

Building Integration System

Integrating IDEMIA Biometrics with ACE

en Configuration Guide

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1 Introduction

This document describes the configuration of IDEMIA biometric devices to work with Bosch access control systems through **MorphoManager** and **BioBridge**.

In order to keep the document at a manageable size, only a few relevant aspects of the very comprehensive MorphoManager software are described here. For details, please consult IDEMIA documentation at <u>https://service.morphotrak.com/documentation.html</u>

Intended audience

System architects, installers and configurators who want to add IDEMIA biometric readers to Bosch access control systems.

2 System overview

The following non-Bosch components are involved:

- **IDEMIA** (formerly **Morpho**) is a multinational company specializing in security and identity solutions.
- MorphoManager is a biometric access control application from the IDEMIA company. The application works with biometric devices to capture fingerprints and other biometric data. The biometric information is associated with cardholder data in a database. When cardholders present themselves at an IDEMIA biometric access reader, and their biometric data matches a card number in the database, the reader sends the associated card data to the local access controller, such as an AMC2 device, which then makes the decision to grant or deny access.
- **BioBridge** is the interface software connecting **MorphoManager** with Bosch access control systems and others.

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3.1

Configuring IDEMIA Universal BioBridge

This section describes the configuration of IDEMIA biometric devices to work with Bosch access control systems through **MorphoManager** and **BioBridge**.

The subsections cover the configuration tasks necessary in the following areas:

- The Bosch access control system
- MorphoManager
- The BioBridge enrollment client in MorphoManager
- Adaptations for various card technologies and formats

Setting up BioBridge in the Bosch access control system

The following steps are performed in ACE to create the database that links IDEMIA biometric devices to the Bosch access control system. The database maps the following database entities to each other:

- Person class (Bosch) and
- User distribution group (IDEMIA).

Dialog path

- BIS Configuration Browser > Tools > ACE configuration IDEMIA database



1. Click Configuration IDEMIA database The IDEMIA BioBridge Data Provider dialog appears.

	DEMIA BioBridge Dat	a Prov	ider		BOSC Invented for
Database instance	IDEMIA database definition		User distribut	tion groups	
Server (name or IP address): W16-TAMS-EN	IDEMIA database: Idemia		Selection	Person class	User distribution group
BIS_ACE	IDEMIA user name: Idemia			Employee	Employee
User name: Sa	IDEMIA password	۲		External personnel	External personnel
Password:	Confirm password:	۲		Visitor	Visitor
Connect	Create database				
	Delete database			Assign user distri	bution groups
	Synchronize database		Use pic	tures of access control ba	dges for image comparison
			L		Evit

- 2. In the **Database instance** pane, enter the following information:
- Server: The hostname or IP address of the computer where the BIS_ACE SQL Server database instance is running. This may be the local hostname, if the SQL Server is running locally.
- **Database Instance**: The instance of the ACE database (default *BIS_ACE*).
- Username: The name of administrator account of the ACE database instance (default: *sa*)
- Password: The password of the administrator account, as configured during the installation of ACE

In the IDEMIA database definition pane

The first two fields are read-only:

- Idemia database: the name of the database that joins Bosch and IDEMIA data.
- Idemia username: the name of the database user in whose name the software executes commands in the database.
- 1. Enter and confirm a strong password for **Idemia username**.
- 2. Carefully note the password. It will be required in future configuration tasks, and cannot be restored if lost.
- Click Create database.
 A message box will confirm if the creation was successful. Click OK
- 4. Click **Connect** to test the database connection.
- 5. When tests are successfully completed, click **Exit** to close the dialog.

In the User distribution groups pane

User Distribution Groups are MorphoManager objects that map users (credential holders) to groups of biometric readers or MorphoManager clients. We map them to the **Person Classes** of Bosch access control systems.

- 1. In the Select column, select the check box of each ACE **Person Class** that your installation uses.
- 2. For each line you have selected, copy the name of that Person class to the corresponding cell in the **User distribution group** column.
- 3. When your mapping is complete, click **Assign user distribution groups**.

Providing ID photos for VisionPass face recognition

To allow IDEMIA readers to perform VisionPass face recognition using cardholders' ID photos from the ACE database:

• Click Use pictures of access control badges for image comparison

The **IDEMIA BioBridge Data Provider** window confirms that synchronization is in progress.

Note that, depending on the amount of image data involved, the transfer may take considerable time.

3.2 Setting up BioBridge in MorphoManager

Prerequisites

MorphoManager is installed on a MorphoManager server in your network. See the MorphoManager's own installation guide and online help.

Overview

To use the BioBridge interface between Bosch access control systems and Morphomanager, you need to configure the following in MorphoManager:

- Wiegand Profiles
- Biometric Device Profiles
- Biometric Device
- User Policy
- User Distribution Group
- BioBridge System Configuration

In addition, Open Database Connectivity (ODBC) must be set up for communication between Morphomanager BioBridge and the database it shares with ACE .

All these configuration tasks are described in the following sections.

3.2.1 Wiegand Profiles

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Notice!

Despite the name, Wiegand Profiles apply to all reader types, including OSDP readers.

Wiegand Profiles define what information the biometric devices output via their Wiegand Out interface, when they identify a user. This information goes to the Bosch access control system, which uses it to make an access decision.

Procedure:

- 1. In MorphoManager navigate to Administration > Wiegand Profile.
- Select one of the predefined Wiegand profiles or click Add to create a custom profile. In general, all CSN profiles are suitable for use with Bosch access control systems, plus the standard 26 bit profiles. If your installer has provided a profile for your system, click Import to locate and import the file provided, and select it from the list.

🛃 MorphoManager [14.4.3.9]					- 0	×
🔒 Home 📑 Administration	🕯 User Managemen 🚳 Biometric Identificat	ic 👼 Access Logs 🍓 Reports				
Items	Wiegand Profiles					
@ Operator	Add Edit Delete Refresh	nport 🔛 Export				
👔 Key Policy	Name	 Description 	MA2G	MA5G	M3DF	
Planckin Barley	Automatically generated random 64 bit		Interpreted	Interpreted	Raw	
Biometric Device Profile	CASI-RUSCO 40 bit	19 bit Facility / 19 bit Badge	Raw	Raw	Raw	
<i>t</i>	HID Corporate 1000 - 35	HID Corporate 1000 35-bit	Raw	Interpreted	Raw	
Biometric Device	HID Corporate 1000 - 48	HID Corporate 1000 48-bit	Raw	Interpreted	Raw	
B Wiegand Profiles	HID Corporate 1000 - HID PACS	HID Corporate 1000 - PACS	Raw	Interpreted	Raw	
	ISO/IEC 14443 CSN 32 bit	32 bit Card Serial Number	Interpreted	Interpreted	Not Supported	i i
au User Policy	ISO/IEC 14443 CSN 56 bit	56 bit Card Serial Number	Interpreted	Interpreted	Not Supported	1
Accors Echadular	ISO/IEC 14443 CSN 64 Bt	64 bit Card Serial Number	Interpreted	Interpreted	Not Supported	1
Access schedules	Kastle 32 bit	Kastle 32 bit	Raw	Interpreted	Raw	
User Distribution	Matrix 56 bit	54 bit User ID	Interpreted	Interpreted	Raw	
Group	Mfare CSN	CSN Card of type mifare	Interpreted	Interpreted	Not Supported	t I
User Authentication	MfareDesfireCSN	This is a simple test	Interpreted	Interpreted	Not Supported	t -
Mode	OnGuard Wiegand 64	8 bit facility, 48 bit card number, 8 bit issue code	Raw	Raw	Raw	
Operator Role	Standard 26 bit	8 bit Site/16 bit User code	Interpreted	Interpreted	Raw	
	Standard 26 bit - HID PACS	8 bit Site/16 bit PACS	Interpreted	Interpreted	Raw	
Notifications						
Union Clients						
Scheduled Reports						
Card Template						
Card Encoding Log						
Event Log	,					

Connected to https://w10-ltsc-en:42100/ Logged in as A Site ID: C60E-9C32-F933-46E6-8906-5BDD-E5A2-6E10 🛕 Log Out 🤝 Change Password 📓

- 3. In the dialog, enter the information that your access control system requires from the biometric devices.
- Carefully note the name of the Wiegand profile that you select or create here. You must reference it in the MorphoManager configurations of User Policy and Biometric Device Profile.

3.2.2 Biometric Device Profile

The Biometric Device Profile defines common settings and parameters for one or more biometric devices. When you add biometric devices to the system later in the **Biometric Device** section of **Administration**, you apply a Biometric Device Profile to them. The following procedure assumes that you are deploying biometric readers from IDEMIA with additional card-reading technology.

Procedure:

- 1. In MorphoManager navigate to Administration > Biometric Device Profile.
- 2. Click **Add** to create a new biometric device profile.
- 3. On the next screen, enter a name for the profile and a description (optional). If you do not use the description field, we recommend a name that describes the type and the identification modes (biometry and/or card) of the group of readers.
- 4. Click **Next** until you arrive at the **Biometric Device Settings**
- Select the Wiegand profile that you created previously for your installation.
- 5. Click Next until you arrive at Multi-Factor Mode Settings
- For Multi-Factor Mode: that is, a combination of biometric and access card reading capability, select *Custom* from the list.
- For **Contactless Smart Card Mode**: select *Device* from the list.

	Morph	oManager [14.6.0.23]							
	🔒 но	me 🔂 Administration	🔓 User Management	8 Biometric Identific	ation 👵	Access Logs	Reports		
1	Items	,	Adding Biomet	ric Device Profile					
	-	Operator	Multi-Factor M	lode Settings					
	6	Key Policy	Multi-Factor Mode		Custom		~		
		Biometric Device Profile	Contactless Smart	Card Mode:	Device		~		
	0	Biometric Device	Mode:		Biometric Or	nly	~		
	1997 1488 1888	Wiegand Profiles	MA 100, MA J, M	IA 500, MA VP Multi-Fact	or Mode	alu	~		
	20	User Policy	- Note:		Diometric Of	ay .	•		
	9	Access Schedules	MA Sigma, MA S	igma Lite, MA Sigma Lite	+, MA Sigm	a Extreme, MA \	/P MD, VisionPass	, and MorphoWave	Multi-Facto
	55	User Distribution	Biometric:		Mif	fare Classic:			
		Group	Proximity Card:		Mif	fare DESFire 3DES:			
		User Authentication Mode	Wiegand In:		Mif	fare DESFire AES:			
		0	Clock and Data In:		Ke	ypad:			
	-	Operator Role	HID iClass:						
		Notifications	HID IClass SEOS:						
		Clients					G		
6	C	lick Next until yo	ou arrive at th	ne Access Con	ntrol M	ode Sett	ings page		

E MorphoManager [14.4.3.9]		-	n x
🕆 Home 🗟 Administration 🕯	User Managemen 🔹 Biometric Identificatic 🕺 Access Logs 🍓 Reports		
Items	Editing Biometric Device Profile		
Operator	Access Control Mode Settings		
🙀 Key Policy	Access Control Mode: Integrated V		
Biometric Device	Wiegand Out Enabled: Clock and Data Out Enabled:		
Biometric Device	Panel Feedback Mode: LED In Panel Feedback No. Response Timeou teat		
Wiegand Profiles	Relay Enabled:		
🍇 User Policy	Push To Exit Enabled:)	
Access Schedules	Request to Exit Egress Timeout: 25000 (in miliseconds - pleas	e refer to the	
User Distribution Group	Duress Wiegand Mode: Reversed Duress Wiegand Profile: Mifare CSN		
User Authentication Mode			
I Operator Role			
Notifications			
June 2015			
Scheduled Reports			
Card Template			
Card Encoding Log			
Event Log		🙁 Back Next 😕 Finish 🥥 C	ancel 😮
Connected to https://w10-lt	c-en://2100/ Logged in as Ar Site ID: C60E-0C22-E023	-46E6-8906-58DD-E542-6E10 🚔 Log Out 📪 Change Pa	assword

At this point, the procedures for Wiegand and OSDP AMCs diverge. Follow the procedure that corresponds to your AMC controller type:

For Wiegand AMCs

- 1. Set Access Control Mode to Integrated
- 2. Set Panel feedback Mode to LED In
- 3. Click Finish

For OSDP AMCs

- 1. Set Access Control Mode to Integrated
- 2. Set Panel feedback Mode to LED In
- 3. Click Next until you reach the Custom Parameters page
- 4. Click **Add** and add four custom parameters and set their values as follows:
- Comm_channels_state.serial =1 (Enable communications channels)
- OSDP.channel=1 (Enable OSDP)
- OSDP.device_serial_address = <value> (Set <value> to the bus address of the
 reader)
- OSDP.secure_connection=1 (Enable secure channel)
- 5. Click **Finish**
- 6. Start the separate MorphoBioToolBox (MBTB) program
- 7. On the **Connection** tab, set the IP address of the biometric reader

<pre>(()) IDEMIA</pre>				Eile Options	Help
Connection	Authorized IP Address	Communication Configuration	Password		als
	Terminal Type MA Sigma	Family			ermin
	Connection information	on			ent T
	TCP / IP O Serial	Sr. No - 1830SM	P0000203		Rece
	Address	type 💿 IP4 🔾 IP6 🕥 Host Name			
2	Ade	dress 192.168.1.99			
		Port 11010			
	Tim	eout 30 Seconds [5-30]			
	Use SSL	/TLS			
	Terminal CA certificate	path	rowse		
	Client certificate	path 🚺	owse		
			1.		
Erase logs Expo	t				

1. In the MorphoBioToolBox program, go to **Network & Secure Communication** > tab: Communication Configuration



- 1. Make the following settings in the **Serial Settings** pane:
- **Type**: Half Duplex
- Baud Rate: 9600
- Data Bits: 8
- Stop Bits: 1
- Parity Bit: No parity
- Terminal identifier: 0.
- 2. If you change any of the values, click **Write** to send the changes to the device.

3.2.3 Biometric Device(s)

The biometric devices test whether the biometric credentials that they read match records in the database. They also keep a log of every usage event.

Procedure:

- 1. In MorphoManager navigate to **Administration > Biometric Device**.
- 2. Click **Add** to create a new Biometric Device.
- 3. Enter at least the essential details for the device:
- (from the list) Hardware Family
- Hostname\IP address
- (from the list) the **Biometric Device Profile** that you have defined earler
- 4. Click Finish

E MorphoManager [14.4.3.9]			-		×
🔒 Home 📮 Administratio	user Managemen 🔹 Biometric	: Identificatic 👼 Access Logs 📓 Reports			
Items	Adding Biometric Device				
Operator	Enter the details for t	his Biometric Device			
🗊 Key Policy	Name:	MASigmaMulti			
Biometric Device Profile	Description: Location:				
Biometric Device	Asset ID: Export Value:				
Wiegand Profiles	Time Zone:	(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna \vee			
🍇 User Policy	Hardware Family:	MA Sigma, MA Sigma Lite, MA Sigma Lite+, MA Sigma Extreme, MA VP MD $$			
Access Schedules	Serial Number: Hostname\IP Address:	MASigmaMulti			
User Distribution	Port:	11010			
Group	Biometric Device Profile:	Express			
User Authentication Mode	Include in Time & Attendance E Change User Onsite / Offsite St	xports: atus:			
(Operator Role	Onsite Key:	No Key 🗸			
Notifications	Offsite Key:	No Key 🗸			
Clients					
Scheduled Reports					
Card Template					
Card Encoding Log					
Event Log		(e) Back Next (e) Finish	0	Cancel 🖸	
×					
Connected to https://127.0.0	0.1:42100/ Logged in a	is Adn 🛛 Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 📪 Cl	hange P	asswor	rd

The Biometric Device dialog now lists devices that are already configured:

🛃 MorphoManager [14.4.3.9]						- 🗆 X
Administration	🕯 User Managemen 🚳 Biomet	ric Identificatic 👼 Access Logs 🔕 Reports				
Items	Biometric Device		_	_	_	
Operator	Add Edit Delete R	Image: Synchronize Get Logs View Sync Logs	g Set Date/Time	Rebuild Reboot	Set Offline Show A	Q, N Filter
👔 Key Policy	Name	 Description 	Location	Biometric Dev	Synchronizati State	us Tasks
- Riomatric Davica	MASigmaMulti			Express	🛕 Required Sy 🥝 Or	ilne 4
Profile	VisionPassMDPI	Face Regocnition	AC3	Default	Synchronized Or	line 0
Biometric Device						
- Hitmand Dueffler						
wieganu Pronies						
🍇 User Policy						
Access Schedules						
User Distribution Group						
User Authentication Mode	Details Logs Queue	d Tasks (4) Failed Tasks (0)				Hide Details
🙊 Operator Role	MASigmaMulti					
Notifications	Description:	MA STOMA Multi W/D				
Clients	Serial Number:	2019SM50001431				
Scheduled Reports	Hostname\IP Address: User Slots:	MASigmaMulti:11010 0 / 5000				
Card Template	Time Zone: Synchronization Mode:	(UTC+01:00) Amsterdam, Berlin, Bern, Rome, S Automatic	itockholm, Vienna			
Card Encoding Log	Synchronization Status: Device Status:	Required Synchronization Online				2000
Event Log						
×						
nnected to https://127.0.	0.1:42100/ Logged in	as Adn Site ID: 1C33-52E8-2C9A-4	18EF-A7D6-A2A	0-14A0-CA2D	🛕 Log Out 🛛 🧔 🤇	Change Password

3.2.4 User Policy

User polices are bundles of access rights that you assign to users who have the same access requirements, that is, which biometric devices they are permitted to use in which modes and at what times.

Procedure:

- 1. In MorphoManager navigate to **Administration** > **User Policy**
- 2. Click **Add** to create a new user policy.

🛃 MorphoManager [14.4.3.9]			- 🗆 ×
윢 Home 🗧 Administratio	🕴 User Managemen 🛛 🏶 Biometric Id	entificatic 🐱 Access Logs 🖏 Reports	
 Administratio Administratio Items Operator Key Policy Biometric Device Profile Biometric Device Biometric Device Wiegand Profiles User Policy Access Schedules User Distribution User Distribution 	User Managemen Bometric Id Adding User Policy Enter the details for this Name: Description: Access Mode: Access Schedule: Extended User Details: Wiegand Profile: User Authentication Mode: Show Photo Capture Page:	entificatic S Access Logs Reports	
User Authentication Mode Operator Role Notifications Clients Scheduled Reports Card Template Card Template Card Encoding Log Event Log		Back Next	Finish 🖉 Cancel 🥥

Connected to https://127.0.0.1:42100/ Logged in as Adn Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 🦻 Change Password

- 3. In the Adding User Policy dialog enter the following:
- A Name for the User Policy and (optionally) a description
- The Access Mode Per User
- An Access Schedule governing the days and times when access is permitted
- The same Wiegand Profile that you defined and used for the Biometric Device Profile.
- A User Authentication Mode, depending on the ways in which the device users will use the devices (by fingerprint, finger, face, cards etc.). See the MorphoManager User Manual for details.
- 4. Click Finish

The default User Policy will have a User Authentication mode of *(1: Many)*. To utilize other authentication modes, create additional User Policies. Consult the MorphoManager User Manual for more detail on all the various properties that can be assigned to a User Policy.

3.2.5 User Distribution Groups

User Distribution Groups map users to groups of biometric readers or MorphoManager clients.

Prerequisites:

Users in User Distribution Groups must have a User Policy where **Access Mode** is set to *Per User*.

Each User Distribution Group must be mapped to at least one Person Class in ACE . Therefore create at least one User Distribution Group for each Person Class that you use.

Procedure:

- 1. In MorphoManager navigate to **Administration** > **User Distribution Group**.
- 2. Click **Add** to create a new User Distribution Group.

🛃 MorphoManager [14.4.3.9]		-		×
😚 Home 📮 Administration	🖬 User Managemen 🔹 Biometric Identificatic 👼 Access Logs வ Reports			
Items	Adding User Distribution Group		-	
🧼 Operator	Enter details for this User Distribution Group			
🗊 Key Policy	Name: Engloyee			
Biometric Device Profile	Descipuli			
Biometric Device				
Wiegand Profiles				
a User Policy				
Access Schedules				
User Distribution Group				
User Authentication Mode				
🙊 Operator Role				
Notifications				
June 2010 Clients				
Scheduled Reports				
Card Template				
Card Encoding Log				_
● Event Log	Back Next Finish	0	Cancel 🤇)
Connected to https://127.0.	0.1:42100/ Logged in as Adn Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 🤛 Ch	nange f	Passwo	rd

3. Click **Next** until you reach the page titled **Select Biometric Devices**.

4. Select the check boxes of those biometric devices that the persons of this User Distribution Group are to use.

🛃 MorphoManager [14.4.3.9]				- 🗆 X
🔒 Home 📑 Administration	🎝 User Managemen 🚳 Biometric Io	lentificatic 👼 Access Logs 🔕 Reports		
Items	Adding User Distribution Gr	oup		
Operator	Select Biometric Device	5		
👔 Key Policy	Select All 😤 Clear All 🔍 F	Fiter		
Biometric Device	Name	Description	Location	Model
Biometric Device	VisionPassMDPI	Face Regocnition	AC3	MA SIGMA Multi WR. VisionPass
Wiegand Profiles				
🍇 User Policy				
Access Schedules				
User Distribution Group				
User Authentication Mode				
🔿 Operator Role				
Notifications				
Clients				
Scheduled Reports				
Card Template				
Card Encoding Log				
Event Log			Back Ne	xt 🐵 Finish 📀 Cancel 😒
×				

Connected to https://127.0.0.1:42100/ Logged in as Adn Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 🦻 Change Password

3.2.6 Setting up ODBC for BioBridge

Introduction

Open Database Connectivity (ODBC) is a prerequisite for use of MorphoManager BioBridge. ODBC is a standardized programming interface for accessing different databases. The recommended driver is *OdbCDriver17SQLServer*, which you can find on the BIS installation media at

BIS\3rd Party\OdbCDriver17SQLServer

Creating a Data Source

Creating a Data Source name (DSN) for ODBC

- 1. In the Windows Control Panel select **Administrative Tools**.
- 2. Select ODBC Data Sources (64-bit) from the list.
- 3. Select the System DSN tab.

System D	lata Sources: Platform Dri	ver						۵dd	
								Remov	0
								Configure	-
							11	Johngan	
	A- 0000 0								
	A System da	ita source is vi	sible to all u	informat users on	this machi	ne, includir	nect to the ng NT serv	indicated data prices.	provider.

4. Click Add to select a driver.

Create New Data Source

5. Select ODBC Driver 17 for SQL Server as the driver, and click Finish.

 \times

Name Version ODBC Driver 17 for SQL Server 2017.174.0 SQL Server 10.00.1776	Comp 2.01 Micro 3.01 Micro
3QL Server 10.00.1776	5.01 MilCro
<	>

- 6. Enter the following details for the Data Source.
- Name: a name for the data source
- **Description** (optional)
- Server: the name of the computer where the ACE database is installed, and the name of the database (default: <MyACEserver>\BIS_ACE)

Microsoft SQL Server DS	N Configuration	×
	This wizard will help you create an ODBC data source that you can use to connect \ensuremath{SQL} Server.	to
SOL Server	What name do you want to use to refer to the data source?	
	Name: ODBCIdemia	
	How do you want to describe the data source?	
	Description:	
	Which SQL Server do you want to connect to?	
	Server: VM-W2019-EN-ERT\BIS_ACE	\sim
	Hinish Next > Cancel Help	

7. Click Next >

A dialog appears to collect login information

Microsoft SQL Server D	SN Configuration	×
8	How should SQL Server verify the authenticity of the login ID?	
SQL Server	○ <u>W</u> ith Integrated Windows authentication.	
	S <u>P</u> N (Optional):	
A	◯ With Azure Active Directory Integrated authentication.	
	O With SQL Server authentication using a login ID and password entered by the user.	
	\bigcirc With Azure Active Directory Password authentication using a login ID and password entered by the user.	
	\bigcirc With Azure Active Directory Interactive authentication using a login ID entered by the user.	
	Login ID: Idemia	
	Password:	
		_
	< <u>B</u> ack <u>N</u> ext > Cancel Help	

- 8. Select With SQL Server authentication using a login ID...
- 9. Enter the following information:
- Login ID: The user name of the Idemia database user as configured in ACE . This is always *Idemia*.
- Password: The password that was set for the Idemia database user, when it was configured in ACE
- 10. Click Next >
- 11. In the next dialog, select the check boxes:
- Change the default database to: and select Idemia
- Use ANSI quoted identifiers
- Use ANSI nulls, paddings and warnings
- Transparent Network IP Resolution
- 12. Set Application intent to READONLY

/icrosoft SQL Server DSN Configuration

wicrosoft SQL Server D.	siv conliguration	
e	Change the default database to:	
	Idemia	~
SQL Server	Mirror server:	
	SPN for mirror server (Optional):	
	Attach database filename:	
	Use ANSI quoted identifiers.	
	Use ANSI nulls, paddings and warnings. Application intent:	
	READONLY	~
	Multi-subnet failover.	
	Transparent Network IP Resolution.	
	Column Encryption.	
	Enclave Attestation Info:	
	Use FMTONLY metadata discovery.	
	< Back Next > Cancel	Help

- 13. Click Next >
- 14. In the next dialog, select the check boxes
- Use strong encryption for data
- Perform translation for character data
- Trust server certificate

	Change the language of SQL Server system messages to:	
SQL Server	Use strong encryption for data.	
	✓ Trust server certificate.	
	Perform translation for character data.	
	Use regional settings when outputting currency, numbers, dates and time	es.
	Save long running queries to the log file:	
	C:\Users\ADMINI~1\AppData\Local\Temp\QUERY Browse	
	Long query time (milliseconds): 30000	
	Log ODBC driver statistics to the log file:	
	C:\Users\ADMINI~1\AppData\Local\Temp\STATS Browse	
	Connect retry count: 1	
	Connect retry interval (seconds): 10	

- 15. Click Finish
- 16. In the next dialog, review the summary data

ODBC Microsoft SQL Server Setup	×
A new ODBC data source will be created with the following configuration:	
Microsoft SQL Server ODBC Driver Version 10.00.17763	\sim
Data Source Name: ACEIdemiaSQLServer Data Source Description: Server: VMW2016ENBISERT\BIS_ACE Database: Idemia Language: (Default) Translate Character Data: Yes Log Long Running Queries: No Log Driver Statistics: No Use Regional Settings: No Prepared Statements Option: Drop temporary procedures on disconnect Use Failover Server: No Use ANSI Quoted Identifiers: Yes Use ANSI Quoted Identifiers: Yes Data Encryption: No	
	~
Test Data Source OK Cance	el

17. Click Test Data Source... and ensure that the tests complete successfully

SQL Server ODBC Data Source Test

 \times

Microsoft SQL Server ODBC Driver Version 10.00.17763	~
Running connectivity tests	
Attempting connection Connection established Verifying option settings Disconnecting from server	
TESTS COMPLETED SUCCESSFULLY!	

18. Save all changes and exit the ODBC setup wizard.

3.2.7 BioBridge System Configuration

This section describe the remaining settings required for access control systems to use the BioBridge interface.

Prerequisite

ODBC is set up for BioBridge. See *Setting up ODBC for BioBridge, page 16*

Procedure:

- 1. In MorphoManager navigate to Administration > System Configuration.
- 2. Select the **BioBridge** tab

🛃 MorphoManager [14.4.3.9]			- 🗆 X
윢 Home 🗮 Administration	🕴 User Managemen 🛛 🕸 Biometric Identificatio	🐻 Access Logs 🖓 Reports	
Items	System Configuration		
@ Operator	Time & Attendance Communications Engine System R	Functionality System Management Gateways Connector Service BioBridge Privacy Mode MorphoTablet Password Rules Card Template Management Finger Template Capture Options Display Options MorphoWave	Duplication Control
🗊 Key Policy	MorphoManager BioBridge Setting	S	
Biometric Device Profile	System:	Nene Configure	
Biometric Device	Grouping Mode:		
Wiegand Profiles	Enable Forced User Policy:	Enabled	
🍇 User Policy	User Synchronization Start Time:	12:00 AM (\$	
Access Schedules	User Synchronization End Time:	11:50 PM 🗘	
User Distribution	Delay Between Each User Synchronizat		
User Authentication Mode	User Cache Schedule:	ertesning: Enabled	
in the second se		✓ 12:00 ✓ 1:00 AM ✓ 2:00 AM ✓ 3:00 AM	
		✓ 4:00 AM ✓ 5:00 AM ✓ 6:00 AM ✓ 7:00 AM ✓ 8:00 AM ✓ 9:00 AM ✓ 10:00 ✓ 11:00	
Clients		Ø 12:00 Ø 1:00 PM Ø 2:00 PM Ø 3:00 PM	
Scheduled Reports		✓ 8:00 PM ✓ 9:00 PM ✓ 10:00 ✓ 11:00	
E Card Template	User Distribution Group Mappings:		
Card Encoding Log	Access Groups	User Distribution Group	
Event Log			
Exception Log			
X System Configuration			
		0:	Save 🔘 Cancel
Connected to https://127.0	.0.1:42100/ Logged in as Adminis	strator (System Administrator) Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 📪 Cl	hange Password

Connected to https://127.0.0.1:42100/ Logged in as Administrator (System Administrator)

- In the System drop-down list, select MorphoManager Universal BioBridge 3.
- 4. Click Configure

A popup dialog appears.

N	orphoManager Universal	BioBridge Connection	X
	Please select the Provider: ODBC © Use basic connection ODBC Data Source	provider in the dropdown list below.	
	Please enter the like to connect to	DSN name the ODBC data source you would :	
	DSN:	ACEIdemiaSQLServer	
	Logon details Please enter the Username:	logon details for the ODBC data	
	Password:	•••••	
	O Use advanced co Connection string	nnection string	
		OK Cancel	

In the popup window

- In the **Provider** drop-down list, select ODBC 1.
- 2. Enter the DSN (Data Source Name) from the ODBC setup.
- 3. Under Logon details, enter the username (Idemia) and password as defined in the ODBC setup.
- Click OK to return to the System Configuration dialog. 4.
- In the System Configuration dialog

1. For Wiegand Profile: select from the list the Wiegand profile that you defined earlier.

Grouping mode:

This setting determines how MorphoManager should map MM Universal BioBridge users to MorphoManager User Distribution Groups. Select one of the following:

- Automatic: This mode will automatically match Access Level groups from MM Universal BioBridge to MorphoManager User Distribution Groups, if they have the same naming convention.
- Manual: If the Access Level groups of MM Universal BioBridge and the User Distribution Group(s) of MorphoManager are not the same, then you can perform the mapping manually in User Policy Mappings.

Other settings

In most cases the following settings can be left at their default values:

Enable Forced User Policy	When selected, all users that are enrolled in the BioBridge enrollment client will receive the User Policy that is selected from the adjacent list. If you select this check box, always use the User policy named <i>Per</i> <i>User</i>
User Synchronization Start Time and End Time	The user synchronization engine will only be permitted to run between these two times.
Delay between Each User Synchronization	The time interval between user synchronizations. Increasing the delay will save system resources, but increase the time for all the users to be updated.
Allow User Sync While User Cache Is Refreshing	When enabled, the User Synchronization engine will run in parallel to the User Cache Refresh. This is very taxing on system resources. It is recommended that you disable this setting when using large databases.
User Cache Refresh Schedule	The days and times when the user cache may be refreshed. For the highest accuracy, this should be at all times, but for the performance of systems with large databases, a compromise is required.

User Distribution Group mappings

 In the mappings table, ensure that all Groups (Personnel classes defined in ACE) are mapped to User Distribution groups (defined MorphoManager).

MorphoManager [14.4.3.9]			_	
Home Administration	User Managemen 🔹 Biometric Identificatic	J Access Logs 🔞 Reports		
ems	System Configuration			
Operator	Time & Attendance Communications Engine System P	unctionality System Management Gateways Connector Service BioBridge Privacy Mode MorphoTablet Password Rules Card Template Management Finger Template Capture Options Display Options MorphoWa	e Duplicatio	n Control
Key Policy	MorphoManager BioBridge Setting	5		
Biometric Device	System:	MorphoManager Universal BioBridge \vee Configure		
Profile	Wiegand Profile / :	Default 🗸		
Biometric Device	Groups Mode:	Automatic 🗸		
Wiegand Profiles	Enable Forced User Policy:	Enabled		
Liser Policy	Forced User Policy:	Default 🗸		
a osci Policy	User Synchronization Start Time:	12:00 AM 🔯		
Access Schedules	User Synchronization End Time:	11:99 PM		
User Distribution	Delay Between Each User Synchronizat	on (m ⁵⁰ •		
Group	Allow User Sync While User Cache Is Re	freshing: Enabled		
User Authentication Mode	User Cache Schedule:	🖉 Sunday 📝 Monday 📝 Tuesday 🖓 Wednesday 🖓 Thursday 🖓 Friday 📝 Saturday		
Role		ビ 12:00 ビ 1:00 AM ビ 2:00 AM ビ 3:00 AM		
Notifications		🗹 4:00 AM 🗹 5:00 AM 🗹 6:00 AM 🗹 7:00 AM		
HOURAUDIIS		2 8:00 AM 2 9:00 AM 2 10:00 2 11:00		
Clients		E TODE E COUPA E ZOUPA E SCUPA MARINE A COUPA E COUPA E SCUPA		
Scheduled Reports		S:00 PM 9:00 PM / 10:00 / 11:00		
Card Template	User Distribution Group Mappings:			
Card Encoding Log	Groups	User Distribution Group		_
	Employee	Employee		~
Event Log				
Exception Log				
System Configuration				
			Save	Cance

3.3 Configuring the BioBridge Enrollment Client

Introduction

A BioBridge enrollment client is a computer at which you can create biometric records for users of the access control system. The setup of a BioBridge enrollment client has 3 parts:

- Adding an enrollment operator to MorphoManager
- Configuring the MorphoManager client computers for enrollment tasks
- Testing the enrollment client

Prerequisites

MorphoManager BioBridge is installed on every ACE workstation from which you perform biometric enrollment for IDEMIA systems.

3.3.1 Adding an enrollment operator to Morpho Manager

Procedure

Follow the instructions in the MorphoManager client installation guide. **Note:** for security reasons, Active Directory user accounts are recommended.

3.3.2 Configuring the MorphoManager client computers for enrollment tasks

Perform this procedure on each computer that you wish to use for biometric enrollment.

Procedure

1. In the MorphoManager installation directory (default: C:\Program, Files(x86)\Morpho \MorphoManager\Client\) execute the file ID1.ECP4.MorphoManager.AdvancedClientConfig.exe as administrator

erver connection type:	Manually specified V	
Hostname:	Morho server	Port: 42100
Port:	42100	
ertificate binding:	Automatic \checkmark	
ertificate thumbprint:		
erver certificate validation:	None \checkmark	
latch certificate issuers:		
ertificate issuer thumbprint:		
tomatic login		
Enable automatic login		
Username: Enroll	Jser	
Deserved		

- 2. Enter the Hostname of the Morpho server under Hostname
- 3. Under Automatic login
- Select the check box Enable Automatic login
- Enter the username and password that you entered for the enrollment operator in the previous section
- 1. In the MorphoManager installation directory (default: C:\Program Files(x86)\Morpho \MorphoManager\Client\)

 $execute \ the \ file \ \textit{Start ID1.ECP4.MorphoManager.Client.exe} \ as \ Administrator$

- 2. Navigate to Administration > Clients
- 3. Select a client computer
- 4. Click Edit

MorphoManager	[14.4.3.9]
worphowanager	[144:4:2:2]

🛃 MorphoManager [14.4.3.9]		- 🗆 X
🏫 Home 📑 Administration	🛊 User Management 🛭 🚳 Biometric Identification 🛛 👼 Access Logs 🖓 Reports	
Items	Editing Clients	
Operator	Enter the details for this client	
Key Policy	Name: vmw10enLTSC	
Biometric Device Profile	Location:	
Biometric Device		
Wiegand Profiles		
🥸 User Policy		
Access Schedules		
User Distribution Group		
User Authentication Mode		
🙊 Operator Role		
Notifications		
Clients		
Scheduled Reports	🖲 Back Next 🕑 Finish 🥥	Cancel 🔇
V Cond Tomoloto		
Connected to https://vmw10enltsc-copy:42	2100/ 🛛 Logged in as Administrator (Sy: 🛛 Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 🖓	🔑 Change Password 💡

Enter the name of the intended enrollment client, and optionally the location and a 5. description

6. Click Next

📒 MorphoManager [14.4.3.9]		- 🗆 X
Administration	≩ User Management 🚷 Biometric Identification 👼 Access Logs 🖓 Reports	
Items	Editing Clients	
Operator	Select the tabs displayed on this Client	
Key Policy	Tab Name Administration	
Biometric Device Profile	User Management	
Biometric Device	Access Logs	
Wiegand Profiles	Onsite/Offsite Biometric Identification	
🦓 User Policy		
Access Schedules		
User Distribution Group		
User Authentication Mode		
🙊 Operator Role		
Notifications		
Clients	Changing the visibility of tabs requires a logout/restart of MorphoManager	
Scheduled Reports	🚯 Back Next 😕 Finish 🥥	Cancel 🙆
V Conditionalists		
Connected to https://vmw10enltsc-copy:/	42100/ 🛛 Logged in as Administrator (Sy: 🛛 Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🛛 🔒 Log Out 🗤 🧊 Ch	hange Password

- 7. Select the check boxes of the tabs that you want to display on the enrollment client:
- Administration,
- User Management,
- Reports,
- Access Logs,
- Biometric Identification
- 8. Click Next

🛃 Morp	hoManager [14.4.3.9]									_		×
😚 Но	me 🔁 Administration	4	User Management	🏶 Biometric Ide	entification	👼 Access Logs	Repo	rts				
Items	Operator	^	Editing Clients Configure Came	ra for this clier	nt		-	-	-			
9	Key Policy		Camera:		No Camera			~				
	Biometric Device Profile											
	Biometric Device											
2000- 1000-	Wiegand Profiles											
9	Access Schedules											
2	User Distribution Group											
	User Authentication Mode											
-	Operator Role											
	Notifications											
	Clients											
	Scheduled Reports	~				Back	Next	۲	Finish 📀	Can	cel 🔕	
Connected	l to https://vmw10enltsc-copy	/:4210	0/ Logged in as A	dministrator (Sy:	Site ID: 1C33-	52E8-2C9A-48EF-/	47D6-A2A0-14	4A0-CA2D	🔒 Log Out	🧽 Chang	e Passwor	d.

9. For **Camera:** select *No camera* from the list

10. Click Next

14 ND								
🛃 MorphoM	lanager [14.4.3.9]					-		×
🏫 Home	🔁 Administration 🤰	User Management 🛛 😵 Biometric Io	dentification	Access Logs	🗿 Reports			
Items		Editing Clients	_	_				
💭 Ор	erator	Configure key policy for this o	client					
Key	y Policy	Key Policy:	Default			\sim		
Bio	ometric Device ofile							
🕅 Bio	ometric Device							
wer Wie	egand Profiles							
🤷 Use	er Policy							
Acc	cess Schedules							
🛐 Use Gro	er Distribution pup							
See Use Mo	er Authentication ode							
🛒 Ор	erator Role							
Not	tifications							
Clie	ents							
🧿 Sch	heduled Reports			Back	Next 😕	Finish 📀 🤇	Cancel 🙆	
	v ▼							
Connected to h	https://vmw10enltsc-copy:421	00/ Logged in as Administrator (Sy:	Site ID: 1C33-52E	8-2C9A-48EF-A7D	6-A2A0-14A0-CA2D	🚆 Log Out 🛛 🧊 Ch	ange Passwo	rd

- 11. For **Key Policy** select *Default* from the list
- 12. Click Next

🛃 MorphoManager [14.4.3.9]			- 0	×
🏫 Home 📑 Administration 🔒	🖞 User Management 🛛 😵 Biometric Identification	🔊 Access Logs 🛛 👌 Reports		
Items	Editing Clients			
Operator	Enrollment Devices			
Key Policy	3D Face Enrollment Morpho 3D Face enrollment:	None ~		
Biometric Device Profile	Morpho 3D Face enrollment biometric device:		Search	
Biometric Device	Contact Enrollment Morpho Finger biometric enrollment:	Selected MorphoAccess V		
Wiegand Profiles	Morpho Finger enrollment MorphoAccess:	MASigmaMulti	Search	
🐴 User Policy	Contactless Enrollment Morpho Contactless Finger biometric enrollment:	Any MorphoWave Desktop (USB) 🗸		
Access Schedules	Morpho Contactless Finger enrollment MorphoAccess:		Search	
User Distribution Group	5G Face Enrollment Morpho face biometric enrollment:	Selected MorphoAccess 🗸		
User Authentication Mode	Morpho face enrollment MorphoAccess:	VisionPassMDPI	Search	
🙊 Operator Role	Smartcard Encoding Morpho Smartcard encoding:	None ~		
Notifications	Morpho Smartcard encoding PC/SC device:	~ ~		
Uients	Morpho Smartcard encoding MorphoAccess:		Search	
Scheduled Reports		🕚 Back Next 👀 Finish 📿	Cancel /	2
V Conditionalate				

Connected to https://vmw10enltsc-copy:42100/ Logged in as Administrator (Sy: Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🔒 Log Out 📪 Change Password 🛒

- 13. Select the biometric enrollment reader that you want to use on the enrollment workstation
- 14. Click Finish
- 15. Close the MorphoManager application

Refer to

- Configuring the BioBridge Enrollment Client, page 23

3.3.3

Testing the enrollment client

1. In the MorphoManager installation directory (default: C:\Program,Files(x86)\Morpho
\MorphoManager\Client\)
execute the file ID1.ECP4.MorphoManager.BioBridgeEnrollmentClient.exe



Details	Logs	Biometrics		Hide Details
			No User Selected	
			Date of Birth	
			Authentication	
			User Policy	
			Disabled	
Exp	oort Photo	📷 Add Photo		
Connected	to https://s	mullentre-	consr/2100/ Logged in as Eprolli Leer (ACE A) Site ID: 1023-5258-200A-49EE-A7D6-A2A0-14A0-0A2D 🔒 Log out 💿	Change Password

1. Make sure that you can invoke the enrollment screen without having to enter the username and password of the enrollment operator.

3.4 Supporting different card technologies and formats

In order for the MAC to interpret your access cards correctly, you must ensure that the Wiegand profile (or profiles) that you have defined in MorphoManager include the format (or formats) of those access cards:

General procedure

- 1. In MorphoManager navigate to Administration > Wiegand Profile
- 2. Click Add to create a custom Wiegand profile
- 3. In the related dialogs, enter the formatting information and the card technology that your system uses
- 4. In order to use your newly-defined Wiegand profile in the system, enter its name in the **Wiegand Profile** field of the following MorphoManager dialogs:
- Administration > Biometric Device profile
- Administration > User policy

Mifare Classic CSN

- 1. Add Wiegand Element User CSN Element and enter the following details
- **Name**: *CSN* (for example)
- Length 32
- Transformation mode: Reversed
- 2. Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check box MIFARE Classic

Mifare DESFire CSN

The configuration is identical to Mifare Classic except for the following details:

- Length: 56
- Add Wiegand Element User CSN Element
 - Enter a name under **Name:**
 - For Length enter 56
 - For Transformation mode: enter Reversed
- Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check box Mifare DESFire 3DES

iClass 26 BIT

1. Select the predefined profile *Standard 26 bit-HID PACS*

s	Wiegand Profiles				
Operator	Add Edit Delete Refresh	nport 🖬 Export			
Key Policy	Name	 Description 	MA2G	MA5G	M3DF
Diamatria Davias	Automatically generated random 64 bit		Interpreted	Interpreted	Raw
Profile	CASI-RUSCO 40 bit	19 bit Facility / 19 bit Badge	Raw	Raw	Raw
	HID Corporate 1000 - 35	HID Corporate 1000 35-bit	Raw	Interpreted	Raw
Biometric Device	HID Corporate 1000 - 48	HID Corporate 1000 48-bit	Raw	Interpreted	Raw
Wiegand Profiles	HID Corporate 1000 - HID PACS	HID Corporate 1000 - PACS	Raw	Interpreted	Raw
TRISULT FIOLICS	ISO/IEC 14443 CSN 32 bit	32 bit Card Serial Number	Interpreted	Interpreted	Not Suppor
User Policy	ISO/IEC 14443 CSN 56 bit	56 bit Card Serial Number	Interpreted	Interpreted	Not Suppor
	ISO/IEC 14443 CSN 64 Bit	64 bit Card Serial Number	Interpreted	Interpreted	Not Suppor
Access Schedules	Kastle 32 bit	Kastle 32 bit	Raw	Interpreted	Raw
Jser Distribution	Matrix 56 bit	54 bit User ID	Interpreted	Interpreted	Raw
Group	Mifare csn		Interpreted	Interpreted	Not Suppor
er Authentication	MifareDesfireCSN		Interpreted	Interpreted	Not Suppor
de	OnGuard Wiegand 64	8 bit facility, 48 bit card number, 8 bit issue code	Raw	Raw	Raw
Description Disks	Standard 26 bit	8 bit Site/16 bit User code	Interpreted	Interpreted	Raw
operator kole	Standard 26 bit - HID PACS	8 bit Site/16 bit PACS	Interpreted	Interpreted	Raw
Notifications					
Clients					
cheduled Reports					
Card Template					
Card Encoding Log					
Constitute					

- 2. Click Edit
- 3. Click Next

E Mo	orphoManager [14.4.3.9]						- D X
🔒 н	ome 🗟 Administration 🕯	User Managem	ien 🏾 🏶 Biometric	c Identificatic 👼 Access Li	ogs 🔞 Reports		
Iten	15	Editing Wie	egand Profiles		_	-	
	Operator	Add Wieg	and profile e	elements			
	Key Policy	Wiegand	Elements			_	
	Biometric Device Profile	Add Edi	t Delete Mor	we Up Move Down			
67	Biometric Device	Туре	Name		Length	Bits	Extended
-	Diometric Device	Parity	Parity Bit 1		1	0	Even priority 1, Derived from bits 1,2,3,4,5,6,7,8,9,10,1
	Wiegand Profiles	Fixed	Site Code		8	1-8	Value is 232
20	User Policy	HID IClass/I	User ID		16	9-24	
9	Access Schedules	Parity	Parity bit 2		1	25	Odd pronky 2, Derived from bits 13,14,15,16,17,18,19,
	User Distribution Group						
	User Authentication Mode						
-	Operator Role						
8	Notifications						
	Clients						
	Scheduled Reports						
	Card Template						
	Card Encoding Log	MA2G Mod	le: Interpreted	MA5G Mode: Interprete	d M3DF Mode: Raw		
0	Event Log						Back Next Finish Cancel Cancel
Conne	ected to https://127.0.0).1:42100/	Logged in a	as Adn Site ID: 1C3	3-52E8-2C9A-48EF-A7	D6-A2A	0-14A0-CA2D 🔒 Log Out 🛛 🕞 Change Password

- 4. Click Edit
- 5. Delete the line Fixed Facility Code
- 6. Select the line HID iClass SEP User ID
- 7. Click Edit
- 8. Change the length of the User ID from 1..16 to 1..24
- 9. Under Administration > Biometric Device profile, on the Biometric Device Settings page, for Wiegand Profile select *Standard 26 BIT-HID-PACS*
- 10. Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check box *HID iClass*
- 11. Click Next until you reach the page Custom Parameters
- 12. Click Add
- 13. Add custom parameter (case-sensitive) Wiegand.site_code_propagation
- 14. Set its value to 1
- 15. Click Finish.
- 16. Enter this completed Wiegand profile under Administration > User policy

iClass 35 BIT

- 1. Select the predefined profile HID Corporate 1000 35 BIT
- 2. Click Edit
- 3. Click Next
- 4. Select and delete the element line Fixed Company ID
- 5. Select and delete the element line User Card ID Number
- 6. Add the element line *HID iClass/iClass SE PACS Data* and in its element details, set the following:
- Name: Card ID Number
- Length: 32
- Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check box HID iClass
- Click Next until you reach the page Custom Parameters
- Click Add

- Add custom parameter (case-sensitive) Wiegand.site_code_propagation
- Set its value to 1
- Click Finish.
- Enter this completed Wiegand profile under Administration > User policy

iClass 37 BIT

- Length 37
- 1. Add element Parity:
- **Name: (for example)** *EvenParityBit 1*
- Priority: 1
- Length: 18
- Mode: Even
- **Basis bits**: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
- 2. Add element User HID iClass/iClass
- Name: (for example): Parity Bits 2
- **Priority**: 2
- Length: 19
- Mode: Odd
- Basis bits: 19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37
- Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check box *HID iClass*
- Click **Next** until you reach the page **Custom Parameters**
- Click Add
- Add custom parameter (case-sensitive) Wiegand.site_code_propagation
- Set its value to 1
- Click **Finish**.
- Enter this completed Wiegand profile under Administration > User policy

iClass 48BIT

- 1. Select the predefined profile HID Corporate 1000 48 BIT
- 2. Click **Edit**
- 3. Click Next
- 4. Select and delete the element line Fixed Company ID
- 5. Select and delete the element line User Card ID Number
- 6. Add the element line *HID iClass/iClass SE PACS Data* and in its element details, set the following:
- Name: User
- Length: 45
- 7. Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check box *HID iClass*
- 8. Click Next until you reach the page Custom Parameters
- 9. Click Add
- 10. Add custom parameter (case-sensitive) Wiegand.site code propagation
- Set its value to 1
- 11. Click Finish.
- 12. Enter this completed Wiegand profile under Administration > User policy

HID Prox

- 1. Select the predefined profile *Standard 26 BIT*
- 2. Click Edit
- 3. Click Next
- 4. Delete the line Fixed Facility Code
- 5. Click Edit
- 6. Change the length of the User ID from 1..16 to 1..24
- 7. Under Administration > Biometric Device profile, on the Biometric Device Settings page, for Wiegand Profile select *Standard 26 BIT*
- 8. Under Administration > Biometric Device profile, on the Multi-Factor Mode Settings page, select the check boxes:
- Biometry
- Proximity card
- 9. Click Next until you reach the page Custom Parameters
- 10. Click Add
- 11. Add custom parameter (case-sensitive) Wiegand.site code propagation
- Set its value to 1
- 12. Click Finish.
- 13. Enter this completed Wiegand profile under **Administration** > **User policy**

3.5 Identification modes at biometric devices

Introduction

Biometric readers can identify credential holders in different ways, known as identification modes.

- By Card OR Biometry, depending on what the credential holder presents to the reader
- By **Card AND Biometry**, that is the user must verify through biometric credentials that they are the true owners of the card.
- By **Biometry only**

This section describes how to set configure these modes in MorphoManager.

Dialog path

In MorphoManager Administration tab

3.5.1 Card OR Biometry

Make the following settings if users are to identify themselves EITHER by card OR by biometric credentials.

1. In MorphoManager, go to Administration > Biometric Device Profile

🚽 MorphoManager [14.4.3.9]			- [×
🕆 Home 🛱 Administration 🗿	User Managemen 🚳 Biometric Ide	ntificatic 😺 Access Logs வ Reports			
Items	Adding Biometric Device Pro	ile			
Operator Key Policy	Enter details for the Biom	etric Device Profile CardOrBioMfareClassicCSN_OSDP1			
Biometric Device Profile	Configuration Mode:	Boress V			
 Biometric Device Wiegand Profiles 	Set Time/ Log retrieval interval:	(seconds) (Does not apply to Morpho 3D Face or MorphoTablet.			
🏠 User Policy	MorphoAccess heartbeat interval:	Cost not piper to respire ad face of Happinghabes Cost not piper to respire add for rebuild operations) So (seconds)			
Access Schedules User Distribution	Key Policy:	Default ~			
User Authentication	Allow Remote Enrolment: Default User Policy for Remote Enrol	ginia Exere, wa sigina Exercine, wa ve wu, visioneass, and worphowave Compact Securgs Ir Default			
Operator Role					
Notifications Olients					
Scheduled Reports					
Card Template					
Event Log		Back Next Finish (Ca	incel 입	,
onnected to https://127.0.0	.1:42100/ Logged in as A	dn Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🏦 Log Out 🔗 Ch	ange Pa	sswo	rd

2. Click **Next** until you reach the page titled **Biometric Device Settings**

1orphoManager [14.4.3.9]					-	
lome 📑 Administratio	🎝 User Managemen 🛛 🏶 Biometric Ide	ntificatic 🗧 Access Logs 🔮	Reports			
ms	Adding Biometric Device Pro	file				
Operator	Biometric Device Settings	5				
Key Policy	General Settings					
Biometric Device	Wiegand Profile:	Mifare csn	\sim			
Profile	Language:	English	\sim			
Biometric Device	Realtime logging enabled:					
Wiegand Profiles	Biometric Threshold Settings					
User Policy	Biometric Threshold:	Recommended	~			
Access Schedules	MorphoAccess Vein Print Mode:	Universal Fast	\sim			
7	MorphoAccess Fingerprint Threshok	1; 3	~			
Ser Distribution Group	Morpho 3D Face Identification Three	Medium	~			
n User Authentication	Morpho 3D Face Verification Thresh	Oly Fox.	14			
Mode	It is recommended the model restrictive mode than the model	le set in User Policy for enrolm ode set in Biometric Device Pr	ent should be the same ofile. Using a less restric	tive mode in User		
Role			5			
Notifications						
Clients						
Scheduled Reports						
Card Template						
Card Encoding Log						
Event Log				Back Next	Einish	Cancel
~	,]]			- Dack Next	e initisti 🥥	Cancer

3. For **Wiegand Profile**, select the same profile that you defined for your biometric devices when setting up BioBridge.



- 4. Select the **Biometric** check box, plus the check box of the card technology that your installation uses.
- 5. Click Next until you reach the Custom Parameters screen

🛃 MorphoManager [14.4.3.9]		- 🗆	×
🏫 Home 📑 Administration	r User Managemen 🖤 Biometric Identificatic 👼 Access Logs 🔞 Reports		
Items	Editing Biometric Device Profile		
Operator	MA Sigma, MA Sigma Lite, MA Sigma Lite+, MA Sigma Extreme, MA VP MD, VisionPass, MorphoWave Cu	stom	
Key Policy	Custom Parameters		
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ig Operator Role			
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E Card Template	and MorphoWave devices assigned this Biometric Device Profile, as is.	10, Vision as	°,
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×			_
Connected to https://127.0.).1:42100/ Logged in as Adn Site ID: 1C33-52E8-2C9A-48EF-A7D6-A2A0-14A0-CA2D 🧥 Log Out 🍞 Char	nge Passv	vord

- Click Add to add two custom parameters.
 Note: If these two parameters are set, the reader sends the card data directly to the AMC.
 The user does need not be enrolled on the IDEMIA reader.
- ucc.per user rules
- ucc.user_record_reference
- 7. Click **Finish**

Assign this user policy to the users

- 1. In MorphoManager, go to Administration > User Policy
- 2. Set the following attributes for **User Authentication Mode:**
- Enable Allow Start By Biometric
- Enable Allow Start By Contactless Card
- Disable **Require Template Match**
- 3. Click **Finish**

3.5.2 Card AND Biometry

Make the following settings if users must use a card AND biometric credentials, to verify that they are the owners of the card.

- 1. In MorphoManager, go to Administration > Biometric Device Profile
- 2. Click **Next** until you reach the page titled **Biometric Device Settings**
- 3. For **Wiegand Profile**, select the same profile that you defined for your biometric devices when setting up BioBridge.
- 4. Click **Next** until you reach the page titled **Multi-Factor Mode Settings**
- 5. Select the check box of the card technology that your installation uses.
- 6. Click Finish

Assign this user policy to the users

- 1. In MorphoManager, go to Administration > User Policy
- 2. For User Authentication Mode select *Contactless Card ID + Biometric* from the list.
- 3. Click Finish.

3.5.3 Biometry only

Make the following settings if users are to identify themselves by biometric credentials only.

- 1. In MorphoManager, go to Administration > Biometric Device Profile
- 2. Click Next until you reach the page titled Biometric Device Settings
- 3. For **Wiegand Profile**, select the same profile that you defined for your biometric devices when setting up BioBridge
- 4. Click Next until you reach the page titled Multi-Factor Mode Settings
- 5. For Multi-Factor Mode select Biometry only from the list
- 6. Click Finish

Assign this user policy to the users

- 1. In MorphoManager, go to Administration > User Policy
- 2. For **User Authentication Mode** select *Biometric(1:many)* from the list.
- 3. Click Finish.

3.6 Technical notes and limits

Officially supported windows operating systems

IDEMIA supports the same Windows 10 versions as ACE .

Officially supported version of Microsoft SQL Server

The support version is SQL Server 2017

One IDEMIA system per Access System

A Bosch access control system can support only one IDEMIA system.

One IDEMIA card per cardholder.

Bosch access control systems support multiple cards per cardholder, but IDEMIA supports only one. Therefore, upon enrollment, and when synchronizing with BIS, the first valid card (that is, where status=1) of type "Access", "Temporary" or "Parking" is assigned to IDEMIA. If the card is later blocked, its number is still transmitted and recorded in the event log.

Maximum number of IDEMIA cardholders

The BioBridge MorphoManager can handle up to 100,000 cardholders.

Maximum number of access groups

IDEMIA supports up to 5000 access groups (user distribution groups). These are mapped to **Person classes** in the Bosch access control system.

Performance of templates download

- 1000 templates to 1 device: Download takes under 1 minute.
- 1000 templates to 100 devices: Download in some minutes.

IDEMIA does not support **BIS-ACE** Divisions

Where an IDEMIA system is integrated, an ACE system is not able to screen the cardholders of one Division reliably from the access control operators of another Division. If absolute privacy is mandatory between Divisions, do not integrate an IDEMIA system.

Virtual Cards / Access by PIN code alone.

IDEMIA does not support access by PIN code alone. A physical card is required.

IDEMIA duress-finger functionality

The IDEMIA duress finger functionality is currently not supported by AMC controllers.

Minimum set of identification criteria.

Enrollment in the IDEMIA system requires at least the following identification criteria:

- First name,
- Last name,
- Person class
- One physical card assigned to the cardholder.

States displayed on the readers

No reader state (e.g. device blocked) is displayed on Wiegand and OSDP readers.

Backup and Restore

Before restoring a backup of a Backup of an ACE system with IDEMIA, delete and recreate the IDEMIA database using the IDEMIA DataBridge provider tool.

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