HOW TO.

Integration Guide for Milestone XProtect[®] and Axis body worn system

Milestone XProtect[®] & AXIS Body Worn System

Feb 01, 2022 Rev. 1.3 © Axis Communications AB





Introduction	3
Step 1 – Prepare XProtect [®] Management Server	4
Step 2 – Create a connection file	5
Step 3 – Install and configure Axis body worn system	8
Step 4 – Create a recording and upload to XProtect®	9
Example use case – Assign a different user to a camera	11
Optional configuration – Access AXIS Body Worn Manager from XProtect® Smar Client	ל 12

Milestone XProtect® & AXIS Body Worn System

Introduction

This document explains how to integrate Axis body worn system with Milestone XProtect[®]. It assumes the reader has basic knowledge of Axis body worn system and Milestone XProtect[®].

System size recommendations

For one **XProtect**[®] recording server with interconnected body worn system system:

- Max 5 system controllers (maximum 200 cameras)
- 800h of 1080P recordings per day

We highly recommended setting the XProtect recording database to a non-system disk, which improves performance significantly.

Pre requisites
Axis body worn system
Axis body worn system f irmware 1.0 or higher
AXIS IP Utility version 4.14 or later
AXIS Optimizer Body Worn Extension 1.0 or higher
Milestone XProtect [®] 2020 R1 Corporate or newer versions, or
Milestone XProtect [®] 2020 R1 Professional+ or newer versions, or
Milestone XProtect [®] 2020 R1 Expert or newer versions
(Optional) AXIS Optimizer for Milestone XProtect [®] 3.6 or higher

Please note that Axis doesn't take any responsibility for how this configuration may affect your system. If the modification fails or if you get other unexpected results, you may have to restore the settings to default.

Milestone XProtect® & AXIS Body Worn System

Step 1 – Prepare XProtect[®] Management Server

1. It is recommended to create a new XProtect[®] administrator account in XProtect[®] Management Client. It will be used by AXIS Optimizer Body Worn Extension to connect to XProtect[®] Management server.

Start XProtect[®] Management Client and go to **Security** > **Roles**. Choose **Administrators** and open **Users and Groups** tab on the bottom right of the page. Click on **Add...** and choose to add a "basic user" (or a "Windows user").

ite Navigation 👻 🕈 🗙	Roles		-
Microphones A	Name	Name	 Description
Speakers Speakers Metadata Output Output Client Smart Wall Wew Groups Smart Client Profiles Management Client Profiles Rules and Events Rules and Events Notification Profiles Viser defined Events Generic Events Generic Events Security Security Security Security System Dashboard System Monitor Thresholds System Monitor Thresholds	Administrators (Administrators have complete and unrestricted access to the system)	Add •	Administrators have comple bwc user

 It is recommended to adjust the retention time to a higher value on the XProtect[®] recording server to be connected to your Axis body worn system. For example, change from 7 days (the default value) to 60 days.

If the retention time on XProtect[®] recording server is set to X days (E.g. 7 days), docking a camera that hasn't been docked for X days (E.g. 7 days), or more will

result in recordings on the camera being removed right after uploaded.

In XProtect[®] Management Client, go to **Servers** > **Recording Servers**. Click on the server the body worn system is connected to and choose **Storage** tab on the bottom right of the right panel. Click on the icon "Edit recording storage" to change the retention time.

being

Milestone XProtect® & AXIS Body Worn System

e Navigation 👻 👎 🗙 Re	cording Server 👻	Properties			•
AXISNVR-GKTGVIL - (13.3a)		Storage configuration	a recording storage is unavailable		
Site Information		Name	Device Usage	Default	
Axis One-click Camera Conne		Local default	4		
Servers					
B Recording Servers					
Failover Servers					
1 Mobile Servers		Local Income			
🕀 💎 Devices		(A) (B)			
- Tameras					
- The Cameras - P Microphones		Recording and archiving config	guration		
Cameras Microphones Speakers		Recording and archiving config	guration		
Cameras Camer		Recording and archiving config	guration		
Cameras Microphones Speakers Metadata		Recording and archiving config Recording 9.00 GB (44.5 M	guration		
Cameras Microphones Speakers Speakers Output Output		Recording and archiving config Recording 9.00 GB (44.5 M D/MediaDatabas	guration B used) se		
Cameras Microphones Speakers Speakers Output Output Client Smark Wall		Recording and archiving config Recording 9.00 GB (44.5 Mt D:MediaDatabas	guration B used) se		
Microphones Microphones Speakers Metadata Output Client Smart Wall Mer Groups		Recording and archiving config Recording 9.00 GB (44.5 M D:MediaDatabas	guration B used) se ordings are 7 day(s) old		
Cameras Microphones Microphones Metadata ✓o Input Output Client Smart Wall Microphones Yiew Groups Microphones		Recording and archiving config Recording 9.00 GB (44.5 MI D:\MediaDatabas	guration 3 used) se ordings are 7 day(s) old		
Cameras Microphones Seakers Metadata Conput Client Smart Wall Client Smart Client Profiles Smart Client Profiles		Recording and archiving config Recording 9.00 GB (44.5 MI D:/MediaDatabas	guration 3 used) se prdings are 7 day(s) old		
Microphones Microphones Microphones Speakers Metadata Output Client Smart Wall View Groups Smart Client Profiles Minagement Client Profiles Minagement Client Profiles		Recording and archiving config Recording 9.00 GB (44.5 M D:MediaDatabas Delete when recording Configuration	guration B used) se ordings are 7 day(s) old		2
Cameras Microphones Microphones Speakers Metadata ✓o Input Output Client Torrat Wall Yew Groups Maragement Client Profiles Management Client Profiles Matrix Matrix Matrix Matrix Matrix		Recording and archiving config Recording 9.00 GB (44.5 Mi D:MediaDatabas Delete when record Delete when reco	guration B used) se ordings are 7 day(s) old er I Multicast Mark		2
Cameras Microphones Microphones Speakers Metadata ✓o Input ✓Output Client Wall Management Client Profiles Managem		Recording and archiving config Recording 9.00 GB (44.5 MI D:/MediaDatabas Delete when recording Delete when re	guration B used) se ordings are 7 day(s) old er I A Multicast V A Network		2

For more details, go to the user manual for XProtect® Management Client.

Step 2 – Create a connection file

1. Download AXIS Optimizer Body Worn Extension from www.axis.com and install it on the



XProtect[®] recording server to be connected to your Axis body worn system. Once will appear on the task bar.

2. Right click the icon 🖺

and choose "Open connection setup". Connect to XProtect[®] Management server by entering the server's address and the user credentials of the account created above. If Windows user is used, toggle on "Windows authentication".

Milestone XProtect® & AXIS Body Worn System

Management server:	http://localhost	
	Windows authentication	
Username:	bwd	🥝 Status: OK
Password:	•••	Login
dy worn system co Select a valid certifica	nnection te to be used for encrypted communical	lion
ody worn system co Select a valid certifica Certificate:	te to be used for encrypted communicat	tion Status: Not set
ody worn system cc Select a valid certifica Certificate:	nnnection te to be used for encrypted communical C <cick select="" to=""> Create a self-signed certificate</cick>	tion Status: Not set
dy worn system co Select a valid certifica Certificate: To connect system co Upload this file to all sure to keep this file	te to be used for encrypted communicat et obs used for encrypted communicat et observed communication et observed communicatio	tion Contraction Status: Not set ed to create a connection file. d to this recording server, Make sed.

3. Select a valid HTTPs certificate that can be used to secure the communication with the body worn system. It is also possible to use a self-signed certificate. Choose "Create a self-signed certificate" and select the certificate after it is created.

Milestone XProtect® & AXIS Body Worn System

XProtect connection		
Management server:	http://localhost	
	Windows authentication	
Username:	bwd	Status: OK
Password:	•••	Login
Body worn system co Select a valid certifica	nnection te to be used for encrypted communicat	on
Body worn system co Select a valid certifica Certificate:	nnection te to be used for encrypted communicat cick to select>	on D 🕥 Status: Not set
Body worn system co Select a valid certifica Certificate: To connect system co Upload this file to all sure to keep this file	nnection te to be used for encrypted communicat Create a self-signed certificate ntrollers to this recording server you nee system controllers that should be linkee safe or just delete it when it has been us	on O Status: Not set d to create a connection file. to this recording server. Make ed.

NOTE The chosen certificate should contain a SAN field, including a DNS name or IP address that identifies the server.

File Action View Help	Certificate		
■ 🔿 📶 🔏 🖭 🗙 🔄 © Certificates - Local Computer ^ / 🔛 Personal	General Details Certification P Show: <all></all>	ath	
Certificates Trusted Root Certification Enterprise Trust Intermediate Certification Trusted Publishers	Field Public key Public key parameters Enhanced Key Usage	Value RSA (2048 Bits) 05 00 Client Authentication (1.3.6.1	^
	Subject Alternative Name Subject Key Identifier Key Usage Thumbprint Friendly name	P Address=10.85.130.231, I e0a2ba6d0a 1de5f2d2b3e786)igital Signature, Key Encipher)e9512916b3761674d060aa7 IXIS Ontimizer Rody Worn Ext	>
AAD Token Issuer AAD Token Issuer Other People SIM Certification Authori	IP Address=10.85.130.231 IP Address=172.25.125.135		

Milestone XProtect® & AXIS Body Worn System

4. Create a connection file by entering a site name for the body worn system in AXIS Optimizer Body Worn Extension. A "*.json" file is created which can be uploaded to the body worn system later.

For more details, go to the user manual for AXIS Optimizer Body Worn Extension.

Step 3 – Install and configure Axis body worn system

- 1. Install your body worn system.
- 2. Find the system controller using AXIS IP Utility. Access AXIS Body Worn Manager and follow the setup wizard to configure the system. Upload the previously created connection file "*.json" when prompted to "Select a content destination".

NOTE	During the setup, make sure the time and tin of your body worn system is in sync with the time zone configuration in XProtect [®] .	me zone e time and
Co Select a	a connection file to connect to your content destination. The cor	ntent
oestina Prelimir	ation is where your recordings and metadata are stored and mar inary configuration	aged.
Nam Site	ne Milestone XProtect Demo	
Back	k I	Next

3. Create a camera user in AXIS Body Worn Manager (Go to **Users** page and click on "Add user" on the top right). When this is done, a corresponding device with the name of the camera user will appear in XProtect[®], which will represent one license.

Milestone XProtect® & AXIS Body Worn System



4. Dock a new camera on the docking station connected to the system controller. It will be discovered by AXIS Body Worn Manager right away. Add the camera and assign the newly created camera user to it. Now the camera is ready to use.

For more details, go to the user manual for Axis body worn solution.

Step 4 – Create a recording and upload to XProtect®

 Undock the camera and make a recording before docking it again. The recording together with the metadata will be transferred to the system controller and further on to XProtect[®] recording server. The transfer status can be monitored in AXIS Body Worn Manager (Go to **Devices** page and click on the camera in **Cameras** list).

Milestone XProtect® & AXIS Body Worn System

Assigned	to	NewUser	*	Docked		
Serial nur	nber	ACCC8EF213E9				
Model		AXIS W100 Body W	/orn Camera			
Contraction of the local division of the loc	Date	Recording start time	Recording duration	Camera	System controller	Milestone XProtec
Status						

2. Once the recording arrives at XProtect[®] recording server, a bookmark is added to the beginning of each recording. Recordings from body worn cameras can be played back and searched for in the same way as any other Axis camera in XProtect[®] Smart Client. On the other hand, live view is not applicable for body worn cameras.

NOTE It is recommended to search by bookmark. This is because a recording can be composed of multiple recording clips if it is longer than 15 minutes. But only one bookmark is created per recording.

Milestone XProtect® & AXIS Body Worn System

earch filters		1 result
Start	End AD DO	
11:29 2020-06-01	2020-06-01	
anation: 2 hours		NewUser(Body wor
elected cameras (1)	Clear lis	t T
	Sarch for	× Bookmarks
Showing that mail	+ Events	济 Motion

Always use AXIS Body Worn Manager instead of XProtect[®] to manage (add, rename, assign and remove) body worn cameras and users, otherwise cameras and officers in XProtect[®] won't match cameras and users in AXIS Body Worn Manager, which may cause unexpected behavior.

Example use case - Assign a different user to a camera

- 1. Access AXIS Body Worn Manager and create a new user, i.e. "NewUser1". A camera named "NewUser1" is created in XProtect[®] accordingly.
- 2. Go to **Devices** and click on the camera. Select "NewUser1" in the **Assigned to** list. "NewUser1" will be assigned to the camera the next time it is docked.
- 3. Create a new recording with the body worn camera and dock it. The recording will be uploaded to the new camera "NewUser1" in XProtect[®].
- 4. If the original user "NewUser" is no longer needed, it can be removed from AXIS Body Worn Manager. The corresponding camera "NewUser" in XProtect[®] will appear as disabled and the license will be released. Earlier recordings which belong to "NewUser" will be kept until this camera is removed from XProtect[®] or the retention period has passed.

Optional configuration – Access AXIS Body Worn Manager from XProtect® Smart Client

Since AXIS Body Worn Manager is often used to manage body worn cameras and users, it makes things easier if it can be accessed directly from XProtect[®] Smart Client. This can be achieved with the help of AXIS Optimizer for Milestone XProtect[®].

- 1. Download <u>AXIS Optimizer for Milestone XProtect[®]</u> and install it on the same computer where XProtect[®] Smart Client is installed.
- 2. Start XProtect[®] Smart Client. Click on **Setup** button on the top right and create a new view named "Body Worn Manager" under **Views**.
- 3. Find AXIS Optimizer under System Overview. Drag and drop Web view under AXIS Optimizer into the newly created view. A dialog Set up web view will pop up. Enter the web address of AXIS Body Worn Manager in the Address field. The user credentials to AXIS Body Worn Manager need to be entered once for each Smart Client session.

Milestone XProtect[®] & AXIS Body Worn System

Milestone XProtect Smart Client			2020-06-01 14:25:38 🗕 🗖 🗙
Live Playback Search Al	arm Manager System Monitor		<u>+</u> 01 ×
XProtect <	New View (1 x 1)	- % Β.	Setup 🔒 🔺 🖾
IIE Views			
Search views and cameras Q			
🔺 🛅 Private			_
A Too New Group	🔝 Set up	web view	×
Body Worn Manager	Enter the	address or browse to a page on your computer or network	
Ter ar 💉 👟 🖷	you want	to display.	
Shortcut: Set	Address	http://172.25.164.77/?#/status	
System Overview	Brov	vse OK Cancel	
▶ 🧿 Alarms			
🔺 💽 AXIS Optimizer			
O Dewarping view			
🔟 Web view			
AXISNVR-GKTGVIL			

Live Playback Search Alarm Manager System Monitor						
XProtect <	Body Worn Manager	• * 6				
III Views	14:39:12 ① Thank you for using this	trial license to demonstrate or evaluate the XProtect video management software. The trial license expi	ires on 2021-01-14. To fully license the product, please contact your reseller or find one on www	unilestonesys.com.		
Search views and cameras Q						
The Private The New Group Body Worn Manager	AXIS	Cameras	System controllers	Milestone XProtect		
III New View (2 x 1)	System status					
🖛 Cameras 🔨 🔨	Devices					
AXISNVR-GKTGVIL Min Body worn user cameras NewUser (Body worn user camera) - Co	Users Camera profiles					
 Audio 	Settings +					
Microphones Listen to: Missing hardware on local PC Missing hardware on local PC	Support +					
Speakers Listen to:						
Missing hardware on local PC						
Lock to selected audio devices						
List only devices from current view						