

Lenel OnGuard Access Control Module (ACM) Integration User Manual v1.0



Target Audience for this Document

This document is aimed at system users and describes the integration between Lenel OnGuard and Milestone. Basic knowledge of the Milestone XProtect surveillance software is required. High knowledge of the Lenel system usage is required.

Contents

TARGET AUDIENCE FOR THIS DOCUMENT	2
CONTENTS	3
COPYRIGHT, TRADEMARKS & DISCLAIMERS	5
REVISIONS	6
SCALABILITY TESTING	7
NUMBERS OF DEVICES PHYSICAL HARDWARE	7 7
GENERAL DESCRIPTION	8
INTRODUCTION Solution overview	8 8
PREREQUISITES	9
Configure Lenel OnGuard for Single Sign-On Configure Lenel OnGuard to Generate Software Events Configure SQL Server for Connections	10 13 13
INSTALLATION	15
ACM Server ACM Server: Lenel-OnGuard Plugin ACM Server: XProtect ACM MIP Plugin	15 17 21
CONFIGURATION	24
ACM Server: Configure to RunAs Lenel Single-Signon Account ACM Server: XProtect ACM MIP Plugin Milestone Management Client Configuration	24 26 31
OPERATIONS	36
Searching for cardholders Defining Alarms based on Lenel events	36 36

Defining Rules based on Lenel events		
SMART CLIENT MAPS	42	
Access Monitor Tiles	43	
TROUBLESHOOTING GUIDE	45	
LENEL ONGUARD LOSES COMMUNICATION WITH THE ACCESS CONTROL HARDWARE	45	
FAILURE OF THE ACM PLUGIN TO COMMUNICATE WITH WINDOWS MANAGEMENT INTERFACE (WMI)	45	
MILESTONE EVENT SERVER MIP PLUGIN CANNOT COMMUNICATE TO THE ACM SERVER	45	
DEBUG LOG SHOWS SQLACCESS.CONNECT() FAILED.	45	
NOT SEEING HARDWARE OR EVENTS FROM A SEGMENT	46	
Logging	46	
GATHERING THE LOGS	46	
CHANGING LOGGING LEVEL	46	
KNOWN ISSUES	48	

Copyright, Trademarks & Disclaimers

Copyright

© 2017 Milestone Systems A/S.

Trademarks

XProtect is a registered trademark of Milestone Systems A/S.

Microsoft and Windows are registered trademarks of Microsoft Corporation.

All other trademarks mentioned in this document are trademarks of their respective owners.

Disclaimer

This document is intended for general information purposes only, and due care has been taken in its preparation.

Any risk arising from the use of this information rests with the recipient, and nothing herein should be construed as constituting any kind of warranty.

Milestone Systems A/S reserve the right to make adjustments without prior notification.

All names of people and organizations used in this document's examples are fictitious. Any resemblance to any actual organization or person, living or dead, is purely coincidental and unintended.

This product may make use of third party software for which specific terms and conditions may apply. When that is the case, you can find more information in the file *3rd_party_software_terms_and_conditions.txt* located in your Milestone surveillance system installation folder.

Revisions

Date	Version	What was changed	Author
05/11/2016	1.0	Original version	Doug Beyer
04/07/2017	1.0	Added OnGuard versions certified against and updated scability numbers.	Doug Beyer

Scalability Testing

The Lenel ACM integration has been tested against the following. Any customer exceeding the number of devices or using different hardware should contact Milestone to coordinate any additional testing or code changes.

Numbers of devices

Type of Device	Count
Door	1029
Reader	1029
Panel	1900
Alarm Panel	38
Card Holders	10000

Physical hardware

Any other hardware has not been tested:

- LNL-500 Intelligent System Controller
- LNL-2220 Intelligent Dual Reader Controller
- LNL-1320 Dual Reader Interface Module
- LNL-1300 Single Reader Interface Module
- LNL-1100 Input Control Module
- LNL-1200 Output Control Module

General description

Introduction

This document describes specifics to the Access Control Module (ACM) integration between Milestone XProtect and the Lenel OnGuard access control (AC) system.

This integration supports the following standard ACM features:

- Retrieve configuration from the Lenel AC system, e.g. doors and event types
- · Receive AC event streams and state changes from the Lenel system
- Get/Search cardholder information with picture association (if available through the HR API)
- Add images to cardholders if not available through Lenel
- Create alarms in alarm manager based on AC events these alarms will be managed only in the XProtect platform. This
 means that if an alarm is acknowledged in the Milestone Video Management System (VMS), the alarm will still remain
 open on the Lenel system
- Association of access events to cameras for simultaneous display of events and live video
- Select and categorize the events the user wants to view from the Lenel system
- Trigger rules or actions based on access events e.g. start recording, go to PTZ preset, display access request, send camera to matrix and system actions such as activate output or trigger manual event. With XProtect Corporate and Expert this functionality is extended to full use of the event as a triggering mechanism for the rules system.

Solution overview

The solution provided is split in 3 components:

- The ACM Server MIP Plugin that runs in the XProtect Event Server
- The ACM Server that runs on the Lenel server
- The Lenel-OnGuard ACM Server plugin that runs on the Lenel server as well



Prerequisites

• General

- .NET Framework 4.5 must be installed on the Lenel server machine (dotnetfx45_full_x86_x64.exe)
- All servers (i.e. the Lenel and Milestone machines) must be time-synchronized to within a couple of minutes of one another.
- The customer must have a Milestone license with Access Control enabled and the proper number of doors and cameras allocated.
- The Lenel AC System
 - The supported Lenel versions are 7.0 service pack 2, 7.1 update 1, and 7.2 update 1, 7.3.345 (or later).
 - o SQL Server is properly configured. See <u>Configure SQL Server for Connections</u> for suggestions.
 - Lenel is properly configured for its hardware and successfully communicates with its hardware.
 - Lenel is configured for single sign-on (see below for details).
 - Lenel is configured to generate software events (see below for details).
 - The following Windows services are running on the Lenel machine:
 - LS Communication Server required for the hardware to communicate with the Lenel OnGuard AC system
 - LS DataCondulT Service required for our integration to use the Lenel DataConduit API
 - LS Linkage Server required for event handling.
- The Milestone ACM Server

0

- Must be run in the context of a Windows admin user that is linked to a Lenel Directory that is marked as single sign-on. See <u>below</u> below for details.
- XProtect Management and Smart Client Applications
 - The machine running the Milestone Event Server must have network name resolution such that it can resolve the computer name of the Lenel Server machine (e.g. DNS, manual host file entry, etc). The Lenel machine must also be able to resolve the Milestone machine.
 - The user that runs the Milestone Management Client application needs to be configured as an administrator within Milestone.
 - The user that runs the Milestone Management Client and Smart Client applications needs to be configured to use the default smart client and management profiles.
 - In the Milestone Management Client, the user should be a member of the Administrator's Role
 - The Smart Client user's profile should include **Access Control Show access request notifications = Yes** (default setting) and any other rights that affect what the user can see/access in Smart Client

The default Smart Client profile does have these rights as shown below:

\$	Mi	lestone XProtect Management Client 2016	_ D X
File Edit View Action Tools Help			
🖩 🍤 😧 🗢 🛱			
Site Navigation	Properties 09		9
🖃 🎲 WIN-7F1AKEGTGKC - (10.0 🔒	🖃 🛃 Smart Client Profiles (sorted by p	Smart Client profile settings - Access Control	
Basics	😔 Default Smart Client Profile	Title	Setting Locked
Eicense Information		Show access request notifications	Yes 🗸 🗌
Site Information			
Remote Connect Service			
🖳 🔜 Axis One-click Camer 😑			
Recording Servers			
Failover Servers			
E 💎 Devices			
So Cameras			
- A Microphones			
💮 🔮 Speakers			
🖤 Metadata			
o Input			
Client			
Smart Wall			
View Groups			
👷 Smart Client Profiles			
Management Client P			
Matrix			
Rules and Events			
Site Navigation Federated Site Hier	< III >	🔟 Info 🚰 General 🧏 Advanced 🖘 Live 🗞 Playback 🍻 Setup 🕙 Export 🚈	Timeline Access Control

Configure Lenel OnGuard for Single Sign-On

- 1. Using the Lenel System Administration app:
 - a. Click Administration + Directories
 - i. Add a "Windows Local Accounts" directory.
 - 1. Use the machine name for the Hostname field.
 - 2. Ensure that "Enable single sign-on" is checked.
 - 3. On the Authentication tab, select "Current Windows Account".
 - ii. Note that if you're creating a Directory of a type other than "Windows Local Accounts" (e.g. LDAP, Active Directory, NT 4 Domain), then ensure that the user is both a member of the Domain Administrators group and the Local Adminstrators group on the Lenel OnGuard server.

100	System Administration - dbe dbe - [Directories]	_ 🗆 X
Application Edit View Administration Access	s <u>Control Mo</u> nitoring Video A <u>d</u> ditional Hardware Logical Access <u>W</u> indow <u>H</u> elp	_ 8 ×
🕙 🔈 🖇 🖓 🔛 🧱 😽 🛋 🖻 🖼 🚱	5 33 173 🙈 😂 🗆 18 10 18 10 18 10 18 10 18 19 10 18 19 12 15 14 14 18 14 14 14 14 14 14 14 14 14 14 14 14 14	방 왕 생
System Tree	Directories	
 Tendet Tendet Tendet Tendet Tendet Tendet Tendet Auxiliary Input 1 Auxiliary Output 1 Auxiliary Output 2 Auxiliary Output 2 Tendet Tendet	Name Type NIT A Domain Directory Microsoft Wind; Windows Local Accounts Name: Windows Local Accounts Type: Windows Local Accounts Hostname: Windows Local Accounts Hostname: Windows Local Accounts Frowse V Enable single sign-on Prowse	Close
	🧏 Cardholders 🖫 Holidays / Timezones 🖶 Access Levels 🧏 Users 🛛 Directories 🚼 Areas	
Ready		CAP NUM SCRL #

- b. Click Administration + Users
 - i. Note that the integration will only discover hardware and get events from Lenel segments that the user is configured for. So if the integration should see all hardware and events, the single signon user must be configured to have access to all segments.
 - ii. Add a new user.
 - 1. General tab
 - a. Give the user some name.
 - i. Both first and last names are required but they can be same string if the last name isn't logically required.
 - ii. I believe the values of the first and last names are immaterial with respect to setting up single sign-on.
 - iii. The first and last names do not have to match an actual Windows user.
 - b. Be sure that "Access to this system is disabled" is NOT checked.
 - 2. Directory Accounts tab
 - a. Link the user to the directory you created above.

1	System Administration - Administ	rator Administrator - [Users]	_ _ ×
Application Edit View Administration Access Control	Monitoring Video Additional Hardware	Logical Access <u>W</u> indow <u>H</u> elp	_ @ ×
	▲ ▲ ▲ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔	♥ *D *_ ∞ ♠ <u>#</u> ₽ ** ■ ●	: ≝ 4 <u>1</u>
Users Search System Permission Groups Cardholder Permission Grou	ups Monitor Permission Groups Report Permission (Groups Field/Page Permission Groups	
Name System Administrator, Administrator System Admin Badge Operator, Badge Operator System Badge Operator Administrator System Admin Badge Operator, System Account, System Account, System Account, All Permissions) System Account, Syste	Cardholder Monitor Cardholder Admin Monitor Admin Cardholder Badge Operator Cardholder Admin Monitor Admin (All Permissions) (All Permissions)	Report Field/P <full access=""> View/E <full access=""> View/E (All Permissions) (All Per</full></full>	Area Access Manager Levels Monitor Zone Assignment Directory Accounts Internal Account User Name Directory Link Unlink
< III		>	
Hide users whose access to this system is disabled Hide users that have been automatically created			
OK Cancel Clear H	lelp	Add Mode	Close
Ready			CAP NUM SCRL .::

In the **Select Account** dialog, Select **Directory** from drop-down, click **Search**, select a Windows user (must be a member of the machine's local Administrators group) in **Accounts** then click **OK**.

Note that a single Lenel Directory can only be linked to one Windows user. If you attempt to create another Lenel user and try to link that same Lenel Directory to a different Windows user the dialog's Accounts list, it will fail.

	Select Account
Directory:	
Windows Local Accounts 1	~
Field: Condi	tion: Value:
Name 🗸 conta	ains 🗸
Accounts:	Search
Name 📩	User Name
🛃 Administrator	Administrator
🖸 🕵 dbe	dbe
🖸 🕵 Guest	Guest
🖸 🕵 Local System	LocalSystem
🔄 🛒 Milestone Technical Suppor	t User MTSUser 🖌
🐖 SomeUser	SomeUser
😨 Xtian Downs	Xtian
	OK Cancel

V1.0-05/11/2016

R	Syster	n Administration - dbe dl	be - [Users]		_ 🗆 X
Application Edit View Administration Access Compared by Compared	Control Monitoring Video Addit	ional Hardware 🛛 Logical Acces 🕰 🎼 🏹 🔚 🗊 🔳 🔌	s <u>W</u> indow <u>H</u> elp	2 🛃 🏘 👼 🌉 🏡 🛤 🎰 📖 🕶 🕇 🖬 💿 🦪 5	× 등 _ 말 문 생
 Hardware The Panel 1 Decader 1 Auxiliary Input 1 Auxiliary Output 1 Auxiliary Output 2 Auxiliary Output 2 Beader 2 Decader 3 Decader 4 100 board 1200 Default Area W12-XPCO-LAB Holidays Timezones Access Levels Access Groups Card Formats 	System Admin e Operator System Admin g System Admin m Account (All Permissions)	Cardholder Cardholder Admin Cardholder Badge Operator Cardholder Admin (All Permissions)	Monitor Monitor Admir Monitor Admir (All Permission	Area Access Manager Levels Monitor Zone A General Directory Accounts Internal Account Per Name User Name Directory Image: Internal Account Image: Image Accounts Image: Image Accounts Image: Image Accounts Ima	unlink
	to this system is disabled automatically created	Help	sers 6 Directorie	1 of 4 selected III	Cinse >
Ready					CAP NUM SCRL

- 3. Internal Account tab
 - a. We tested the integration using both vaild and invalid login credentials, and with the "User has internal account" checked and unchecked. None of these settings seem to impact or impair the functionality of the integration in any observable way.
 - b. The "User has internal account" checkbox defaults to being checked. It's sufficient to leave it checked.
 - c. Enter login credentials.
 - i. Login credentials are required by the UI. As stated above, it seems that either valid or invalid credentials are sufficient for our plugin to have access
 - to DataConduit.
- 4. Permission Group tab
 - a. Assign the following permission groups:
 - i. System = System Admin
 - ii. Cardholder = Cardholder Admin
 - iii. Monitor = Monitor Admin
 - iv. Reports = Full Access
 - v. Field/page = View/Edit All Fields

V1.0 - 05/11/2016

10	System	n Administration - dbe d	be - [Users]		
Application Edit View Administration Access	s <u>C</u> ontrol M <u>o</u> nitoring V <u>i</u> deo A <u>d</u> diti	ional Hardware Logical Acces	s <u>W</u> indow <u>H</u> elp	p	_ 8 ×
💘 d. 4 ? 🛛 🎊 😽 🖬 🖬 🖬 🥵 😃	l 🦓 👒 🙈 🚍 🖻 💁 🛞 📥 🕯	< 🔚 🏹 🔚 💷 🔊	🕲 📕 o 🔡 🚱 🕯	E 🖣 🌣 🚜 🧸 🎭 🎫 🔺 🛤 🗉	• 🕈 💷 🛞 🦪 🐯 🖶 🖓
System Tree	mission Groups Cardholder Permission	Groups Monitor Permission Group	e Paport Parmissi	on Groups Field/Page Permission Groups	
 System Tree ★ En Hardware ★ En Panel 1 ▲ III Reader 1 ★ Auxiliary Input 1 ★ Auxiliary Output 1 ★ Auxiliary Output 1 ★ Auxiliary Output 2 ▶ III Reader 2 ▶ III Reader 3 ▶ III Reader 4 ■ 1100 board ■ 1200 ₩ Default Area ▶ W 12-XPCO-LAB ▶ Holidays ▶ Timezones ▶ Access Levels ▲ Access Groups ▶ III Card Formats 	mission Groups Cardholder Permission System strator System Admin e Operator System Badge Operator System Admin m Account (All Permissions)	Groups Monitor Permission Group Cardholder Cardholder Admin Cardholder Badge Operator Cardholder Admin (All Permissions)	s Report Permissi Monitor Monitor Admir Monitor Admir (All Permission	on Groups Field/Page Permission Groups Area Access Manager Levels General Directory Accounts Int System: System: System Admin Cardholder: Cardholder Admin Monitor; Monitor Admin Reports: <full access=""> Field/page: View/Edit All Fields</full>	Monitor Zone Assignment ternal Account Permission Groups
	to this system is disabled				
	automatically created Delete C Cardholders Holidays / Times	Heln	sers 🔏 Directoria	1 of 4 selected III es Mareas	Cinse >
Ready					CAP NUM SCRL

- 2. Setting Milestone ACM Server start options
 - a. Open Windows Services (Start menu + type "services" (without the quotes) + Run As Administrator).
 - b. Locate the Milestone ACM Server service
 - i. Right-click and select Properties
 - ii. Go to Log On tab, select "This account", and enter the credentials of a Windows admin user that is linked to a Lenel Directory that is marked for single sign-on.
 - 1. See the Lenel System Administration application + Users + Directory Accounts tab above where you identified the Lenel Directory that was marked for single sign-on.

Configure Lenel OnGuard to Generate Software Events

- 1. Under Administration + System Options:
 - a. Check the DataConduit Service + Generate Software Events checkbox.
 - b. Set the Linkage Server Host to the Lenel server's machine name.
 - c. Set the Message Broker Service Host to the Lenel server's machine name.

Configure SQL Server for Connections

These instructions are not meant to replace the knowledge of a trained SQL Server administrator. They are here because we've seen SQL Server installations not configured this way and the Lenel integration was unable to connect to the database.

The following assumes that SQL Server is using its default ports.

- 1. Make sure that the SQL Server Browser service is started on the server.
 - a. Use the Windows Services UI to start the Browser service if it's not running.
- 2. Make sure that you have configured the firewall on the server instance of SQL Server to open ports for SQL Server and the SQL Server Browser port
 - a. In Windows Firewall
 - i. Enable incoming port UDP on port 1434
 - ii. Enable incoming port TCP on port 1433

- Use the SQL Server Surface Area Configuration tool to enable SQL Server to accept remote connections over the TCP or named pipes protocols

 a. In SQL Server Configuration Manager:
 i. Enable TCP/IP protocol for port 1433

Sql Server Configuration Manager	
File Action View Help	
 SQL Server Configuration Manager (Local) SQL Server Services SQL Server Network Configuration (32bit) SQL Server Network Configuration (32bit) SQL Server Network Configuration SQL Server Network Configuration Protocols for SQLEXPRESS Protocols for MSSQLSERVER SOL Native Client 11.0 Configuration 	Protocol Name Status Shared Memory Enabled Named Pipes Disabled TCP/IP Enabled TCP/IP Probled Protocol IP Addresses
	TCP Dynamic Ports 0 TCP Port 1 IPAII 1 TCP Dynamic Ports 0 TCP Port 1433

Installation

The installation package consists of three files which should be installed in the following order:

- 1) Install the pre-requisites on the Lenel server machine
 - a) .NET Framework 4.5
 - b) Milestone MIP SDK 2016
- 2) Milestone.ACMServer.msi: Installer for the ACM Servera) Must be installed on the Lenel server machine
- Milestone.ACMServer.LenelOnGuard.msi: Installer for the Lenel-OnGuard ACM Server plugin

 Must be installed on the Lenel server machine, after the ACMServer.
- 4) Milestone.ACMServer.MipPlugin.msi: Installer for the XProtect Event Server ACM MIP Plugin
 a) Must be installed on the XProtect Machine that hosts the Event Server Windows service
- 5) Configure the Milestone ACM Server service (see <u>below</u>).

ACM Server

Copy the "Milestone.ACMServer.msi" file to a temporary folder **on the Lenel server** and double-click to install, you should see a screen similar to the following:

🙀 Milestone ACM Server	Setup 💶 🔍
	e Welcome to the Milestone ACM Server Setup Wizard
	The Setup Wizard will install Milestone ACM Server on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
-	Back Next Cancel

Press next and you will now be able to select the installation path, it is recommended to use the default as displayed:

Milestone ACM Server Setup			
Destination Folder			mileston
Please select a destination folder:			The open platform compo
Install Milestone ACM Server to:			
C:\Program Files (x86)\Milestone ACM Serve	er\		
<u>C</u> hange			
	Back	Next	Cancel

Press next and you are now ready to install, if you are satisfied with the selected options, press install to continue:



Install progress...

Milestone ACM Server Setup	_
Installing Milestone ACM Server	
Please wait while the Setup Wizard installs Milestone ACM	Server.
Status:	
Back	Next Cancel

You have successfully installed the ACM Server:

🔂 Miles	tone ACM Server Setu	up 📕 📕 🗶
0	milestone The open platform company	Completed the Milestone ACM Server Setup Wizard
		Click the Finish button to exit the Setup Wizard.
		Back Einish Cancel

You can verify that the service installed successfully by looking in the Services control panel for a service named Milestone ACM Server.

Eile Action Viev	/ <u>H</u> elp <mark>2</mark>] ╦╗ ▶ ■ ▶					
Services (Local)	Name 🔺	Description	Status	Startup Type	Log On As	
	Microsoft .NET Framework NGEN v4.0.30319_X86 Microsoft Antimalware Service Microsoft Fibre Channel Platform Registration Service Microsoft ISCSI Initiator Service Microsoft Network Inspection Microsoft Software Shadow Coop Provider	Microsoft Helps prot Registers t Manages I Helps guar Manages 5	Started Started	Automatic (D Automatic Manual Manual Manual Manual	Local System Local System Local Service Local System Local Service Local System	-
	Milestone ACM Server	. In a second second	Started	Automatic	Local System	L
	Multimedia Class Scheduler Net. Msmq Listener Adapter Net. Pipe Listener Adapter Net. Tcp Listener Adapter	Enables rel Receives a Receives a Receives a		Manual Disabled Disabled Disabled	Local System Network S Local Service Local Service	

ACM Server: Lenel-OnGuard Plugin

Copy the "Milestone.ACMServer.LenelOnGuard.msi" file to a temporary folder and double-click to install, you should see a screen similar to the following:

😥 Milestone ACM Serv	er: LenelOnGuard Plugin Setup 🛛 🗕 🗖 🗙
milestone The open platform comprany	Welcome to the Milestone ACM Server: LenelOnGuard Plugin Setup Wizard
	The Setup Wizard will install Milestone ACM Server: LenelOnGuard Plugin on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	Back Next Cancel

The Lenel-OnGuard plugin automatically detects the presence of both the Lenel server and the pre-installed ACM Server. If either is missing it will refuse to install. There are no options to choose from, when you are ready press install.

ß	Milestone ACM Server: LenelOnGuard Plugin Setup
R	eady to install Milestone ACM Server: LenelOnGuard Plugin
	Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
	Back 😽 Install Cancel

Install progress...

🕼 Milestone A	CM Server: LenelO	OnGuard Plugin S	Setup 🕒	- 🗆 X
Installing Miles	stone ACM Server: L	enelOnGuard Plugi		apen platform compar
Please wait while th	ne Setup Wizard installs M	ilestone ACM Server: Le	nelOnGuard F	lugin.
Status: Upda	ting component registratio	n		
			_	
		Back	lext	Cancel

You have successfully installed the Milestone ACM Server Lenel-OnGuard Plugin

😥 Milestone ACM Serv	rer: LenelOnGuard Plugin Setup 🛛 🗕 🗖 🗙
The open platform company	Completed the Milestone ACM Server: LenelOnGuard Plugin Setup Wizard
	Click the Finish button to exit the Setup Wizard.
	<u>Back</u> <u>Einish</u> Cancel

You can verify that the Lenel-OnGuard Plugin is installed and loaded from the logs below:

V1.0-05/11/2016

File Home Share View Image: Service Host Image: VideoOS Image: Name Image: Service Host Image: Name Image: Service Host Image: Name Image: Name	📜 ⊋ 🗓 = 🛛 🔾	:\ProgramData\VideoOS\	ServiceHost\lo	ogs		۲
Search logs VideoOS Name Date modified ServiceHost AssemblyScanner-W12-ONGUARD-LAB.I 5/11/2016 Services VideoOS.ServiceHost-W12-ONGUARD-L 5/11/2016 Services VideoOS.ServiceHost-W12-ONGUARD-L 5/11/2016 Services VideoOS.ServiceHost-W12-ONGUARD-L	File Home Share View				\sim	0
VideoOS Name Date modified Size ServiceHost AssemblyScanner-W12-ONGUARD-LAB.I 5/11/2016 11:22 A 1 KB VideoOS.ServiceHost-W12-ONGUARD-L 5/11/2016 11:22 A 2 KB VideoOS.ServiceHost-W12-ONGUARD-L 5/11/2016 11:20 A 2 KB VideoOS.	📀 🍥 👻 🕇 🕕 C:\ProgramD	ata\VideoOS\ServiceHost\logs	~ Č	, Search logs	۶	>
ServiceHost ServiceHost AssemblyScanner-W12-ONGUARD-LAB.I 5/11/2016 11:22 A 1 KB Services VideoOS.ServiceHost-W12-ONGUARD-L 5/11/2016 11:22 A 2 KB 2 items 1 item selected 1.59 KB III	👢 VideoOS 🔷	Name		Date modified	Size	Ту
VideoOS ServiceHost-W12-ONGUARD-L 5/11/2016 11:22 A 2 KB	ServiceHost	AssemblyScanner-W12-O	NGUARD-LAB.I	5/11/2016 11:22 A	1 KB	Те
2 items 1 item selected 1.59 KB	↓ logs =	VideoOS.ServiceHost-W1	2-ONGUARD-L	5/11/2016 11:22 A	2 KB	Те
2 items 1 item selected 1.59 KB		<	III			>
VideoOS ServiceHost-W12-ONGLIARD-LAB.log - Notenad – 🗖 X	2 items 1 item selected 1.59 KB					
	VideoC	S.ServiceHost-W12-ONGU	JARD-LAB.log	- Notepad	_ D ×	۲
File Edit Format View Help 11:22:17 Services Manager Dependency Resolver: Looking for VideoOS.ACMServer, Version=1.0.0.0, Culture=neutral, PublicKeyToken=86812e601a776f67 11:22:17 Services Manager Dependency Resolver: Found C:\ProgramData\VideoOS \ServiceHost\Services\VideoOSACMServerService\VideoOS.ACMServer.dll that matches assembly name VideoOS.ACMServer 11:22:19						
11:22:19 VideoOS ACM Server Server Module v1.0 (c) 2013-2016 11:22:19 11:22:19 Server module address : http://localhost:8000/ACMServer 11:22:19 11:22:19 Found 1 ACM Server Plugins: 11:22:19 - Lenel OnGuard - 121cbe86-bf5b-4465-9900-4115334c83c1	=					

ACM Server: XProtect ACM MIP Plugin

Copy the "Milestone.ACMServer.MipPlugin.msi" file to a temporary folder on the server where the Xprotect Event Server is installed (in a typical deployment, this is the XProtect Management Server) and double-click to install. You should see a screen similar to the following:

🔂 Milestone ACM Server: MIF	P Plugin Setup
	Welcome to the Milestone ACM Server: MIP Plugin Setup Wizard
	The Setup Wizard will install Milestone ACM Server: MIP Plugin on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	Back Next Cancel

The installer will detect the presence of the XProtect Event Server on the machine and will refuse to install if it cannot be found. It is recommended to leave the default install path as displayed below and press next.

Destination Folder	milestor
Please select a destination folder:	The open plotform con
Install Milestone ACM Server: MIP Plugin to:	
C:\Program Files (x86)\Milestone ACM Server MIP Plugin\	4
Change	

If you are satisfied with the path selection and you are ready to install press "Install"

Milestone ACM Server: MIP Plugin Setup	
Ready to install Milestone ACM Server: MIP Plugin	milestone The open platform company
Click Install to begin the installation. Click Back to review or change installation settings. Click Cancel to exit the wizard.	any of your
Back [Install	Cancel

Installation progress...

lilestone ACM Server: MIP Plugin Setup	
Installing Milestone ACM Server: MIP Plugin	
Please wait while the Setup Wizard installs Milestone ACM Server: MIF	Plugin.
Status:	

You have successfully installed the ACM MIP Plugin for ACM Server



Configuration

ACM Server: Configure to RunAs Lenel Single-Signon Account

On the Lenel server machine, click the Windows Start menu and type "services". Right click Services and select "Run as administrator".



Right-click the Milestone ACM Server service and select Properties:

9		Services	5			_ □	x
File Action View	w Help						
🧼 🏓 🔲 🗐 🤕	🗟 🚺 🖬 🕨 🔳 🕪						
🤹 Services (Loca	Services (Local)						
	Milestone ACM Server	Name 🔺	Description	Status	Startup Type	Log On As	^
		LS Site Publication Ser	This service		Manual	Local Syst	
	Stop the service	🔍 LS Video Archive Serve	er The Video		Manual	Local Syst	
	Restart the service	Microsoft iSCSI Initiat Manages In			Manual	Local Syst	
		🔍 Microsoft Software Sh	Manages so		Manual	Local Syst	
		🍳 Microsoft Storage Sp	. Host service	Manual	Network S		
		🔍 Milestone ACM S	Chart	Punning	Automatic	.\dbe	
		🔍 Multimedia Class	Start		Manual	Local Syst	≡
		🔍 Net.Tcp Port Sha	Stop		Disabled	Local Servi	
		Setlogon 🔍	Pause		Manual	Local Syst	
		Setwork Access	Resume		Manual	Network S	
		Setwork Connect	Restart		Manual	Local Syst	
		Setwork Connect	All Tasks	•	Manual (Trig	Local Syst	
		Serv 🔍 Network List Serv	Refresh	inning	Manual	Local Servi	
		🔍 Network Location	Properties	inning	Automatic	Network S	
		Store In Network Store In	Help	inning	Automatic	Local Servi	
		🖄 Ontimize drives	Heins the c		Manual	Local Svet	<u> </u>
	\Extended \Standard /						_

Click the "Log On" tab, select "This account", and enter the credentials of an admin user on the local machine. Note that this admin user *must* be linked to a Lenel Directory that is configured for single signon (see <u>above</u> for configuring single signon).

Milestone ACM	Server Properties (Local Computer)
General Log On Recover	y Dependencies
Log on as:	
O Local System account	
Allow service to inte	eract with desktop
This account	.\dbe Browse
Password:	•••••
Confirm password:	•••••
	OK Cancel Apply

IMPORTANT: Restart the Milestone ACM Server service.

ACM Server: XProtect ACM MIP Plugin

Once all three installers have been setup (see <u>Installation</u> section), it is now time to configure and install the ACM MIP Plugin in the XProtect Event Server. This configuration and deployment is handled by a wizard tool that was installed with the XProtect ACM MIP Plugin package. In the start menu you will find the following:



Once you click the start the wizard application you will see the following:



Once you click next, you will have to provide the IP Address / Machine name of the Lenel server on which the ACM Server package was installed.

ACM	Server Configuration Wizard
	Add an ACM Server
Please enter the addr	ress of an ACM Server you wish to connect to:
ACM Server Address:	
ACM Server Port:	8443
🗹 Use SSL	
	< Back Next > Finish

After you have provided the server name/ip address and pressed next, you should get the following screen after the software has validated that there is an ACM Server present at that address. The green checkmark means that it has successfully connected to the provided server name, the red x means that it failed to connect to the provided server. The wizard will not allow you to proceed without a valid connection to the server.

Note that the most common cause of the wizard not being able to connect to the provided server is that the ACM Server on the Lenel machine is not running with sufficient administrative privledges.

ACM Server Configuration Wizard				
Configure ACM Server(s)				
Please select the desired plugin under each ACM Server below				
 Use the checkbox next to each plugin: Check it to install, uncheck it to uninstall Servers highlighted in red are unreachable. Their plugins cannot be modified. 				
W12-OnGuard-LAB (10.1.0.36) Connected Lenel OnGuard-OnGuardAcmServer-W12-OnGuard-LAB				
Add Remove Sack Next > Finish				

ACM Server Configuration Wizard	x			
Configure ACM Server(s)				
Please select the desired plugin under each ACM Server below				
 Use the checkbox next to each plugin: Check it to install, uncheck it to uninsta Servers highlighted in red are unreachable. Their plugins cannot be modified. 				
CDO-OnGuard (N/A)				
Could not successfully contact the ACM Server				
Add Remove				
< Back Next > Finis	sh			

Once you have a successful connection, notice that there is a list of checkboxes under the server heading that represents all detected ACM server plugins installed on that machine. In this case we are looking for Lenel-OnGuard.

ACM Server Configuration Wizard
Configure ACM Server(s)
Please select the desired plugin under each ACM Server below
- Use the checkbox next to each plugin: Check it to install, uncheck it to uninstall - Servers highlighted in red are unreachable. Their plugins cannot be modified.
W12-OnGuard-LAB (10.1.0.36)
Connected
< back Next > Finish

Check the box circled in red below and press next to install a MIP plugin on this host to connect to the Lenel-OnGuard server identified.

ACM Server Configuration Wizard	x
Configure ACM Server(s)	
Please select the desired plugin under each ACM Server be	low
 Use the checkbox next to each plugin: Check it to install, uncheck it to u Servers highlighted in red are unreachable. Their plugins cannot be model 	ninstall dified.
W12-OnGuard-LAB (10.1.0.36) Connected V hel OnGuard-OnGuardAcmServer-W12-OnGuard-LAB	
Add Remove Sack Next >	Finish

This screen will confirm what actions are going to happen. Once you are ready to install, press finish.

ACM Server Configuration Wizard
What is going to happen The following actions will be performed:
Plugins to be installed:
W12-OnGuard-LAB (10.1.0.36)
Install Lenel OnGuard-OnGuardAcmServer-W12-OnGuard-LAB
Plugins to be uninstalled:
< Back Next > Finish

Once the operations are completed, the wizard will display a green checkmark for successful operations and a red x for failed operations.

ACM Server Configuration Wizard					
Operations complete					
Operations complete					
Plugins installed:					
W12-OnGuard-LAB (10.1.0.36)					
Install Lenel OnGuard-OnGuardAcmServer-W12-OnGuard-LAB					
Plugins uninstalled:					
< Back Next > Close					

You have successfully installed the ACM Server: XProtect MIP ACM Plugin.

Milestone Management Client Configuration

Once the MIP ACM Plugin is installed and configured on the XProtect Management Server, the Access Control instance can be created in Management Client by right-clicking on the Access Control Root Node.

File Edit View Action Tools Help						
ヨッ 🕝 🗢 曲						
te Navigation I	Access Cor	ntrol	📮 Access Co	ontrol Infor	mation	
WM-MILESTONE GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAU GAUU	{{	Create new	A	ccess	Control:	
Site Information Remote Connect Services Armote Connect Services Servers Pailover Servers Pailover Servers Cameras Cameras Microphones Speakers Metadata Metadata			Enable	Name	Connection Status	Connection Information

This will popup a wizard to step you through the access control instance creation process. Type a name for the instance of the plugin you wish to create and select from the drop down box the integration plug-in. Note that you will find a plugin named Lenel-OnGuard-OnGuardAcmServer-{ServerName} where {ServerName} is the name of the machine where Lenel and ACM Server are installed.

	Create Access Control System Integration	x
Create access	control system integration	
Name the access cor	and system integration, select the integration plug-in and enter the connection details.	
Name:	Lenel	
Integration plug-in:		-
	Lenel OnGuard-OnGuardAcmServer-USCustomDev04	
	Next	Cancel

After selecting the plugin, you will have to provide credentials and parameters to configure the connection to the Lenel database server.

IMPORTANT – Leave DbInstanceName blank to connect to the default SQL Server instance.

	Create Access Control System Integration	x
Create access con Name the access control sy	trol system integration stem integration, select the integration plug-in and enter the connection details.	
Name:	Lenel	
Integration plug-in:	Lenel OnGuard-OnGuardAcmServer-USCustomDev04	
DbMachineName:	USCUSTOMDEV04	
DbInstanceName:		
DbName:	AccessControl	
DbUserName:	sa	
DbPassword:	•••••	
DbUsesIntegratedSecurity:		
		_
	Next Canc	el

The wizard will now fetch the configuration of the Lenel AC system into Milestone. The screen below is a resume of the configuration found on the server:

reate Access Control System Integration	×	Create Access Control System Integration	
Connecting to the access control system		Connecting to the access control system	
Collecting configuration data		Collecting configuration data	

Configuration successfully received from access control system.		Configuration successfully received from access control system.	
Added:		Added:	
Doors (2)	-	Doors (2)	-
Units (9)	-	Porte Interieure Door #1	
Servers (1)	-	Porte Principale Door #1	_
Events (5)	-	Separat (1)	
Commands (5)	-	VM-SIPASS	_
States (83)	-	Events (5)	•
		Commands (5)	•
		Door Grant Access	
		Door Lock	
		Door Disable	
		Door Enable	
		States (83)	+
		Server connected	
		Lauran Seciet Asconnected	
	Previous Next Cancel		Previous Next

On this screen an association has to be created between each access point of a door and cameras in the Milestone system. This is done so that the system will know which cameras to display on door alarms. For each access point of each door drag a camera from the right tree and place it under the desired access point to create the association. Note that this can also be configured later in the Milestone Management application.



When there is more than one access point per door, you can select the different cameras for the different angles. You can also select more than one camera per access point:



Once all the access point cameras have been associated, the wizard completes.



You can verify the that integration module is now connected by looking at the Access control tree.

V1.0-05/11/2016

۵	Milestone XProte	ct Management Client 2016 R2	_ D X
File Edit View Action Tools Help			
🗟 🦻 🕝 🗢 🏛			
Site Navigation 🗸 🗸	🗙 Access Control 🗸 🗸	Access Control Information	→ #
Matrix Meles and Events Meles Mel	Access Control	Access Control:	
Notification Profiles		Enable Name Connection Connection Status Information	
		Lenel Connected	
Analytics Events			
Generic Events			
Roles			
Basic Users			
System Dashboard			
Current Tasks			
System Monitor			
System Monitor Thresholds			
Configuration Reports			
Server Logs			
System Log			
Audit Log	=		
Access Control			
Transaction sources			
Transaction definitions			
🗄 🧏 Alarms			
🗄 🌸 MIP Plug-ins	~		
< III >			
Site Navigation Federated Site Hierarchy			
•			.:

Operations

Searching for cardholders

The user can search for existing cardholders in the Lenel system through the management client interface:



The cardholder picture and detailed information are downloaded from the Lenel server. The search can be made by first name, last name, card number and employee id. Enter the search string in the search cardholder text box.

Defining Alarms based on Lenel events

To define alarms based on Lenel events, the events must be part of an event category. The category can be one of the pre-defined Access Control Event categories such as (Access Granted, Access Request, Access Denied, Alarm, Error, Warning) or a user-defined category. Here is how to create an alarm based on a user-defined access control event category. First define the category if it does not already exist:

e Navigation	₽×	Access Control	4 Acce	ess Control Information	n		
WH-MILESTONE Basics B Benote Connect Services B Servers		El-O Access Control	A	ACCESS CONTRO elect the events you rents.	ol events want to monitor in >	Protect Smart Client. Use categories to	o simplify the use of triggering
E P Devices			S	ielect Access Con	trol Event	A Source Type	Event Category
E U Cient				Access Der	nied Event	AccessPoint, DoorSet, FloorPoi.	Access denied, Access requ.
Generation Security				Access Gra	anted Event	AccessPoint, DoorSet, FloorPoi.	Access granted
E System Dashboard				Access Not	Granted Event	AccessPoint, DoorSet, FloorPoi.	Access denied, Access requ
🗉 🔚 Server Logs				Server con	nected	Server	
- 🔯 Access Control				Server disc	onnected	Server	Error
 Marm Data Settings Sound Settings 							
- 🥻 Alam Data Seting: - 🔊 Sound Seting:							
🥳 Alam Duts Settops							
🧑 Alam Duta Seinga							

Name the category a pertinent name which represents the group of events and press OK



Associate the category with one of the Lenel AC events:

Theseone in rocecer landgement er	Enc 2014					_ D ×
File Edit View Action Tools Help						
		Access Control		ter la face ative		
Ske Navigation	4 ×	Access Control	*	normann		
Basics Basics		SPass	Acces Select the	e events you want to monitor in X	Protect Smart Client. Use categories t	o simplify the use of triggering
B 🖗 Devices			Select	Access Control Event	+ Source Type	Event Category
E P Client			2	Access Denied Event	AccessPoint DoorSet FloorPoi	Access denied, Access regu.
Rules and Events			2	Access Granted Event	AccessPoint, DoorSet, FloorPoi.	Access granted
E System Dashboard			5	Access Not Granted Event	AccessPoint, DoorSet, FloorPoi	Access denied, Access requ.
🗉 🔚 Server Logs			T	Server connected	Server	My Siemens Custom Define.
- Access Control			A	Server disconnected	Server	I All categories
Alam Dals Setings			Userd	efined Categories.		Access granted Access request Acces

Save your changes and move to the Alarm Definitions section to create an alarm based on that user-defined event category.

Milestone XProtect Management C File Edit View Action Tools Help [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] []	lient 2014				
Site Navigation	# × Alarm Definition	0	Alarm Definition Information		ą
VM-MILESTONE Basics		Add New Refresh	Ctrl+N et. F5	г.	
Devices D			Instructions:		*
E System Dashboard			Tripper		
🕀 🄚 Server Logs			Triggering event		¥
- Second Access Control					2
Alarm Definitions			Sources:	, 	-
5 Sound Settings			- Activation period		
			C Time profile		Ŧ
			C Event based:	Start	Select.
				Stop:	Select
			- Operator action required		
			Time limit:	1 minute	×
	1		Events triggered:		Select
			Other		
	1		Related cameras:		Select.

Name the alarm a pertinent name and select Access Control Event Categories in the Triggering event dropdown:

Milestone XProtect Management C	lient 2014		
File Edit View Action Tools Help			
a 9 0 • A			
te Navigation	7 × Alarm Definitions	Alarm Definition Information	
E 📢 VM-MILESTONE	E- 🧏 Alam Definitions	Alarm definition	
B Basics	- Jahan Delexion	Enable:	
B-B Servers		Name	My SiPess Custon Alem
E P Devices		1.000	
B P Clork		Instructions:	-
B-B Rules and Events			<u> </u>
E System Dashboard		Trigger	
🗄 🔚 Server Logs		Triggering event:	
Access Control			Access Control Event Categories
			Device Events
🧔 Alarm Data Settings		Source:	External Events Hardware Events
- 👧 Sound Settings		Activation period	Recording Server Events Suches Events
		Time profile:	Always
		C Event based	Start Celeri
			5000
		Operator action required	
		Time limit:	1 minute 💌
		Events triggered	Select.
		Other	
		Belated cameras	Select
		Helated map:	_
		Initial alerm owner:	
		Initial alarm priority:	High 💌
		Initial alarm category	
		Events tripgered by alarm:	Select.
A Mandardan Protocol (Photocol)			

Select the new user-defined event category that was defined earlier:

e Navination	a ×	Alam Definitions	Alarm Deligition Information		
VM-MILESTONE		E 🧏 Alam Definitions	Alarm definition		
B B Basics B B Remote Connect Services		Atam Definition	Enable:	R	
(B 🚺 Servers			Neme:	My SiPass Custom Alarm	
E P Devices			Instructions:		-
E-B Bules and Events					
E 🧔 Security				1.	-
E System Dashboard			Trigger		
E- Control			Triggering event	Access Control Event Categories	•
E 🛃 Alarms					•
🧟 Alassi Definitions			Sources	Access denied	
Alam Data Settings				Access request	
age of the optimizer			Activation period	Non I	_
			(* Time profile:	My Stemens Custom Defined Calegory	_
			C Event based:	Start	dest
				Stop: S	doct
			Operator action required		
			Time limit	1 minute	•
			Events triggered		Select.
			Other		
			Related cameras:		Select
			Belated man		-
			Initial alum currer	-	
				l.	-
		1	innaraiann priority.	High	-
			Initial alarm category.	1	-
		1	Events triggered by alarm	5	Select
its Maximutian Enderstad City Maximu	ka	1	Autordoso alarmi		

Select the event source(s) that can trigger this alarm

ile Edit View Action Tools Help			
19 0 • M			
te Navigation	a × Alam Definitions	Alam Definition Information	
VM-MILESTONE	🕀 🦺 Alarm Definitions	Alarta definition	
B 🛄 Basics		Enable	u
Renote Connect Services		Name	Mir SPare Durton Alam
B P Devices		Thank.	Physical Content Hann
🕀 💷 Clert		Instructions	
B Rules and Events			
System Dashboard		Trigger	
B 💾 Server Logs		Triggering event:	Access Control Event Categories
- Access Control			M. Comm. C. day Defend Calary
Alams			Interneting Custom Denned Category
👩 Alam Data Settings		Sources:	Alden
5 Sound Settings		Activation period	Porte Interieure Door #1
		 Time profile. 	Other
		C Event based	Statt Select .
			Star Calcul
			Stoft Street
		Operator action required	(
		Time limit:	1 minute
		Events higgered	Select
		Other	
		Related cameras:	Select.
		Related may	
		halfed allow an and	
		Tritiel elemi owner:	
		Initial alarm priority.	High
		Initial alarm category.	
		Events triggered by alarm:	Select
In Navioation Federated Site Historich		Auto-close alarms	Г

Select all the other alarm parameters and save:

2 2 1 1 1				
Navigation	♥ × Alarm Definitions	Ø Alam Definition Information		
- P Microphone:	🔺 🗄 🤔 Alam Defini	on: Alam definition		
🔮 Speakers	- 🧶 Altan De	Enable:		
- T Metadata				_
of Input		Name:	Alam Detroiton	
Colora Church		Instructions:		2
Const Wall				
- C View Groups				
- Smart Client Profiles		Tripper		
Management Client Profiles		Triggering event	Access Control Event Categories	*
E Rules and Events			My Siemens Custom Defined Calegow	-
- B Rules				
Time Profiles		Sources.	144 doom	-
Notification Ptofiles		Activation period		
		G. Time rectile	Aluma	-
Analytics Events			[mode	
Generic Evend		C Event based	Start Select	80
Bolar			Stan Sder	
R Basic Users				
E System Dashboard		Operator action required	100 March 100 Ma	
- System Manitor		Time limit	1 minute	-
- 2 Evidence Lock		Events triggered	Selec	. 1
Current Tasks				
Configuration Reports		Other		
tor in Server Logs		Related cameras:	Selec	t
duft l og		Balandmark		-
Fult Log		The second		
Access Control		Initial alarm owner:	Administrator (vm-miestorie/administrator)	-
🖻 💐 Alams		Initial alarm priority:	High	*
- 🧶 Alam Definitions		tritial alarm catagores'		*
Alarm Data Settings		and demicologuy.	1	-
Sound Settings	-	Events triggered by alarm:	Selec	t

Alarms acknowledged in Milestone are not acknowledged in Lenel as there is no direct correspondence between them.

Defining Rules based on Lenel events

To define rules in Milestone based on Lenel events, create a rule in the Rules tab:



Select the event hyperlink:

anage Rule				_ 0
Name:	DoAct	tionOnSiPassEvent		
Description	Г			
uctive:	5			
		Ste	ep 1: Type of rule	
Edit the rule de	escription folds	s an underlined item)		
Perform an acti from devic	ion o <mark>r event</mark> ces/reconum	g server/manageme	int server	

Select an event category or event from the Select an Event dialog:

Navigation	# × Buie		Bute Information
Microphones Speakers Metadata	Manage Rule	Rules Default Soto Preset when PTZ is don	Name:
of input		Descent to the second second	
	Nane.	Download Paste Vent	
타넾 Client	Description:		
Smart Wal	Active:	~	
View Bioups	-		
Smart Client Protect	Carateria	Step 1: Typ	e of rule
E Management Clerk Profies	Select the rule	type you want to create	Select an Event
- Bules and Events	C Perform an	action in a time interval	A Denier
	i chomi di		El Se Devicer
Time Profiles			E di Becordino Serveta
Notification Profiles			Milestone XProtect Access Control Module
- Viter-defined Events			Access Control Categories
Analytics Events			Access deried (Access Control Categories)
Senetic Events			- S Access granted (Access Control Categories)
C Security			Access request (Access Control Categories)
- Boles			Lifer (Access Contex Defend Categories)
R Basic Users	Edit the rule de	escription (click an underlined item)	Access Control Events
System Dashboard	Perform an act	ion on event	Access Denied Event (Access Control Events)
System Manitor	from devic	es/recording server/management serv	Access Granted Event (Access Control Events)
			- 🧐 Access Not Granted Event (Access Control Events)
Current Tasks			Server connected (Access Control Events)
Configuration Reports			Server disconnected (Access Control Events)
Fin Server Logs			x
- System Log			Or Creat
Audt Log			Caloa
Rule Log	1		
- D Access Control	Help	Cencel	(Back Nest) Finish
B 🧶 Alams			
- 🧏 Alarm Definitions			
- 👧 Alarm Data Settings			
Sound Satings			

Select the devices/recording server/management server hyperlink and select the event source. To select any source select the System (+units) node.



The wizard will look like this after selecting the "Access Denied" event and System (+ units) source:

lame:	DoActionOnSiPassEvent		
escription:			
ctive:	T		
277 12 12		Step 1: Type of rule	
 Perform an - 	pe you want to create ction on <event></event>		
C Perform an	ction in a time interval		
Edit the rule de	cription (click an underlined item)	1	
Edit the rule de Perform an activi from <u>System</u>	cription (click an underfined item) n on Access denied (Access Con 1 4 units)) trol Categories)	
Edit the rule de Perform an activ from <u>System</u>	cription (click: an underlined item n on Access denied (Access Con 15 units)) trol Categories)	
Edit the rule de Perform an acti from <u>System</u>	cription (click: an underfined item) n on <u>Access denied (Access Con</u> 1 - units)) trol Categories)	
Edit the rule de Perform an actii from <u>System</u>	cription (click: an underlined item) n on Access denied (Access Con L1= units)) trol Categories)	
Edit the rule de Perform an acti from <u>System</u>	corpion (click: an underlined item) n on <u>Access denied (Access Con</u> L i = units)) Irol Categories)	
Edit the rule de Perform an acti from <u>System</u>	corpion (click: an underlined item n on Access denied (Access Con La units)) trol Categories)	

Press next and select the optional time frame when the action will take place. In this example no time frame has been selected, this means it will always execute.

lame:	D oActionOnSiPassEvent
escription	
ctive:	v
	Step 2 Conditions
Select condition	ts to apply
Within sele Outside sele Within the I Day of wee Event is from	ced unie n (unie profile) inne period (startime) to (endhime) kir (day) r ordnin wardowu)
Edit the rule de	sciption (click, an undefined Rem)
Edit the rule de Perform an acti from <u>System</u>	sciption (click an undefined Rem) on on Access Brind Laccess Control Calescotis) all suits]

Select the action that will be executed when the Lenel event occurs. Notice that AC commands can be used as actions based on any events that come into Milestone:

Name:	DoActionOnSiPassE	vent		
rescription	1000			
active:	V			
		Step 3: Actions		
Select actions to	perform			
Start recordi	ng on <devices></devices>			
Start feed or	n (devices)			
Set <smart< td=""><td>Wall> to <preset></preset></td><td></td><td></td><td></td></smart<>	Wall> to <preset></preset>			
Set <smart< td=""><td>Wall> <monitor> to show <</monitor></td><td>cameras></td><td></td><td></td></smart<>	Wall> <monitor> to show <</monitor>	cameras>		
Set live fram	e rate on <devices></devices>			
Set recordin	g frame rate on <devices></devices>			
Set recordin	g frame rate to all frames fo	or H.264/MPEG4 on <devic< td=""><td>ces></td><td></td></devic<>	ces>	
Start patrolli	ng on <device> using <pro< td=""><td>file> with PTZ <priority></priority></td><td></td><td></td></pro<></device>	file> with PTZ <priority></priority>		
Pause patro	ling on <devices></devices>			
Move <devi< td=""><td>ce> to <preset> position wit</preset></td><td>th PTZ <priority></priority></td><td></td><td></td></devi<>	ce> to <preset> position wit</preset>	th PTZ <priority></priority>		
Move to def	ault preset on <devices> w</devices>	ith PTZ <priority></priority>		
Set device of	utput to (state)			
Create book	mark on <devices></devices>			
Send notific	ation to <profile></profile>			
Make new <	log entry>			
Start plug-in	an <devices></devices>			
Stop plug-in	on <devices></devices>			
Apply new s	ettings on <devices></devices>			
Set Matrix to	view <devices></devices>			
Send SNMF	trap			
Retrieve an	d store remote recordings fr	iom <devices>.</devices>		
Retrieve an	d store remote recordings b	between <start and="" end="" td="" tim<=""><td>e> from <devices>.</devices></td><td></td></start>	e> from <devices>.</devices>	
Save attach	ed images			
Activate arc	hiving on (archives)			
C On <site> tri</site>	gger (user-defined event)			
Door Grant /	Access <deorset></deorset>	1		
Door Lock <	DoorSet>			
Door UnLoc	k <doorseb< td=""><td>Access Cont</td><td>rol Commands</td><td></td></doorseb<>	Access Cont	rol Commands	
Door Disable	s (DoorSet)			
Door Enable	<doorset></doorset>			
Show (acce	iss request notification>	1		
5.0.4	2.2. A.P.1	12. 3		
Edit the rule de	cription (click an underlined	d itemj		
Perform an actio	in on Access denied (Acces	is Control Categories)		
Create bookman	k Bookmark on devices			
1				
	1			0
			-	

In this example "create bookmark on <device>" will be selected, click the Bookmark hyperlink and the following dialog will be displayed to setup the bookmark action:

×

<u>^</u>

· 10 · 30 ·

Cancel

ndel

it the rule description (click an underlined item)	Bookmark Details
ntom an existin or Access deried (Access Control Caleconies) from Sostem (1 - vinit) exist Contraint Rookmark or dervices	Headine MySiPassBookmark
	Description
Heb <u>Cancel (Book Ned)</u>	This is an access denied event
	Pre-bookmark time (sec
	Post-bookmark time (sec
	Add system information (click links to insert variables in bookmark text) — Detailed name Event onne Tinsaering line Rule name Recording server name
	UK.

Click the devices hyperlink and select the device on which the bookmark will be applied:

the rule description (click an underlined item)	Select Triggering Devices
om an actor on Access denies (Access Contro Categories) Southans (- unit) de bootmark <u>Rookimank</u> on <u>devises</u>	 Use devices from metadata Select devices
Hep Cancel (Back Next) Finish	OK Cancel

Click next on the rule wizard and select an optional stop criteria, in this example there is no stop criteria.

lame:	DaActio	nOnSiPassEvent			
escription:					
ctive:	V				
		_	Step 4: Stop criteria		
Select stop crite	nia				
C Perform stop	action on <eve< td=""><td>ent></td><td></td><td></td><td></td></eve<>	ent>			
Perrorm stop	o action after <ti< td=""><td>me></td><td></td><td></td><td></td></ti<>	me>			
C No actions		eene			
No actions	performed on rui	e end			
	perrormed on rui	e end			
No actions I	perrormed on rui				
○ No actions Edit the rule de	scription (click a		1	 	
No actions Edit the rule de Perform an actin	scription (click a	an underlined item) Itral Catenories)	 	
No actions Edit the rule de Perform an acti from <u>System</u>	scription (click a on on <u>Access da</u> is (+ units)	an underlined item) Itrol Categories)	 	
No actions Edit the rule de Perform an action from <u>System</u> Create bookma	scription (click a on on <u>Access da</u> is <u>[+ units]</u> ik <u>MySiPassBoc</u>	an underlined item enied (Access Cor ikmark on the dev) trol Categories) ices from metadata		
No actions Edit the rule de Perform an acti from <u>System</u> Create bookma	scription (click a on on <u>Access da</u> is <u>[+ units]</u> ik <u>MySiPassBoc</u>	an underlined item enied (Access Cor ikmark on the dev) I <u>trol Categories</u>) ices from metadata	 	
No actions Edit the rule de Perform an acti from <u>System</u> Create bookma	scription (click a on on <u>Access da</u> is (+ units) ik <u>MySiPassBoc</u>	an underlined item enied (Access Cor ikmark on the dev) I <u>trol Categories</u>) ices from metadata		
No actions Edit the rule de Perform an acti from <u>System</u> Create bookma	scription (click a on on <u>Access de</u> is (+ units) rk <u>MySiPassBoc</u>	an underlined item enied (Access Cor ikmark on the dev) I <u>trol Categories</u>) ices from metadata	 	
C No actions Edit the rule de Perform an acti from <u>System</u> Create bookma	scription (click a on on <u>Access de</u> is (+ units) rk <u>MySiPassBoc</u>	an underlined item enied (Access Cor ikmark on the dev) Itrol Categories) ices from metadata		

Click finish and the rule is set.

Edit Per Cre

Smart Client Maps

It is possible to put doors and Lenel server(s) on an existing Smart Client Map to display door and server status as well as execute manual commands. Login to the smart client:



Use an existing view, go into setup mode by pressing the setup button in red below and create a map by dragging it onto a tile once in setup mode.



Select the access control button on the map overview and drag doors from the Element Selector to the map



The finalized map with the doors and server added in this example will look like this:



Access Monitor Tiles

Access monitor tiles allows the monitoring of access events on a specific door by displaying cardholder credentials next to the video content. Drag the "Access Monitor" item from the System Overview onto a tile:



The following dialog will appear: to set access monitor tile settings select the door, sources, camera and event types:



Once set the tile(s) can be used to monitor access events from each door configured above:



Troubleshooting Guide

Lenel OnGuard loses communication with the access control hardware

Communication can be lost for the following reasons:

- 1) Firewall blocking the traffic
- 2) The Lenel LS Communication Server service is not running (or needs to be restarted).

Failure of the ACM plugin to communicate with Windows Management Interface (WMI)

The Lenel-OnGuard ACM plugin runs in the ACM Server service. That service must be running in the security context of a local machine admin user which is linked to a Lenel Directory that is configured for single signon. See <u>Configure Lenel OnGuard for</u> <u>Single Sign-On and ACM Server: Configure to RunAs Lenel Single-Signon Account</u> above for details.

If the ACM Server is not running in the required security context, the Lenel-OnGuard ACM plugin log (see log locations <u>below</u>) will show lines similar to the following:

05-11-2016 12:28:32 Error 9 EventHandler.registerForWmiEvents() - Failed to register for hardware events. 05-11-2016 12:28:32 Error 9 EventHandler.registerForWmiEvents() - Failed to register for software events.

05-11-2016 12:28:32 Error 9 EventHandler.start() - Failed to register for WMI events.

Milestone Event Server MIP Plugin cannot communicate to the ACM Server

When the system is properly running, the Milestone Event Server MIP plugin "pings" the Lenel ACM plugin about every 5 seconds. At a log level setting of Trace, you'll see lines like the following in the Lenel-OnGuard ACM plugin log (see log locations <u>below</u>):

05-11-2016 13:02:01 Trace 11 AcApi.IsApiConnected() 05-11-2016 13:02:01 Trace 11 AcApi.IsRunning() 05-11-2016 13:02:01 Debug 11 DataConduit.isConnectedToServer() - m_Started = True, wmiSvcIsRunning = True, dbIsAccessible = True.

If you don't see these lines, or you expect a communication failure between the Evert Server MIP plugin and Lenel-OnGuard ACM plugin, take a look at your firewall settings, rules, etc. You may need to adjust them to allow communication.

Note that, by default, the ACM Server's web service uses HTTPS on port 8443. You may have configured your ACM Server differently (see <u>ACM Server: XProtect ACM MIP Plugin</u> for where you configured the ACM Server connection on the Milestone Event Server).

Debug log shows SqlAccess.connect() failed.

If the debug log shows an error similar to:

06-22-2016 20:26:40 Error 14 SqlAccess.connect() - Failed to connect. System.Data.SqlClient.SqlException A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: Named Pipes Provider, error: 40 - Could not open a connection to SQL Server)

Go to <u>Configure SQL Server for Connections</u> for properly configuring the SQL Server supporting your Lenel installation.

www.milestonesys.com

Not seeing hardware or events from a segment

If not seeing some hardware or events from some segment, ensure the single signon user is configured in Lenel to have access to the necessary segments.

Logging

By default the debug logs are enabled on both the milestone event server plugin and the Lenel server but they are at a reduced log level (Info). They can be increased for diagnostics purposes to Debug (or even Trace) but be aware that this change causes more information to be logged using more disk space and possibly slowing down operations on busy servers. **DO NOT LEAVE logging at Debug levels** for extended periods of time for performance reasons. It should only be used for diagnostics purposes and put back to Info afterwards.

Gathering the logs

Milestone Event Server side

- 1. On the machine running the Milestone Event Server go to x:\ProgramData\VideoOS\ACMServerPlugin, where X: is the drive where Windows is installed
- 2. Create a zip file of the contents of that whole folder, name it ACMServerMIPlogs.zip
- 3. On the machine running the Milestone Event Server go to x:\ProgramData\Milestone\XProtect Event Server\logs, where X: is the drive where Windows is installed
- 4. Create a zip file of the contents of that whole folder, name it MilestoneEventServerLogs.zip

Lenel Server side

- 5. On the machine running the Lenel server go to X:\ProgramData\VideoOS\ServiceHost\logs, where X: is the drive where windows is installed
- 6. Create a zip file of the contents of that whole folder name it MilestoneHostLogs.zip
- On the machine running the Lenel server go to X:\ProgramData\VideoOS\ServiceHost\Services\VideoOSACMServerService\logs, where X: is the drive where windows is installed
- 8. Create a zip file of the contents of that whole folder and name it MilestoneACMServerServiceLogs.zip
- 9. On the machine running the Lenel server go to: X:\ProgramData\VideoOS\ServiceHost\Services\VideoOSACMServerService\Plugins\OnGuardAcmServer\logs
- 10. Create a zip file of the contents of that whole folder and name it LenelOnGuardAcmServerPluginLogs.zip

Changing logging level

Sometimes for diagnostics purposes, it is necessary to obtain more information about the running state of the integration. The logging information can be increased by changing what we call the logging level. The logging level can be set at any of the following values in increasing amount of information recorded to file (Off, Fatal, Error, Warn, Info, Debug, Trace). Off writes no information to the file and Trace writes the most information to file. The default setting is Info. The logs auto-delete after 10 days, so they do not take up too much disk space. Here is the procedure to change the log levels in the different modules of the integration:

Milestone Event Server side

- 1. On the machine running the Milestone Event Server go to x:\ProgramData\VideoOS\ACMServerPlugin, where X: is the drive where Windows is installed
- There should be subfolders that use a unique identifier (GUID) something like "4c53f6e5-e951-1616-83f0-e44fb813e451". For each of these folders do the following:
 - a. Find a file named "ACMServerPluginNLog.xml", open it with a text editor like notepad
 - b. The second to last line in the file is like this "<logger name="*" minlevel="Info" writeTo="mainlog" />"
 - c. Change the "Info" to "Debug" or "Trace" in that line and save the file.
 - d. Depending on the OS you are running you may have to save the file to the desktop and copy it back to that folder because windows permissions will not let you save a file there directly.

Lenel Server side

- 1. On the Lenel server machine go to x:\ProgramData\VideoOS\ServiceHost. X: would be the drive where windows is installed.
 - a. Find a file named "ServiceHostNLog.xml", open it with a text editor like notepad
 - b. Near the bottom of the file, find the lines starting with "<logger name="*"", "<logger name="lenel.*"", and "<logger name="OnGuard.*"".
 - c. Change the "minlevel" attribute values in those lines from their current values to "**Debug**" or "**Trace**" and save the file.
 - d. Depending on the OS you are running you may have to save the file to the desktop and copy it back to that folder because windows permissions will not let you save a file there directly.
- 2. On the Lenel server machine go to x:\ProgramData\VideoOS\ServiceHost\Services\VideoOSACMServerService. X: would be the drive where windows is installed.
 - a. Find a file named "VideoOSACMServerNLog.xml", open it with a text editor like notepad
 - b. The second to last line in the file is like this "<logger name="*" minlevel="Info" writeTo="mainlog" />"
 - c. Change the "Info" to "Debug" or "Trace" in that line and save the file.
 - d. Depending on the OS you are running you may have to save the file to the desktop and copy it back to that folder because windows permissions will not let you save a file there directly

Known issues

- Alarm acknowledgement from XProtect to Lenel is not implemented.
- This ACM integration was only tested against the MIP SDK 2016.
- The ACM integration is currently coded to only work with a Lenel system using SQL Server as its database. Oracle integration has not been implemented yet.
- Only United States English installers are available.
- Lenel OnGuard doesn't model doors; they work only with readers. But Milestone ACM requires doors to be modelled. Therefore, the Lenel-OnGuard plugin creates virtual doors based on reader properties (i.e. panel id, panel address, reader number, etc). Currently, the virtual door names are based on the first reader that has a non-empty display name. So if that reader is named "reader 1", that's what the door will be named. This may not be intuitive when viewed in the XProtect Management or Smart Client applications' hardware hierarchy.

V1.0-05/11/2016





The Open Platform Company