Contents
1. Introduction .................................................................................................................. 3
2. Abbreviations ............................................................................................................... 3
3. Version Information .................................................................................................... 3
   3.1. Integration Component Version ............................................................................ 3
   3.2. Security Expert Version ...................................................................................... 3
4. System Overview ......................................................................................................... 3
Figure 1: System Overview ............................................................................................. 4
5. Installation .................................................................................................................... 4
   5.1. Prerequisites .......................................................................................................... 4
   5.2. Installation Steps ................................................................................................... 5
      5.2.1. Step 1 – Start installation ............................................................................... 5
      5.2.2. Step 2 – Install Complete .............................................................................. 8
6. System Operations ....................................................................................................... 8
   6.1. System Start up ...................................................................................................... 8
      6.1.1. Check Integration service is running .............................................................. 8
      6.1.2. Log-in to Security Expert Client .................................................................... 9
      6.1.3. Setup Security Expert DVR Configuration ..................................................... 9
      6.1.4. Camera Setup .................................................................................................. 11
      6.1.5. Setup the Status Page Editor ......................................................................... 13
      6.1.6. Status Page View ............................................................................................ 15
      6.1.7. Setup Doors ...................................................................................................... 17
      6.1.8. View the Events in Status Page View .............................................................. 18
      6.1.9. Event Injection from Security Expert to VideoXpert ...................................... 19
      6.1.10. Event Injection from VideoXpert to Security Expert .................................... 25
7. Issues and Limitations ............................................................................................... 29
8. Troubleshooting Steps ............................................................................................... 29
9. References .................................................................................................................. 29
10. Support ..................................................................................................................... 30
1. Introduction
This document is the user guide for VideoXpert Integration with Lenel OnGuard 7.4. The objective of this document is to provide information about the system usage, functions, configurations and known issues.

2. Abbreviations

<table>
<thead>
<tr>
<th>#</th>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VMS</td>
<td>Video Management System</td>
</tr>
<tr>
<td>2</td>
<td>VX</td>
<td>VideoXpert</td>
</tr>
<tr>
<td>3</td>
<td>VxSDK</td>
<td>VideoXpert Software Development Kit</td>
</tr>
<tr>
<td>4</td>
<td>PTZ</td>
<td>Pan Tilt Zoom</td>
</tr>
</tbody>
</table>

Table 1: Abbreviations

3. Version Information

3.1. Integration Component Version

<table>
<thead>
<tr>
<th>#</th>
<th>Component Name</th>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SecurityExpertVideoIntegrationInstaller...</td>
<td>3.x</td>
<td>Security Expert integration driver</td>
</tr>
</tbody>
</table>

Table 2: Integration Component Version

3.2. Security Expert Version

<table>
<thead>
<tr>
<th>#</th>
<th>Component Name</th>
<th>Version</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Security Expert</td>
<td>4.2.216.4</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: OnGuard Version

4. System Overview

VideoXpert to Security Expert Integration enables the interaction between Security Expert and VideoXpert systems. This VideoXpert integration brings in opportunity to end users by extending Security Expert software’s Security surveillance capabilities using VideoXpert functionalities such as live and recorded streaming, PTZ. VideoXpert provides live streams from various IP cameras that are placed at various places in the building. This VideoXpert integration helps the end users to manage their complete building security using Security Expert.
5. Installation

5.1. Prerequisites

Following are the prerequisites which need to be installed before installing the Security Expert Video Integration Installer.

1. Security Expert v4.2.216.4 or higher
   Security Expert software should be installed and licensed for the proper functioning of the integration.
2. Security Expert SOAP Service v1.2.0.17 or higher

**Note:**
The Security Expert SOAP Service must communicate with the Security Expert server machine. Install the Security Expert SOAP Service in the Security Expert server or make sure the name of the server is given in the while configuring the service.
5.2. Installation Steps

5.2.1. Step 1 – Start installation

Right click on the SecurityExpertVideoIntegrationInstaller-2.1.0.0.exe file and “Run as administrator” to start the installation. Installation wizard starts with the following window.

![Security Expert SOAP Service - InstallShield Wizard](image-url)

Security Expert SOAP Service configuration

---

Security Expert Data Server installed PC name:
[localhost]

Data Server Port:
8000

Report Server Port:
8010

Port to run SOAP Service in IIS:
8030

Port to run SOAP Service in IIS (Https):
8040

InstallShield
On clicking the Exit Installer button a message box shown to confirm the exit
On clicking Begin Installation button, the Configure Service Port window will be shown. Configure the details of the
- IP Address of the Security Expert SOAP Service host
- User name of the Security Expert server
- Password of the Security Expert Server
- Service port

By default the service port will be ‘60001’ and user can change the port if required. Set this service port number in DVR configuration window in Security Expert.

![Configuration Window](image)

*Figure 4: Begin Installation*

On clicking Install button, the installation process starts and the following window will be shown.
5.2.2. Step 2 – Install Complete
Click Close button to finish the installation.

6. System Operations
Before installing “SecurityExpertVideoIntegrationInstaller-2.1.0.0.exe” make sure all the prerequisites are installed.

6.1. System Start up
After the complete installation, add the VideoXpert in Security Expert and get camera list, live streaming, archive streaming and PTZ operations by the following steps.

6.1.1. Check Integration service is running
1. Open the Services snap-in: Go to “Run” command, Type services.msc and press Enter
2. Scroll down and locate Pelco Video Service Integration service from Services
3. Ensure that “Pelco Video Service Integration” has started automatically. If they haven't, right click the service and select Start.
6.1.2. Log-in to Security Expert Client

Log-in to security expert with user credentials

6.1.3. Setup Security Expert DVR Configuration

1. DVR should be configured first, for that please select the menu **MONITORING->SETUP->DVR**
2. Click on ADD and provide the DVR details.
3. Select DVR type as **custom** and provide the below details
   1. IP Address: IP Address of VX System
   2. DVR Port: Port number of VX System
   4. Username: user name of VX System
   5. Password: password of VX System

4. Click on **SAVE** after providing the DVR details.

### 6.1.4. Camera Setup

1. For configure the camera, please select the menu **MONITORING->SETUP->CAMERA**

![Figure 6: Camera configuration Menu](image)

2. Click on **ADD** and provide camera details.
3. Select Type as **DVR** and choose the DVR given in the previous step from the drop down menu.
4. Then click on the button corresponding to DVR Camera Name to populate the camera list in the DVR.
5. Select Camera from the list and click on **SAVE**.

**6.1.5. Setup the Status Page Editor**

Configure the status page in this section to display camera and event windows.

1. For configuring this view, select the Menu **MONITORING->SETUP->STATUS PAGE EDITOR**
2. Click on **ADD** and then enter the Name for status page and choose the status page layout.

3. Then click on **OK**.

4. Then choose the Record, Columns and Rows according to the Type and then **SAVE**.
   
   Example: For setting camera stream in First row First column of Status Page view, we have set Type as Camera, choose camera in Record, set column as 1, and set Rows as 1.
6.1.6. Status Page View

This will show the Camera Live stream and the event windows which configured in the previous step.

1. For viewing this view, select the Menu **MONITORING->STATUS PAGE VIEW**
2. PTZ Controls

The small arrow at the top right of the camera stream window shows the PTZ controls. User can do Pan, Tilt and Zoom operations by clicking on the PTZ control buttons.
6.1.7. Setup Doors

1. For setting up Doors in Security Expert, select **PROGRAMMING->DOORS**
2. Click on **ADD** and provide Door details
3. Select a camera containing recordings as the Camera (Entry) or Camera (Exit) in the graphics tab.

### 6.1.8. View the Events in Status Page View

1. For viewing the Events, please select **MONITORING->STATUS PAGE VIEW**

The above step (mentioned in 5.1.8) will add an event in the event window in status page with a yellow camera icon.

![Status Page View - Events list](image)

*Figure 15: Status Page View - Events list*

2. Right click on the event and select **Camera (Archived)**. This will show the archive window corresponding to the time of the event log.
3. Modify the date and time in **Archive View Controls** and click on **Archive View** button for showing the Archive streaming
Figure 16: Status Page View- Camera archive

The archive window shows three stream windows
1. 5 seconds looping window
2. 30 seconds image slider window
3. Live View.

6.1.9. Event Injection from Security Expert to VideoXpert

1. Make sure that Security Expert SOAP Service is installed in Server. By default the Security Expert SOAP Service port will be ‘8030’. If Security Expert SOAP Service port is changed during SOAP service installation, the port should be updated in client endpoint address of the ‘C:\Program Files (x86)\Pelco\Security Expert Integration\PelcoVideoComponent.exe.config’ config file.
2. Open C:\Program Files (x86)\Pelco\Security Expert Integration\ExternalEvents.xml file.

Then Add external events with name and event id as mentioned in ‘Security Expert Events List.xlsx’ document to the ExternalEvents file.

3. Open Event Mapper short cut from Desk Top(In Security Expert Server Machine)

1. Click on Connect button to connect with VideoXpert and create situations.
2. Click on Properties button and change the Situation properties if any
3. Then Save

4. Restart the “Pelco Video Service Integration” service in Services List
5. Make sure to check ‘Monitor Events from this DVR/NVR’ during configuring DVR to subscribe to events.

7. Open **Door Programming** and modify the **Door**
8. Open **Status Page View** and see the door modified event
9. Open VideoXpert Admin portal and see the events from Security Expert
Note: Restart Pelco Video Service Integration first and then Restart Security Expert DVR Service B in server if you make any changes to DVR List. VideoXpert Integration – Security Expert 19 User Guide

6.1.10. Event Injection from VideoXpert to Security Expert
1. Make sure that Security Expert v4.2.204.2 or higher is installed in server and client machine.
2. Make sure that SecurityExpertVideoIntegrationInstaller is installed in server machine.
3. Make sure to check ‘Monitor Events from this DVR/NVR’ during configuring DVR to subscribe to events.

![Figure 25: Setting for Monitor Events from this DVR/NVR](image)

4. Restart Pelco Video Service Integration in services.msc
6. Events logged from VideoXpert can be viewed in client. Security Expert Event types and VideoXpert situations are listed in the below table.

<table>
<thead>
<tr>
<th>Security Expert Event</th>
<th>Vx Situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Event</td>
<td>system/data_source_online</td>
</tr>
<tr>
<td></td>
<td>system/device_online</td>
</tr>
<tr>
<td>Offline Event</td>
<td>system/data_source_offline</td>
</tr>
<tr>
<td></td>
<td>system/device_offline</td>
</tr>
<tr>
<td>Motion Detected Event</td>
<td>analytic/motion</td>
</tr>
<tr>
<td>Motion Ceased Event</td>
<td>analytic/no_motion</td>
</tr>
<tr>
<td>Camera Input Activated</td>
<td>system/alarm_active</td>
</tr>
<tr>
<td>Temperature Event</td>
<td>hardware/temperature</td>
</tr>
<tr>
<td>Storage Event</td>
<td>hardware/volume_full</td>
</tr>
<tr>
<td>Diagnostic Event</td>
<td>system/stream_loss</td>
</tr>
<tr>
<td></td>
<td>system/stream_restored</td>
</tr>
<tr>
<td>Physical Offline Event</td>
<td>hardware/input_loss</td>
</tr>
<tr>
<td>Physical Online Event</td>
<td>hardware/input_restored</td>
</tr>
<tr>
<td>Property Changed Event</td>
<td>admin/device_modified</td>
</tr>
<tr>
<td></td>
<td>admin/device_decommissioned</td>
</tr>
<tr>
<td></td>
<td>admin/device_commissioned</td>
</tr>
<tr>
<td></td>
<td>admin/device_assigned</td>
</tr>
<tr>
<td></td>
<td>admin/device_unassigned</td>
</tr>
</tbody>
</table>

| Video Analytics Event          | All analytic events except motion and no motion |
Note: Restart Pelco Video Service Integration first and then Restart Security Expert DVR Service
B in server if you make any changes to DVR List.
7. Issues and Limitations

- Unable to test the PTZ Command string functionality as it triggers from an event. For testing events, it needs a simulator software.
- On Camera live window of Security Expert Software, PTZ controls are displayed as enabled for non PTZ cameras also.
- Unable to test the events like Temperature, Storage, Diagnostic, Physical Offline, Physical Online from VideoXpert to Security Expert as not possible to simulate those events.
- Unable to test in multi core or multi CMG setup due to network limitations.
- Randomly occurs crash on security expert server due to some memory issue in security expert machine.

Fails to install the Security expert Video Integration plugin in Windows Server 2012 R2 Standard version in some case. Fundamental reason for this issue is the fact that the .Net Framework 4.6.1 is failed to install in some installations of Windows Server 2012. The root cause of which is related to a Windows Update. The blocking error message is as below.

“The update corresponding to KB2919355 needs to be installed before you can install this product on Windows 8.1 or Windows Server 2012 R2.”

This issue happens with some Windows Server 2012 deployments only. The workaround identified for this issue is to manually deploy Windows Update.

The following windows patch files: KB2919355 & KB2919442 are installed as prerequisite. After that installation of Microsoft .net framework 4.6.1 is successful and Security expert Video Integration plugin is installed successfully.

- Fails to stream the live video automatically after changing the video configuration of camera. In this case, we need to manually refresh the Status Page view for the stream update.
- Run-time error occurs in Security Expert on longevity testing in Security Expert server. It is due to some memory issue and manually refreshing is the only solution for stream update.

8. Troubleshooting Steps

If any crash is occurring in the PelcoVideoComponent.exe, Restart Pelco Video Service Integration first and then Restart Security Expert DVR Service B for running the application smoothly.

9. References

<table>
<thead>
<tr>
<th>#</th>
<th>Documents/Inputs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discussions</td>
<td>Technical and requirement analysis discussion between internal and external stakeholders</td>
</tr>
<tr>
<td>2</td>
<td>AN-187_Pelco_DVR_Integration.pdf.pdf</td>
<td>Pelco DVR Integration manual</td>
</tr>
<tr>
<td>3</td>
<td>VideoXpert integration experience</td>
<td>Learnings from the development and testing of VideoXpert integration modules.</td>
</tr>
<tr>
<td>4</td>
<td>EcoStruxure Security Expert brochure.pdf</td>
<td>Security Expert brochure for understanding about it</td>
</tr>
<tr>
<td>7</td>
<td>GXVideoServerSDK for DVR.pdf</td>
<td>Reference Manual of ProtegeGX Video Server SDK Video Server</td>
</tr>
</tbody>
</table>
10. Support
If the instructions provided fail to solve your problem, contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international) for assistance.