# Surveon Failover Solutions

## To Prevent Video Loss through Collaborative NVRs

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# Surveon Failover Benefits

## Preventing Video Loss
Allow recording to be continued by collaborative NVRs within the system.

## Cost-efficiency
No spare NVR needed. Only share the licenses with NVR camera licenses for Failover purpose.

## Seamless Transformation of Configuration
When protected server fails, the Failover server will clone the configuration such as alarm rule of it at the same time, and take over the recording work without transferring effort.

## Flexible Architecture
One or more NVRs can take over other protected NVRs under various system structures.
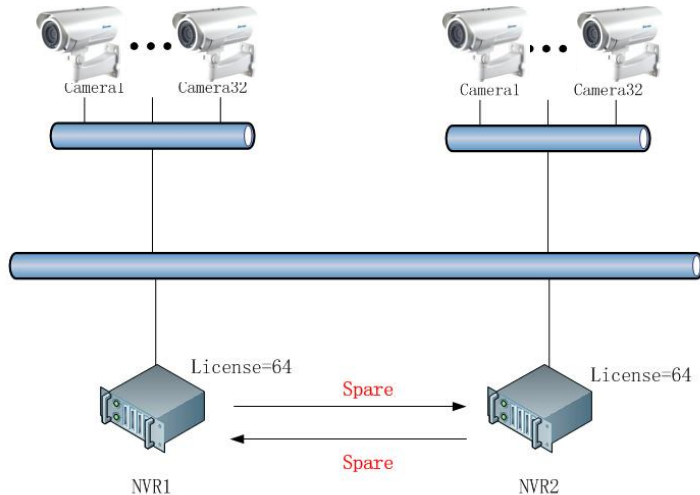
## Real Time Alarm
The system will send alert when protected server or Failover server are disconnected.
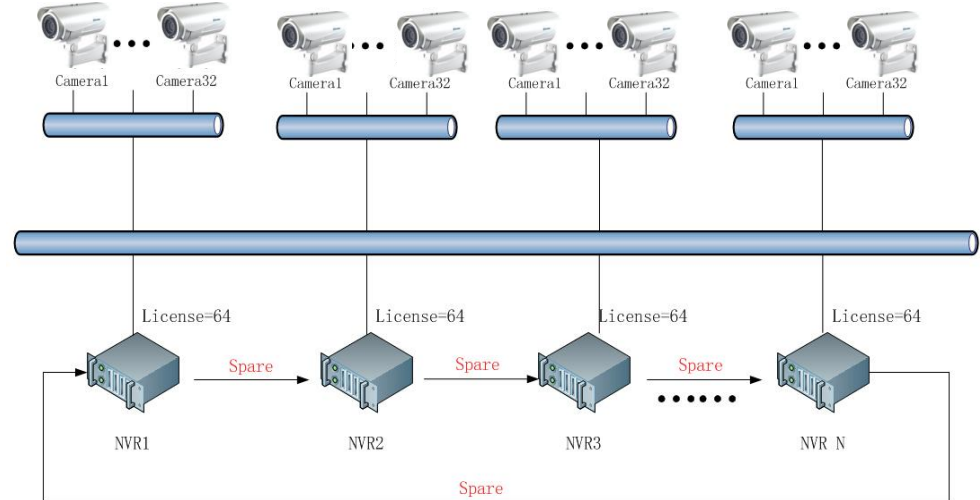
# Surveon Failover Mechanism

# Surveon Architecture (1/2)

- All NVRs can record normally **without having to spare one NVR** simply for Failover purpose.
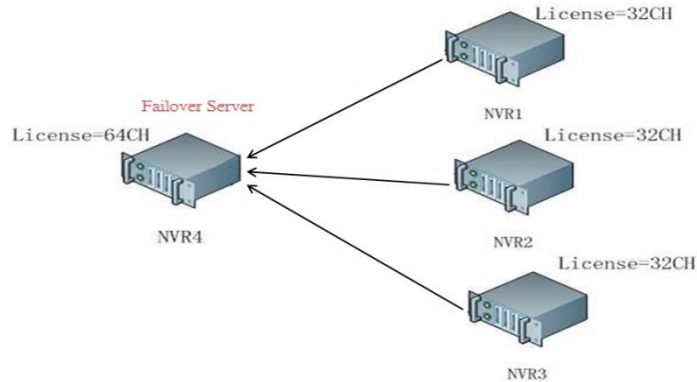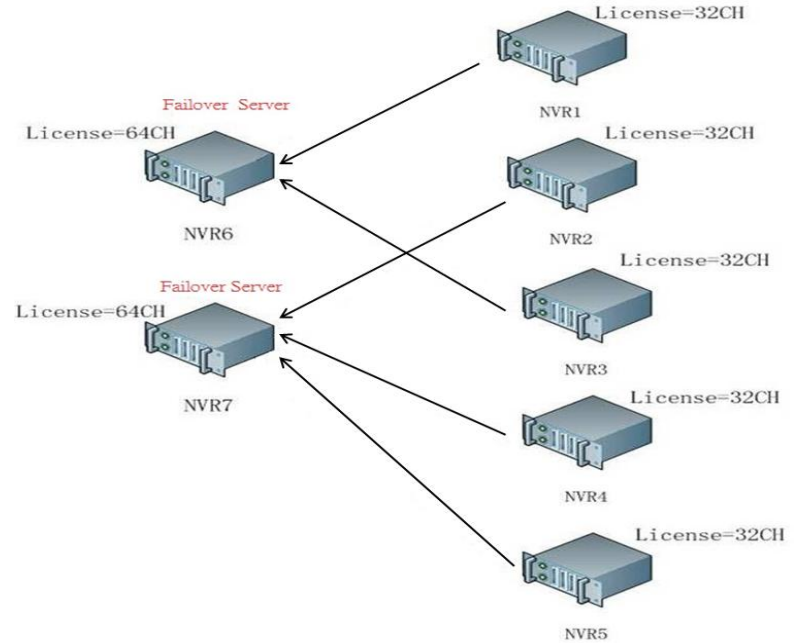- Support **mutual failover (1-on-1 or multiple to multiple)** among NVRs.

# Solution Architecture (2/2)

- Support different system structures.
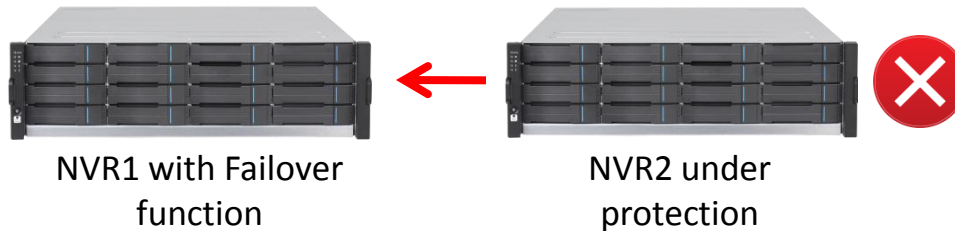
**1 Failover NVR to multiple Protected NVRs**

**Multiple Failover NVRs to Multiple Protected NVRs**

# Solution Mechanism

- Both NVR1 & NVR2 perform recording under normal situation while NVR1 is with Failover function and NVR2 is the protected NVR.

- When NVR2 is detected as no responding or working for certain time, the system will be determined as failed.

- NVR1 will start importing NVR2 configuration and take over to record for NVR2 automatically.

- When NVR2 recovers and begin to record for 5 minutes, NVR1 will stop recording for NVR2 service.
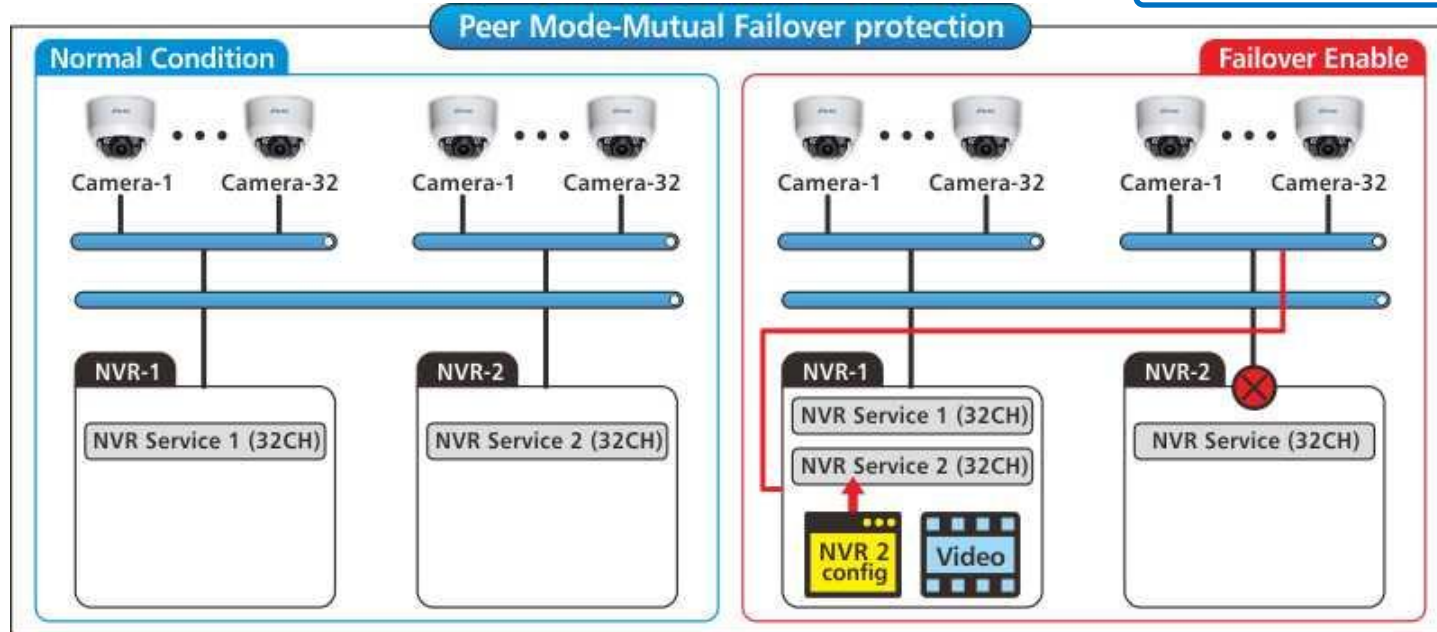
NVR1 with Failover function

NVR2 under protection

# Surveon Failover Solutions Comparison

| Operation Mode | Peer Mode | Dedicated Mode |
|---|---|---|
| Structure |  |  |
| Storage in Use | Internal Storage | External Storage |
| Recording | Protected NVR's videos will be recorded and saved to a separate location in Failover NVR. | Protected NVR's videos will be recorded and saved to the same location in the shared external storage. |
| Recommended Applications | Healthcare, Intelligent Buildings, Education, Retail, SMBs, Transportation, Restaurant | Banking, Critical Infrastructures, Airport, Casino |

# Internal Storage Structure – Peer Mode

Peer Mode-Mutual Failover protection

- **Mutual Failover protection**: Without preparing a spare NVR, both protected NVR and Failover NVR perform recording under normal situation, when protected NVR fails, its video will be recorded to Failover NVR's internal storage.

Dedicated Mode-Spare NVR dedicated to perform Failover funtion
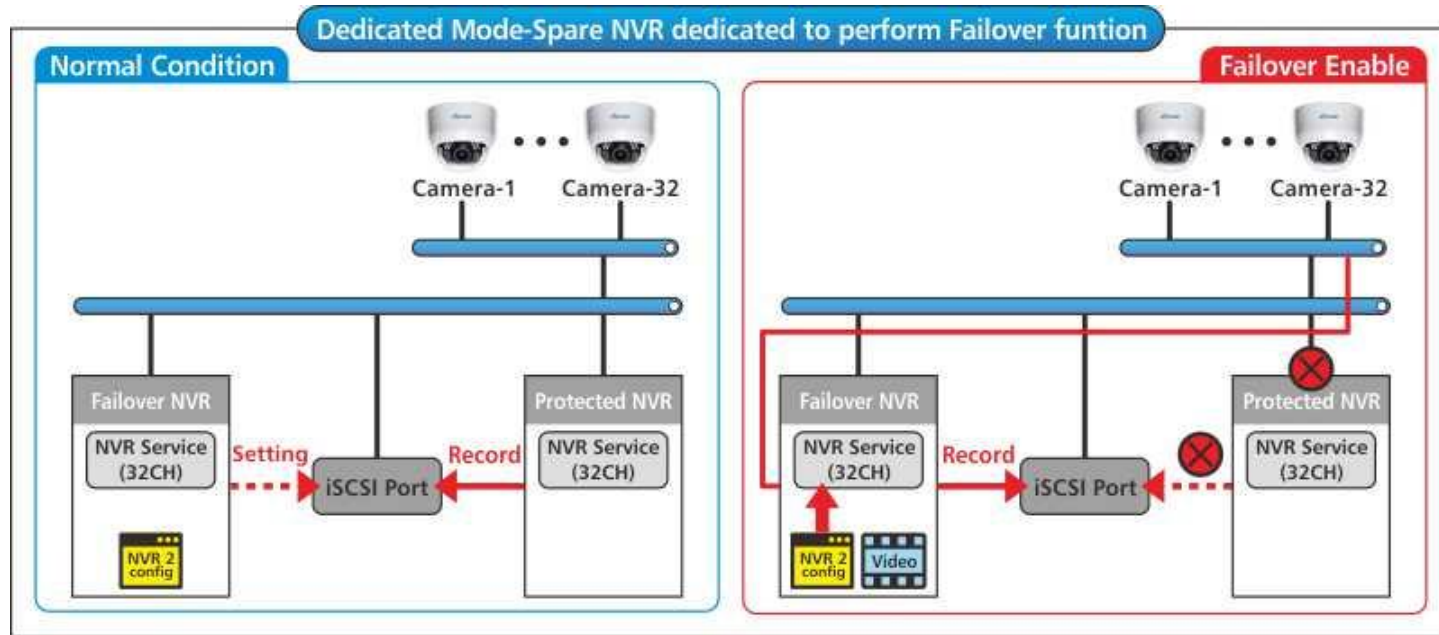
- **Spare NVR dedicated to perform Failover function**: The Failover NVR shares the same file space as protected NVR whether it's working or not, resulting in the protected NVR's video will be recorded and saved to the same location once it's taken over by Failover NVR.

# License Remark

# License Capability

- Failover can share the licenses of camera.

Camera Licenses 32ch **+** Failover Licenses 32ch **=** NVR Max. Licenses 64ch

- Failover licenses only support the same amount of cameras.

Failover Cameras 36ch **>** Failed Licenses 32ch **→** Max. Failover Support 32ch

# License Capability

- Only NVR FW version 4.0 or above support Failover function.

| Model | Max. Channels |
|---|---|
| NVR3308E1 | 32 |
| NVR3308A1<br>NVR5412E1<br>NVR5416E1 | 64 |
| NVR5412A1<br>NVR5416A1 | 96 |
| NVR7312<br>NVR7316 | 128 |

# Success Case Study – Peer Mode

- Customer: Taipei City Hospital, the largest medical organization in Northern Taiwan.

- Project Needs & Challenge: Emergency room required to keep half a year recording data.

- Solutions: The peer mode supports **mutual failover among two NVR3308**. When one of NVRs fails, the other NVR will take over recording and save the failed NVR's videos to its **internal storage**.

- Benefits: For **middle-large projects with limited budget**, this failover working model provides the best C/P solution, allowing the system to record continuously for long time **without having an extra iSCSI storage**.



CAM1320S2 x 6

CAM4311S2 x 10

PC+ Monitor (Remote Client)

CMS

Network

NVR3308    NVR 1 (8xHDD)

Mutual Failover

NVR3308    NVR 2 (8xHDD)
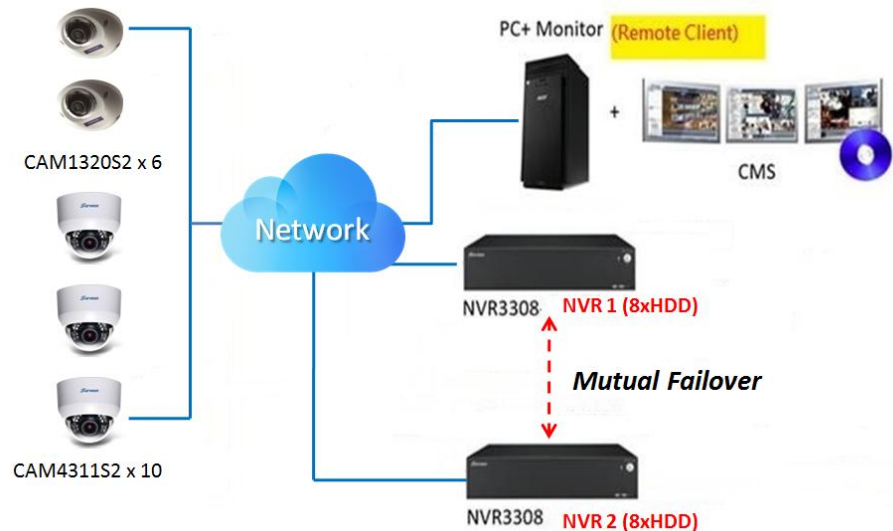
# Success Case Study – Dedicated Mode

- Customer: Taiwan Fixed Network Co., Ltd. , the biggest private owned fixed telecom operator in Taiwan.

- Project Needs & Challenge: Cloud service room required to keep half a year recording data.

- Solutions: Under normal condition, the protected NVR records videos to **iSCSI storage**. When it fails, the recording will be taken over by Failover NVR, and the videos will be saved to Failover NVR's internal storage.

- Benefits: For **large and critical applications**, this working model has external iSCSI storage for **180+ days data retention.** When protected NVR fails, the Failover NVR will record for it, giving MIS enough time to resolve the problem occurred.

# Advantages to Customer
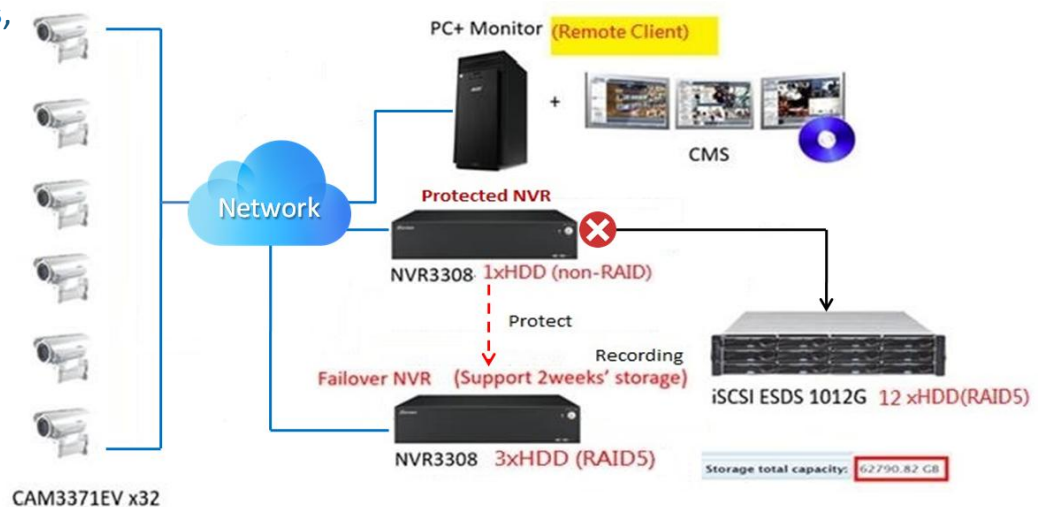
**Various ways for Failover based on project needs**

- Catering to different vertical applications, Surveon offers a variety of Failover solutions, including **Peer Mode and Dedicated Mode**, giving partners many options for their projects.

**Saving time with seamless transformation of configuration**

- Without manual setting, when protected server fails, the Failover server will clone the configuration such as alarm rule of it at the same time, and take over its recording work.

**Cost-effective mutual Failover for maximum usage**

- Without preparing a spare NVR, both NVR1 and NVR2 in the system could serve as Failover NVR for each other.

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# Thank You

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