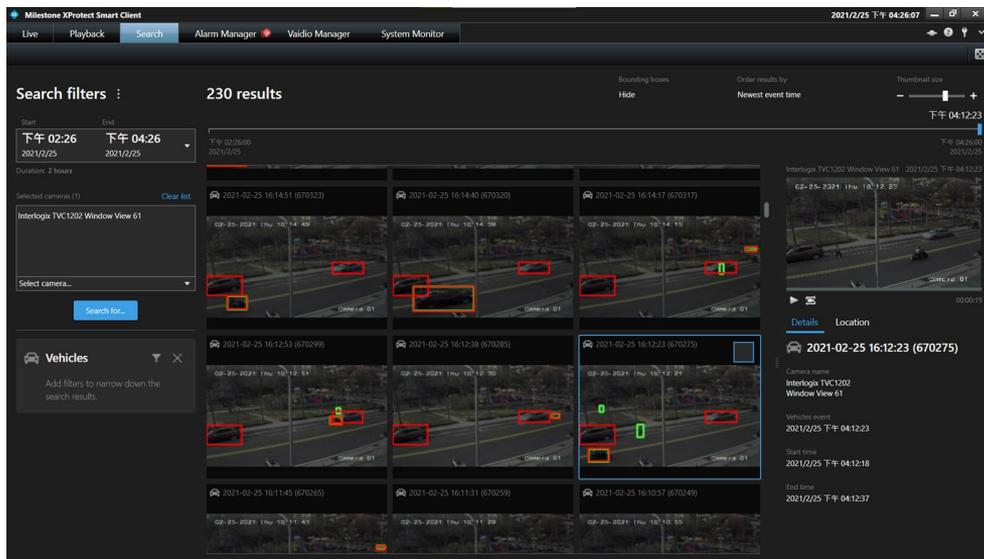


Vaidio Plugins for Milestone

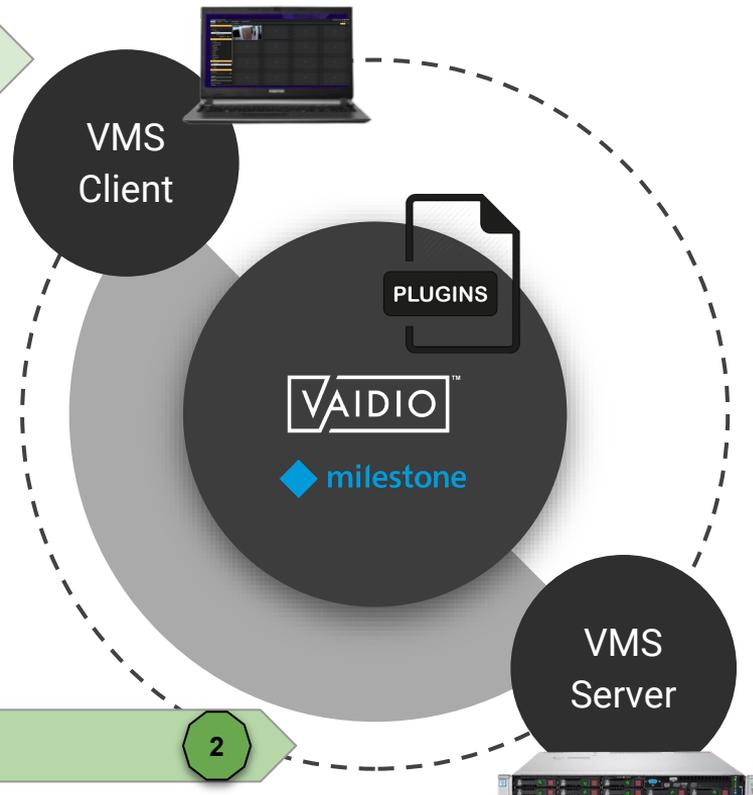
Vaidio Search & Mgmt Plugin

1



Vaidio Alert Porter Plugin

2



Contents

Vaidio Search & Mgmt Plugin

Click on the button to jump to the section

Preparations

Vaidio Search & Mgmt
Installation Guide

Vaidio Search & Mgmt
Manual

Business contact sales@aicuda.world (EMEA) or sales@ironyun.com (Americas and ASIA)
Technical support contact support@aicuda.world

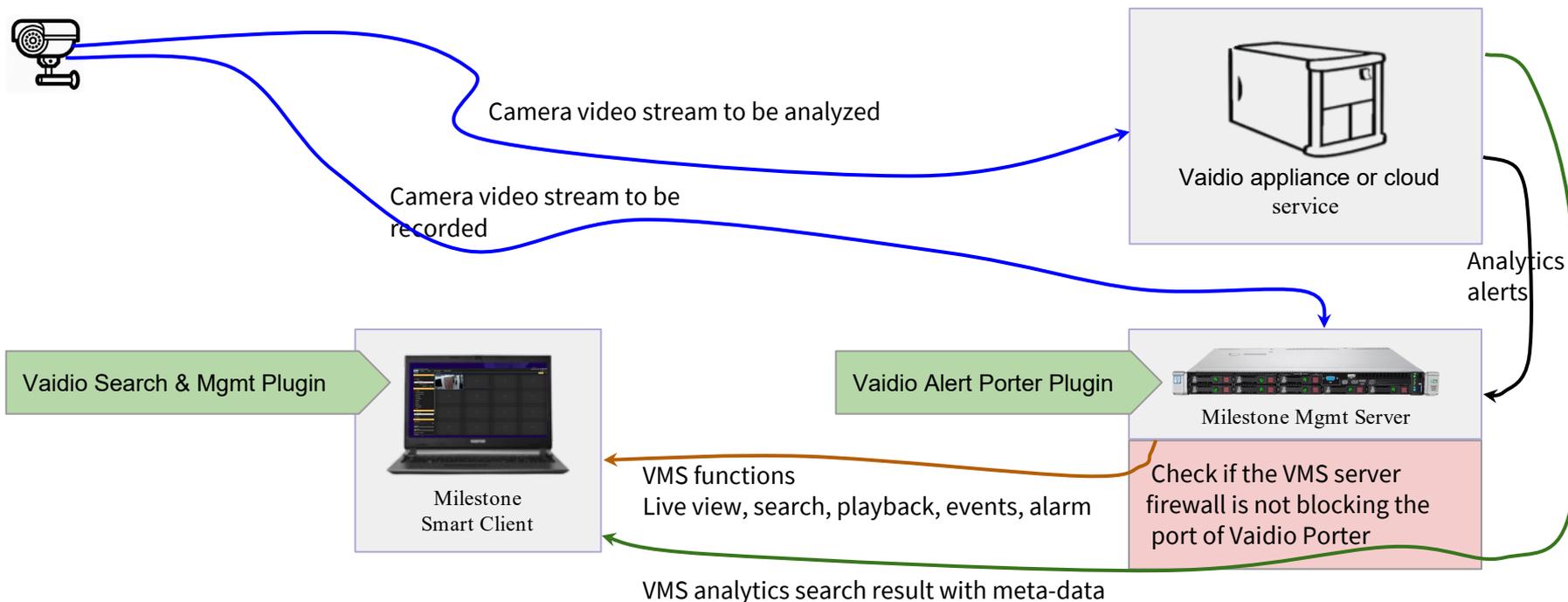
Preparations

Vaidio Search & Mgmt Plugin

A video analytics plugin for Milestone VMS and Smart Client. This plugin addresses two functions:

- (1) The discovery & management of video analytic services (Vaidio) embedded in smart client.
- (2) The video search function.

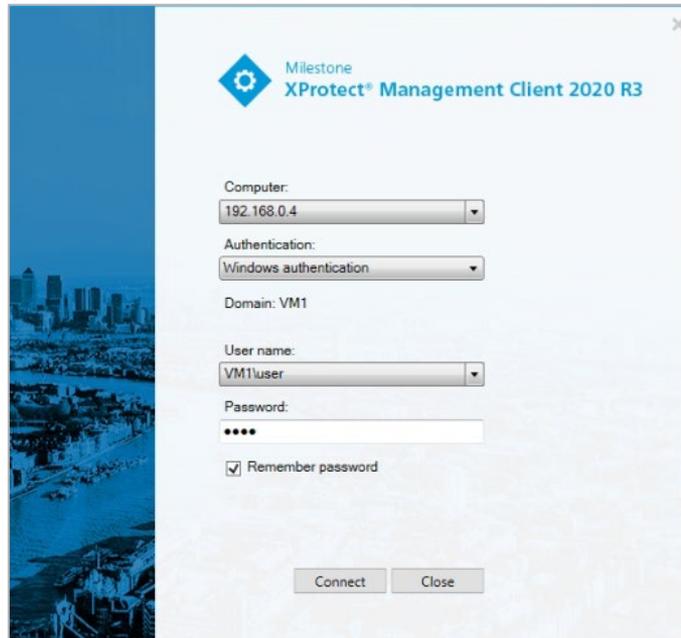
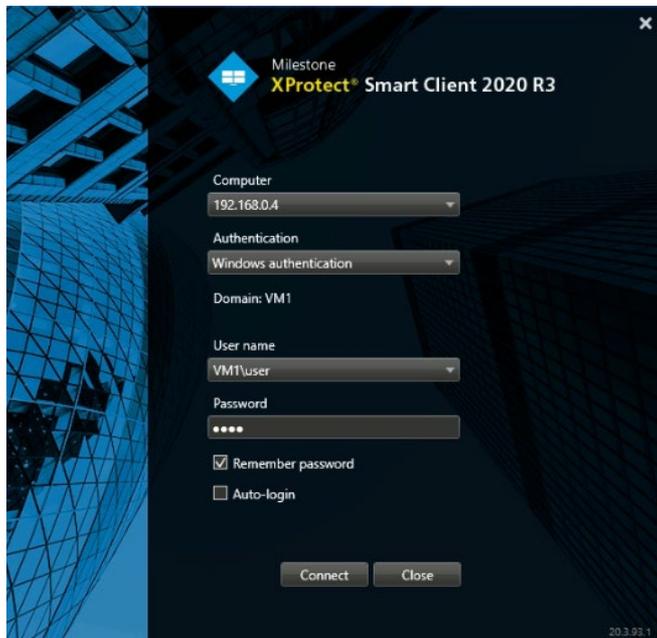
Preparation - Topology, flow and components



To synchronize the system it is required that camera, VMS and Vaidio service share "a common" NTP time server

Preparation - Milestone VMS & Vaidio

- Install Milestone XPCO or XPE in 2020R3 on x64 Windows 10 platform.
- Standalone or distributed Smart Client 2020R3 is tested with Vaidio v4.2.1.
- Both Vaidio and VMS need to have access to the camera stream.



Installation guide

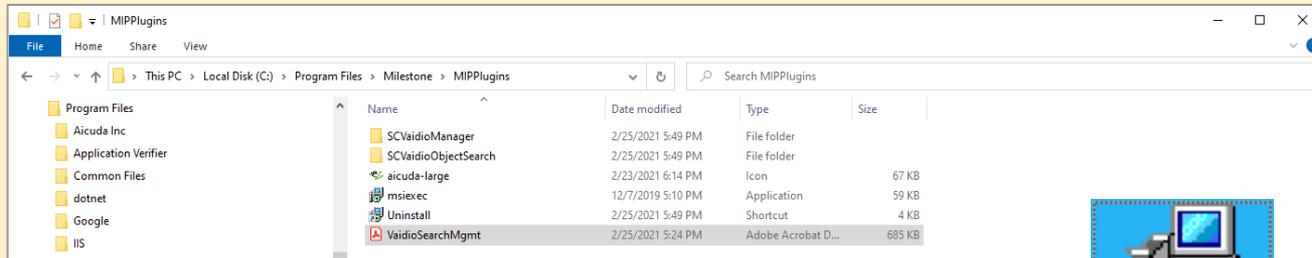
Vaidio Search & Mgmt Plugin

A video analytics plugin for Milestone VMS and Smart Client. This plugin addresses two functions:

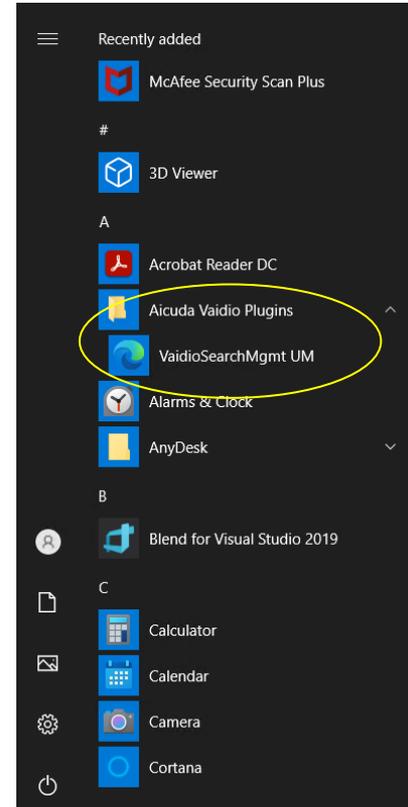
- (1) The discovery & management of video analytic services (Vaidio) embedded in smart client.
- (2) The video search function.

Installation & Verification

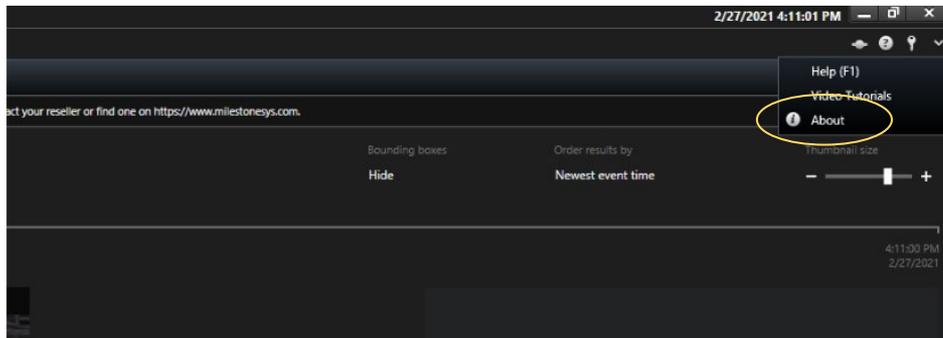
1. A base Milestone VMS installation on XPCO or XPE platform in Windows 10 w/ x64. Tested in version 2020R3 20.3a (64 bits)
2. Download the plugin from the [download link](#) and copy it in the **smart client** folder on the client PC. You have the option to click “cancel” or “next” in the installation process. Installation folder and Milestone smart client folders are fixed and cannot be redirected.



1. Launch the downloaded installer
“VaidioSearchMilestonePluginInstaller-x.x.x.x.exe”

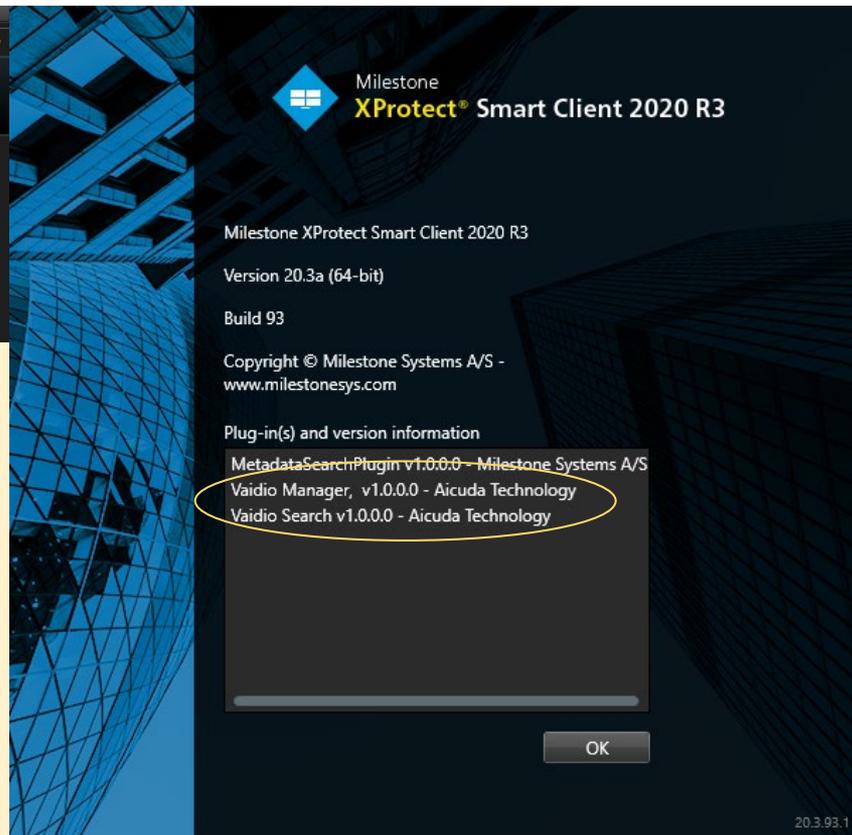


Plugin Verification



** To verify if the plugin is properly loaded in the Milestone Smart Client.

- Run Smart Client and check “About” section.
 - Check if “Vaidio Manager vx.x.x.x” is listed.
 - Check if “Vaidio Search vx.x.x.x” is listed.
- vx.x.x.x is a placeholder for the version number



Plugin removal

Apps & features

Choose where to get apps

Installing apps only from Microsoft Store helps protect your device.

Anywhere

Apps & features

[Optional features](#)

[App execution aliases](#)

Search, sort, and filter by drive. If you would like to uninstall or move an app, select it from the list.

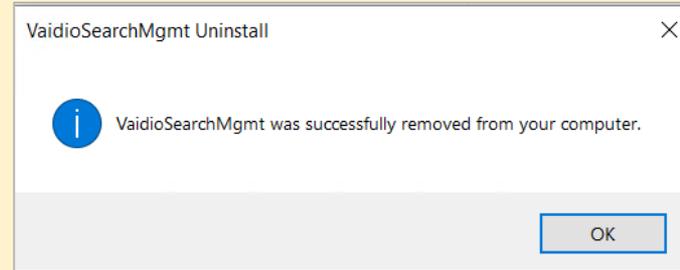
vaudio

Sort by: Name Filter by: All drives

1 app found

 VaidioSearchMgmt version 1.0.5.0 216 MB
4/21/2021

To uninstall the *VaidioSearchMgmt* plugin, open the programs in controller panel to remove the plugin. There is no option but remove directly.



aicuda - Programs and Features

Control Panel > Programs > Programs and Features

Control Panel Home

Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

Organize Uninstall Change Repair

Name	Publisher	Installed On	Size	Version
 VaidioAlertPorterServerPlugin	Aicuda Inc.	4/23/2021	90.8 MB	1.0.6
 VaidioSearchMgmt version 1.0.6.0	Aicuda, Inc.	4/22/2021	215 MB	1.0.6.0

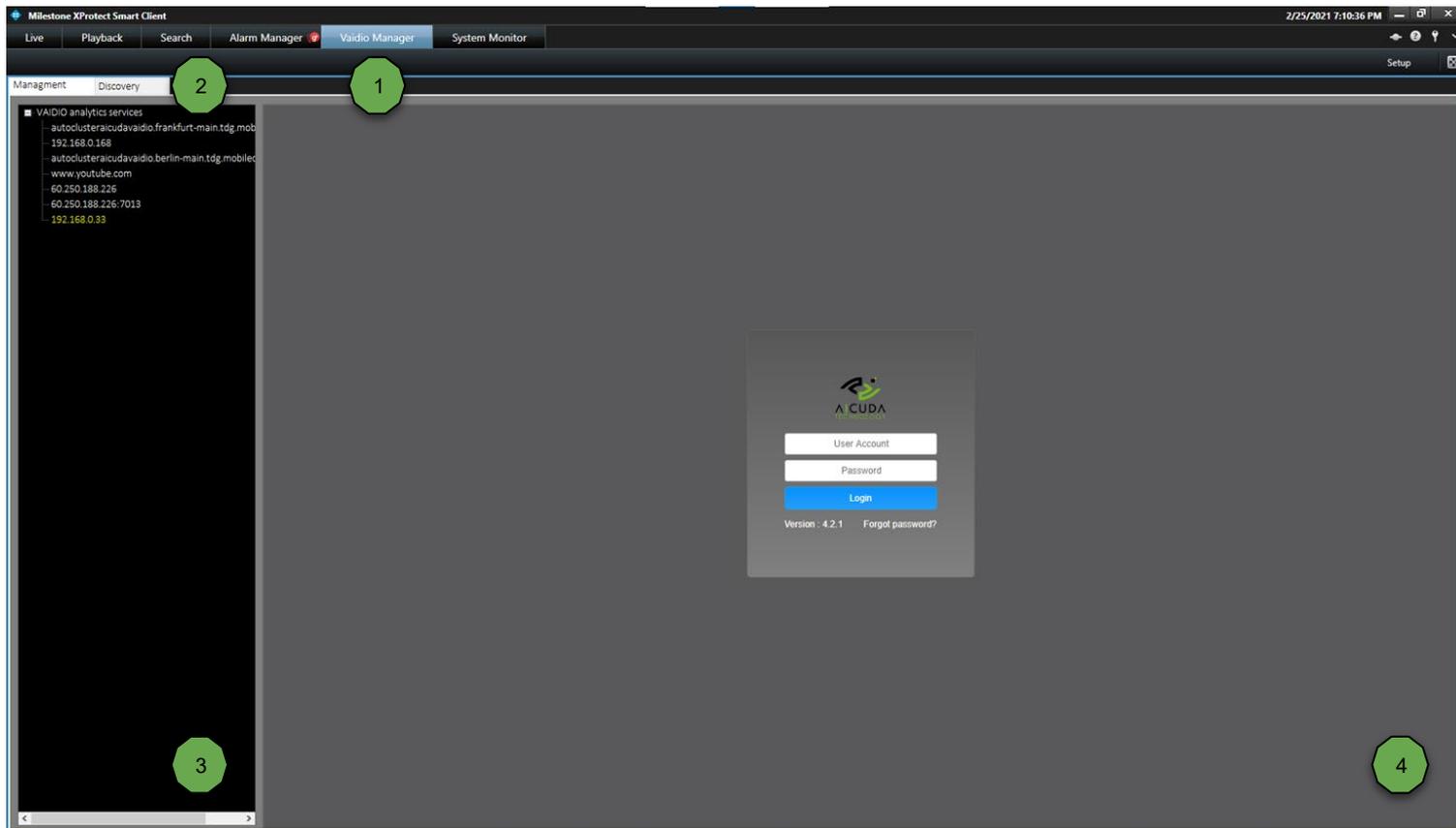
Manual

Vaidio Search & Mgmt Plugin

A video analytics plugin for Milestone VMS and Smart Client. This plugin addresses two functions:

- (1) The discovery & management of video analytic services (Vaidio) embedded in smart client.
- (2) The video search function.

Vaidio Manager - Management Page



Vaidio Manager tab - For Vaidio discover and Management.

1

Discover/Management tab - Switch to Discovery page or Management page

2

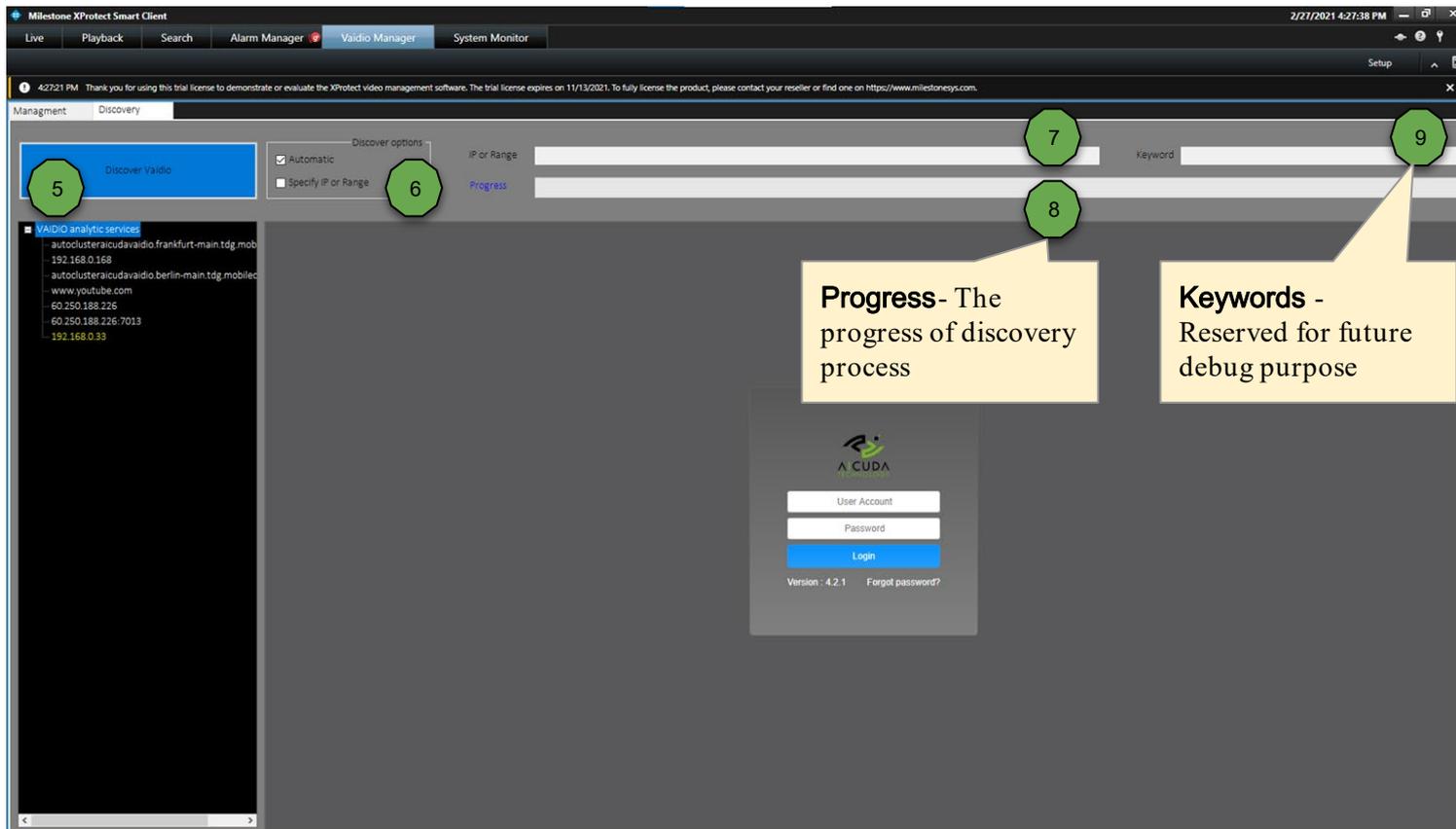
List of Discovered Vaidio - Click on the Vaidio to manage in GUI view.

3

GUI - Vaidio Web GUI.

4

Vaidio Manager - Discovery Page



Discover Button-
Press to Discover or add Vaidio Service with options specified in (6) (5)

Discover options-
Automatically: this option to automatically discover the Vaidio in a Lan.
Specify IP or Range: Add specific URL/IP to the Vaidio list or discover the specified range. (6)

Progress- The progress of discovery process (8)

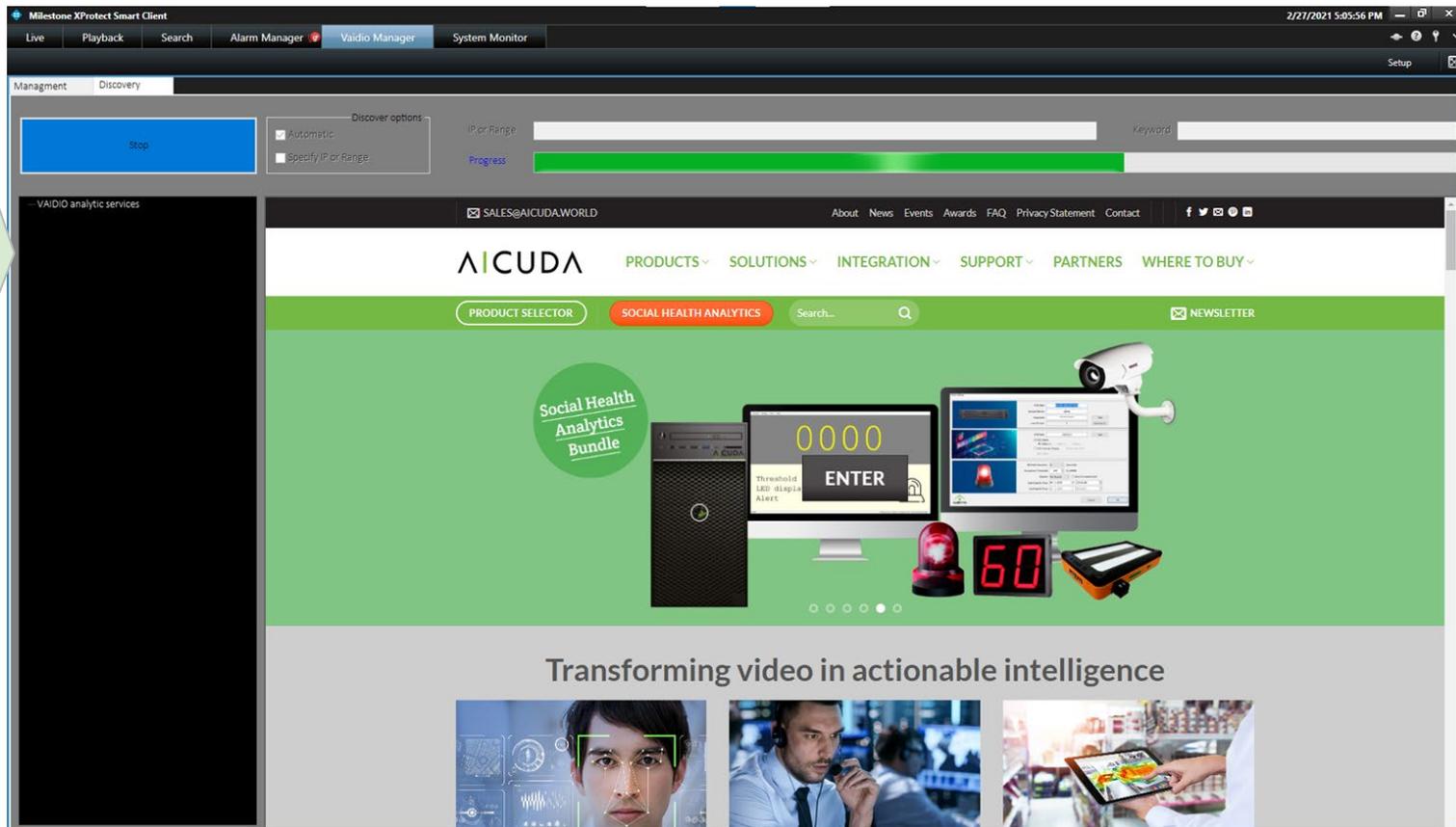
Keywords - Reserved for future debug purpose (9)

IP or Range Field-
Input text of URL to "ADD" or IP Range to Discover. (7)

Vaidio Manager - Discover Automatically

Press the “Discover” button to scan the Vaidio services with default “Automatic” option. The scan scope in a Lan.

The progress bar will last to reflect the scan process until the scan complete or use press the “Stop” button.



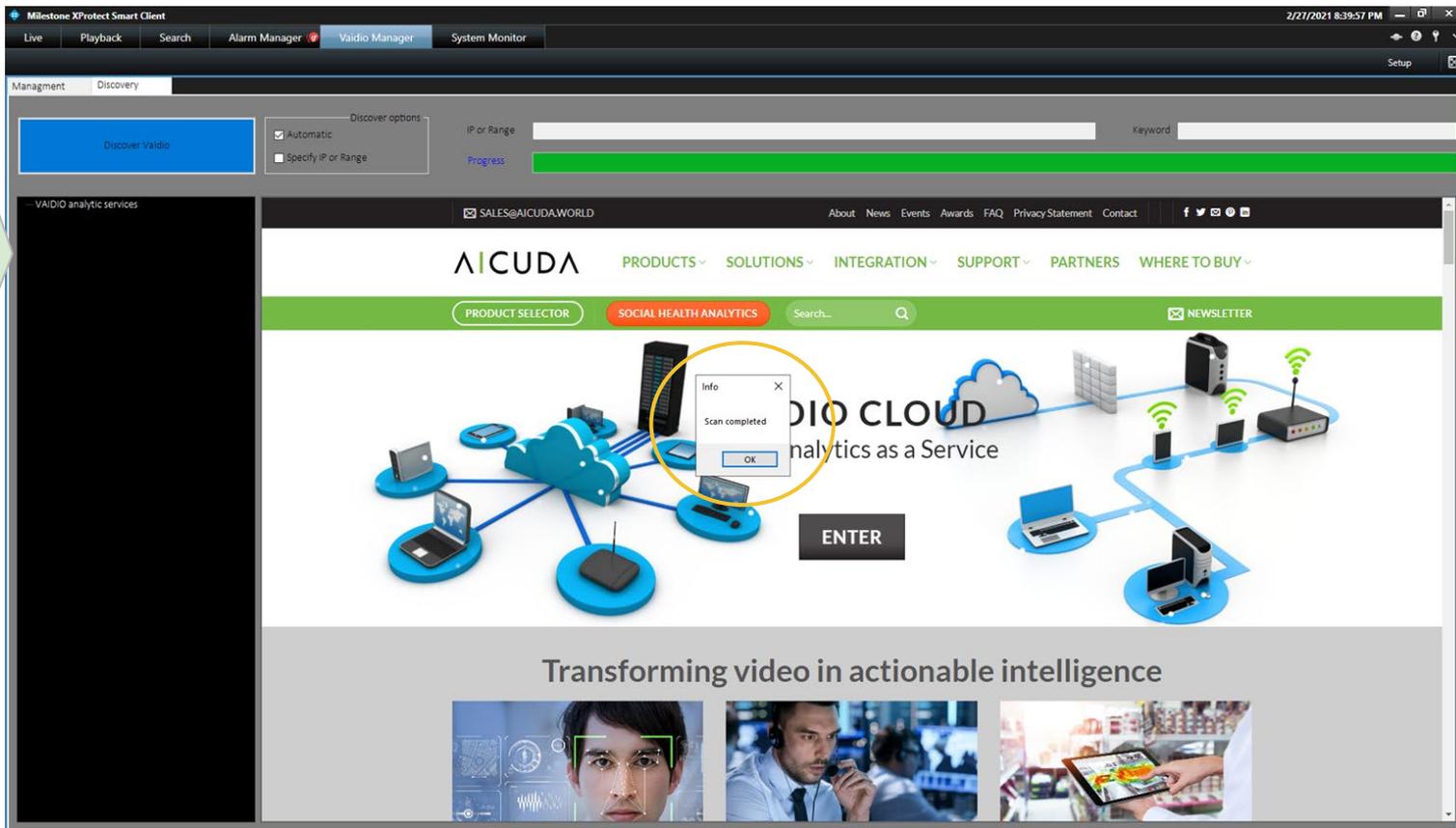
The screenshot displays the Vaidio Manager software interface within a browser window titled "Milestone XProtect Smart Client". The interface is divided into several sections:

- Top Navigation:** Includes "Live", "Playback", "Search", "Alarm Manager", "Vaidio Manager" (active), and "System Monitor".
- Discovery Panel:** Located on the left, it features a "Stop" button and "Discover options" with checkboxes for "Automatic" (checked) and "Specify IP or Range".
- Progress Bar:** A green progress bar indicates the status of the discovery process.
- Main Content Area:** Displays the AICUDA website. The header includes "SALES@AICUDAWORLD" and navigation links like "PRODUCTS", "SOLUTIONS", "INTEGRATION", "SUPPORT", "PARTNERS", and "WHERE TO BUY". A "PRODUCT SELECTOR" and "SOCIAL HEALTH ANALYTICS" button are visible. The main banner features a "Social Health Analytics Bundle" graphic with a server, a monitor showing "0000 ENTER", a security camera, a red alarm light, a digital display showing "60", and a tablet.
- Footer:** Contains the slogan "Transforming video in actionable intelligence" and three small images illustrating video analysis and user interaction.

Vaidio Manager - Discover Automatically

Once the scan is done. There is a message box shows up to deliver the discovery process completeness.

Once user hit the OK button of message box, the scan result of listed Vaidio services will be listed in the tree view.



The screenshot displays the Vaidio Manager interface within a 'Milestone XProtect Smart Client' window. The interface includes a top navigation bar with 'Live', 'Playback', 'Search', 'Alarm Manager', 'Vaidio Manager', and 'System Monitor'. The main area is divided into a left sidebar for 'Management' and 'Discovery', and a central content area. In the 'Discovery' section, there is a 'Discover vaidio' button and a 'Discover options' panel with 'Automatic' checked and 'Specify IP or Range' unchecked. A green progress bar is visible below the options. The central content area shows a website for 'AICUDA' with a navigation menu and a main banner for 'VAIDIO CLOUD analytics as a Service'. A yellow circle highlights a small 'Info' dialog box that has appeared, containing the text 'Scan completed' and an 'OK' button. Below the banner, there is a large 'ENTER' button and a section titled 'Transforming video in actionable intelligence' with three small images illustrating video analysis and user interaction.

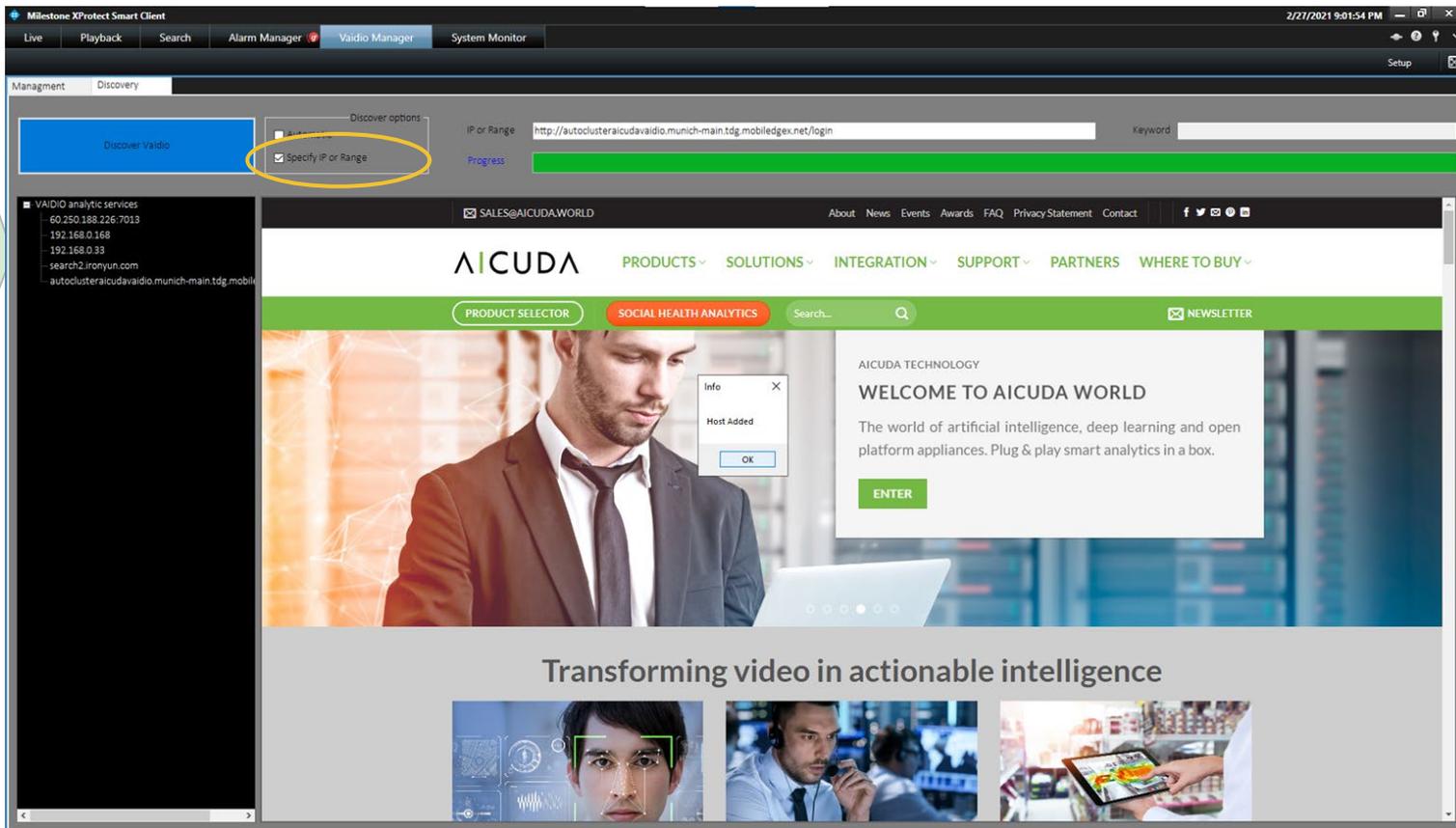


This inset screenshot shows a close-up of the 'Discovery' sidebar. It features a 'Discover Vaidio' button and a list of 'VAIDIO analytic services' with the following IP addresses: 192.168.0.33 and 192.168.0.168.

Vaidio Manager - Add URL / Host IP

Check the “Specify IP or Range”, then click the discover button.

By input the explicit URL in the IP or Range text box. The legal format of URL will be added in the the tree view. The added URL/Host may not be able to connect if the network connection or service is not there.



The screenshot shows the Vaidio Manager interface. The 'Discovery' tab is active, and the 'Specify IP or Range' checkbox is checked. The 'IP or Range' text box contains the URL: `http://autocluster.aicudavaidio.munich-main.tdg.mobiledgx.net/login`. The 'Discover' button is highlighted in blue. Below the interface, a list of discovered hosts is visible:

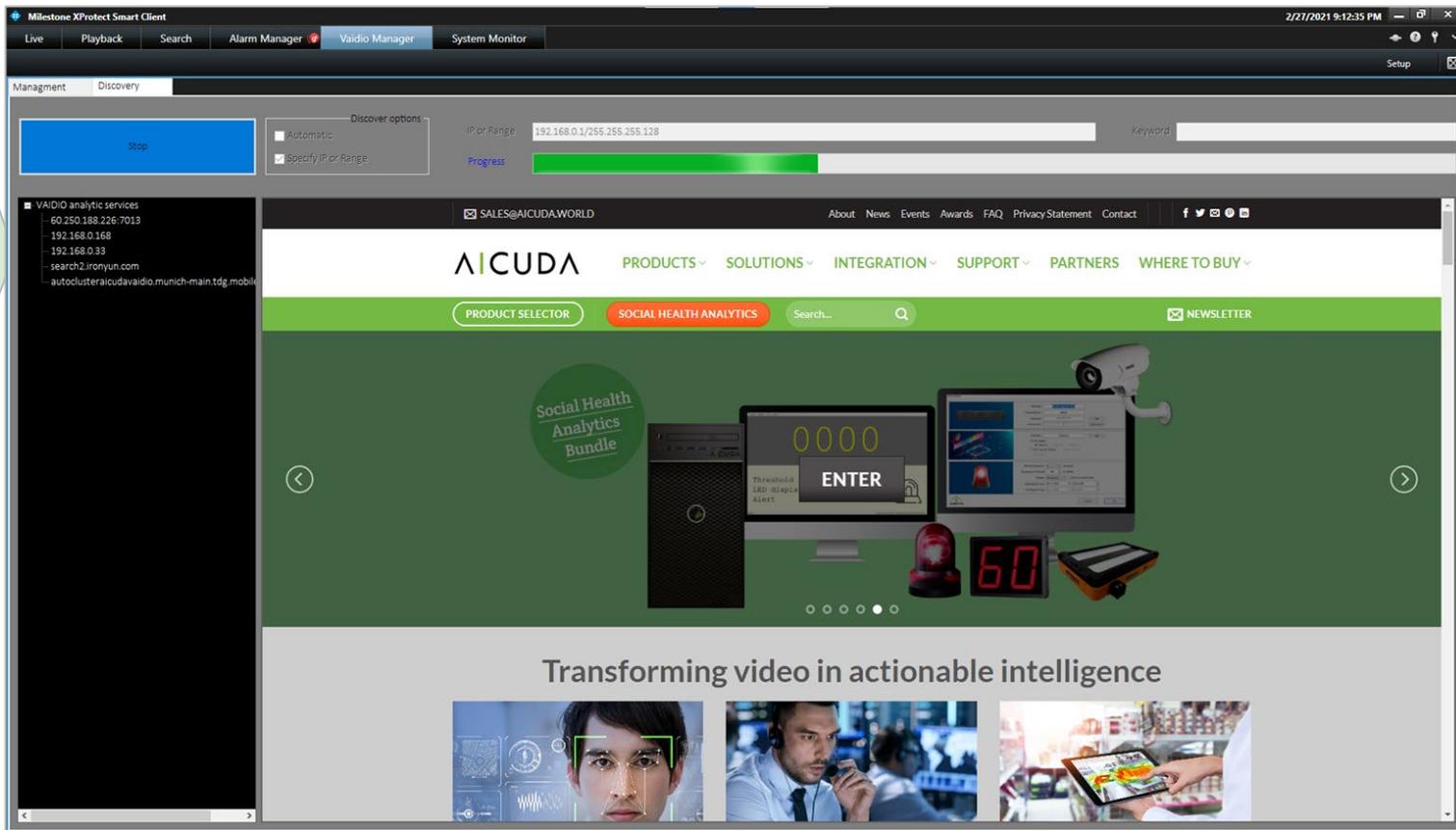
- VAIDIO analytic services
- 60.250.188.226:7013
- 192.168.0.168
- 192.168.0.33
- search2.ironyun.com
- autocluster.aicudavaidio.munich-main.tdg.mobiledgx.net

The background shows the AICUDA website with a 'WELCOME TO AICUDA WORLD' message and a 'Transforming video in actionable intelligence' banner.

Vaidio Manager - Discover IP Range

Check the “Specify IP or Range”, then click the discover button.

By input the IP and the netmask to specify the range to scan to reduce the time of discovery. In the example of picture the range is determined by the netmask. The actual scan range is
192.168.0.1 ~ 192.168.0.127



The screenshot shows the Vaidio Manager interface within the Milestone XProtect Smart Client. The 'Discovery' tab is active, displaying a 'Discover options' section with 'Specify IP or Range' checked. The 'IP or Range' field contains '192.168.0.1/255.255.255.128'. A green progress bar indicates the discovery process is underway. On the left, a terminal window shows the following output:

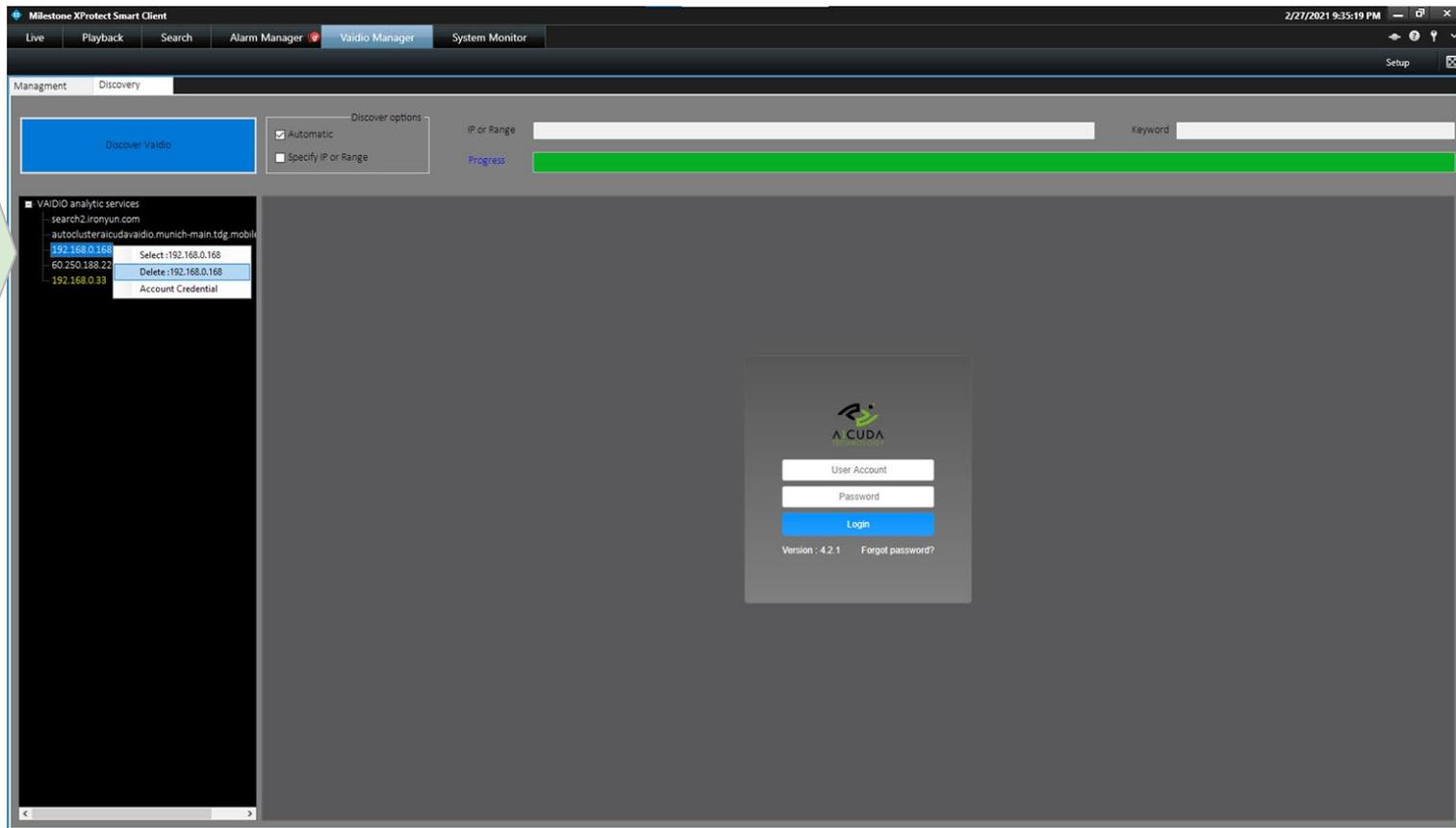
```
VAIDIO analytic services
60.250.188.226:7013
192.168.0.168
192.168.0.33
search2.ironyun.com
autocluster.aicudavaidio.munich-main.tdg_mobile
```

The background of the screenshot shows the AICUDA website with navigation links for PRODUCTS, SOLUTIONS, INTEGRATION, SUPPORT, PARTNERS, and WHERE TO BUY. The main content area features a 'Social Health Analytics Bundle' advertisement with a search bar and a 'NEWSLETTER' sign-up button. The bottom of the page has the slogan 'Transforming video in actionable intelligence' and three small images illustrating video analysis and user interaction.

Vaidio Manager - Remove Vaidio from list

Right click on the Vaidio entry in list. Chose the delete it to delete the Vaidio service from the list.

** The IP in the list will be automatically removed from list in case the automatic scan can not find unless it is a selected service or the user input vaidio explicitly via "specify IP range".



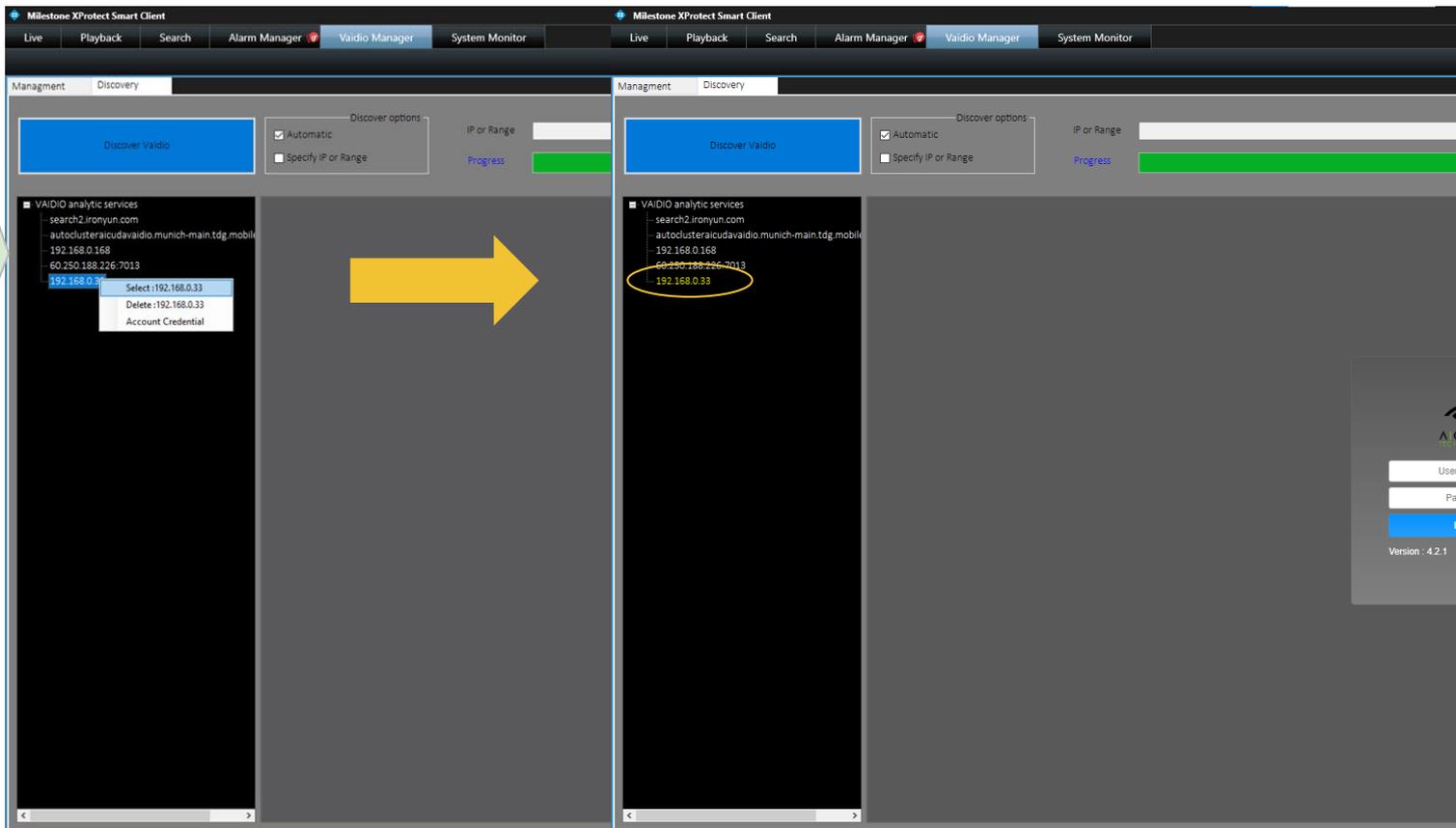
The screenshot shows the Milestone XProtect Smart Client interface with the Vaidio Manager tab active. The interface includes a navigation bar with 'Live', 'Playback', 'Search', 'Alarm Manager', 'Vaidio Manager', and 'System Monitor'. Below the navigation bar, there are tabs for 'Management' and 'Discovery'. A 'Discover Vaidio' button is visible, along with 'Discover options' for 'Automatic' and 'Specify IP or Range'. A progress bar is shown below these options. The main area displays a list of Vaidio analytic services, including 'search2.ironyun.com', 'autoulstercaicudavaidio.munich-main.tdg.mobile', '192.168.0.168', '60.250.188.22', and '192.168.0.33'. A context menu is open over the '192.168.0.168' entry, showing options: 'Select :192.168.0.168', 'Delete :192.168.0.168', and 'Account Credential'. In the background, a login dialog box is visible with fields for 'User Account', 'Password', and a 'Login' button. The dialog also shows 'Version : 4.2.1' and a 'Forgot password?' link.

Vaidio Manager - Specify Vaidio for Search

Right click on the Vaidio entry in list. Choose the select item. One Vaidio can be selected at a time. The selected Vaidio play the role of delivering analytic search result to SmartClient search function.

The default credential will be set unless user click the credential item to change the credential

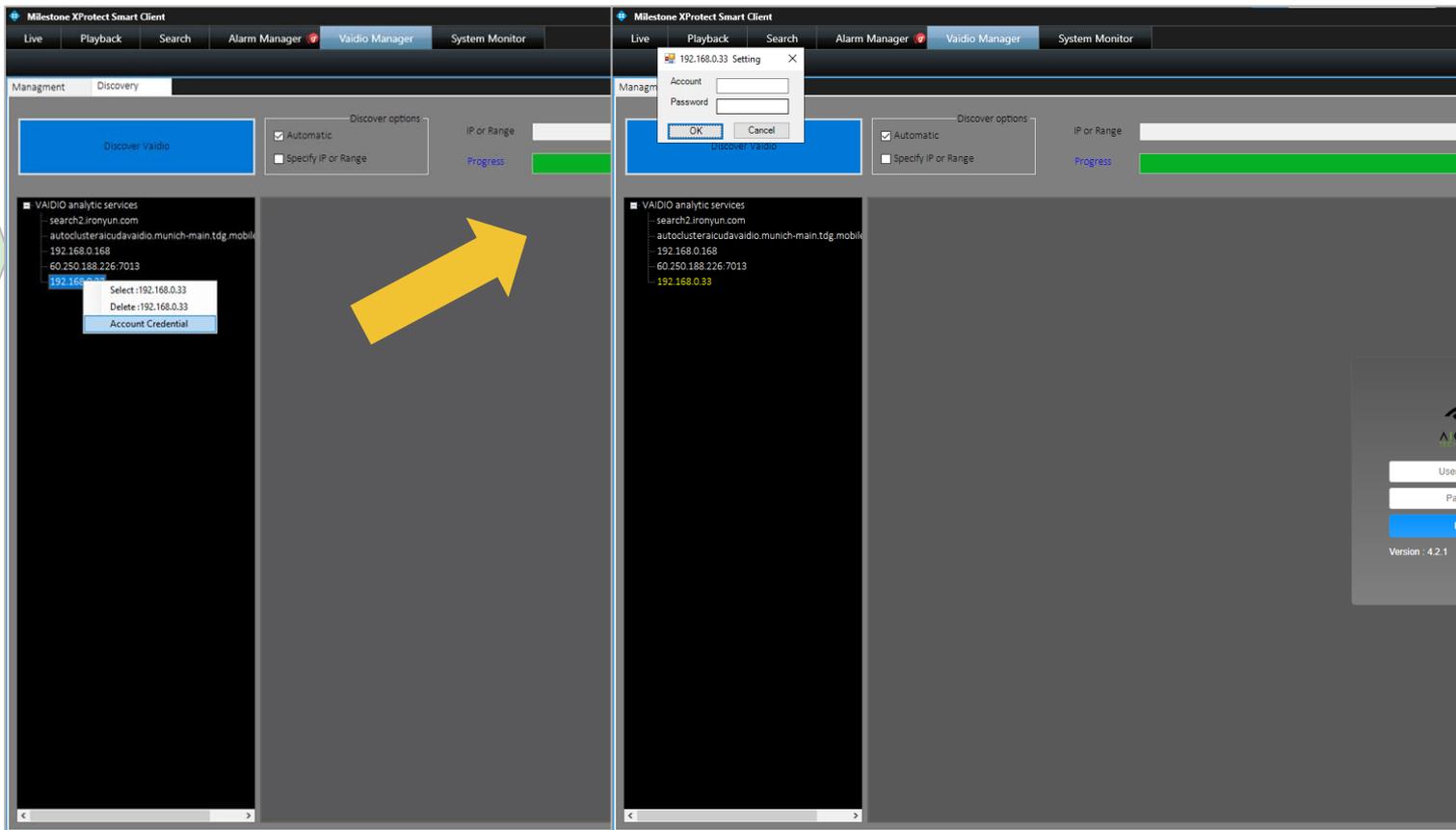
The selected Vaidio is colored in yellow for differentiation. .



Vaidio Manager - Credential for Vaidio

Right click on the Vaidio entry in list. Chose the "Account credential" item.

The pop up input window is for user to input the access credential for the selected Vaidio.

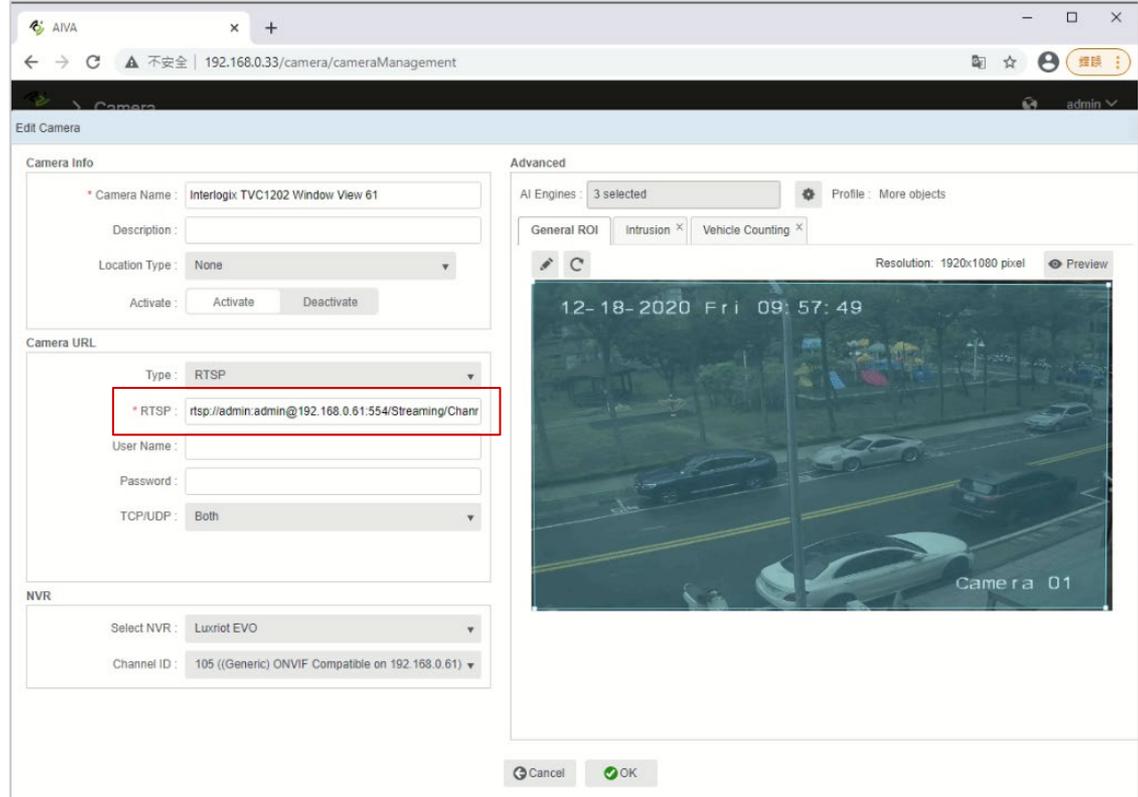


The image displays two side-by-side screenshots of the Milestone XProtect Smart Client interface, specifically the Vaidio Manager section. The left screenshot shows a list of Vaidio analytic services with a context menu open over the IP address 192.168.0.33, highlighting the "Account Credential" option. A yellow arrow points to this option. The right screenshot shows the "192.168.0.33 Setting" dialog box with "Account" and "Password" input fields and "OK" and "Cancel" buttons.

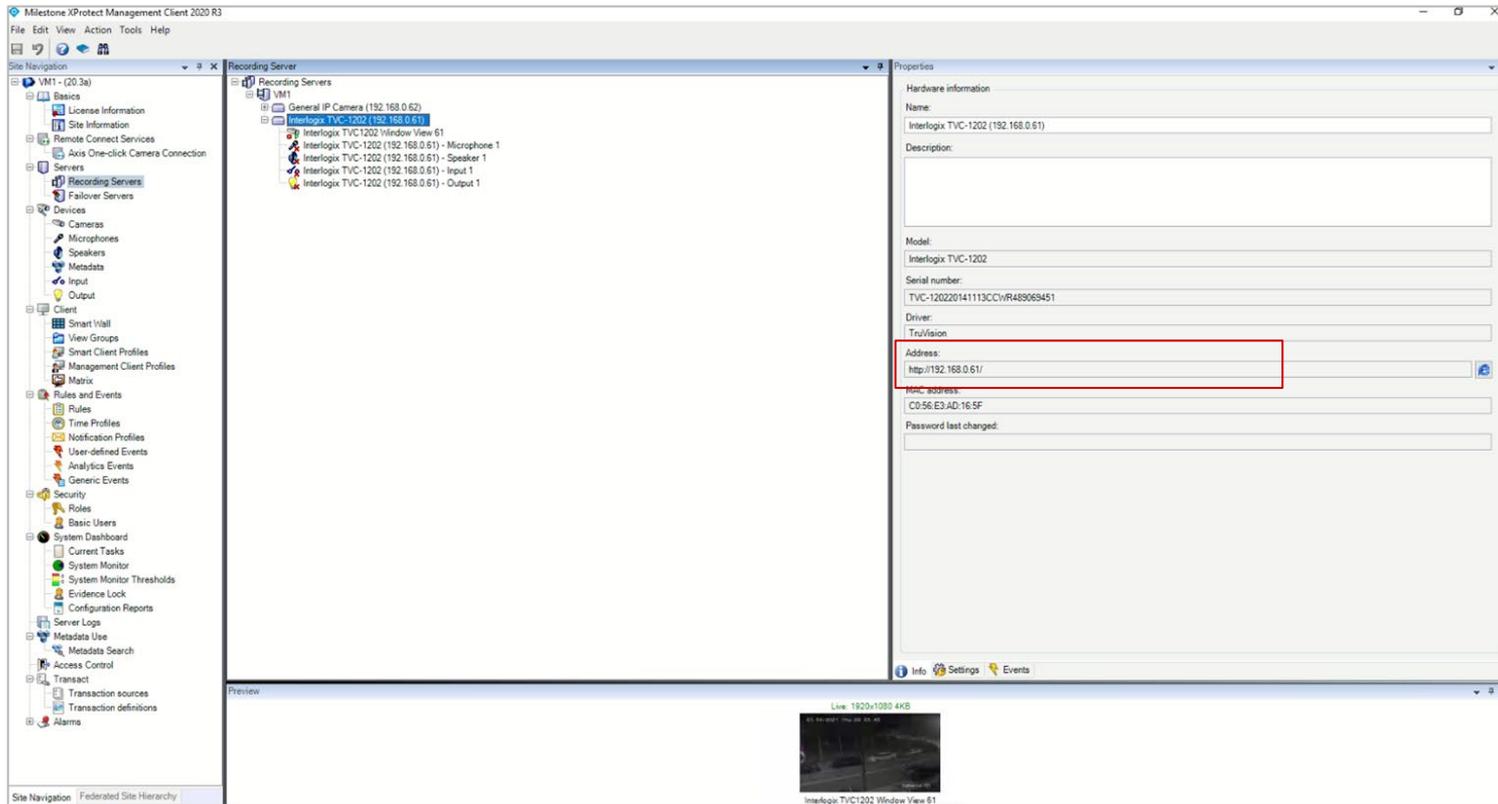
Vaidio Search - Camera match

Camera for analytic and recording will be mapped automatically as long as the camera can be both visible by Milestone and Vaidio.

1. Add camera in milestone management client
2. Add camera in Vaidio



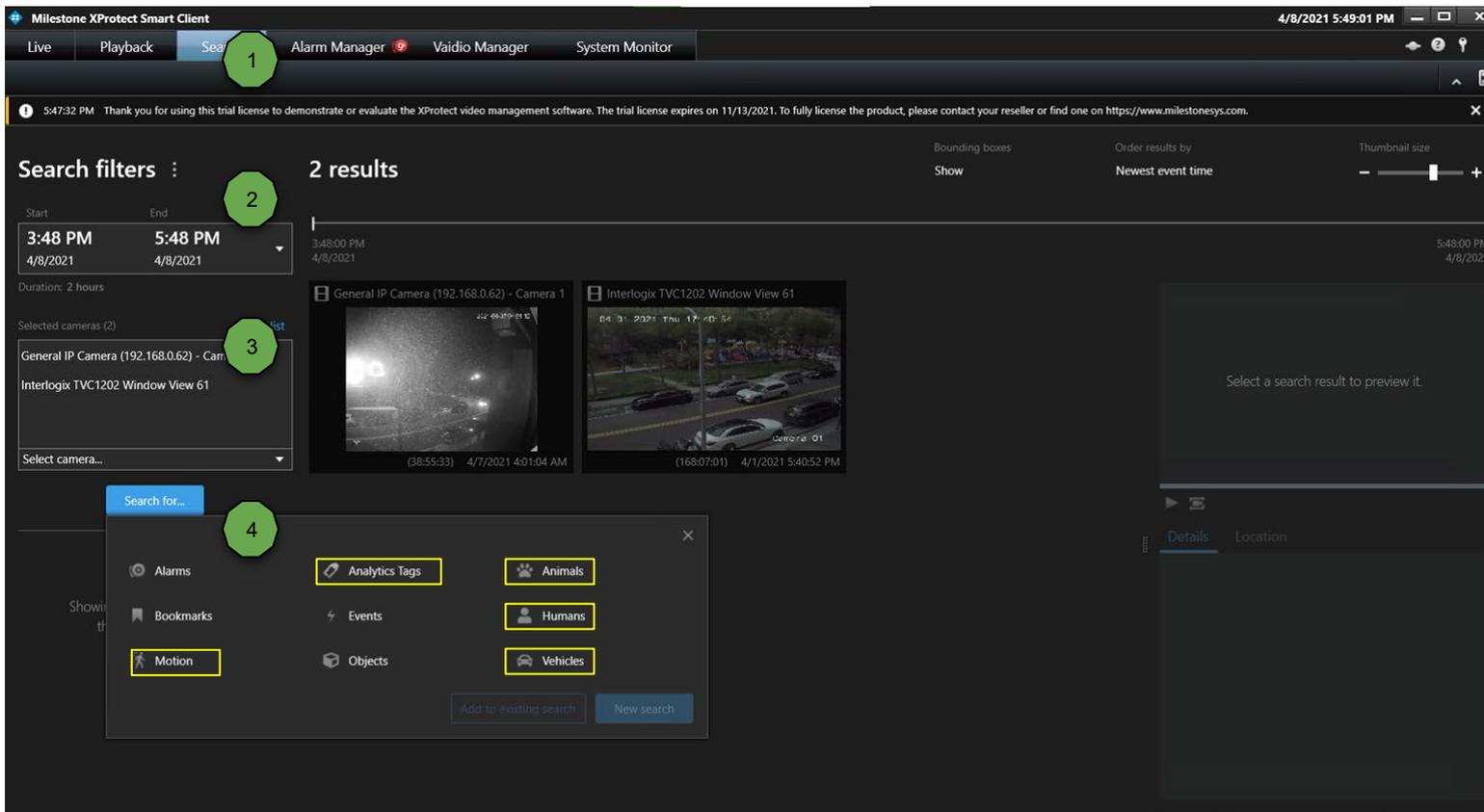
Vaidio Search - Camera match



The mapping base on IP / Domain of camera to manage the association in between management client and Vaidio.

Please avoid the duplicated camera IP / Domain in Vaidio / Recording Server for possible redundant search result.

Vaidio Search - operation sequence



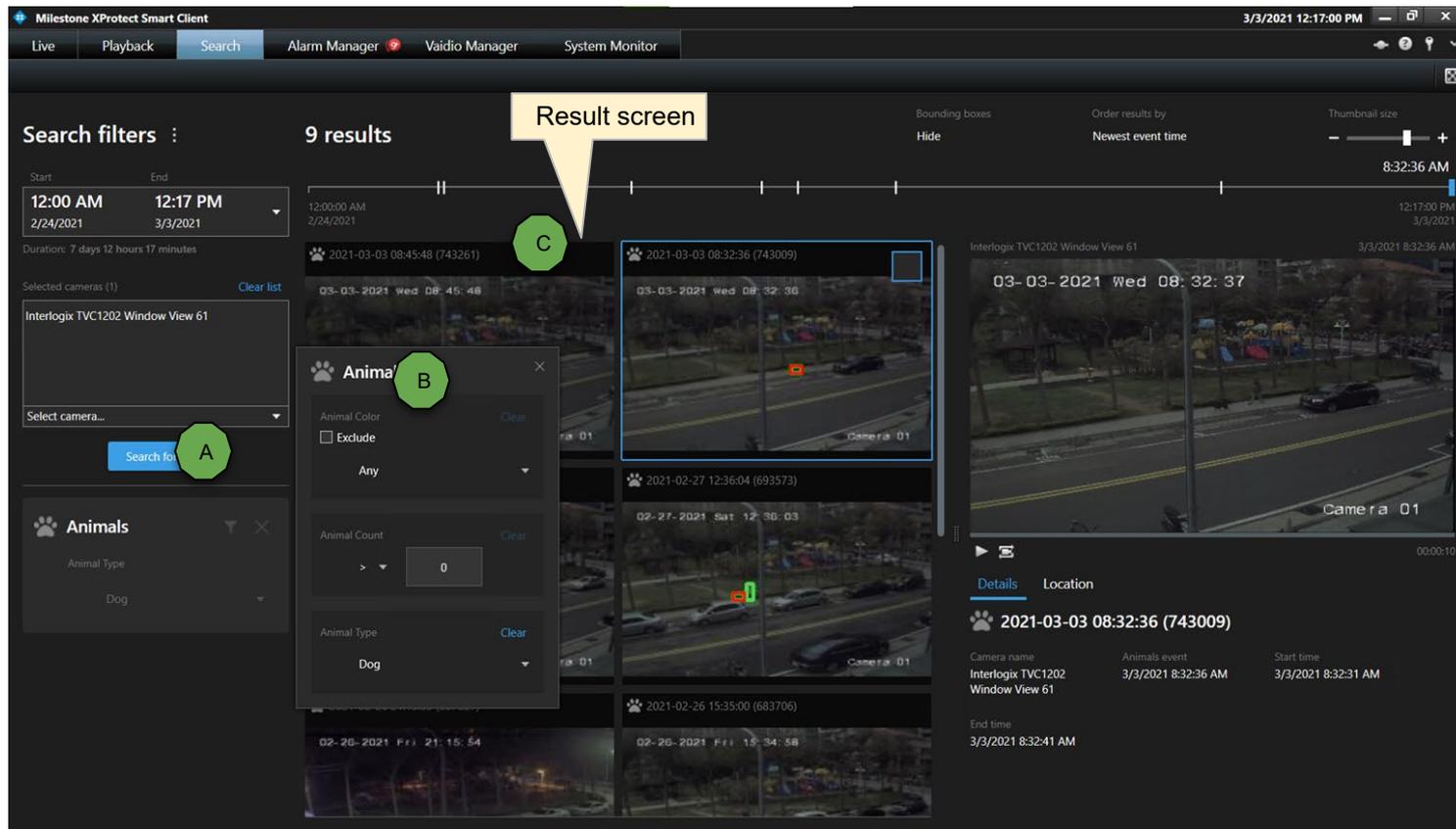
(1) In smart client search tab .

(2) Specify the range of time.

(3) Select the cameras to be search. (** Please note that the camera to be search also has to be added into Vaidio via Vaidio GUI. The camera mapping currently is matched by IP of rtsp.

(4) The vaido plugin added Human, Objects, Animals, Vehicles and Analytic Tag options.

Vaidio Search - Search types & companion options



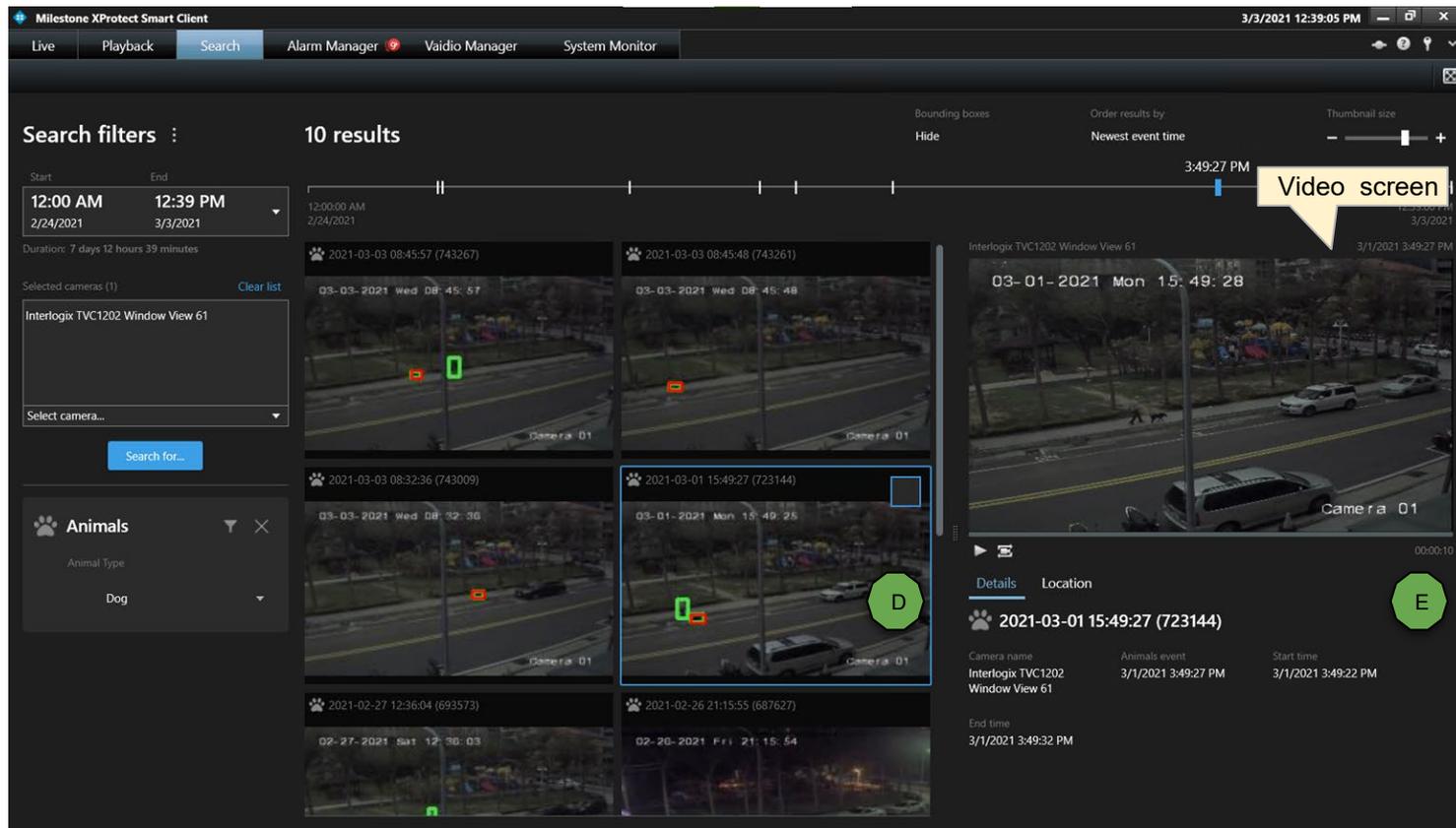
From step (4) of search options.

(A) Click “Search for” button to choose Animals. The search options for Animal will pop-up.

(B) Specify the color, quantity and Animal type for a search.

(C) System will automatically show search result in the result screen the screen bounding box in color Red is the target animal where the color yellow is the major object highlight.

Vaidio Search - The video detail to search result



The screenshot displays the Vaidio Manager interface with the following components:

- Search filters:** Start time 12:00 AM 2/24/2021, End time 12:39 PM 3/3/2021. Duration: 7 days 12 hours 39 minutes.
- Selected cameras:** Interlogix TVC1202 Window View 61.
- Search results:** A grid of 10 video thumbnails. The thumbnail for 2021-03-01 15:49:27 (723144) is highlighted with a blue border and a green circle labeled 'D'.
- Video screen:** A magnified view of the selected video, showing a street scene with a white van. A yellow callout bubble labeled 'Video screen' points to the magnified view. A green circle labeled 'E' is positioned at the bottom right of the magnified video.
- Details panel:** Shows the selected event: 2021-03-01 15:49:27 (723144). Camera name: Interlogix TVC1202 Window View 61. Start time: 3/1/2021 3:49:22 PM. End time: 3/1/2021 3:49:32 PM.

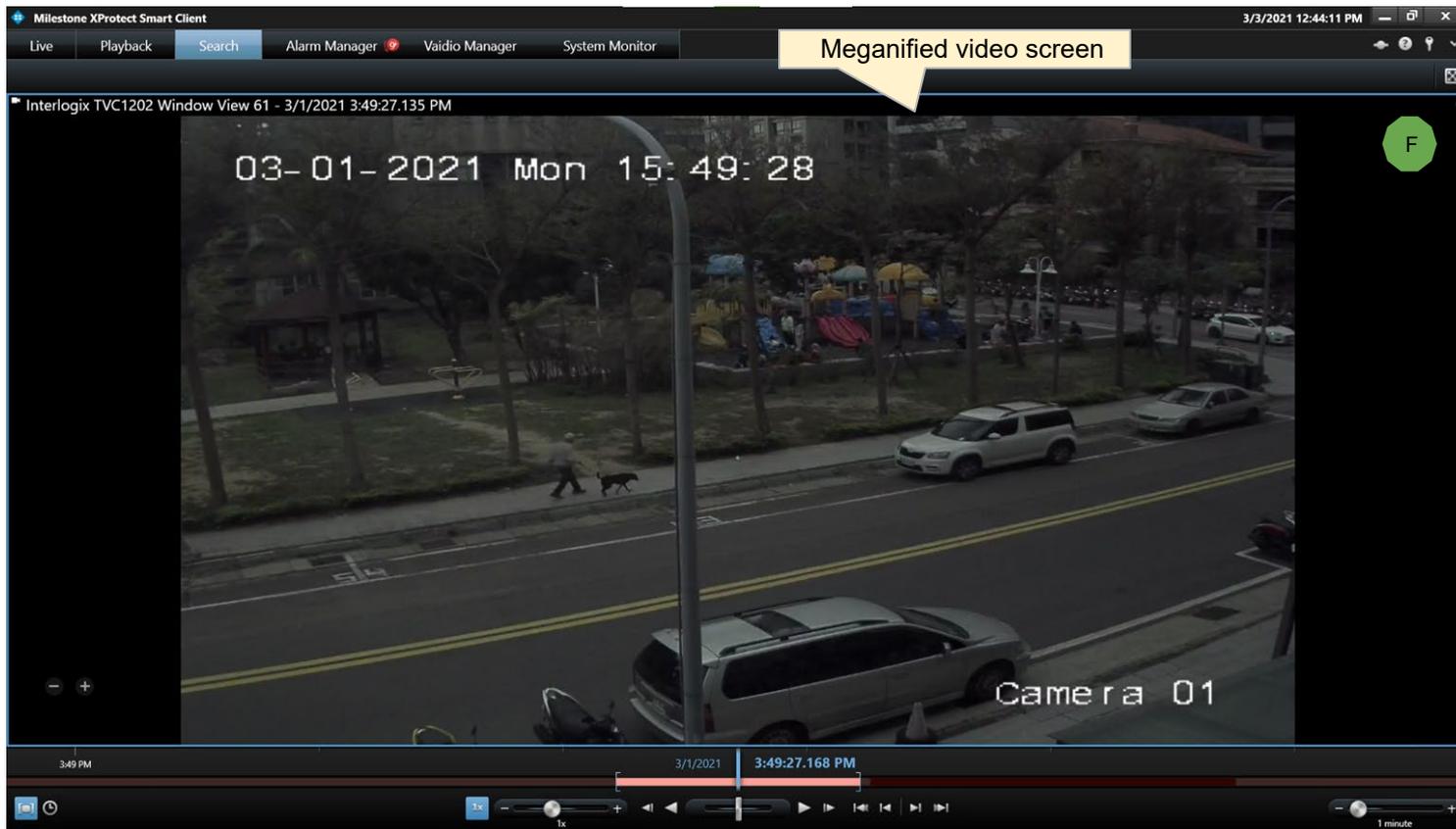
From step (4) of search options.

(D) Click the selected search result like to be magnified to watch

(E) The corresponding video footage will show up in the video screen.

(F) Click the video screen to see the magnified screen of the video at the time event detected. Double click on the magnified screen will recover back to a standard view.

Vaidio Search - The video search magnified



The screenshot displays the Milestone XProtect Smart Client interface. At the top, the title bar reads "Milestone XProtect Smart Client" and the system clock shows "3/3/2021 12:44:11 PM". Below the title bar is a navigation menu with tabs for "Live", "Playback", "Search", "Alarm Manager", "Vaidio Manager", and "System Monitor". A yellow callout box labeled "Meganified video screen" points to the main video area. The video area shows a street scene with a timestamp "03-01-2021 Mon 15:49:28" and "Camera 01" in the bottom right corner. A green circle with the letter "F" is overlaid on the right side of the video. At the bottom, a playback control bar shows the current time as "3:49:27.168 PM" and a "1 minute" duration.

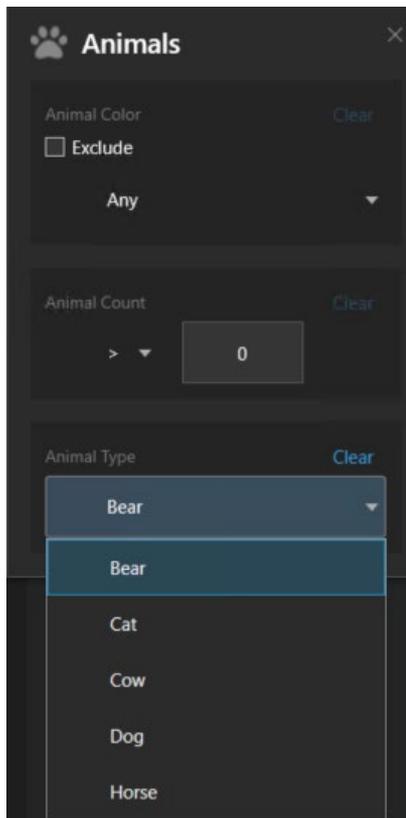
From step (4) of search options.

(D) Click the selected search result like to be magnified to watch

(E) The corresponding video footage will show up in the video screen.

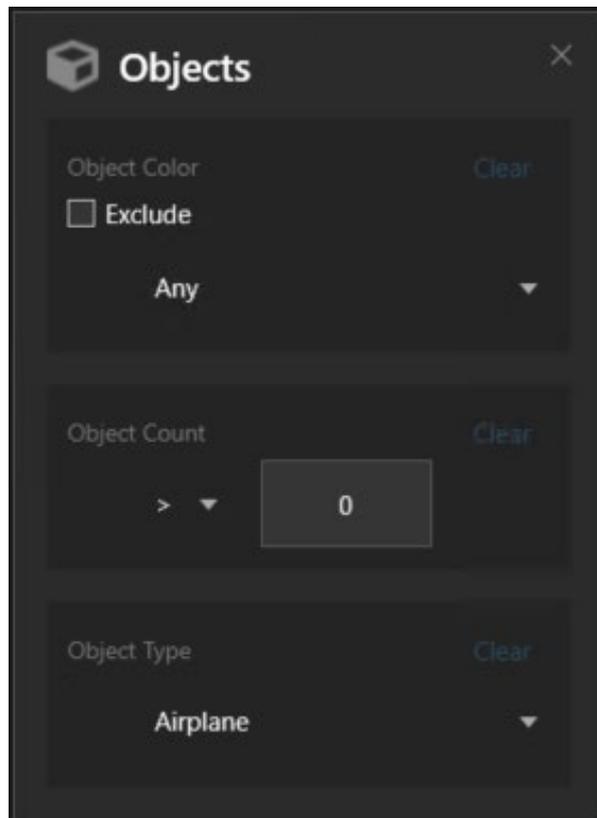
(F) Click the video screen to see the magnified screen of the video at the time event detected with video operations. Double click on the magnified screen will recover back to a standard view.

Video search - Animals & Objects



1. **Color:** Specify the color to the animal to be search with checkbox of **Exclude** option.
2. **Count :** Specify the quantify conditions to be search for animal.
3. **Type:** types of Vaidio recognizable animals to be detected.

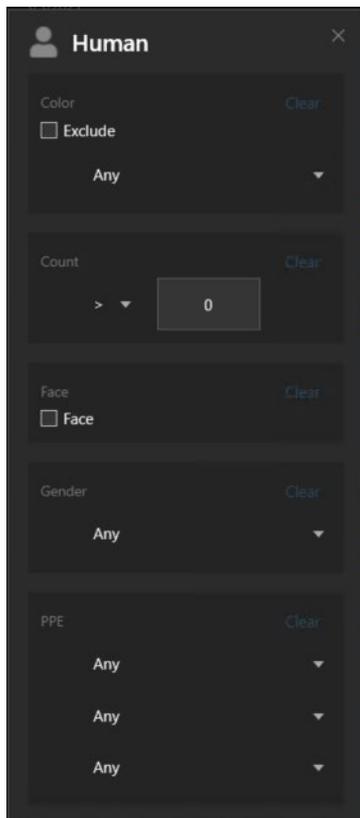
** Bear, Cat, Cow, Dog and Horse in default options. More types please contact IronYun/Aicuda sales.



1. **Color:** Specify the color to the objects to be search with checkbox of **Exclude** option.
2. **Count :** Specify the quantify conditions to be search for objects.
3. **Type:** types of Vaidio recognizable objects to be detect.

**It is default 22 listed objects for detection. More object types please contact IronYun/Aicuda sales.

Video search - Human & Vehicles



Human [Close]

Color [Clear]

Exclude

Any [Dropdown]

Count [Clear]

> [Dropdown] [0]

Face [Clear]

Face

Gender [Clear]

Any [Dropdown]

PPE [Clear]

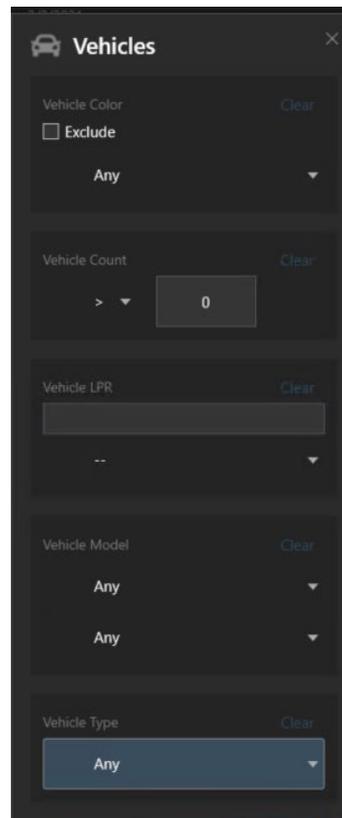
Any [Dropdown]

Any [Dropdown]

Any [Dropdown]

1. **Color:** Specify the wear color to the people to be search .
2. **Count :** Specify the quantify conditions to be search for people.
3. **Face** Search the people with face. Where the face need to be at least 40 pixels in width & length.
4. **Gender:** for male/female search condition.
5. **PPE** Personal Protection Equipment to search with wearing or no wearing

** To do face recognition is not supported in plugin yet. Please contact Aicuda/IronYun sales for supports.



Vehicles [Close]

Vehicle Color [Clear]

Exclude

Any [Dropdown]

Vehicle Count [Clear]

> [Dropdown] [0]

Vehicle LPR [Clear]

-- [Dropdown]

Vehicle Model [Clear]

Any [Dropdown]

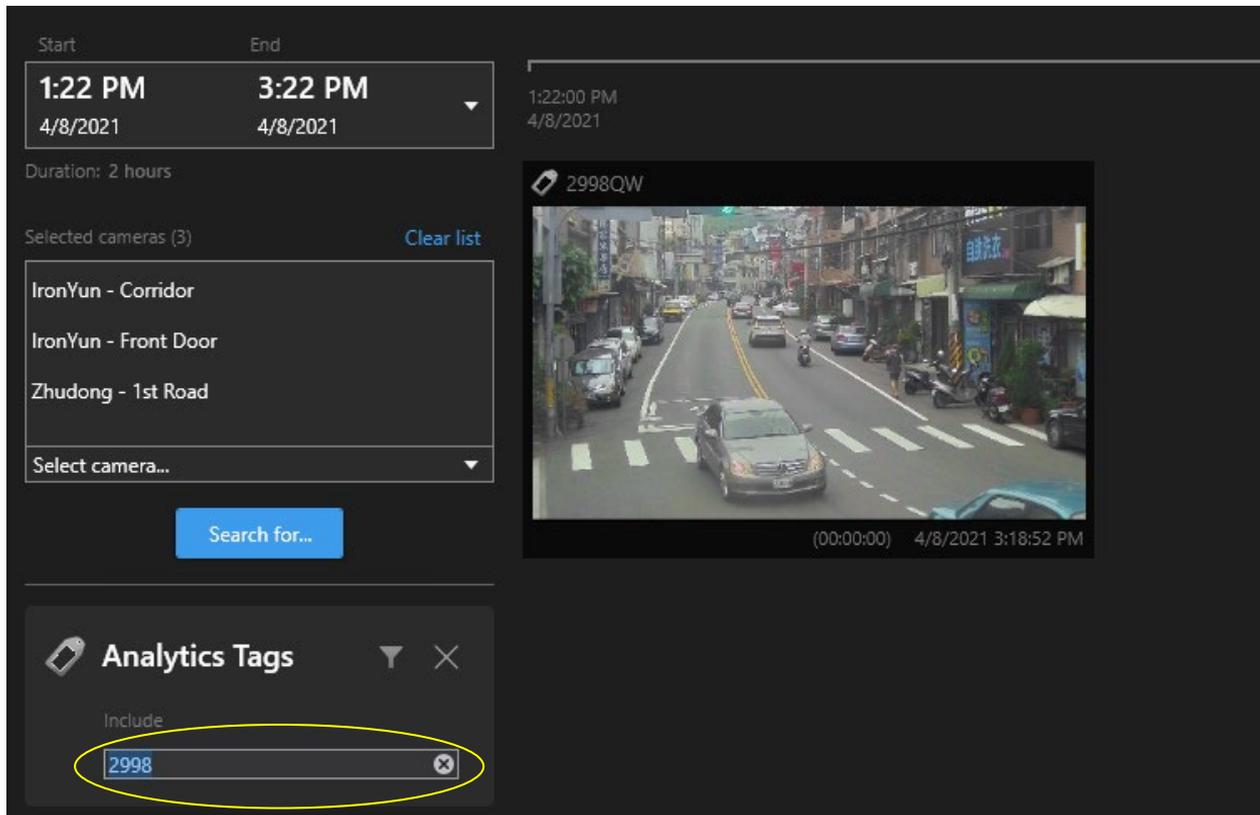
Any [Dropdown]

Vehicle Type [Clear]

Any [Dropdown]

1. **Color:** Specify the wear color to the vehicle to be search .
2. **Count :** Specify the quantify conditions to be search for vehicle.
3. **Vehicle LPR** Search with the specified LPR # or from a pre-created list (**created via Vaidio GUI)
4. **Vehicle Model** Specify the make and model to search.
5. **Vehicle type** Choose specific type of vehicle to search.

Video search - Analytic Tag



The screenshot shows a video search interface with the following components:

- Time Range:** Start at 1:22 PM on 4/8/2021, End at 3:22 PM on 4/8/2021. Duration: 2 hours.
- Selected cameras (3):** IronYun - Corridor, IronYun - Front Door, Zhudong - 1st Road.
- Search for...** button.
- Analytics Tags:** A section with a filter icon and a close icon. Under "Include", the tag "2998" is entered and highlighted with a yellow oval.
- Video Preview:** A street view video with a license plate "2998QW" highlighted. The timestamp is (00:00:00) 4/8/2021 3:18:52 PM.

Include :Specify the keyword of the analytic tags to be search that sent along with Vaidio tag either in placeholder or in plaintext.

This example shows the LPR number 2998 search from Vaidio.

Where the number comes in the placeholder of {LicensePlate} as example below

Alert Deliver to Milestone Alarm examples:

<http://192.168.0.47:2234/v1/alerts/AicudaDetectionToyota?cn={cameraName}&t={eventTimeStamp}&tag={LicensePlate}>

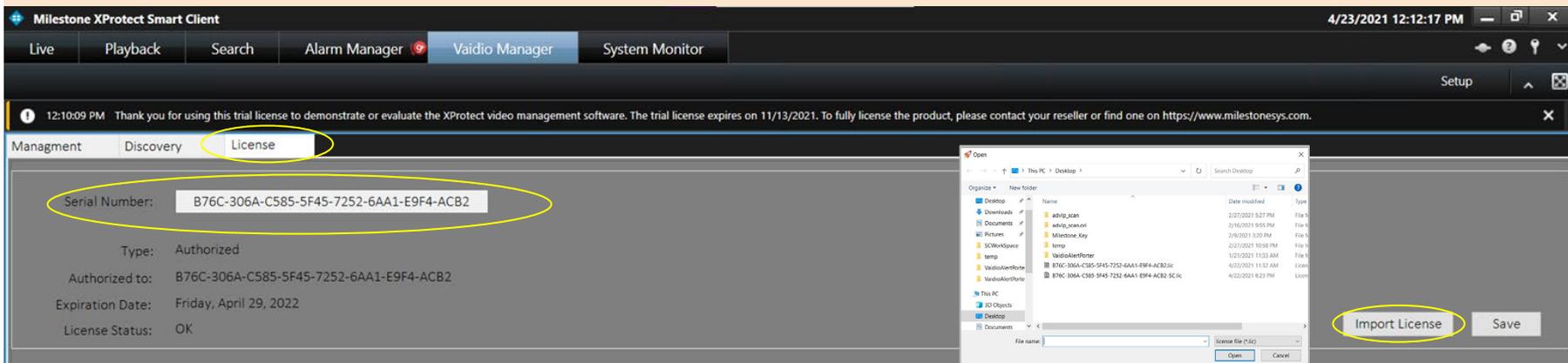
Alert Porter - License

Three level of license

- **Free / Limited:** limited function after installed no expiration. **Only 5 results in human search can be delivered.**
- **Trial:** limited time with full function after customer applied to sales. The purpose for trial license is for customer evaluate before go full function. Normally a 30 days starting from sending trial license. There is no function limited.
- **Paid:** full function, unlimited time.

License Status OK / Expired / Not Match / InValid / Not Match Product (Plugin Product mismatch)

** User choose the license tab to open the license dialog from “import license” button, copy the content of serial number and back for Aicuda sales for license file to apply. User use the same dialog windows to open the license file and apply after the license received.



The screenshot shows the Milestone XProtect Smart Client interface. The top navigation bar includes 'Live', 'Playback', 'Search', 'Alarm Manager', 'Vaidio Manager', and 'System Monitor'. A notification banner at the top states: "12:10:09 PM Thank you for using this trial license to demonstrate or evaluate the XProtect video management software. The trial license expires on 11/13/2021. To fully license the product, please contact your reseller or find one on <https://www.milestone.com>." The 'License' tab is selected in the 'Management' section. The license details are as follows:

Serial Number:	B76C-306A-C585-5F45-7252-6AA1-E9F4-ACB2
Type:	Authorized
Authorized to:	B76C-306A-C585-5F45-7252-6AA1-E9F4-ACB2
Expiration Date:	Friday, April 29, 2022
License Status:	OK

An 'Open' file dialog is open, showing the Desktop folder with files like 'adrijp.joan', 'adrijp.pasquet', 'Milestone.Key', 'temp', 'VaidioAlertPorter', and 'VaidioAlertPorter'. The file 'B76C-306A-C585-5F45-7252-6AA1-E9F4-ACB2.Lic' is selected. The 'Import License' button is highlighted in the bottom right corner of the license dialog.