Security Management System - Failover Management Feature V18.02.03.01

Introduction

This document describes the 'Failover Management Feature' available in the Security Management System.

To implement failover management using Security Management System, one or more dedicated server computers need to be assigned. Security Management System Failover Server software is installed on these servers. These servers are called 'Failover Management Servers' in this document.
A 'Failover Management Server' monitors the normal Security Management System servers which are called 'Main Servers' in this document
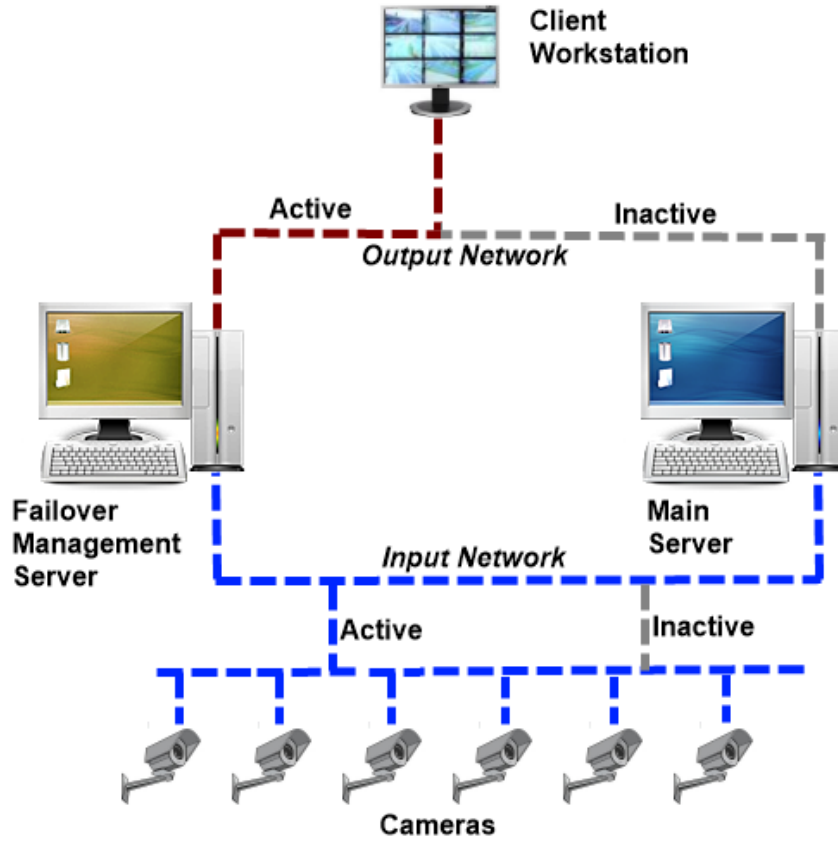
Overall working

The failover management feature works as follows –

1. Security Management System supports failover configuration 1:1 or 1:n. The Failover Management Server is configured to monitor one or more Main Servers; as per the deployment requirements.
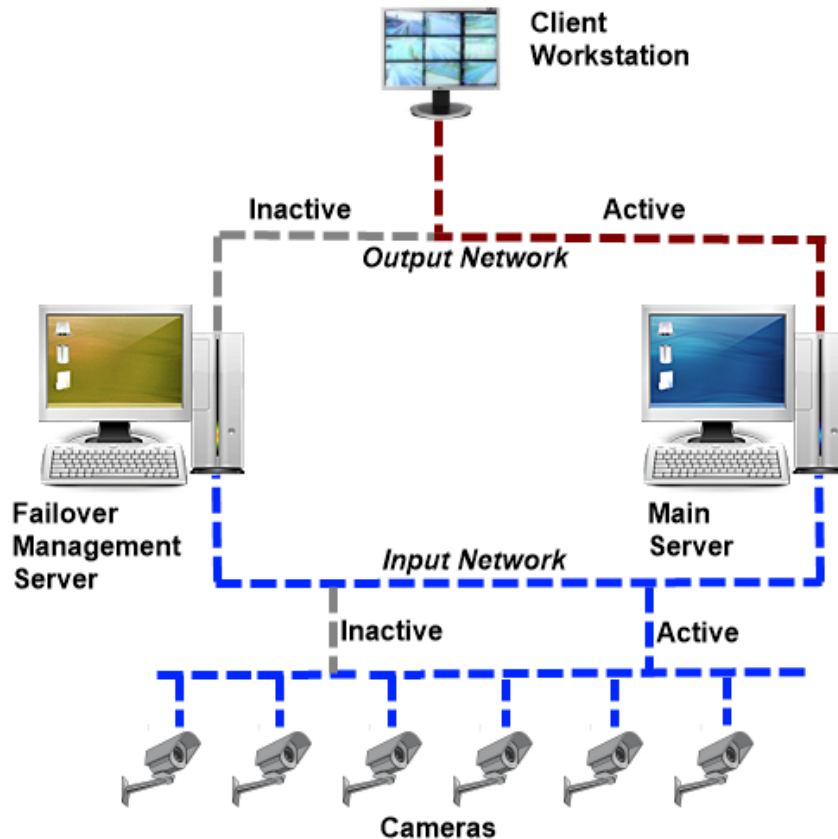

State: Monitoring

2. The Failover Management Server continuously monitors the associated Main Servers. The Failover Management Server is in 'monitoring state'.

3. When any of the Main Servers goes offline, Failover Management Server takes over the processing for that Main Server and switches to 'processing state'. In this state Failover Management Server performs all activities of the offline Main Server including video capture, recording, video streaming, client management etc.

Client
Workstation

Active   Inactive
Output Network

Failover
Management
Server

Main
Server

Input Network

Active   Inactive

Cameras

State: Processing

4. The client workstations automatically switch to the Failover Management Server and continue displaying the videos

5. When the Main Server is up again, Failover Management Server switches back to 'monitoring state'. The client workstations automatically switch to the Main Server and continue displaying the videos
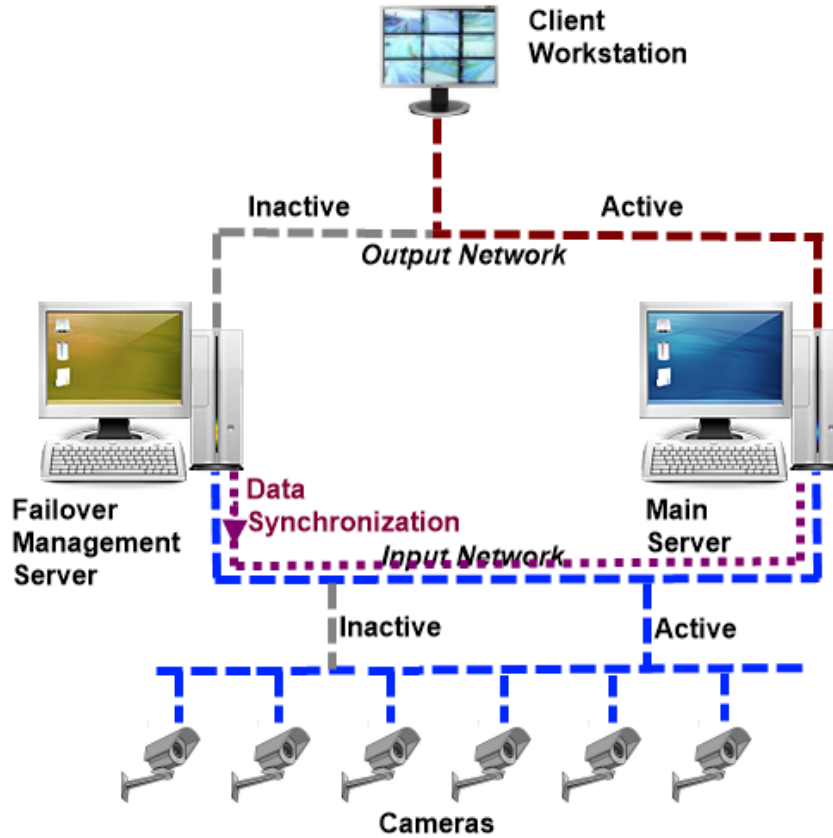
State: Data Synchronization

6. The data recorded by Failover Management Server is automatically synchronized to the Main Server database, in the background.

Requirements for Failover implementation

Following are the additional requirements for implementing the failover management feature –

1. Additional server computers are required for hosting the Security Management System Failover Server software. The hardware configuration is exactly same as Main Servers deployed at the target site.

2. Number of additional server computers required for failover management depends on the total number of Main Servers deployed at the site. Though there is no limit from Security Management System software side on how many Main Servers can be monitored by a single Failover Management Server, the guideline is to allocate one Failover Management Server for monitoring up to 5 Main Servers; to get optimum results in practical situations.

3. Additional storage space for Failover Management Server is not required to be as high as Main Servers. The Failover Management Server storage space can be calculated by finalizing 'maximum expected down-time for Main Server'. Typically this is 3 to 7 days. Storage space can be calculated for this duration, using the 'Security Management System Storage Space Calculator' tool.

4. Security Management System Failover Server software licenses are required to be ordered

Configuration – Main server

Main server supports failover management by default.
No special configurations are required in main server, related to failover server feature.

Failover Management Server – Installation

Failover management server is installed on a separate computer, which is in same network as the main server(s) it is expected to manage.

Following are the steps to install failover management server -

1. Failover server is part of the 'Security Management Server' installer. Please install the 'Security Management Server' on computer which is expected to work as a failover server.

2. After the installation is complete, access the programs menu shortcut '[Programs Menu] -> Security Management System -> Server -> Configuration Manager'

3. This will pop up the 'Security Management System – Configuration Manager' application.
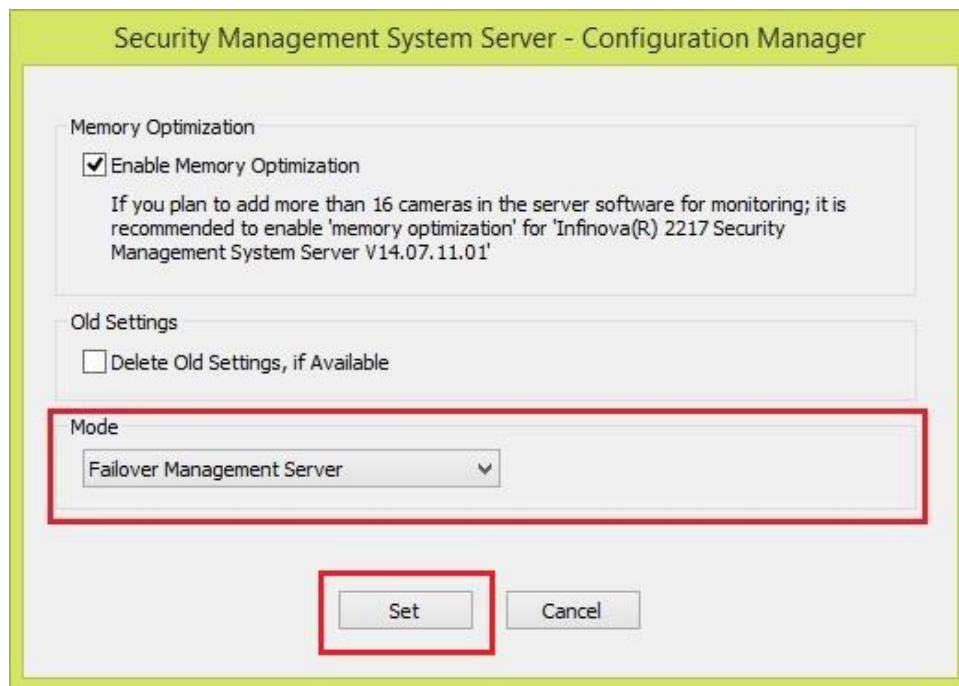

4. Select 'Failover Management Server' option for 'Mode'.

5. Click on the 'Set'. This will update the shortcuts and will give pop up a 'success' message, at the end of the processing.

6. Click on the 'Cancel' button to close the 'Security Management System – Configuration' application.

7. Execute the 'Failover Management Server' application from the programs menu shortcut '[Programs Menu] -> Security Management System -> Server -> Failover Management Server'

8. The failover server requires a separate license. If license is not activated, for the failover server, licensing wizard will be displayed. Please follow the licensing wizard, request for a license activation file and activate the license. The licensing process is same as that for the main server.

9. If the license for the failover server is activated, a login dialog will be displayed.

10. **Default 'User Name' is 'admin' (without the quote characters) and default password is 'admin' (without the quote characters).**

11. Type the user name and password and click on the 'Login' button.

Configuration - Failover management server – Step 1

Step 1 involves setting up IP address for the failover management server.

1. Navigate to the 'Communication -> Network' page from the left hand side navigation menu.
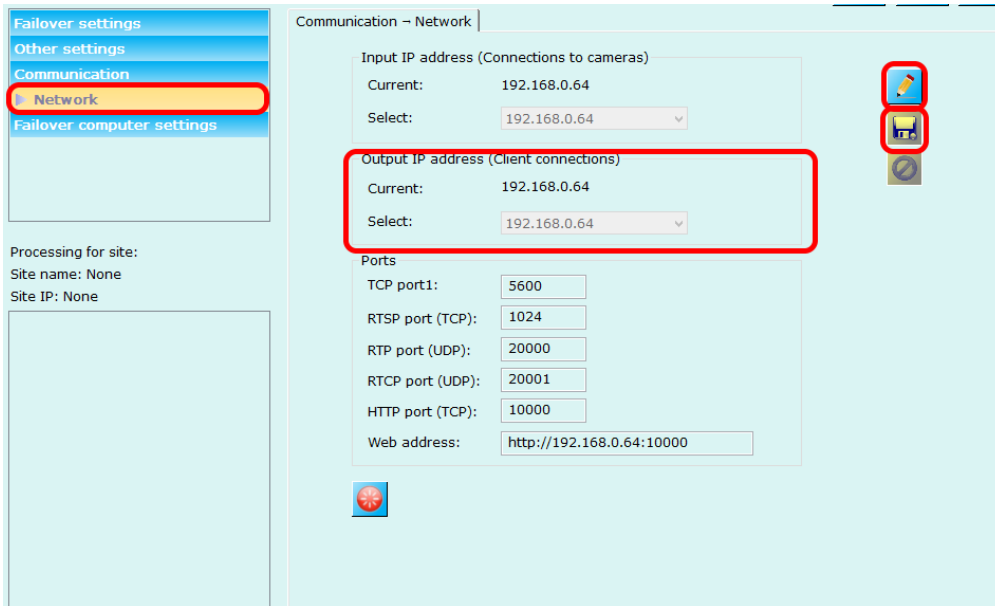

2. Click on the 'Edit' button to enable the GUI elements.

3. Please select correct IP address under 'Output IP Address'. This is the IP address used by the main server(s) to communicate with the failover server.

4. Click on the 'Save' button to save the changes.

Configuration - Failover management server – Step 2

Step 2 involves adding one or more main servers to failover management server for monitoring.

1. Please select the 'Sites' sub-tab under the 'Failover settings' tab, from the navigation menu, available on the left side.

2. Click on the 'Add site for failover recording' button.
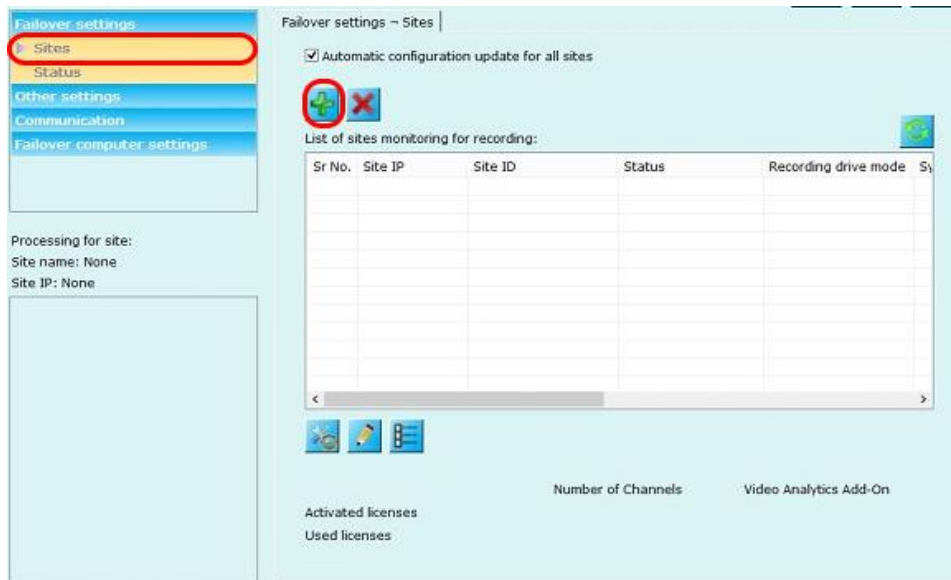
3. This will pop up the 'Add new site for failover recording' wizard

4. Please type the IP address of the main server, to which we need to link to.

5. Type the user name and password to connect to the main server. This should be for the user configured in the main server which has 'Administrator' privilege.

6. Click on the 'Add' button

7. After connecting to the main server, a success message text is displayed.

8. Click on the 'Next' button to proceed to next configuration.

9. Map the site recording drives to failover server recording drives as shown in image below.
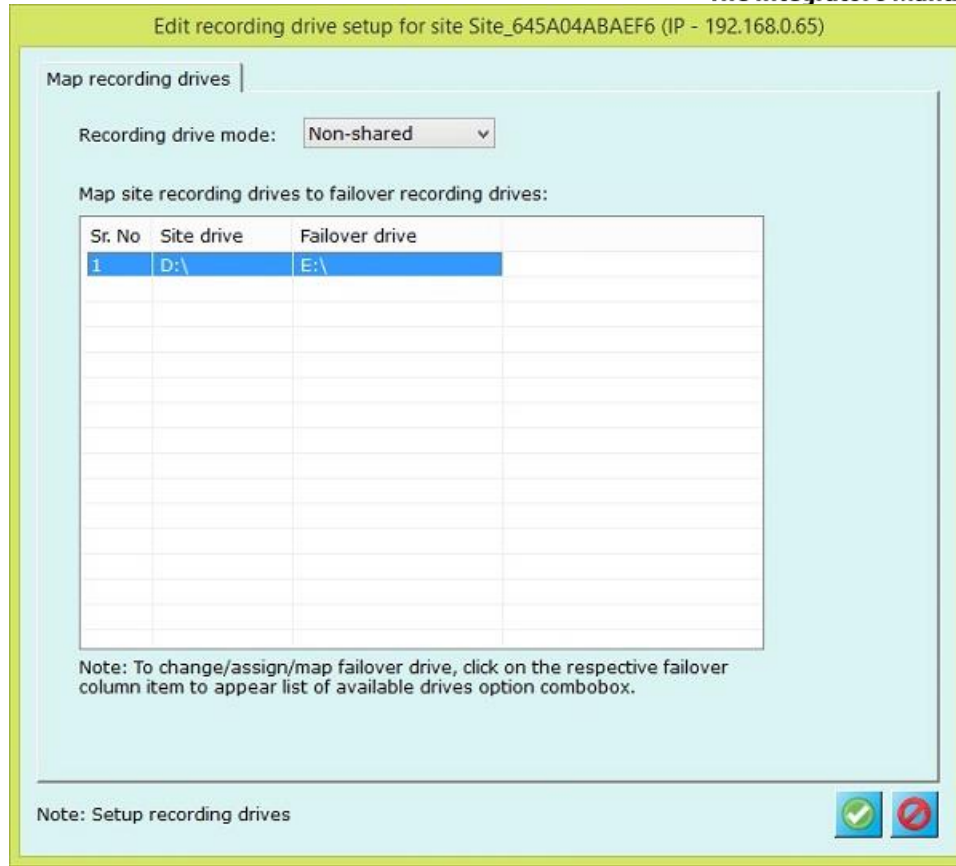
In typical deployments, 'Recording drive mode' is set to 'Non shared'
All the recording drives from main server will be listed under 'Site drive' column.
For each of the recording drive from main server, drive on failover server needs to be mapped.
Please clock on the 'Failover drive' column cell, in the target 'Site drive'. This will show the list of drives available on failover server. Select the target drive.

Note - It is possible to have any combination of drive mapping for 'Site drives' and 'Failover drives'. E.g. it is possible that failover server has a single recording drive, and all main server drives are mapped to this single failover server drive.

10. Click on 'Finish' button to complete the configuration. The main server will get added to the 'List of site monitored for recording' in the failover management server.

The steps 1 to 10 can be repeated for adding more main servers to the failover management server for monitoring.