

## **Integration Coldstore 2U NX with Viewscape**

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## Contents

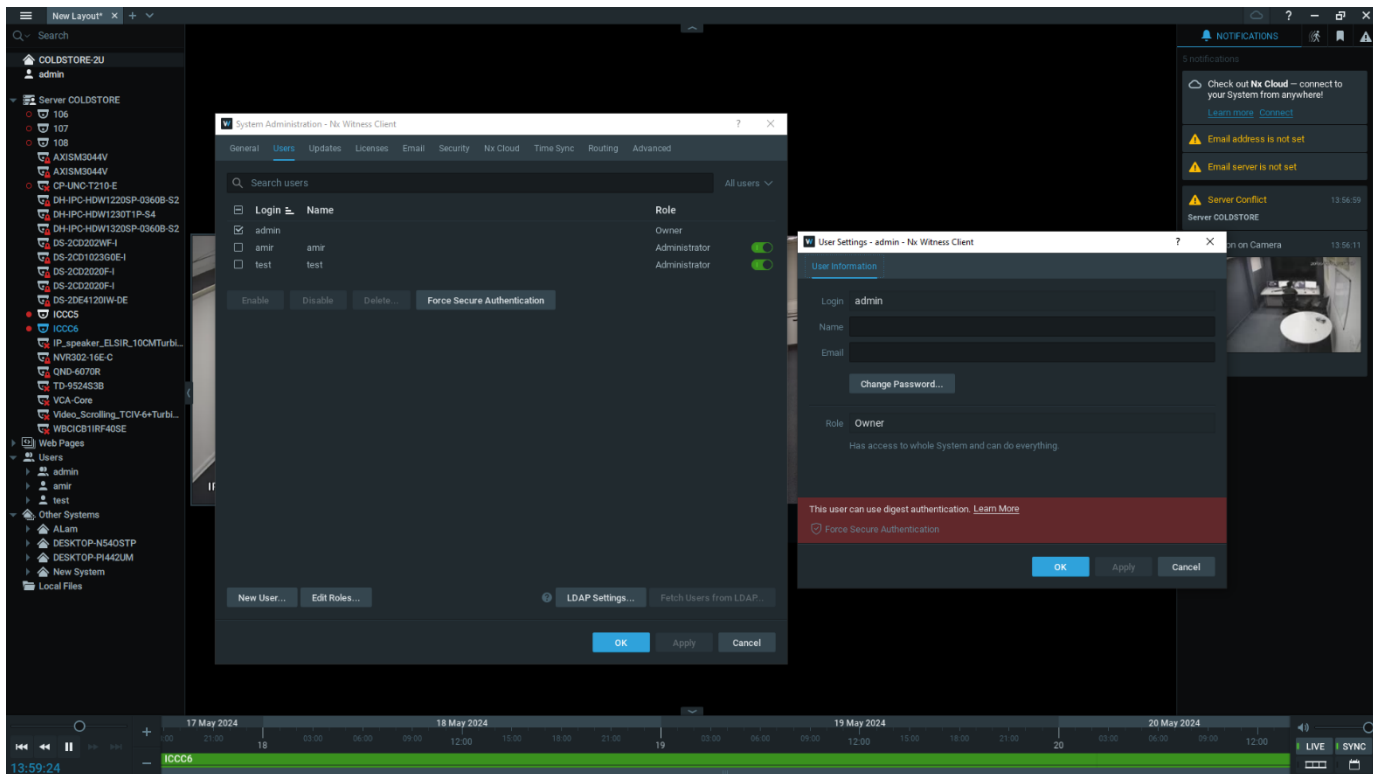
Pre-requisite: .....	3
NX Settings for Viewscape Application .....	4
Steps to login to NX on the Web Client .....	5
How to add Camera in Viewscape for NX.....	6
Configuring NX camera alerts in Viewscape .....	9
Hive Architecture for NX Failover/ How to Setup Failover .....	11
Feedback and Troubleshooting Report for CS 2U NX .....	16

## Pre-requisite:

- Viewscape
- Viewscape pro server
- Viewscape Surface Controller
- Settings Editor
- NX client
- Sitescape (used for Coldstore Configuration)
- VLC player (used for playback in viewscape) (In some cases we will need the version to be 32bit)

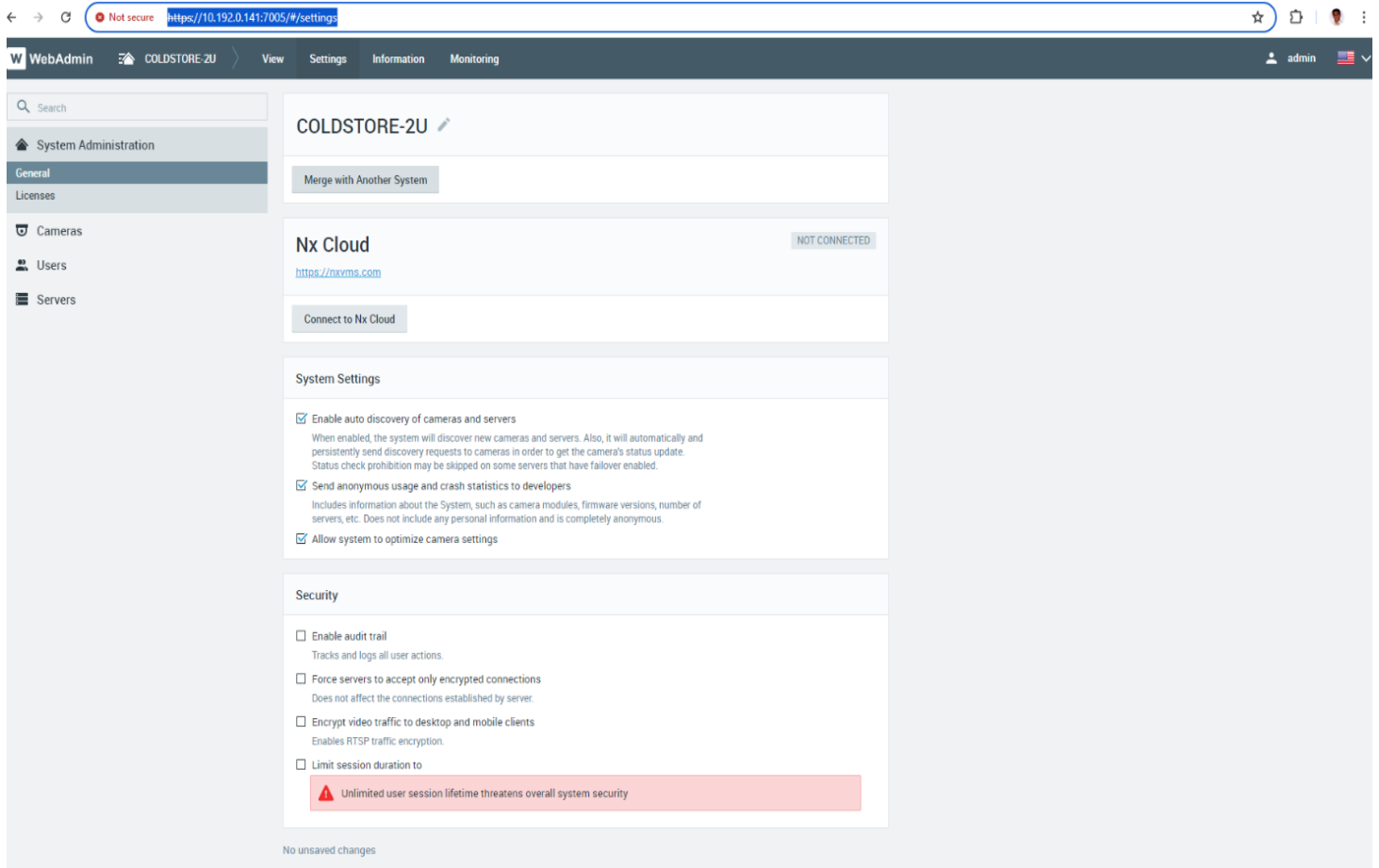
# NX Settings for Viewscape Application

- **Open the NX Client:**
  - Launch the NX Client application on your system.
- **Log in to NX Client:**
  - Enter your **username** and **password** to log in.
- **Navigate to User Settings:**
  - Once logged in, go to the **Settings** menu.
  - Select **User Management** or **User Settings** depending on your NX Client version.
- **Enable Digest Authentication:**
  - Find the user for whom you want to enable Digest Authentication.
  - Select the user and check the option to **allow Digest Authentication**.  
For example, if the user is "admin":  
Username: admin Password: [your password]  
Check the box that says **Enable Digest Authentication** or **Allow Digest Authentication**.
- **Save Changes:**
  - Click **Save** or **Apply** to confirm the changes.
- **Enabling Digest Authentication is a crucial task because without this the cameras will not work in Viewscape**



## Steps to login to NX on the Web Client

- Open your preferred web browser.
- Enter the URL for your NX Web Client. Typically, it looks like this: [https://\[NX-Server-IP\]:\[Port\]](https://[NX-Server-IP]:[Port]).
- Example- <https://10.192.0.141:7005>
- Default port for NX is 7001
- Log in using your NX credentials (the same ones used in the NX Client).
- Refer to the image below.



## How to add Camera in Viewscape for NX

- Create an NVR in Viewscape
- Fill in the necessary details.
- NVR type will be Nx Witness
- In the recording channels add channels according to how many cameras you have in NX

The screenshot shows the 'NVR' configuration window in the Viewscape software. The window has a title bar with a blue 'V' icon and the text 'NVR'. Below the title bar, there are two fields: 'NVR Alias' with the value 'NX Witness' and 'NVR Type' with a dropdown menu showing 'Nx Witness'. A 'Login' button is located between these fields. The main area of the window is divided into two sections: 'Login' and 'Recording Channels'. The 'Login' section contains fields for 'IP Address' (10.192.0.141), 'API Port' (7005), 'RTSP Port' (7005), 'User Name' (admin), 'Password' (masked with 'XXXXXXXXXX'), and 'Default Multiscreen Layout' (set to '<< NONE >>'). The 'Recording Channels' section is currently empty. At the bottom of the window, there is a 'Time Offset' field set to '0'. Below the main configuration area, there are buttons for 'Add', 'Delete', a group of icons (including a camera and a person), 'Edit', 'Close', and 'Cancel'.

- Once NVR is created, now create cameras
- Open the camera table
- Fill in the necessary details
- Stream IP address will be the camera IP
- Create an RTSP type stream configuration and attach it here
- **Always tick “use NVR for live Playback”**

**Camera**

Camera Name: NX Delhi OFFICE Cam2 IP 6    Installed Date: 20 / 02 / 2024    Re-Deployable: ☐

Spec    Location    GeoRollup    Maintain    **Pro**    NVR

Pro Camera Type: IP    Device: NX Delhi OFFICE Cam2 IP 6

Pro Index:

Aspect Ratio: << NONE >>

**Connection**

Stream IP Address: 10.192.0.6

Camera Stream Configuration: RTSP

Camera Stream Authentication: << NONE >>

Device ID:

**Options**

Use NVR For Live Playback: ☒

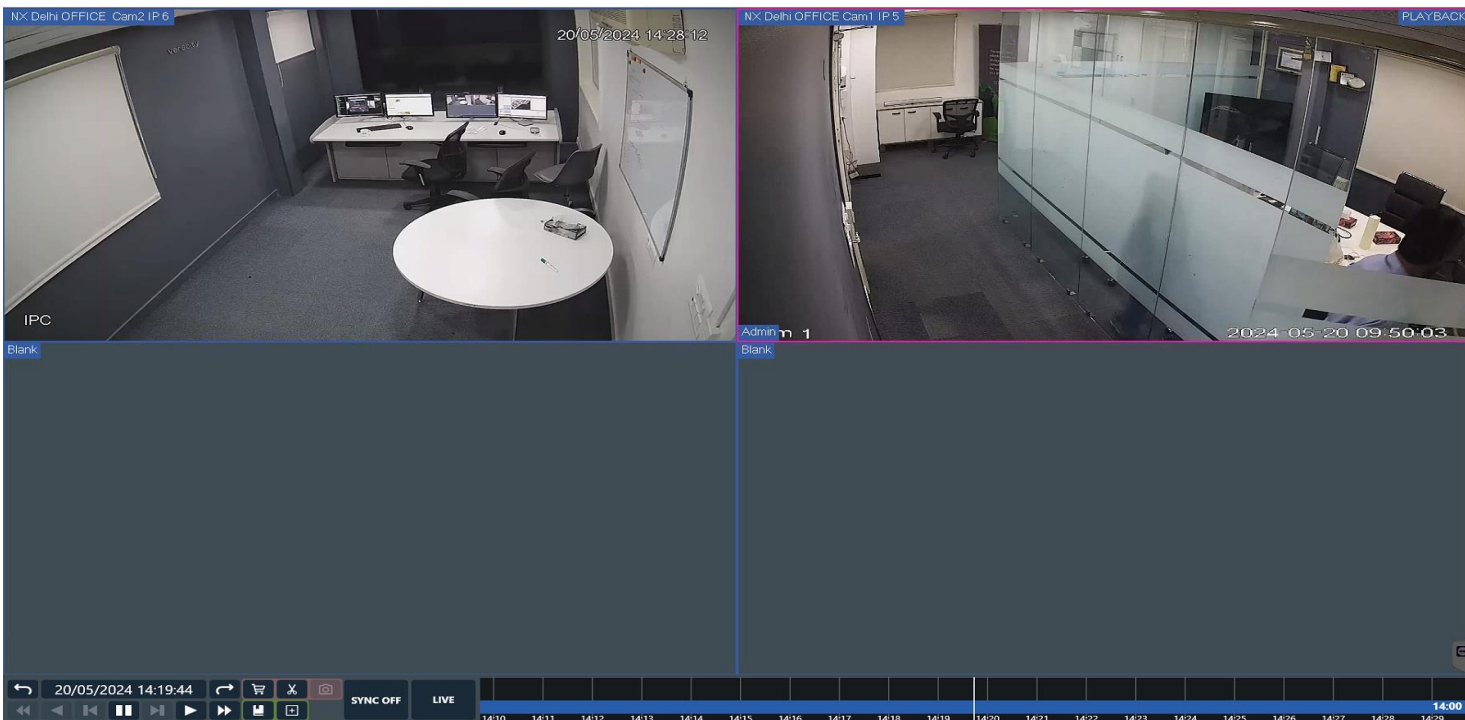
Tour Presets (eg '1,2,5,3'):

Tour Change Time (seconds): 0

Add    Delete    Suppress       Edit

Close    Cancel

- If all the steps are followed correctly, you will be able to stream the NX cameras in the viewscape.
- Refer to the image below.



### Configuring my settings editor

- Go to surface setting and select the user
- Add Nx witness Nvr in Restrictions Live and Restrictions Playback
- Add VLC Installation path in the surface settings

RestrictionsLive	Bosh, Dahua, HikVision, RTSP, Honeywell, BoschCameo, ONVIF, Hanwha, UNV, Videonetics, CpPlusIndigoNvr, CpPlusOrangeNvr, NxWitnessNvr
RestrictionsPlayback	Hik Vision, Honeywell, Hanwha, UNV, Videonetics, CpPlusIndigoNvr, CpPlusOrangeNvr, Bosch, NxWitnessNvr, Dahua, BoschCameo

VLCInstallationPath C:\Program Files (x86)\VideoLAN\VLC



## Configuring NX camera alerts in Viewscape

- Open device table in viewscape
- Device type will be NX witness NVR (Alerts from the NVR)
- Select the NVR
- Create pro Events according to your needs.
- **This will fetch all the NVR alerts**
- After configuring the alerts, **restart the pro server**
- Refer to the image below.

Device [ADDING NEW]

Name

Device Type: Nx Witness NVR

Event State Routing: << NONE >>

Reset To Unknown State

Pro Events

Events

- Generic Event
- Server Started
- Server Failure
- Server Conflict
- Network Issue
- Licence Issue
- Camera IP Conflict
- Storage Failure
- Backup Finished

Pro Event

- Server Failure

Create Pro Event

Add Event Delete Event Save Event

State	Additional Event Code	Pro Event
Server Failure		- Server Failure

Add Delete Save

Save + Close Cancel

- Now let's configure alerts for camera
- Open device table
- Select device type as Nx witness NVR channel
- Select the camera channel
- Create pro events according to your needs.
- **This will fetch camera alerts.**
- After configuring the alerts, **restart the pro server**
- Refer to the image below.

Device [ADDING NEW]

Name

Device Type: Nx Witness NVR Channel

Event State Routing: << NONE >>

Reset To Unknown State

Tabs: ID, **Pro Events**, JSON, Location, Extension Dvcs, Extended Dvcs, Permissions, Child Dvcs

Events

- Nx Witness NVR Channel
  - Analytics
  - Camera Disconnect
  - Input Signal
  - Motion on Camera
  - Software Trigger

Pro Event

Motion on Camera

Create Pro Event

Add Event Delete Event Save Event

State	Additional Event Code	Pro Event
Motion on Camera		Motion on Camera

Add Delete Save

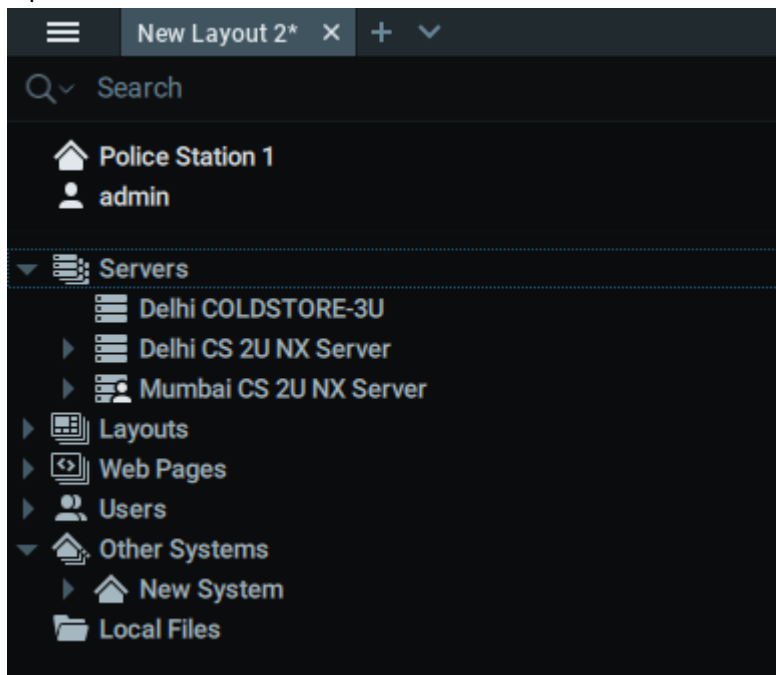
Save + Close Cancel

## Hive Architecture for NX Failover/ How to Setup Failover

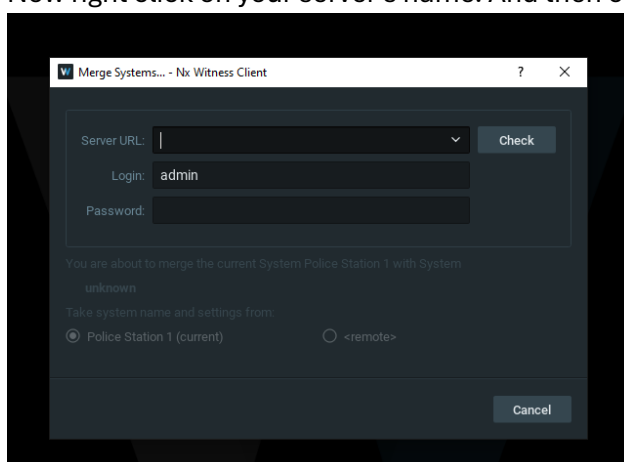
### Pre-requisites for setting up NX failover

- You need at least 2 Coldstore servers for this to work
- Both the servers should have same subnet and should also be using same ports and same gateway
- Download Sitescape (Server managing software Veracity) and connect all the servers.

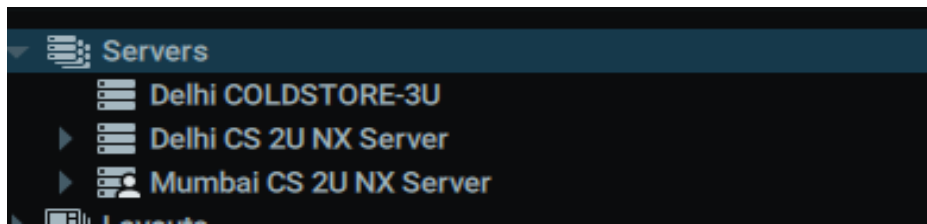
1. Open NX and connect to the desired server.



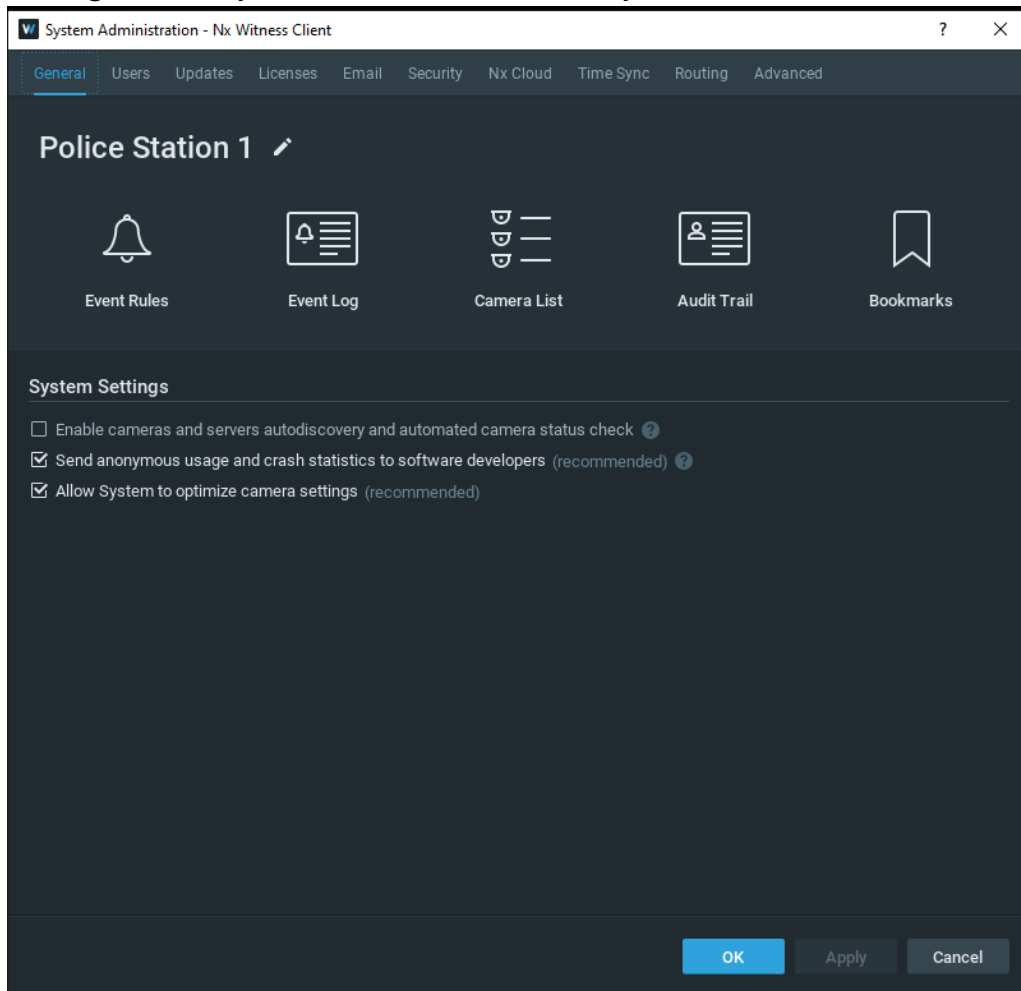
2. Now right click on your server's name. And then click on merger Systems option.



3. Add the server IP and login and password of the server you want to connect with and make sure the **port**, the **subnet** and **gateway are** like the base server.
4. Once connected it will show it in the server's tab. Like in the following



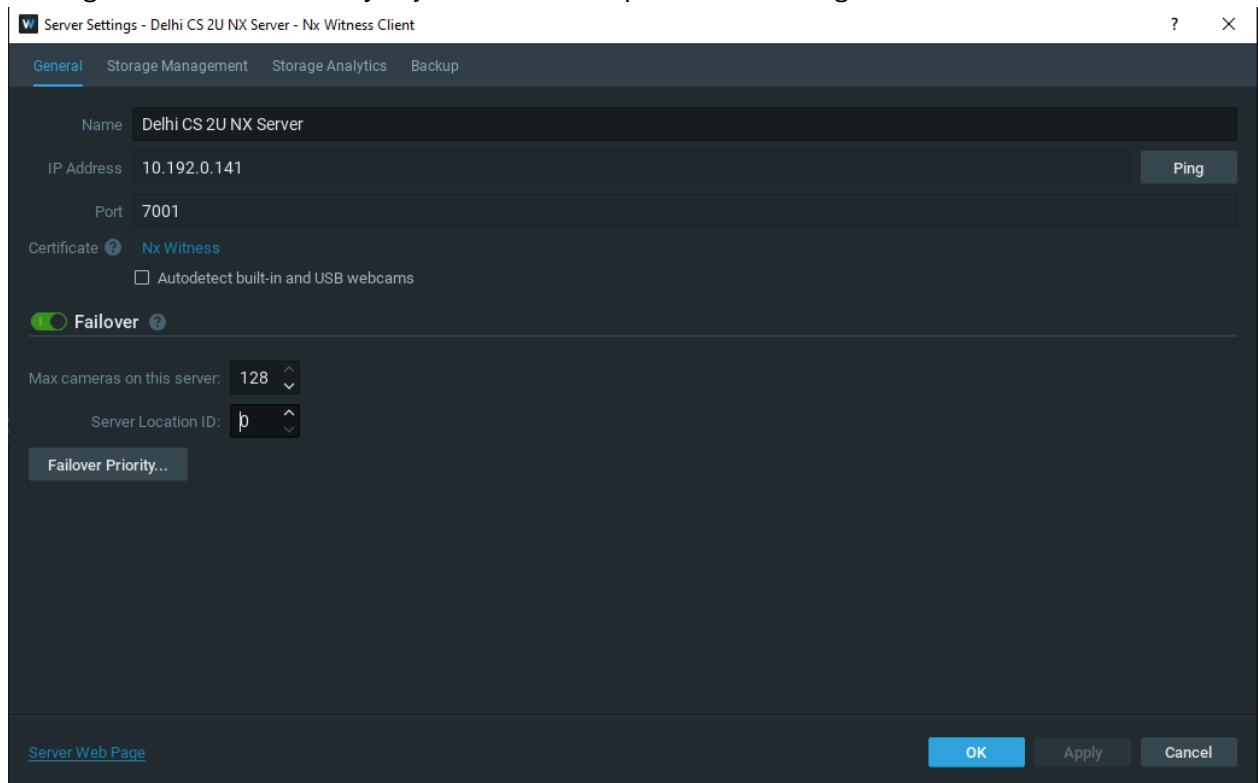
5. Now right click on your server's tab and click on system administration



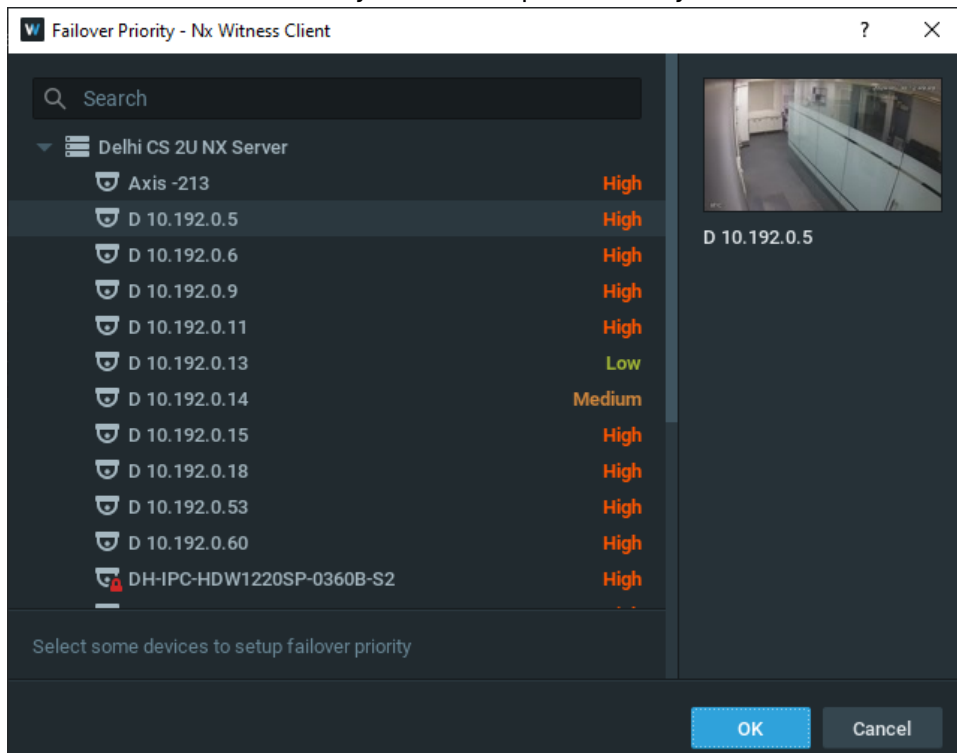
6. Click on the general tab and make sure that **Enable cameras and servers auto discovery and automated camera status is unchecked.**
7. Now click on licences and check your active licences. Like in the following

Active Licenses	
Type	Channels
Time	4
Time	5
Professional	20
Time	4
Time	4
Time	4

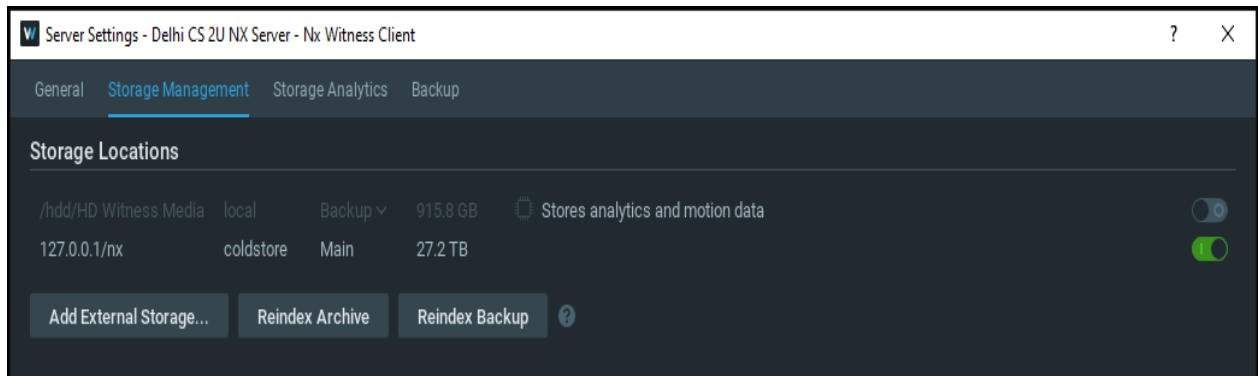
8. This means that you can add failover these cameras.
9. Now save and close the system administration
10. Now right click on the server you just added and open server settings.



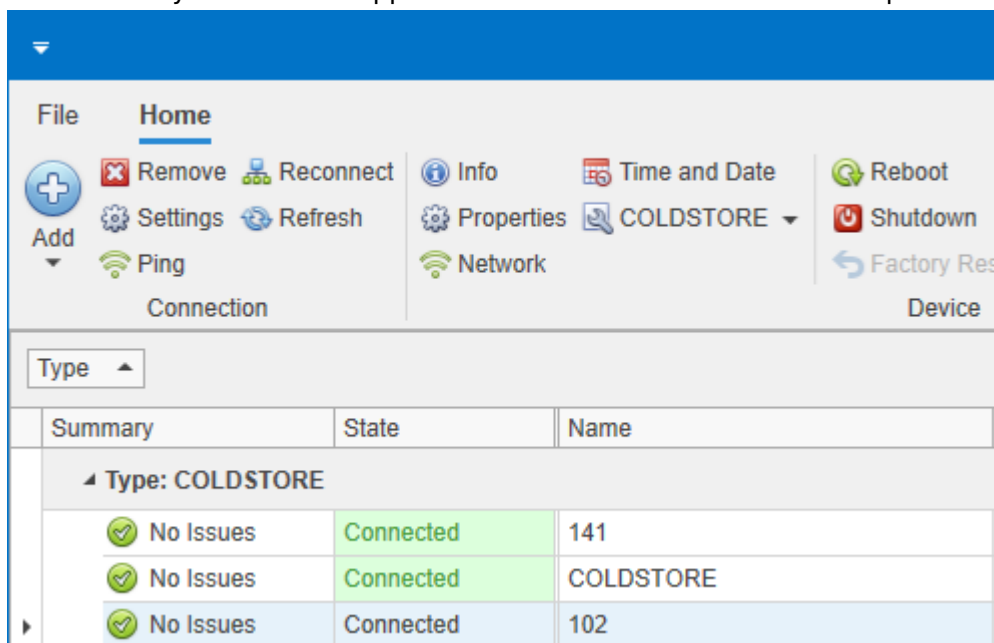
11. Now in general section, turn ON the Failover and **set the max cameras on this server as 128 and server location ID 0.**
12. Now click on Failover Priority and set the priorities as you desire. Refer to the following



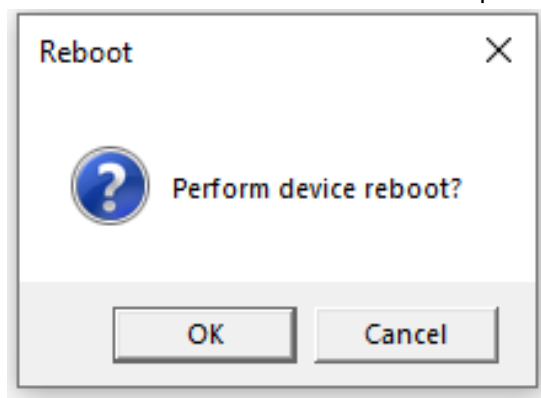
13. After that click on OK and click on storage management tab in server setting and make sure the backup is turned OFF. Refer to the following.



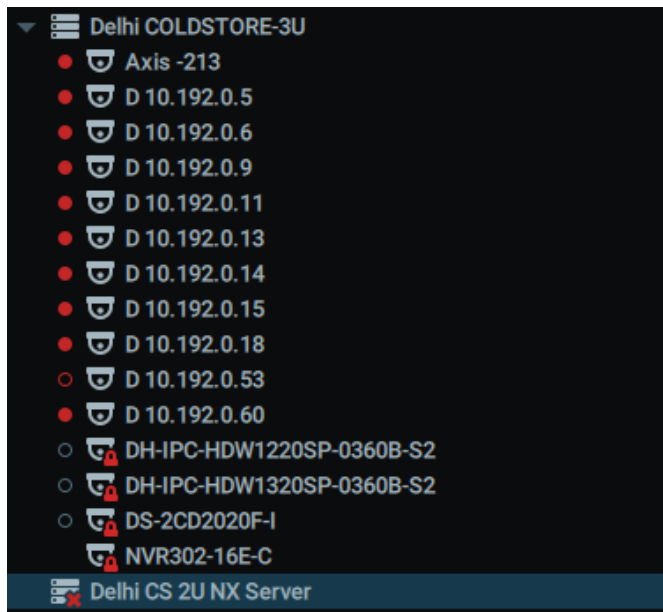
14. Now click on the **other server** and do all these steps.
15. Now we have added Failover to both the server. Now if any server gets rebooted or gets disconnected all the cameras which are connected through the failover will be transferred to the active server. This proves that Failover is successful.
16. Let me show you what will happen if we reboot the server from Sitescape.



17. Click on Reboot and then click on OK perform device reboot.



18. Now Wait for 10to 20 Seconds.



19. Now as you can see Our Delhi **CS 2U NX Server is Offline** and all the cameras which were in **Delhi CS 2U** have been transferred to **Delhi Coldstore-3U**. This proves that our **Failover is working properly**

## Feedback and Troubleshooting Report for CS 2U NX

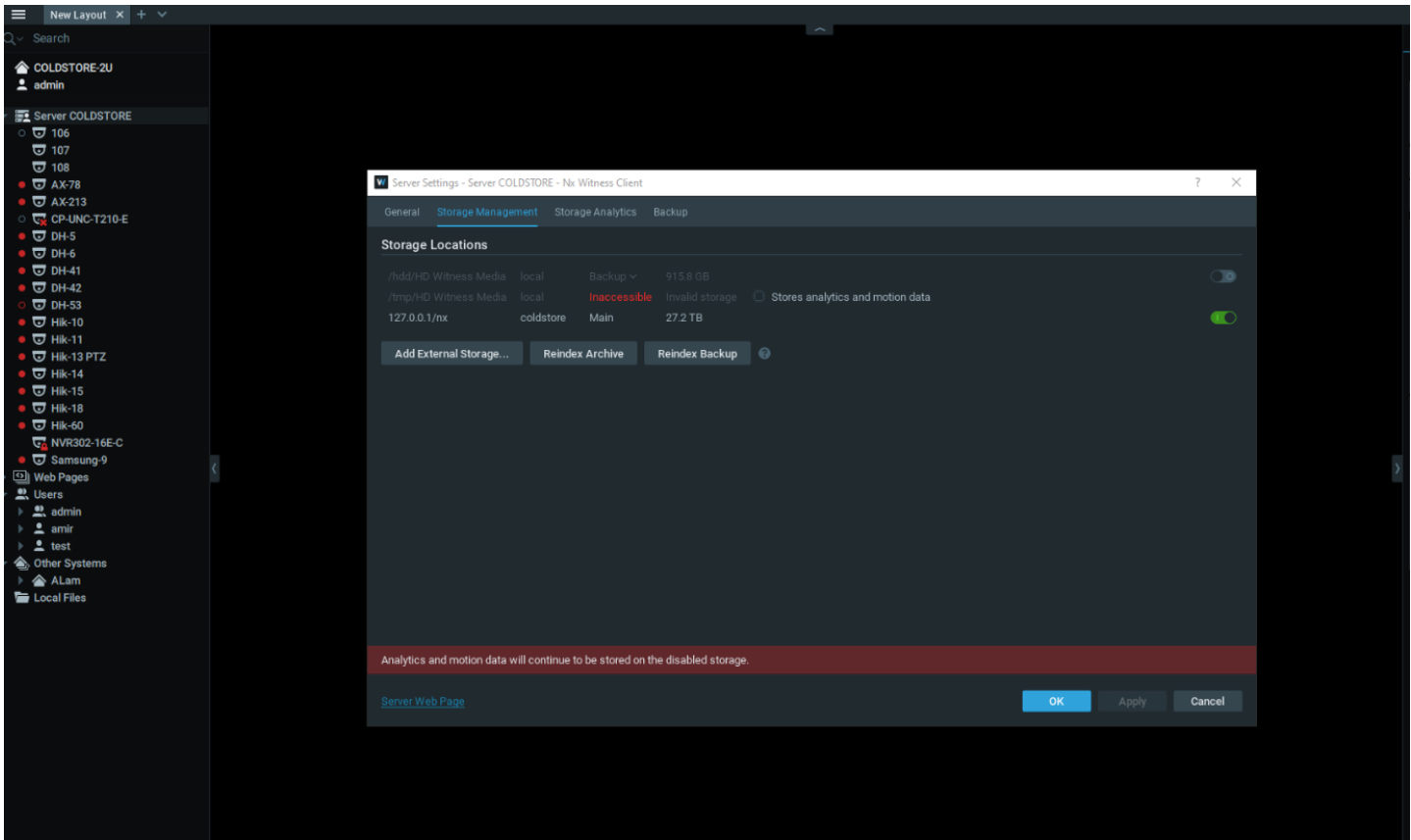
We encountered the following issues with the CS 2U NX and would like to provide my feedback and action steps taken

- Login to CS 2U NX in **Sitescape 4.3.3240**  
Using the credentials:  
Username: admin  
Password: admin
  - Upon logging in, I performed a thorough check of the CS 2U NX status and identified the following problems:
  - Issues Identified:
  - **Disk Diagnostics Setting:**
  - The disk diagnostics were set to read-only. This setting should always allow all disks to be writable to ensure proper functionality and performance.
  - **Recording Dates:**
  - All disks were showing only previous dates for the recordings. This is not expected behaviour and needs to be addressed to ensure that the recordings are up-to-date and accurate.
  - Actions Required:
  - Change Disk Diagnostics Settings:
  - Update the disk settings to ensure that all disks are writable.
- | Disk # | Read Only | Unknown |                          | 10-10-2023 16:31:... | 25-10-2023 14:39:... | 10-10-2023 16:31:... | 25-10-2023 14:39:... |
|--------|-----------|---------|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Disk 4 | off       | idle    | <input type="checkbox"/> | 10-10-2023 16:31:... | 25-10-2023 14:39:... | 10-10-2023 16:31:... | 25-10-2023 14:39:... |
| Disk 5 | off       | idle    | <input type="checkbox"/> | 10-10-2023 16:31:... | 25-10-2023 14:39:... | 10-10-2023 16:31:... | 25-10-2023 14:39:... |
- Investigate Recording Dates Issue:
  - Look into why the recordings are not displaying current dates and rectify the issue to ensure continuous and accurate recording.

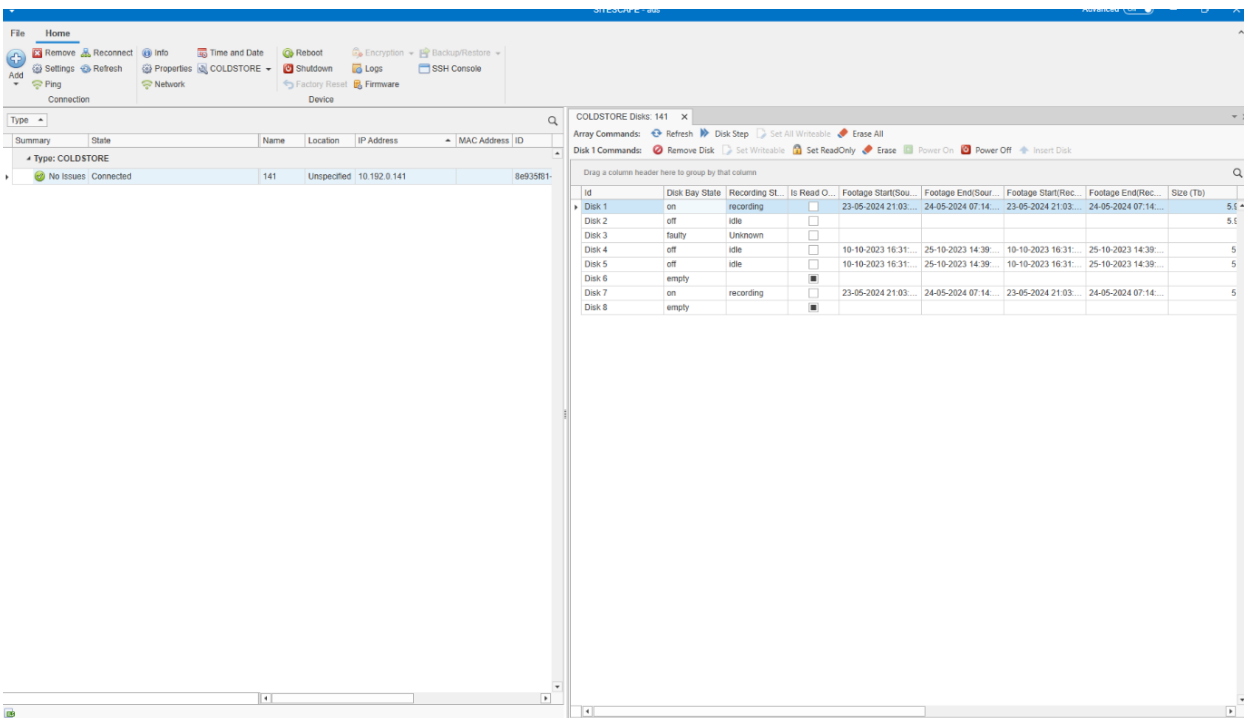
### • Troubleshooting Steps Taken:

- **System Reboot:**
- After following the required process, the CS 2U NX went into shutdown stage, but the IP address (10.192.0.141:7005) was still pingable and not connected with Sitescape 4.3.3240. I informed Mr. Jason who logged into the CS 2U NX via Putty using the credentials:
- Username: root
- Password: egarots32
- He rebooted the device, and the CS 2U NX came online.
- **Login and Configuration:**
- Logged into the CS 2U NX at 10.192.0.141:7005 using NX Client 5.1.3.38363 with credentials:
- Username: admin
- Password: Veracity@321
- Set the storage path to 127.0.0.1/nx and reindexed the archive.





- **Disk Diagnostics:**
- After reindexing, checked in Sitescape and found that the disk diagnostics were now showing recordings as per the current date.



- **Identified Faulty Disk Bay:**
- Noticed that the 3rd disk bay is faulty (not the HDD). Informed Mr. Jason, who replied that this issue will be addressed by the development team.

## Login Information

### For Sitescape:

- Username: admin
- Password: admin

- 

### For Putty login:

- Username: root
- Password: egarots32