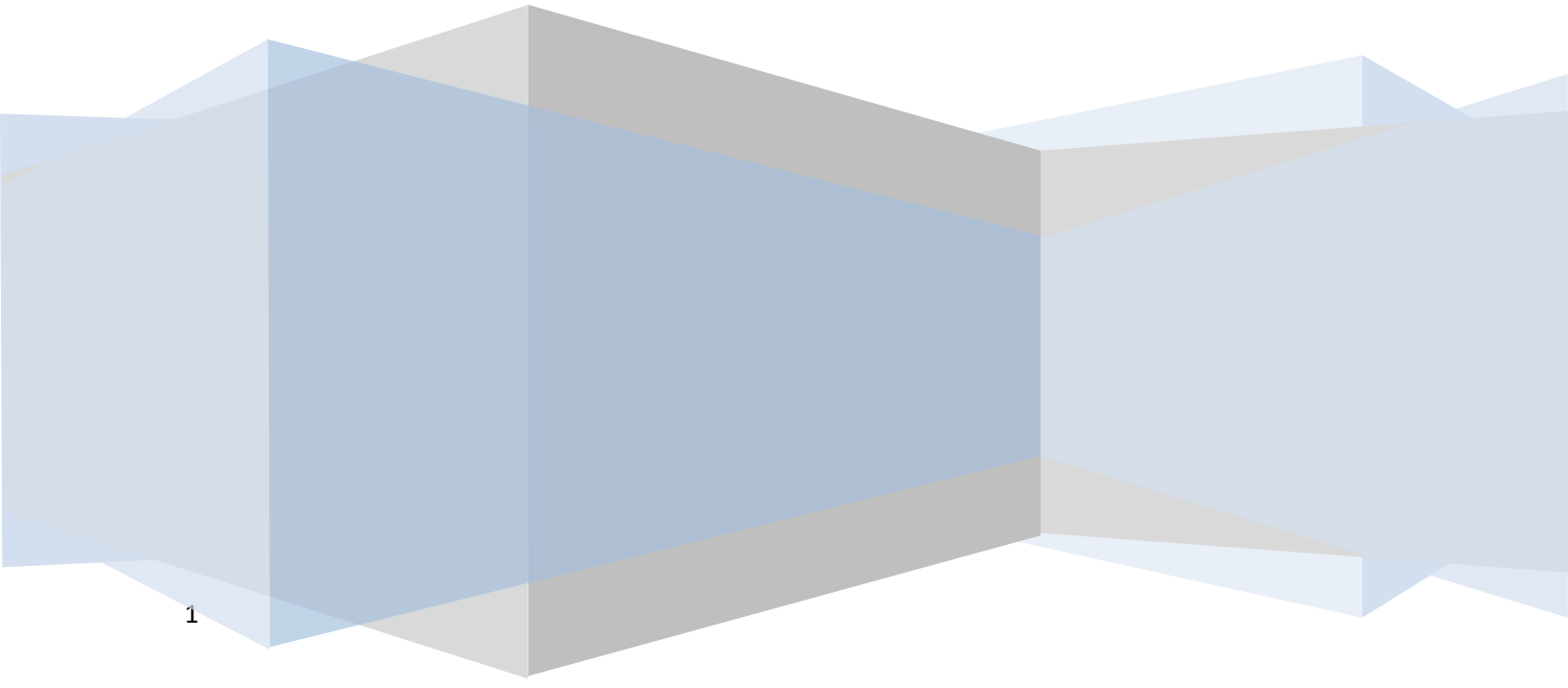
Bold Communications Ltd

Gemini Integration with Milestone

Administrator Guide

V1.0 February 2021



Version	Name	Change Date	Brief details of changes
V0.1	James Greener	26/11/20	Initial draft
V1.0	Brian Kelly	10/02/21	Final draft

Introduction

Bold Gemini is a monitoring software platform developed for alarm receiving centres (ARCs). The platform supports all commonly used alarm signalling panels and communications modes, and is used in both private control rooms as well as commercial ARCs.

Development between Bold and Milestone has created flexible options for alarm and CCTV handling, by integrating features from each application. These allow Milestone to operate more fully as an alarm handling application, and extends the functionality of the Bold software with the addition of features in Milestone.

Suggested applications –

1. **Receive alarm events from Bold which are handled in Milestone**

   This is a scenario where the user wants to utilise the Milestone interface for both alarm and CCTV handling. The alarm events can originate from any device support by Bold Gemini, for example, CSL Dualcom or BT Redcare signals from any standard alarm panel, which are then communicated to Milestone.

2. **Receive and handle alarm and video events in Bold communicated from Milestone**

   For example, in a control room where Bold Gemini is being used to monitor a range of different alarm and CCTV solutions, and a VMD or Analytics signal is generated by Milestone.

3. **Receive and handle alarm events in Bold from a third party device and view Milestone video in the Bold user interface**

   In this scenario, an alarm panel has generated a signal (eg. intruder, holdup or fire), which has been received by Bold and Milestone CCTV has been configured so the operator can view the area or zone in alarm for verification.

4. **Receive and handle alarm events in Bold which generate an action in Milestone**

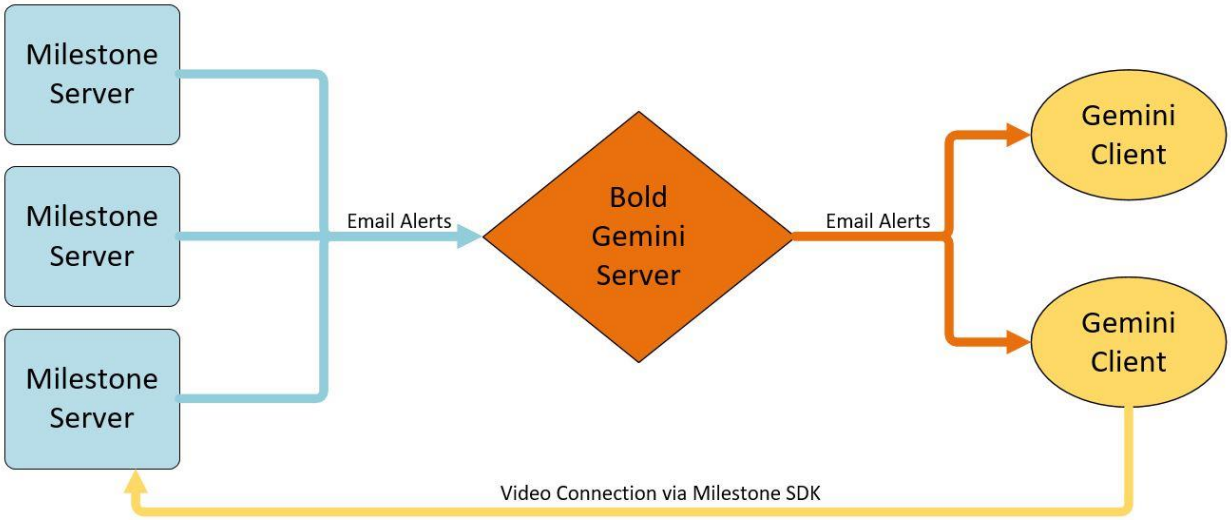
   In addition to, or instead of, viewing Milestone event video, the Bold manually or automatically activates a Milestone controlled device or system, for example, a video wall display to aid alarm handling.

1. Document purpose

Bold Gemini provides an event driven integrated alarm handling software platform. The software takes events from various manufacturers equipment and services within the alarm, fire, CCTV, Lone Worker and BMS sectors of the industry into a familiar interface for operators to efficiently process and escalate. This document outlines how Bold Gemini integrates with Milestone VMS at a high level.

2. Integrating Bold Gemini with Milestone VMS

The basic system toplogy can be seen below.



There are essentially 2 parts to the system.

- The video integration which is used by the Bold Gemini client to connect to Milestone system live video and recorded video.
- An email receiver driver for processing signals sent from Milestone systems into Bold Gemini.

The installation of both the components are carried out by Bold Communications. For signalling capabilities, a receiving email address is required along with a different sender address for each remote system. Details required for the email-based receiver driver –

- Mail server IP
- Port
- SSL / non SSL
- Username
- Password

A Bold Communication engineer will add this receiver driver (subject to licence) to the exisiting receiver gateway which plays host to a range of manufacturers.

The Milestone video supplier licence will need to be applied to the Bold Gemini system along with the supplemental Milestone SDK installer run on every Bold Gemini client that is required to connect to Milestone system video. Default ports required for video operation TCP 80 for initial connection then TCP 7563 for RTSP.

3. Adding a new Milestone system to Bold Gemini UI

There are some details which the system user/administrator will need in advance for the setup of a specific Milestone system being monitored on Bold Gemini -

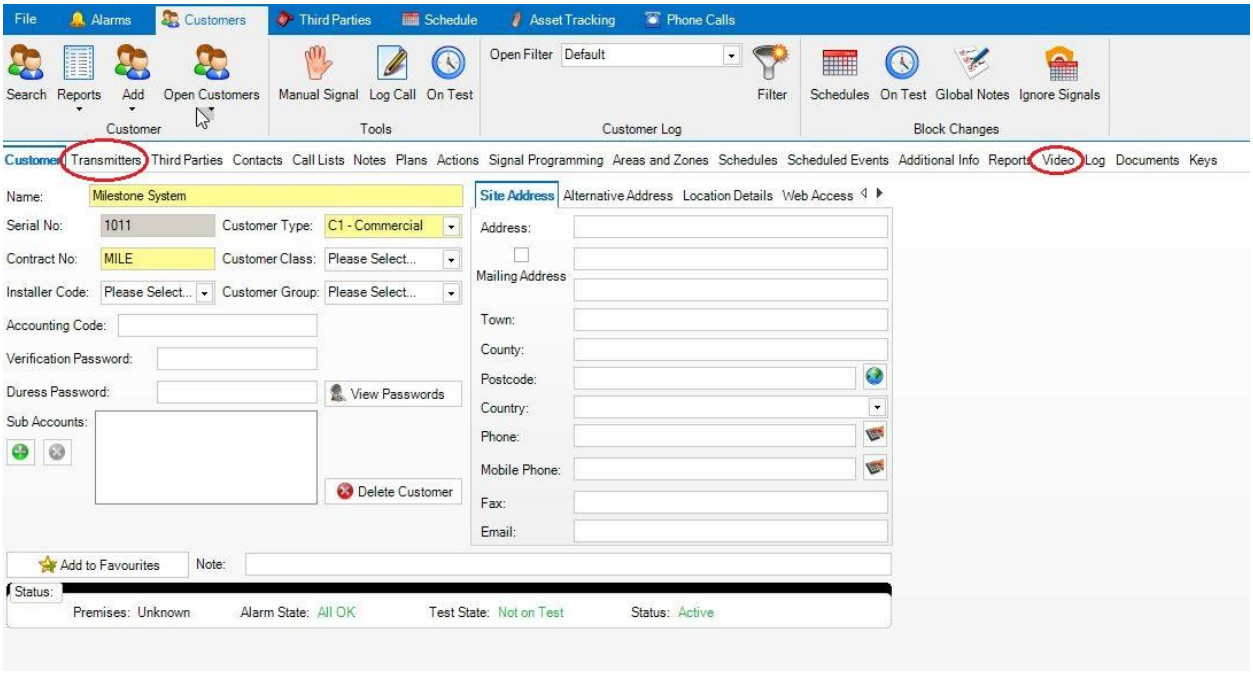
- Unit IP Address
- Port
- Username
- Password
- Sender email address (if alerts are required)

If the Milestone system needs to send any alerts to Gemini then a sender address may need to be assigned on the mail server and mail appropriate mail settings applied to that Milestone system.

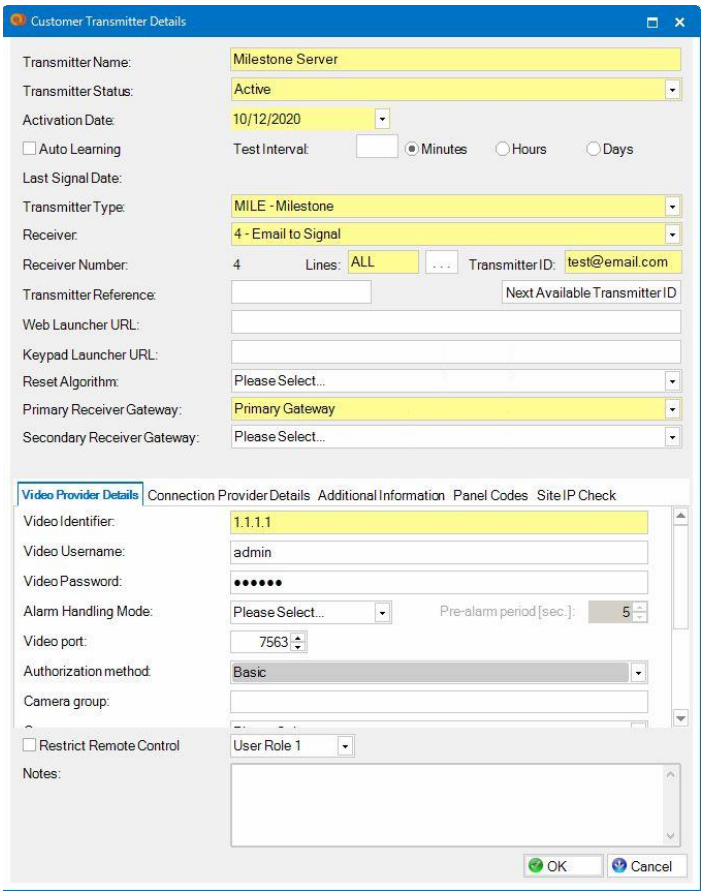
This is only 1 pre-requisit for Milestone – Gemini operation that might differ from a regular Milestone setup instance. Each camera name will need to end with ' **– N**' where N is the camera number. For example –
Reception – 1
This would be identified by Gemini as camera 1.

To start, a new customer record should be created in Gemini. The Bold Gemini manual covers this topic in more detail. For the purposes of this guide, the main information and elements specific to CCTV and Milestone are provided.

There are 2 tabs within the customer record which are needed to configure Milestone CCTV connectivity. The first is the Transmitter tab. *(see screenshot on following page)*



Once in the Transmitter tab select 'Edit Mode' then Click 'Add'.



The Transmitter Name field is used just for reference, the type/version of Milestone server system can be set here.

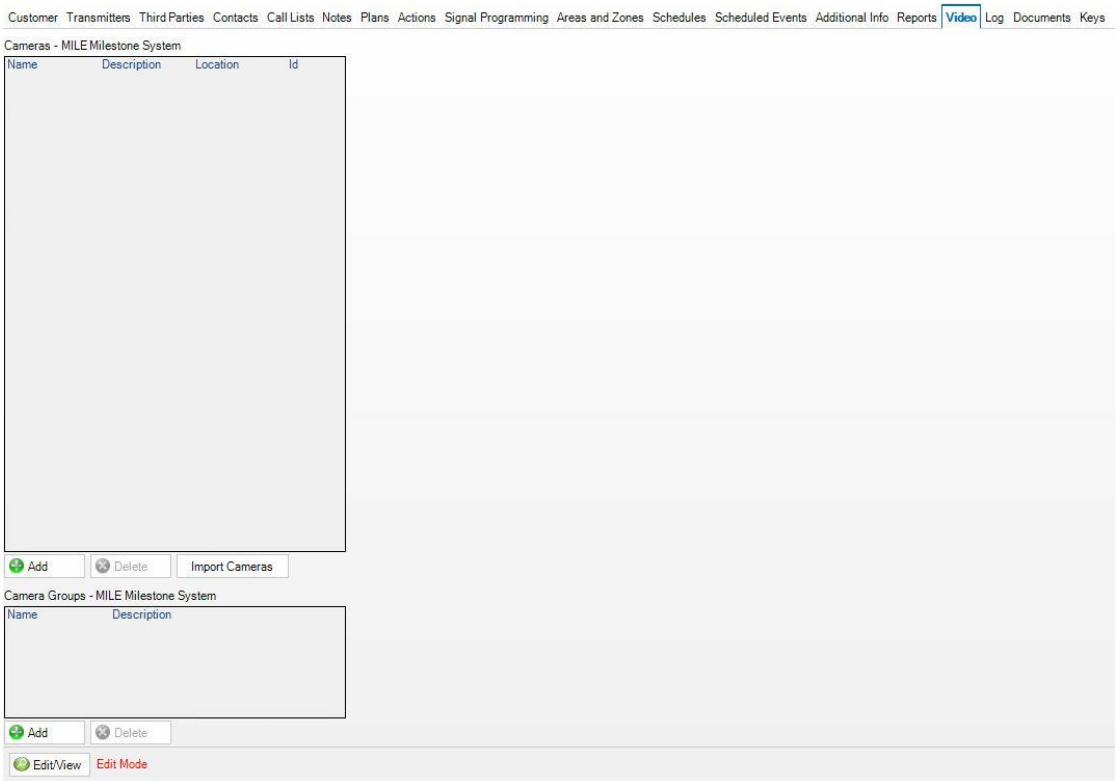
Next, select the Transmitter Type which will be ‘Milestone’.
The receiver type from the drop-down menu will be ‘Email to Signal’
Lines set to ALL.
The full sender email address should go into Transmitter ID
Receiver Gateways will be selected as per the customers Gemini system. These settings will be the same for all installations.

Under Video Provider Details enter the IP address or DNS of the Milestone server in the Video Identifier field along with the Port if it differs from default (TCP 80). Finally, the username and password can be entered just below and the Authentication Method selected. There are 2 options, Basic, which is for a local Milestone user account or Windows which can be a local or domain-based Windows user account.

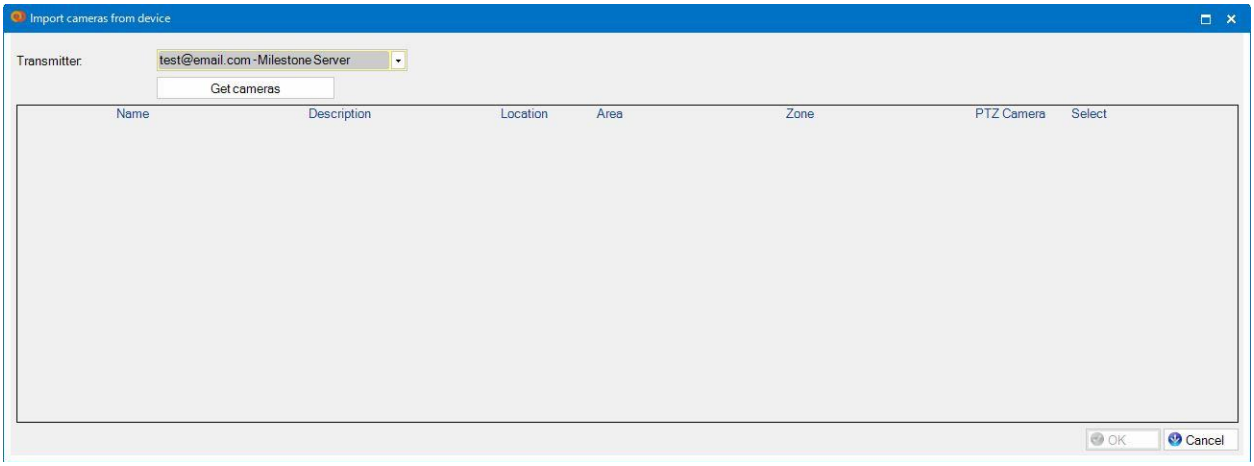
There is an optional field ‘Camera group’ which can be named to connect to a specific group of cameras from the Milestone server. If left blank (default) then all cameras from the server will be shown on connection.

Click OK to complete the transmitter setup.

Next, select the Video tab.

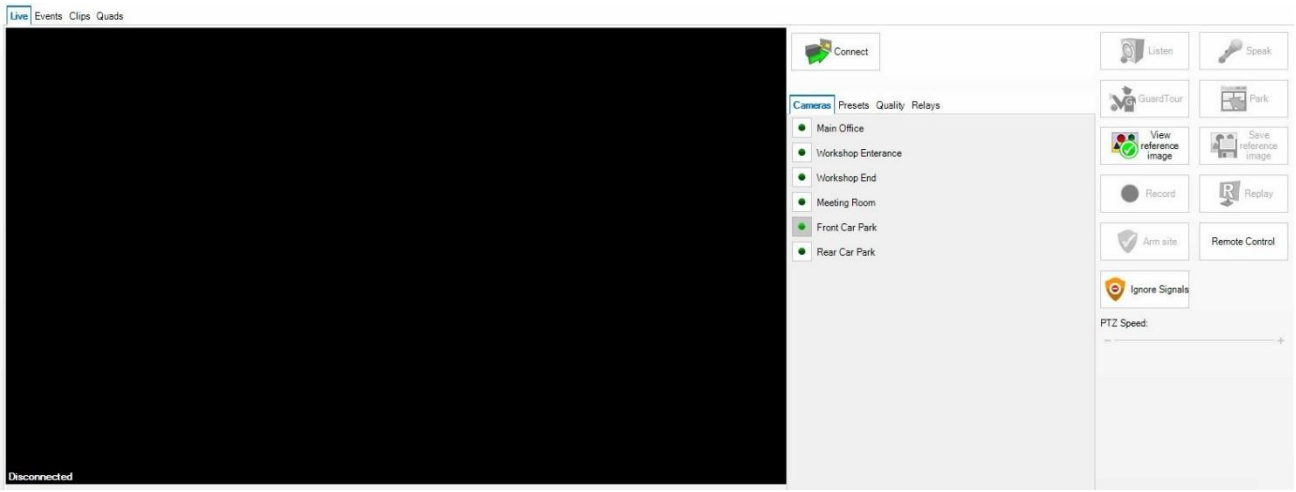


Click on ‘Import Cameras’ select the transmitter from the drop down menu and click ‘Get Cameras’.



Gemini will connect to the Milestone system and obtain its camera list. Various optional details can be changed (description, location) in this view after the initial camera list has been retrieved before finally the ‘Import’ button is selected and the camera list plus any amendments are imported into the video tab camera list.

Any camera can now be selected and the ‘Connect’ button used to start viewing live video on that camera.



Once connected the camera list from the server will be obtained and shown in the Cameras tab.

Recorded footage can be viewed by switching to the ‘Clips’ tab if the Gemini user and the user details from the transmitter setup has permissions to do so.

Speak and listen functions are also supported by Gemini again, if permitted and configured on the Milestone server.

Pre-sets if available for the camera and quality levels are selectable using the tabs alongside the camera list.

4. Configuring Milestone Transact to receive messages from Gemini Client

Gemini can be setup to activate Triggers on the Milestone Server. Both the Milestone server and Gemini require configuration. The Milestone server requires a licence from Milestone to allow this functionality. This would typically be arranged by the installation engineer of the CCTV system.

On the Milestone Server navigate to the folder -
C:\Program Files\Milestone\MIPPlugins

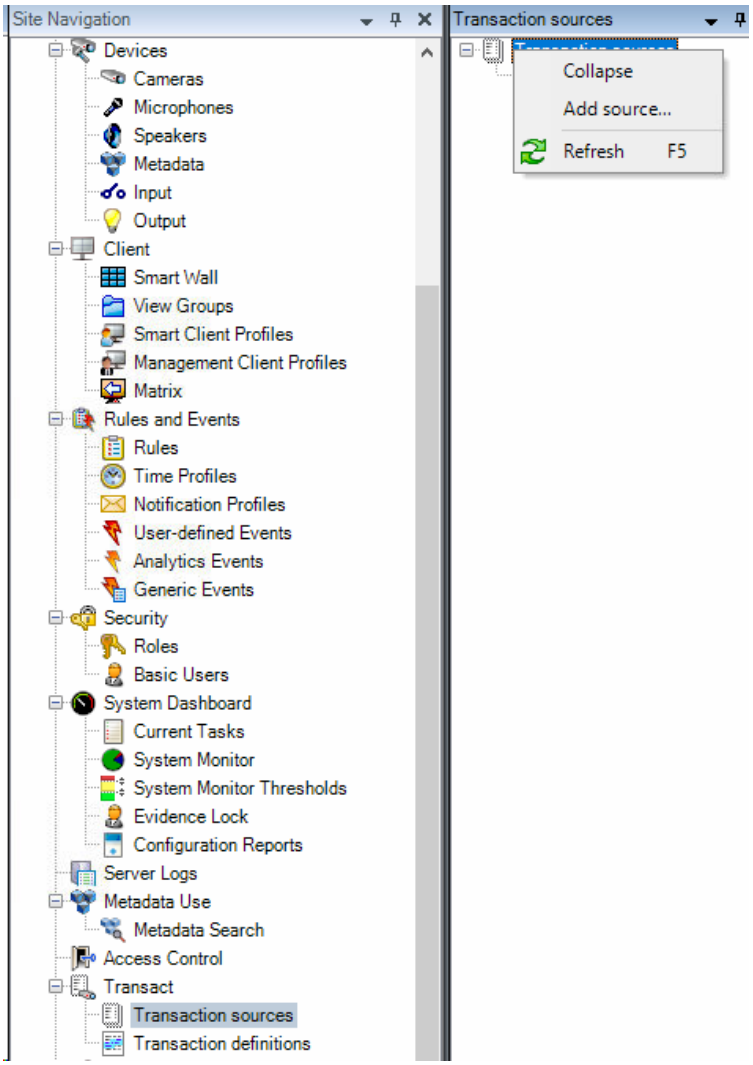
Create subfolder ***GeminiTriggerConnector***

Copy the following Bold supplied files into the ***GeminiTriggerConnector*** folder –

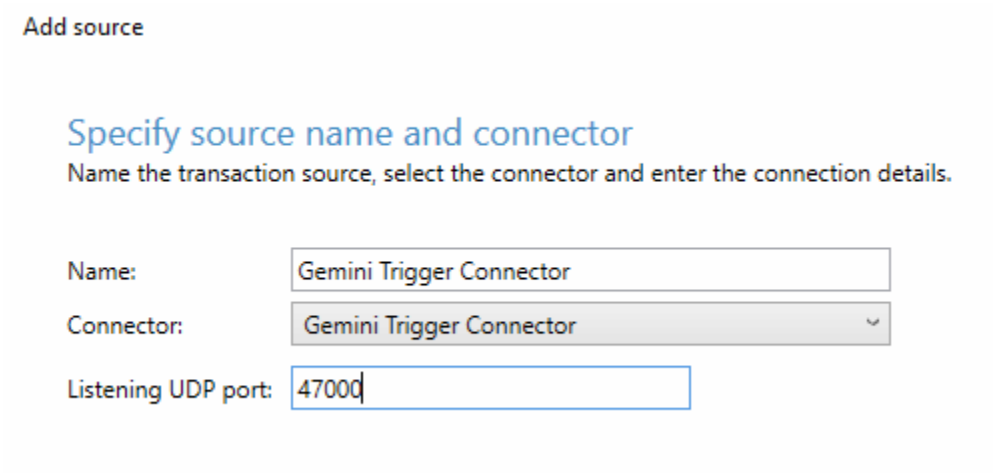
- connector.def
- GeminiTriggerConnector.dll

Restart the Milestone Server.

Open the Milestone Management Client and go to:
Transact > Transaction sources
Right click on Transactional Sources node and select Add source… *(see screenshot on following page)*



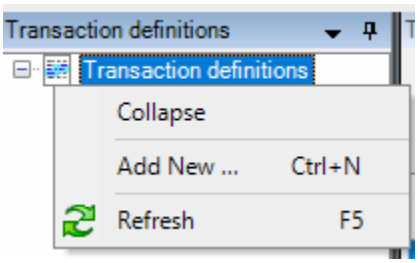
Set the name as Gemini Trigger Connector and the Connector "Gemini Trigger Connector". The port can be changed if required, default is 47000.



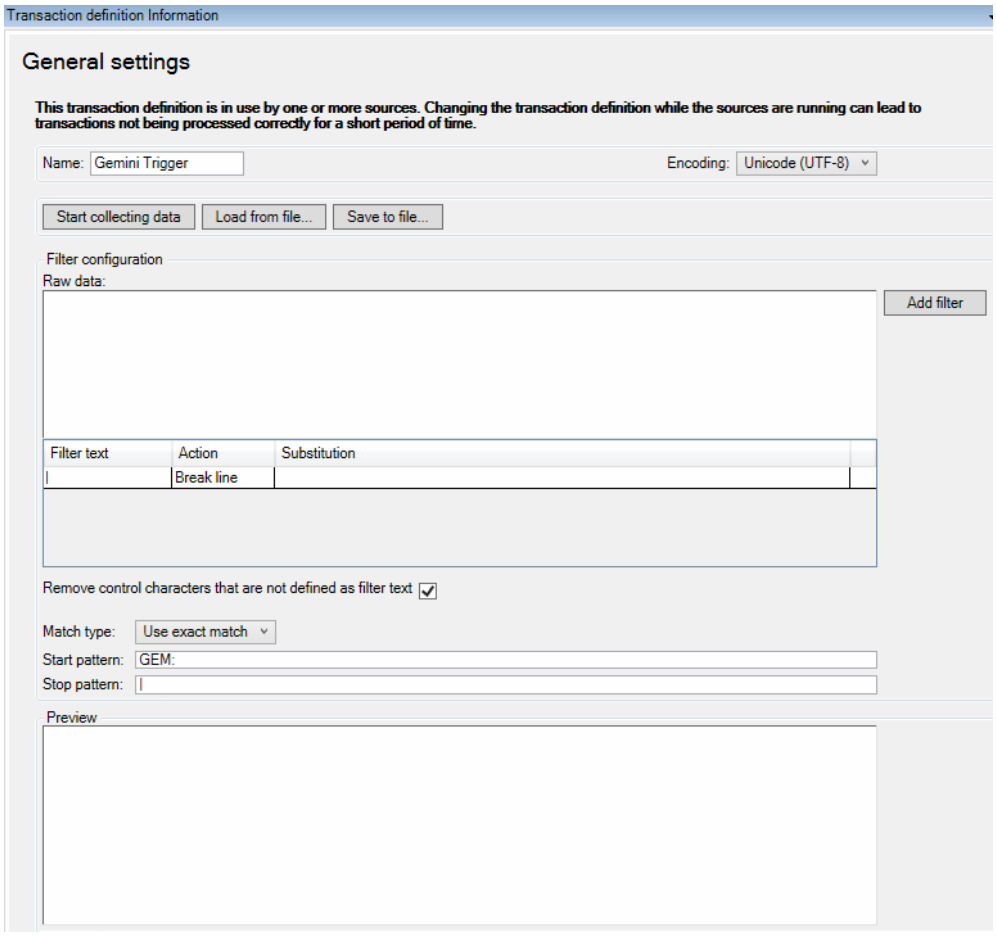
Click OK to finish.

Go to Transact > Transaction Definitions

Right click on Transactional Definitions node and select Add new…



Set the name as ***Gemini Trigger***.
Set Encoding to ***Unicode (UTF-8)***
Add filter then change ***Action*** to ***Break line*** and enter "|" into the Filter text field.
Set the Match type to ***Use exact match***
Set Start pattern to "**GEM:**"
Set Stop pattern to "**|**" (no parentheses in texts)



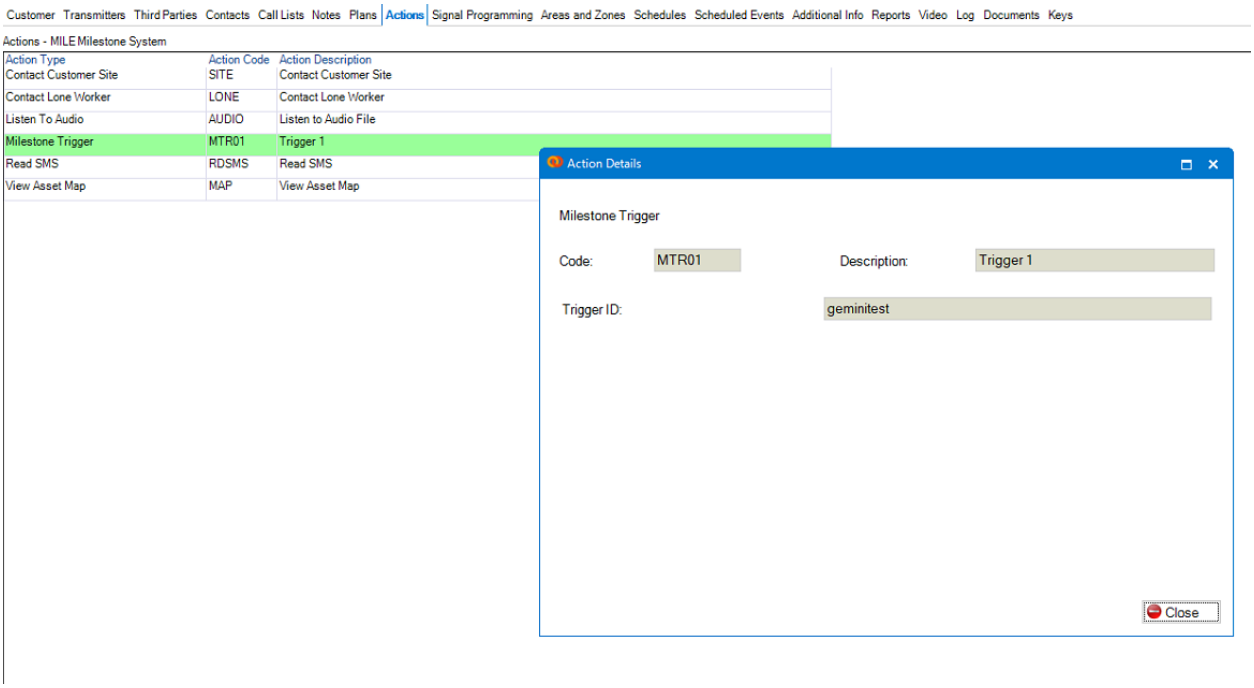
In the next steps event or camera definitions can be added as required for the needs of the installation by the CCTV engineer. These are covered in the Milestone Server documentation.

5. Configuring Gemini to send Transact messages (Triggers)

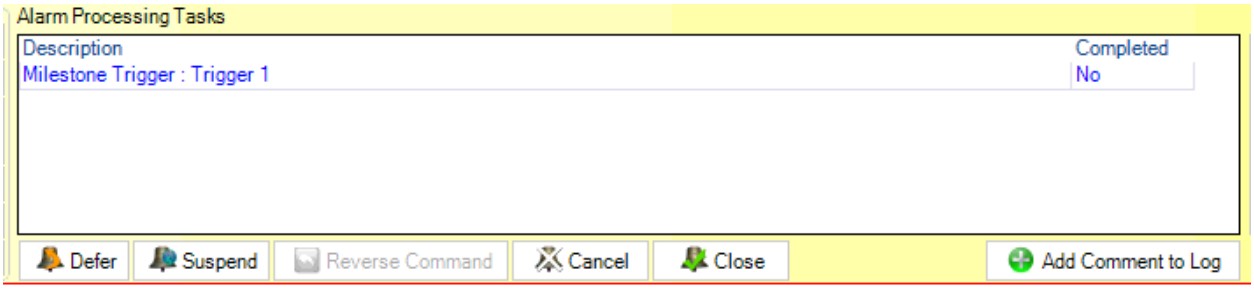
This would be configured by a Bold Communications engineer. On the Gemini database server launch SQL Management Studio then open BoldV2. Edit the dbo.SystemConfig. Set the following values -

- MilestoneTriggerEnabled = True
- MilestoneTriggerDestination = IP:Port

Create an action of type "Milestone Trigger". The value "Trigger ID" can be set according to that specified by the Milestone Server to refer to a particular action on the server side.



Attach the action to an alarm using Signal Programming as referred to in the full Gemini manual. When that alarm next appears in the alarm queue the action should be present in the Alarm Processing Tasks.



Double clicking on the Milestone Action will activate the trigger. The Gemini client will send a UTF-8 encoded message to Milestone server on the configured IP and UDP port in the following format -

GEM:SIAEventCode;TransmitterId;AreaCode;ZoneCode;TriggerID|

The Milestone server should operate as configured by the CCTV engineer and this operation should be checked and proven before a sign off / go live.

That completes the setup of Gemini functionality with the Milestone server. Further configuration of the Milestone server may be required depending on site requirements.

END OF DOCUMENT