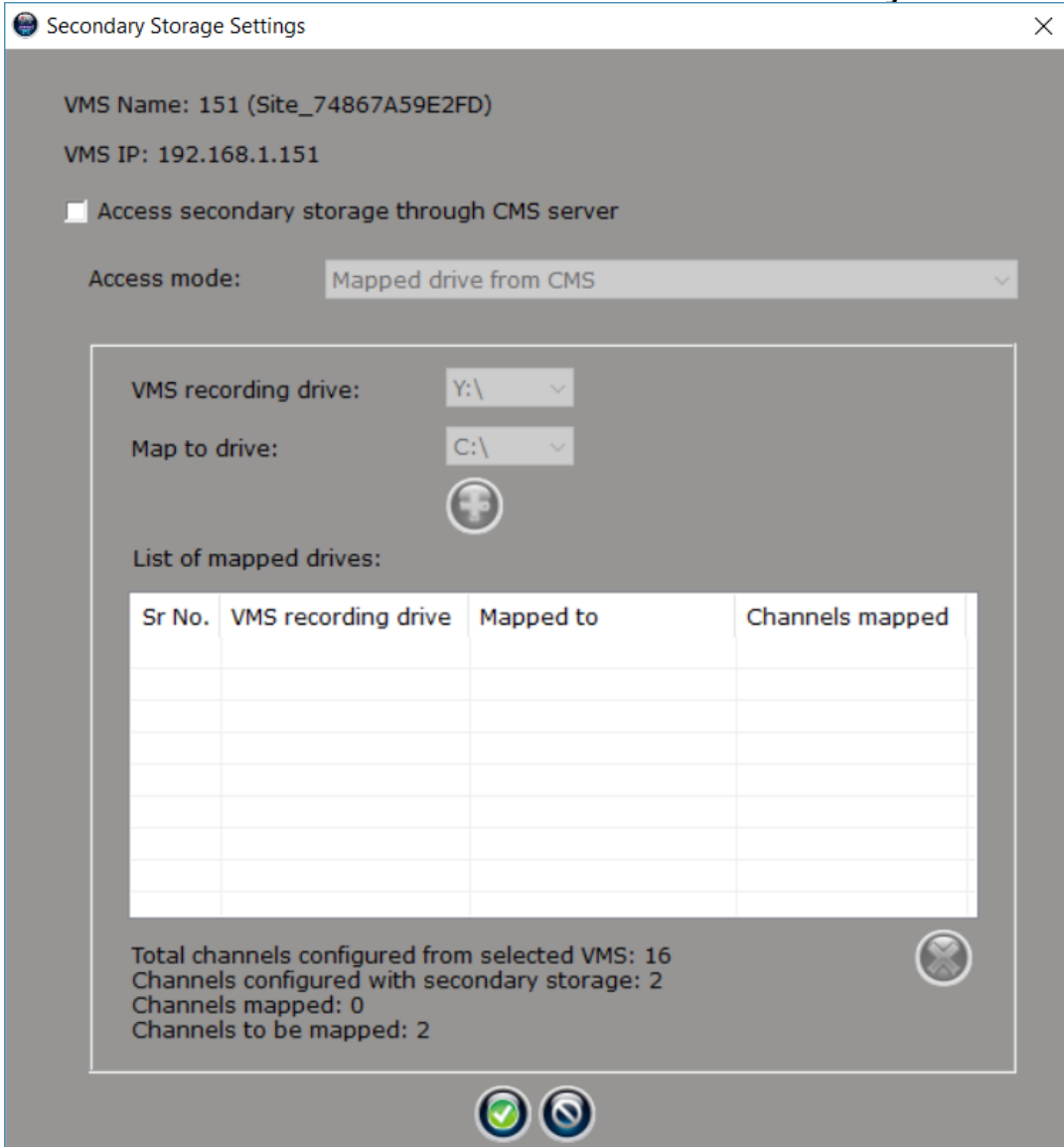
| Secondary storage channels | Access secondary storage through CMS server | Secondary storage |
|----------------------------|---|-------------------|
| 2 | Disabled | Not applicable |

3. The 'Refresh configuration' button will synchronize configuration with the selected VMS.

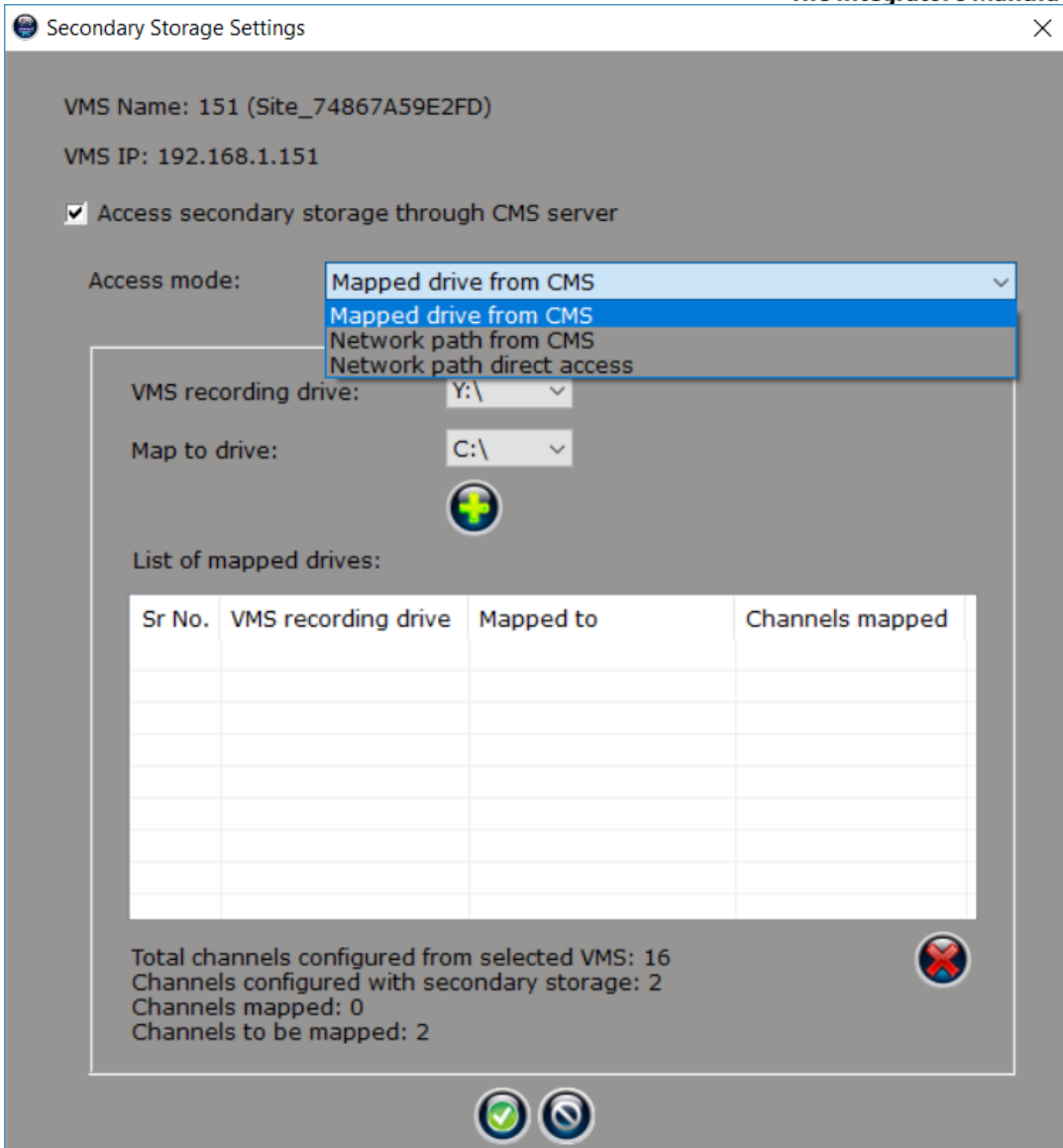
- The 'Details' button will pop up a dialog box which will display VMS server details



- Click on the 'OK' button to close the 'Local VMS Server Details' dialog box.
- Select a VMS server. Click on the 'Secondary Storage Settings' button, which will pop up the configuration dialog box for the selected VMS server.



7. Enable 'Access secondary storage through CMS server' check box, and select 'Access mode' from the available options.



8. There are 3 options available for the ‘access modes’
 - (a) **Mapped drive from CMS** – In this mode, each of the secondary recording drive configured in the local VMS server is associated with a drive in the CMS server computer. While using this option, it is important that we the secondary storage is configured in local VMS server as mapped network drives; and same is configured in CMS server as mapped network drives; there is 1 : 1 co-relation between secondary storage recording drive configured in VMS server and secondary storage drive configured in the CMS server; and these 2 drives are configured as associated drives in CMS server, as per the configuration steps listed below.

Whenever CMS server tries to access secondary storage for any of the cameras, (either directly from CMS server or from connected CMS client); it will use the related mapped drive in CMS server

- (b) **Network path from CMS** – In this mode, each of the secondary recording drive configured in the local VMS server has a network path defined for it in the CMS server.

It is important to configure the network path in the CMS to exact same physical storage location where corresponding secondary storage drive from local VMS server is configured.

Whenever CMS server tries to access secondary storage for any of the cameras, (either directly from CMS server or from connected CMS client); it will use the related network path in CMS server

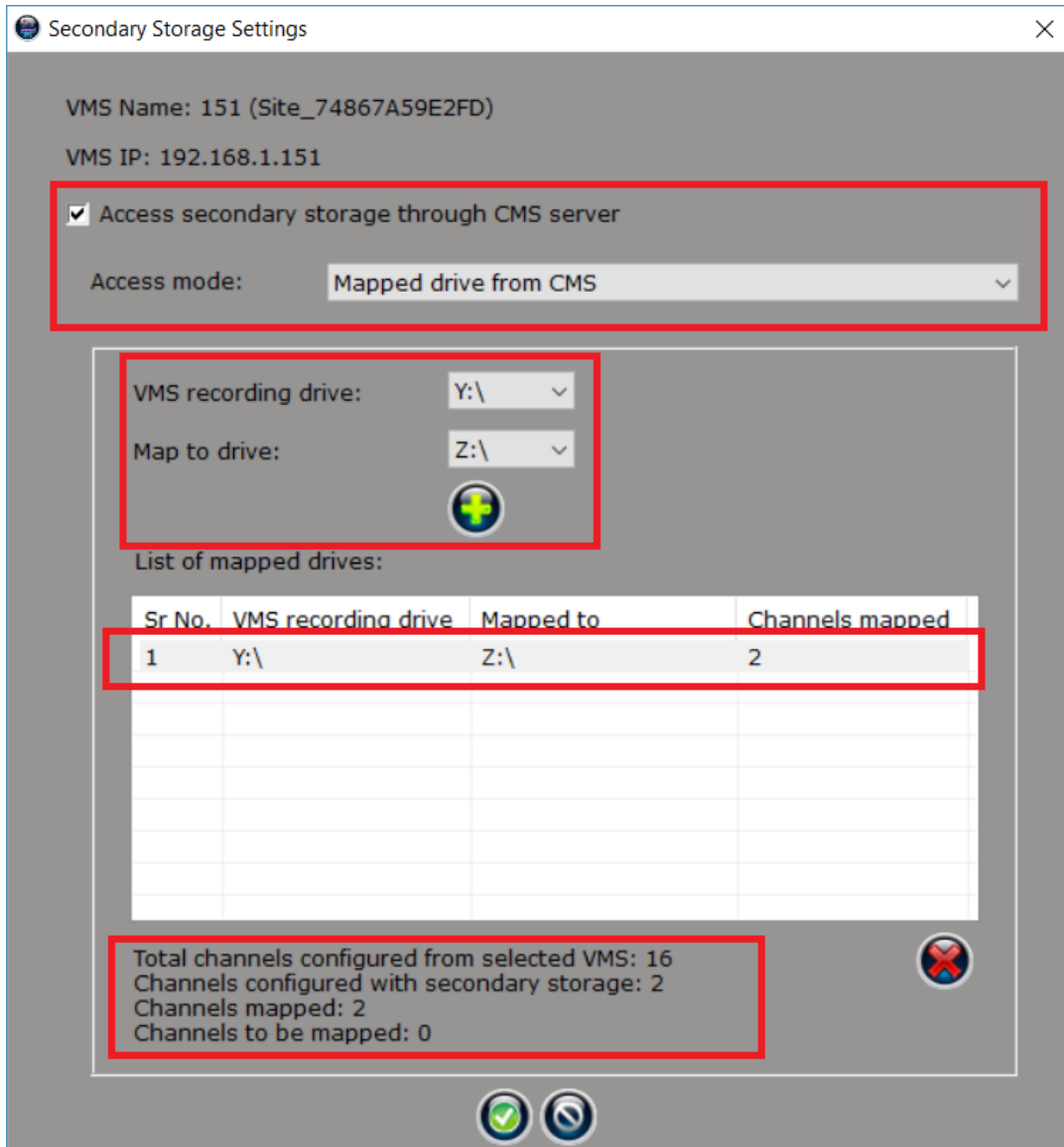
Note – this option will work only when the network path is accessible from CMS server computer. You will have to provide user credentials to access the network path. If network path is configured for accessing without user name and password, please keep username and password BLANK.

- (c) **Network path direct access** – In this mode, each of the secondary recording drive configured in the local VMS server has a network path defined for it in the CMS server. The configuration is same as that for the 'Network path from CMS' option.

The only difference in this mode is that, when connected CMS client software accesses secondary storage data, it will directly connect to the secondary storage using the configured network path. CMS server will not be involved in the access of the secondary storage from CMS client

Note – this option will work only when the network path is accessible from CMS client computer. You will have to provide user credentials to access the network path. If network path is configured for accessing without user name and password, please keep username and password BLANK.

9. Configuration for 'Mapped drive from CMS' mode -



The 'VMS recording drive' drop-down shows all secondary recording drives configured in the target VMS server.

The 'Map to drive' drop-down shows all drives available on the CMS server.

Select 'VMS recording drive' and 'Map to drive'

These selected drives are expected to be associated with exactly same physical location on the secondary storage.

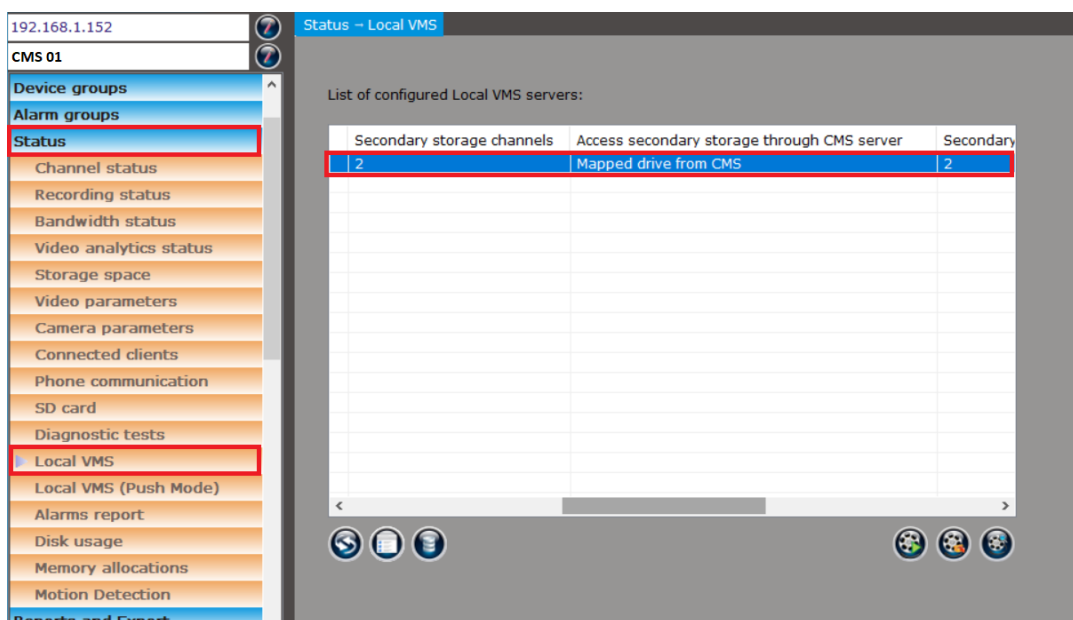
Click on the 'Add' button to add the pair to the mapped drives list.

Similarly add 'VMS recoding drive' and 'Map to drive' pairs for other secondary recording drives available in the VMS server.

When all secondary recording drives from the selected VMS server are associated with the drives from the CMS server computer, the 'Channels to be mapped' status at the bottom of the page will display 0. This indicates that configuration is complete.

Click on OK button to complete the configuration.

The information on the 'Status->Local VMS' page will be updated to display the current configuration done.



10. Configuration for 'Network path from CMS' mode –

VMS Name: 151 (Site_74867A59E2FD)
VMS IP: 192.168.1.151

Access secondary storage through CMS server

Access mode: Network path from CMS

VMS recording drive: Y:\

Map to network path: \\192.168.1.244\FShared\

User Name: user1

Password:

List of mapped drives:

| Sr No. | VMS recording drive | Mapped to | User Name | C |
|--------|---------------------|--------------------------|-----------|---|
| 1 | Y:\ | \\192.168.1.244\FShared\ | user1 | 2 |

Total channels configured from selected VMS: 16
Channels configured with secondary storage: 2
Channels mapped: 2
Channels to be mapped: 0

The 'VMS recording drive' drop-down shows all secondary recording drives configured in the target VMS server.

Select 'VMS recording drive'.

Specify 'Map to network path' by using browse button (...) or you can type network path in the text box provided.

The selected VMS secondary storage recording drive and the specified network path are expected to be associated with exactly same physical location on the secondary storage.

Also, you need to provide Windows login credentials (user name and password) will be used to authenticate when access the mentioned network path is done.

Click on the 'Add' button to add the pair to the mapped drives list. This will validate user credentials to access the path. Once access is successful, it will add path to the mapped drives list. If authentication fails, it will report such error.

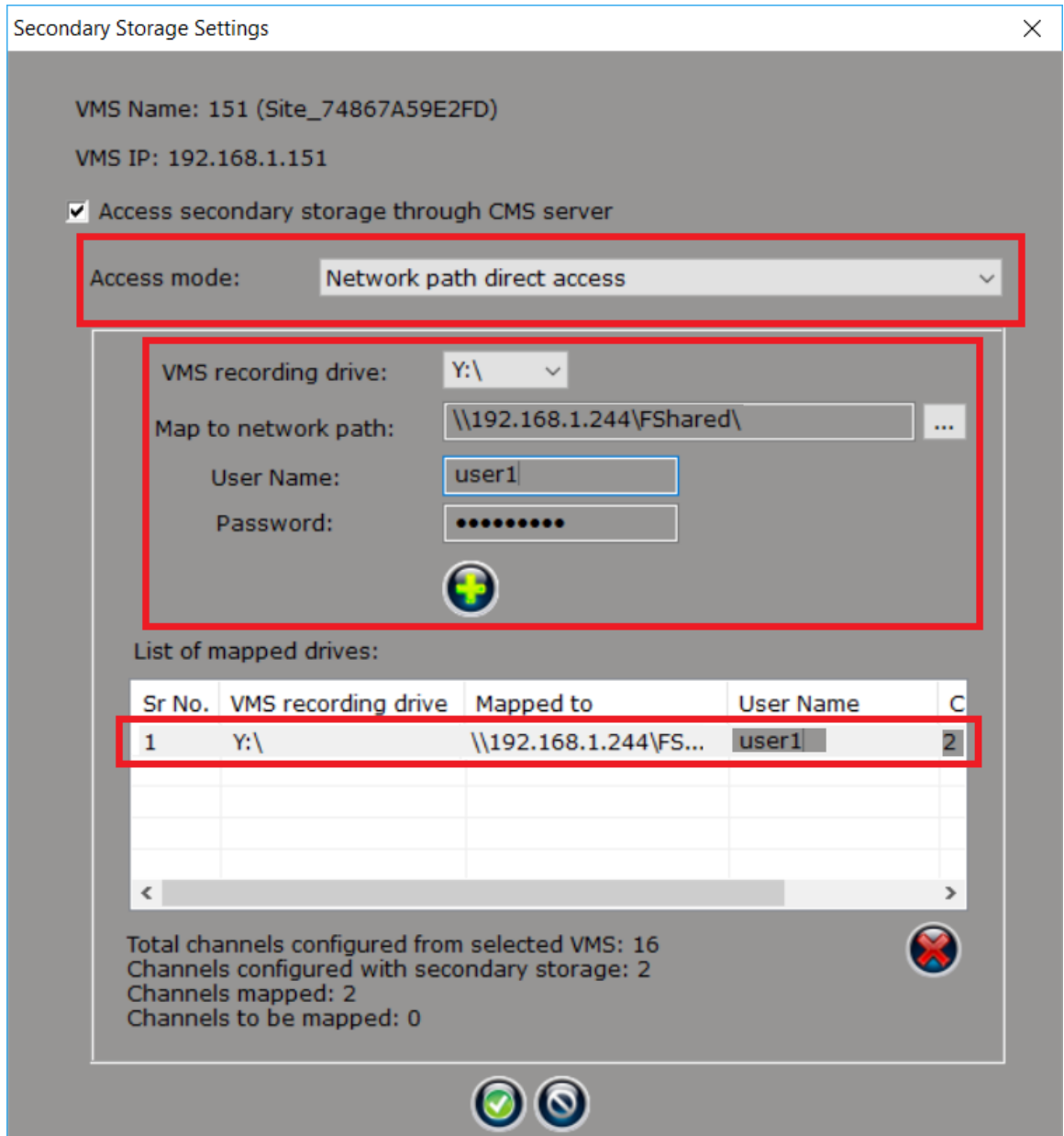
Similarly add 'VMS recoding drive' and 'Map to network path' pairs for other secondary recording drives available in the VMS server.

When all secondary recording drives from the selected VMS server are associated with the network paths, the 'Channels to be mapped' status at the bottom of the page will display 0. This indicates that configuration is complete.

Click on OK button to complete the configuration.

The information on the 'Status->Local VMS' page will be updated to display the current configuration done.

11. Configuration for 'Network path direct access' mode –



The 'VMS recording drive' drop-down shows all secondary recording drives configured in the target VMS server.

Select 'VMS recording drive'.

Specify 'Map to network path' by using browse button (...) or you can type network path in the text box provided.

The selected VMS secondary storage recording drive and the specified network path are expected to be associated with exactly same physical location on the secondary storage.

Also, you need to provide Windows login credentials (user name and password) will be used to authenticate when access the mentioned network path is done.

Click on the 'Add' button to add the pair to the mapped drives list. This will validate user credentials to access the path. Once access is successful, it will add path to the mapped drives list. If authentication fails, it will report such error.

Similarly add 'VMS recoding drive' and 'Map to network path' pairs for other secondary recording drives available in the VMS server.

When all secondary recording drives from the selected VMS server are associated with the network paths, the 'Channels to be mapped' status at the bottom of the page will display 0. This indicates that configuration is complete.

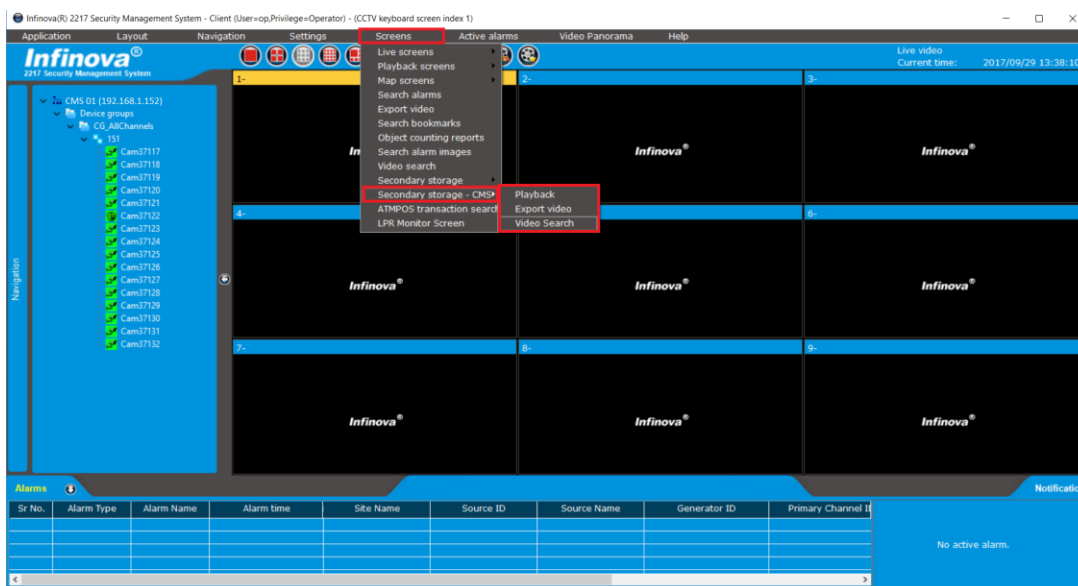
Click on OK button to complete the configuration.

The information on the 'Status->Local VMS' page will be updated to display the current configuration done.

12. The 'Playback', 'Export' and 'Video search' buttons available at the bottom right corner on the 'Status->Local VMS' page can be used to access and test the secondary storage data as per the user specified access mode.

CMS client software configuration

1. Install 'Security Management System Client' software.
2. Execute 'Security Management System Client' software using the desktop shortcut or the programs menu shortcut
3. In the login screen, please specify CMS server IP address, and CMS user login name and password.
4. Client software main screen will be visible after successful login.



5. The 'Screens -> Secondary storage' menu can be used to access secondary storage data through the associated VMS server. Playback, Export video and Video search sub-menus are available under this menu.
6. The 'Screens -> Secondary storage - CMS' menu can be used to access secondary storage data through CMS server, as per the secondary storage access mode configured in the CMS server. Playback, Export video and Video search sub-menus are available under this menu.