

Security Management System Configuring Herta 'BioSurveillance' / 'BioSurveillance NEXT' FR Solution Interface

Introduction

Security Management System software is a true open platform VMS software solution. It provides interface for integration with several cameras, encoders, DVRs, video sources, CCTV keyboards, access control systems, building management systems, fire alarm systems, fence control systems, PLCs, 3rd party video analytics solutions, 3rs party face recognition solutions, 3rd party license plate recognition systems etc.

'BioSurveillance' and 'BioSurveillance NEXT' and 2 face recognition software solutions available from Herta Security.

This document describes the steps to configure the integration between 'Security Management System server' software and 'BioSurveillance' / 'BioSurveillance NEXT' face recognition solution.

Integrated System design

The integrated system works as follows -



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- 1. 'Face recognition software' is installed on a separate computer. It captures video from the video camera independently.
- 2. 'Security Management System server' software is installed on a separate computer. The video camera is added to 'Security Management System server' software as a normal video source. 'Security Management System server' software communicates with the video camera independently.
- 3. 'Security Management System server' software installer includes 'SMS Integration Application'. This application runs on same computer where 'Security Management System server' software is running.
- 4. The 'SMS Integration Application' communicates with the 'Face Recognition software' through network
- 5. 'Security Management System server' software communicates with the 'SMS Integration Application'

Note – Network1 and Network2 can be separate networks or can be a part of a single network.

Important – Please refer to 'BioSurveillance' / 'BioSurveillance NEXT' face recognition software manual for hardware recommendations, and ensure that requirements are met by 'Computer 2' used in this system.

Configuring 'Security Management System server' software

- 1. Execute 'Security Management System Server' software.
- 2. Add required cameras to 'Security Management System Server' software. One of these cameras should be the video camera used for 'face recognition'. It is the same camera which is accessed by the face recognition software independently.
- 3. Navigate to the 'Face Recognition -> Face Recognition Modules' page from the left-hand side navigation menu.



			ie meegrator 5 manan	
192.168.0.65	Face Recognition → Face Recogn	ition Modules		
Office_301				0
Video devices				1
Audio devices	Add FR module Sr 190. Produle 10	Module Name	Associated Video Channel	
Device groups				
Status				
Reports and Export				
Communication				
Security devices				
Keyboards and Joysticks				
Users and Privileges				
Alarm management				
Data management				
Remote backup				
Tasks				
Linked servers				
Server settings				
Video panorama				
Under Vehicle Surveillance				
Face Recognition				
Face Recognition Modules				
User interface settings				

4. Click on the 'Add FR Module' button. This will pop-up the 'Add New FR Module' dialog box.

(@)	Add New Face Recognition Module				
	Module Name:	FR001			
	Module ID:	FR_ 001			
	Video Channel:	Cam598	~		
		0			

- 5. Provide the required inputs on the 'Add New FR Module' dialog box.
 - (a) 'Module name' can be any unique string consisting of the character and number which can be used for uniquely identifying the FR module in the 'Security Management System server' software.
 - (b) 'Module ID' is unique string which is internally by the 'Security Management System server' software.
 - (c) Please select 'Video Channel' which is same camera used by the face recognition software
- 6. Click on the 'OK' button to finish adding the FR module
- 7. The newly added FR module will be then displayed in list of the FR Modules



192.168.0.65	2	Face	Recogn	ition → Face Re	cognitio	n Modules			
	2								
Video devices	^		9 🤅) 🛞					1
Audio devices			Sr No.	Module ID		Module Name	As	sociated Video Channel	
Device groups			1	FR_001		FR001	Ca	am598	
Status									
Reports and Export									
Communication									
Security devices									
Keyboards and Joysticks									
Users and Privileges									
Alarm management									
Data management									
Remote backup									
Tasks									
Linked servers									
Server settings									
Video panorama									
Under Vehicle Surveillance									
Face Recognition									
Face Recognition Modules									
FR001									
User interface settings									

8. A separate link will be available for each of the added FR modules. Clicking in the link will show the information about the FR module, the video of the associated video channel. Video from the associated video channel will also be displayed on this page. If required, the associated video channel can be changed.

192.168.0.65	Face Recognition -	Face Recognition Modules → FR001	
Office_301			
Video devices	Module ID:	FR_001	
Audio devices	Module Name:	FR001	
Device groups			
Status			
Reports and Export			Primary video channel
Communication			Video Channel
Security devices			Primary: Cam598 V
Keyboards and Joysticks			
Users and Privileges			
Alarm management			
Data management			
Remote backup			
Tasks			
Linked servers			
Server settings			
Video panorama			
Under Vehicle Surveillance			
Face Recognition			
Face Recognition Modules			
FR001			
User interface settings			



Configuring 'BioSurveillance' / 'BioSurveillance NEXT' software

- 1. Execute 'BioSurveillance' / 'BioSurveillance NEXT' face recognition software
- 2. Navigate to the 'Settings' tab and 'Communications' section.

🔊 Live 🚺 A	Alarms 👤 Subjects 🔯 Settings	
General Alarms Enrollment Detection Identification Database Communication	 Mail Server Port User Password BioCom Enable HTTP Port 800 (*) TCP Port 800 (*) Activate SSL encryption Confirm alarm up to 5 seconds BioCom (previous version) 	

- 3. Enable 'BioCom'. Keep the 'TCP Port' as 8001 which is default. Click on the 'Save' button available at the right-bottom corner, to save the settings
- 4. Please refer to the 'BioSurveillance' / 'BioSurveillance NEXT' user manual for adding the camera and configuring face detection and face recognition.
- 5. Do the tests and confirm that face detection and face recognition is working fine. Fine tune the parameters as per the user manual, if required.



Configuring 'SMS Integration Interface' Application

Note – 'SMS Integration Interface' Application requires Microsoft .Net Framework 4.0 to be installed on the computer. If Microsoft .Net Framework 4.0 is not installed, 'SMS Integration Interface' Application will not get executed. Please install Microsoft .Net Framework 4.0, to get 'SMS Integration Interface' Application working.

 Execute 'SMS Integration Interface 1' application from the programs menu shortcut 'Security Management System -> Server -> Extension Apps -> SMS Integration Interface 1'

e	S	MS Integration I	nterface		×
SMS Servers FR Modules	Add	Remove			٦
	Sr. No.	Site Name	Ste ID	Site IP Address	
About					

- 2. Navigate to the 'SMS servers' page from the left-hand side navigation menu
- 3. Click on the 'Add' button to add a new 'Security Management System server'. This will pop up 'Add SMS server' dialog box

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The Integrator's Manufacturer

•	Ad	d SMS Server		×
	IP Address:	192.168.0.65		
	Port No.:	5500		
	Administrator Usemame:	admin		
	Administrator Password:	••••		
	Port forwarding enabled	at server		
	TCP Port 1: 5500	RTSP Port(TCP):	1024	
	HTTP Port(TCP): 9900	RTP Port(UDP):	20000	
		RTCP Port(UDP):	20001	
	C	OK Cancel		

- 4. Type the IP address and port number of the 'Security Management System server' software.
 - (a) 'Security Management System server software' IP address is displayed at the top-left corner in the 'Security Management System server' software.
 - (b) Port number is always 5500

192.168.0.65	Face Recognition →	Face Recognition Modules → FR001	
Office_301	Module ID:	FR_001	
Video devices			
Audio devices	Module Name:	FR001	
Device groups			
Status			
Reports and Export			Primary video channel
Communication			- Video Channel
Security devices			Primary: Cam598
Keyboards and Joysticks			
Users and Privileges			
Alarm management			
Data management			
Remote backup			
Tasks			
Linked servers			
Server settings			
Video panorama			
Under Vehicle Surveillance			
Face Recognition			



- 5. Type the user name and its password to connect to the 'Security Management System server'. This user should have 'Administrator' privilege in the 'Security Management System server' software.
- 6. Navigate to the 'FR Modules' page from the left-hand side navigation menu

SMS Integration Interface - 🗖					
Add Remove					
Sr. No. FR Module Type Site Name	FR Module ID	SMS			
		- 1			
		- 11			
		- 1			
		- 11			
		- 11			
		- 11			
		- 11			
		- 18			
		- 11			
About					
About					

7. Click on the 'Add' button to add a new FR Module. This will pop up 'Add FR Module' dialog box



n A	dd FR Module		×
FR Module Type:	Herta	~	
SMS Server Name:	TestMachine1	~	
Module ID:	FR001(FR_001)	~	
Connection Parameters:			
IP Address:	192.168.1.245		
Port No.:	8001		
Usemame:	Administrator		
Password:	•••••		
		Default	
(OK Cancel		

- 8. Provide the parameters
 - (a) Select 'FR Module Type' as 'Herta'
 - (b) Select the target 'SMS server' from the dropdown menu. When the SMS server selection is changed, the 'Module ID' dropdown list will get refreshed displaying 'FR modules' available in the selected 'Security Management System server'
 - (c) Select the target FR module for 'Module ID'
 - (d) 'Connection parameters' indicate the parameters for connecting to the 'BioSurveillance' / 'BioSurveillance NEXT' FR software. Values for these parameters are available in the 'BioSurveillance' / 'BioSurveillance NEXT' software.
- 9. Click on the 'OK' button to finish adding the FR module.
- 10. Click on FR Module name on left hand side navigation menu



•	SMS	Integration Interface		×
SMS Servers FR Modules FR001(FR_001-Test Machine1)	SMS Module: Site Name: Connection F IP Address: Port No: Communication Refresh	FR001(FR_001) TestMachine1 Parameters 192.168.1.245 8001		X
About				

- 11. 'Communication Details' list will display recent communication between associated software modules.
- 12. If the software is being set up for deployment, please click on the 'Launch watchdog' button to start the watchdog application.

SMS Integration Interface – 🗖 🗙								
SMS Servers FR Modules	Add	Add Remove						
	Sr. No.	Site Name	Site ID	Site IP Address				
					-1			
Laurah Watabata								
Launch Watchdog About								



A confirmation message box will be displayed. Click on the 'Yes' button to accept and to launch the watchdog application.

Once watchdog application is started, it will also get added to computer's start-up. Hence watchdog and the 'SMS Integration Interface 1' will start automatically after computer reboot.

Face Recognition Monitor Screen

1. In 'Security Management System server' software, navigate to the 'Face Recognition -> Face Recognition Modules' page from the left-hand side navigation menu.

192.168.0.65	Face Recogr	Face Recognition – Face Recognition Modules				
Office_301						
Status ^					5	
Reports and Export	Sr No.	Module ID	Module Name	Associated Video Channel		
Communication	1	FR_001	FR001	Cam598		
Security devices	2	FR_002	FR002	Cam606		
Ceyboards and Joysticks	3	FR_003	FR003	Cam607		
Jsers and Privileges	4	FR_004	FR004	Cam608		
Alarm management						
Data management						
Remote backup						
Tasks						
inked servers						
Server settings						
Video panorama						
Jnder Vehicle Surveillance						
Face Recognition						
Face Recognition Modules						
FR001						
FR002						
FR003						
FR004						
User interface settings 🛛 🗸						

- 2. Click on the 'View Monitor Screen' button to open the FR monitoring screen.
- 3. The monitor screen has 3 tabs 'Monitor', 'Search' and 'Test Alarm'

Monitor tab

1. The 'Monitor' tab has following user interface elements -





- (a) Live video display: Which displays live video feeds for the associated FR modules in the middle section of the screen. The video toolbar can be used to control the video displays.
- (b) Detected Face List: Which is available on the left side of the screen and displays the list of detected faces. Any of the detected face images can be clicked to view the 'details window' displaying larger size images and the details about the detected face.
- (c) Recognized Face list: Which is available on the right side of the screen and displays the list of recognized faces. For every recognized face, both detected face and enrolled face images are displayed. Any of the recognized face images can be clicked to view the 'details window' displaying larger size images and the details about the recognized face.
- 2. Both the 'Detected Face List' and 'Recognized Face List' are refreshed real-time and display the latest detections and recognitions.
- 3. To view earlier alarms from these lists, please click on the 'Freeze' button available in the control toolbar below the lists. This will enable the page navigation in the list.



4. The real-time list refresh will get disabled while 'Freeze' is in action. Please click on the 'Unfreeze' button to returns to the real-time view mode.



Search Tab



1. The 'Search' tab has following user interface elements -

- (a) Search Parameters section: Which is available on the left hand side. Search parameters can be provides in this section and new search can be initiated.
 - i. Search Time Duration to specify the search time duartion 'From' time to 'To' time
 - Search Type available options are 'Faces detected' and 'Faces recognized'. Option 'Faces detected' will search for all detected faces and the option 'Faces recognized' will search all recognized faces. When 'Faces recognized' search type is selected, it is possible to provide additional search parameter 'Recognized name'. It supports wild card search by typing * character as wild card search string. Typing * as search string returns all recognized faces in selected time duration.
 - iii. FR Modules it is possible to select one or more FR modules on which will be included in the search operation.
 - iv. 'Search' button is available at the bottom of this section. Clicking on the 'Search' button performs the search operation and displays the search results
- (b) Search Results section: Which displays the search results, as a list.
 - i. Any of the search result face images can be clicked to view the 'details window' displaying larger size images and the details about the clicked face image.
 - ii. Page navigation buttons are available at the bottom of the search results list.
- (c) Search Result Playback section: Which is available on the right-most side. Any of the search result face images can be clicked to start viewing recorded video associated with that face. Video navigation buttons are available below the video display window.

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- 2. Enroll new subject for face recognition
 - (a) For enrolling new subject for face recognition, right click on any image from the search result and click on 'Enroll face' menu. This will pop up the 'Add Subject' dialog box

θ	Add Subject			
FR Module:	FR001 ¥			
First Name:	Subject002			
Last Name:	L			
Unique Subject Code:	1007			
6 (

- (b) Please select the FR module, and type the subject information first name, last name, and unique subject code.
- (c) Click on the 'OK' button to enroll the new subject.
- (d) Now whenever this new person is in the field of view of the camera, it will be recognized and will be displayed in 'recognized faces' list along with the reference image and the name.

Test Alarm tab

The 'test alarm' tab is not used during normal operations. It is used during configuration and fine tuning of the system, for generating test / dummy data.