

MorphoManager

BioBridge

Cisco PAM

Quick Start Guide



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Introduction

BioBridge is an enrollment and synchronization middleware that overlays enrollment and demographic synchronization between MorphoManager and third party data sources. The infrastructure is extensible and supports interfacing to multiple third party systems (one at a time) by the implementation of an interface. BioBridge is not dependent on the underlying technology platform required for integration.

BioBridge supports the following version of Cisco PAM:

- 1.4.1_0.3.13

Support

Please contact your installer for additional support.

Setting up BioBridge

The following areas of MorphoManager will need to be configured as part of Cisco PAM BioBridge setup:

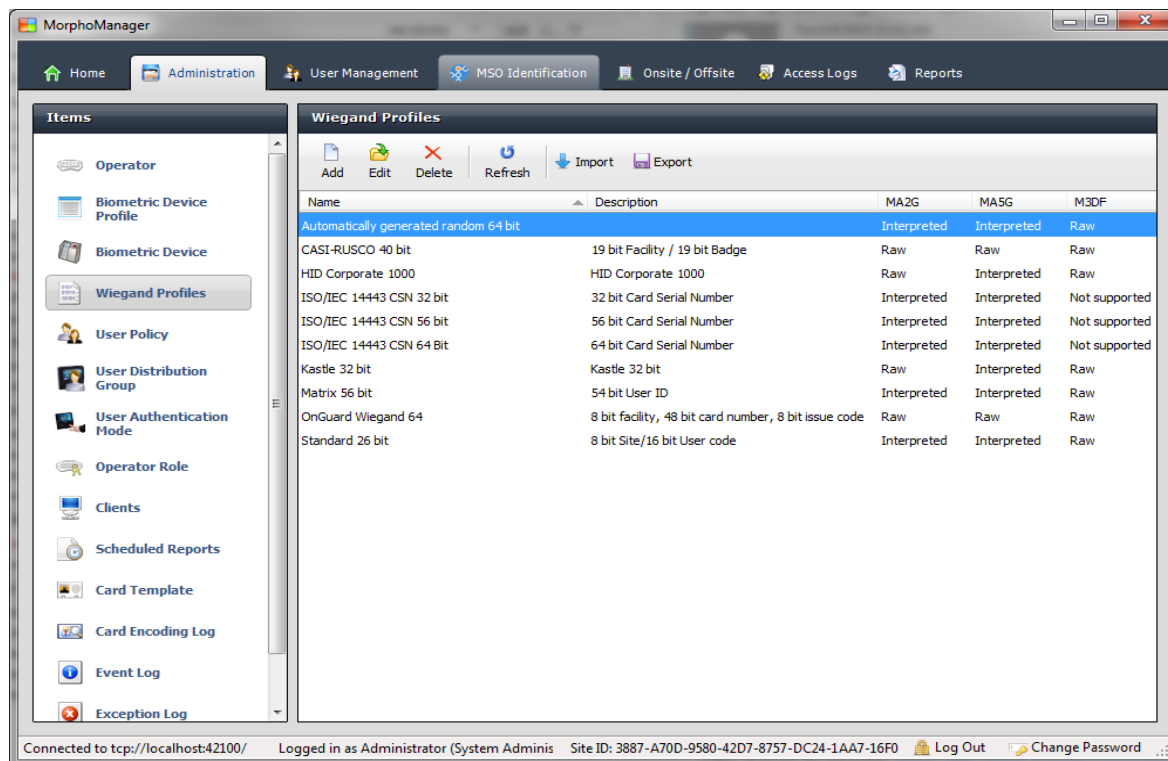
1. Wiegand Profiles
2. Biometric Device Profiles
3. Biometric Device
4. User Policy
5. User Distribution Group
6. BioBridge System Configuration

Wiegand Profiles

Wiegand Profiles define what information is output over the Wiegand Out interface of the Morpho Biometric Devices when a user is identified. This is most typically used in conjunction with an Access Control System.

- From Administration tab select Wiegand Profile.
- Click **Add** button to create a custom Wiegand profile.

The Wiegand formatting used can vary from system to system, but some common formats are listed below.



Name	Description	MA2G	MA5G	M3DF
Automatically generated random 64 bit		Interpreted	Interpreted	Raw
CASI-RUSCO 40 bit	19 bit Facility / 19 bit Badge	Raw	Raw	Raw
HID Corporate 1000	HID Corporate 1000	Raw	Interpreted	Raw
ISO/IEC 14443 CSN 32 bit	32 bit Card Serial Number	Interpreted	Interpreted	Not supported
ISO/IEC 14443 CSN 56 bit	56 bit Card Serial Number	Interpreted	Interpreted	Not supported
ISO/IEC 14443 CSN 64 Bit	64 bit Card Serial Number	Interpreted	Interpreted	Not supported
Kastle 32 bit	Kastle 32 bit	Raw	Interpreted	Raw
Matrix 56 bit	54 bit User ID	Interpreted	Interpreted	Raw
OnGuard Wiegand 64	8 bit facility, 48 bit card number, 8 bit issue code	Raw	Raw	Raw
Standard 26 bit	8 bit Site/16 bit User code	Interpreted	Interpreted	Raw



The actual setting of the Wiegand Profile from this list will be done at the User Group and Biometric Device Profile Level. Please refer to those sections for further details.

Biometric Device Profile

The Biometric Device Profile will define common settings and parameters for one or more biometric devices. This profile can be applied when adding units into the system from the Biometric Device section of Administration.

- From Administration tab select Biometric Device Profile.
- Click **Add** button to create a new Biometric Device Profile.

In order to create the most basic profile utilizing biometrics stored on the devices that can be used, simply give the profile a name and click **Finish**. Please reference the MorphoManager User Manual for more detail on all the various properties that can be assigned to a Biometric Device Profile including the use of smartcards



If you plan on using a Wiegand Profile, you will need to set the Wiegand Profile for the Biometric Device(s) here. The Wiegand Profile you choose for your devices must marry to the one being utilized for your users set in the User Group section of this guide.

Biometric Device(s)

A Biometric Device is the device used to verify users and allow access to doors. They record a log of every attempt to gain access. MorphoManager is used to manage user’s access to Biometric Devices.

- From Administration tab select Biometric Device.
- Click **Add** button to create a new Biometric Device.
- Enter the details for the device including the Hardware Family the device falls into, the IP address, and the Biometric Device Profile.

- Once the required details are entered click **Finish**.
- Below is a screenshot of how the Biometric Device Screen looks after the configuration and the devices are online.

Name	Description	Location	Biometric D...	Status	Tasks
MA sigm Multi			Default	Online	0


MA sigm Multi

Description: MA SIGMA Multi
Hardware Type: 1431SMS0000243
Serial Number: 1.3.2
Firmware version: 10.10.214.11:11010
Hostname\IP Address: 0 / 3000
User Slots: (UTC-05:00) Eastern Time (US Canada)
Time Zone: Online
Device Status:

User Policy

User policies are used to apply access rights and rules to all members of the group. To Configure BioBridge, MorphoManager’s UserPolicy with an Access Mode “**Per User**” must be selected. This will create User Distribution Groups (groups of Biometric Devices) that can place the enrolled user into specific devices.

- From Administration tab select User Policy.
- Click **Add** button to create a new User Policy.

 If you plan on using a Wiegand Profile, you will need to set it here in order for the users enrolled in this User Group to have a particular Wiegand Profile. The Wiegand Profile you choose for your users must marry to the one you utilize for your biometric access devices set in the Biometric Device Profile section of this guide.

The default User Policy will be set to utilize an authentication mode of Biometric (1: Many). To utilize another authentication mode (such as encoding smartcards) additional User Policies can be created.

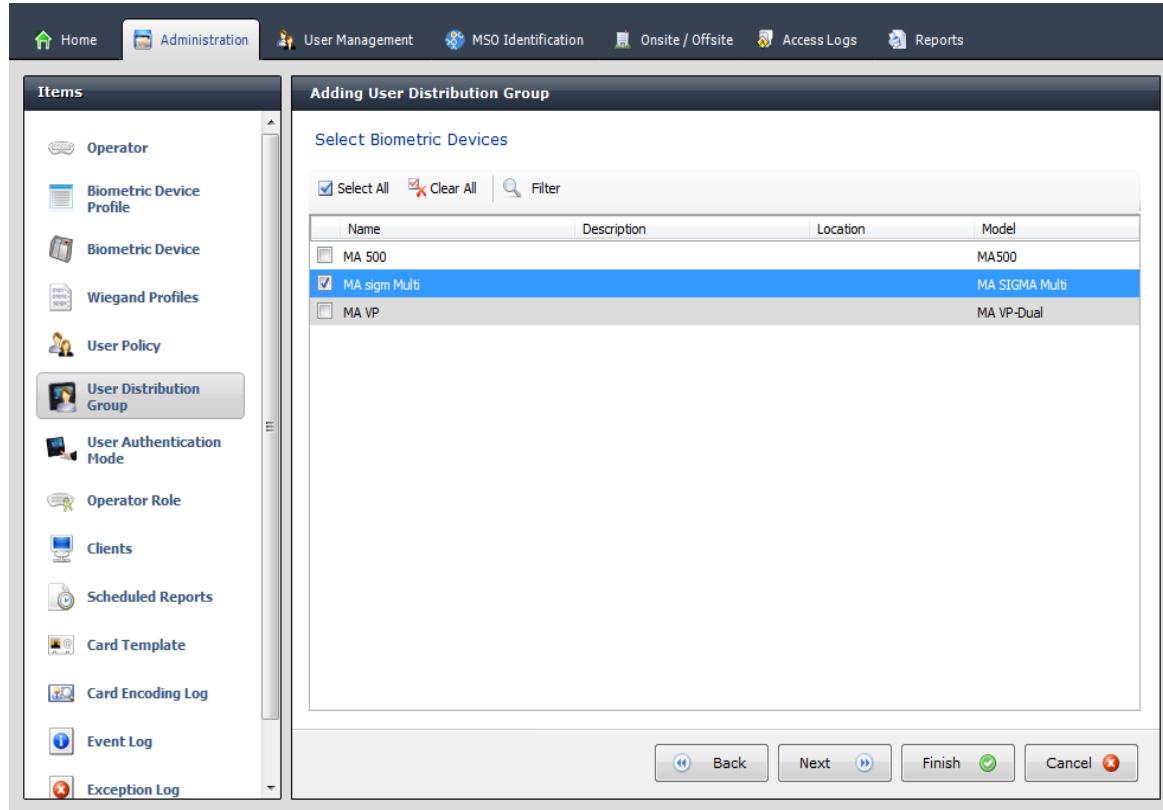
Please reference the MorphoManager User Manual for more detail on all the various properties that can be assigned to a User Policy including Wiegand Profile, Finger Biometric Enrollment Minimum, Fingers, Access Modes and User Authentication Modes.

User Distribution Groups

User Distribution Groups are designed to distribute users onto groups of MA readers or MorphoManager Clients. In order to be utilized the user must be in a User Policy that has its Access Mode set to “Per User”. Then the User Distribution Groups will be selectable when creating (or editing) a user.

- From Administration tab select User Distribution Group.
- Click Add button to create a new User Distribution Group.

Below is the screenshot where group will only be placing users on one of the three devices installed on the system.



BioBridge System Configuration

The last step in the process is to configure BioBridge specifications to Cisco PAM.

From Administration, select System Configuration.
Select the BioBridge Tab in System Configuration.

The screenshot shows the 'System Configuration' window with the 'BioBridge' tab selected. The 'MorphoManager BioBridge Settings' section includes the following fields and options:

- System:** A dropdown menu currently set to 'None', with a 'Configure connection' button to its right.
- Wiegand Profile:** A dropdown menu.
- Grouping Mode:** A dropdown menu.
- Enable Forced User Policy:** A checkbox labeled 'Enabled'.
- Forced User Policy:** A dropdown menu set to 'Default'.
- User Synchronization Start Time:** A time selector set to '00:00'.
- User Synchronization End Time:** A time selector set to '23:59'.
- Delay Between Each User Synchronization (ms):** A numeric selector set to '50'.
- Allow User Sync While User Cache Is Refreshing:** A checkbox labeled 'Enabled'.
- User Cache Schedule:** A grid of checkboxes for days of the week (Sunday through Saturday) and hourly intervals from 0:00 to 23:00. All checkboxes are currently checked.
- User Distribution Group Mappings:** A table with two columns: 'Access Groups' and 'User Distribution Group'.

System: From the System drop down menu choose Cisco PAM and click the **Configure connection** button. A BioBridge connection box window will pop up. Fill in all the required fields and click OK.

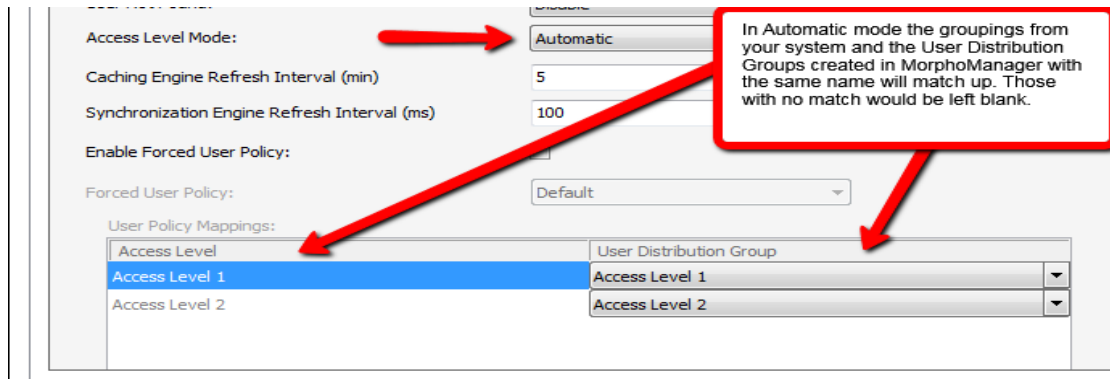
The screenshot shows a dialog box titled 'BioBridge Cisco PAM Connection' with a close button (X) in the top right corner. The dialog contains the following fields and sections:

- Server:** A section header followed by a text input field labeled 'Cisco PAM Server:'.
- Logon details:** A section header followed by the instruction 'Please enter the Cisco PAM logon credentials below.'
- Username:** A text input field.
- Password:** A text input field.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

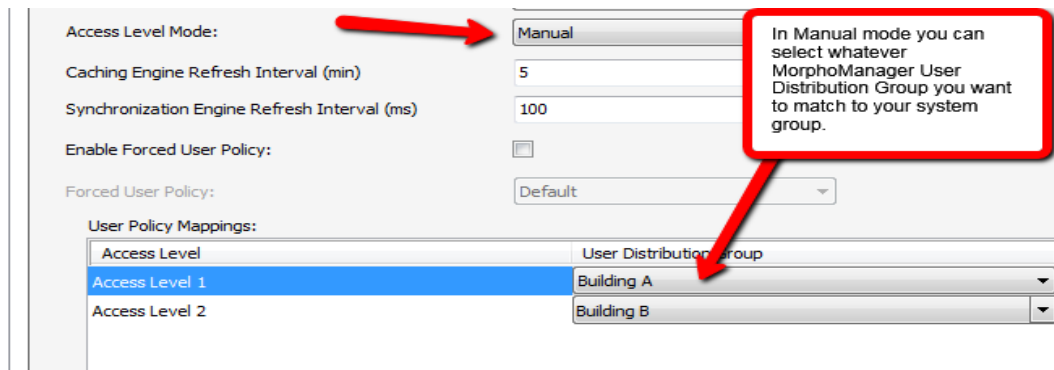
Wiegand Profile: Select the Wiegand format in use from the drop down menu.

Grouping Level Mode: This setting determines how MorphoManager should map Cisco PAM users into MorphoManager User Distribution Groups.

Automatic: This mode will automatically match Access Level groups from Cisco PAM to the ones created in MorphoManager User Distribution Group if they have the same naming convention. Those with no match would be left blank.



Manual: If the Access Level grouping names of Cisco PAM and the User Distribution Group(s) created in MorphoManager are not the same, then selecting which Cisco PAM Access Level maps to which MorphoManager User Distribution Group can be done manually in the User Policy Mappings.



For basic setups, the following settings do not require any changes:

Enable Forced User Policy

By activating this feature, you can select a User Policy from the drop down menu. The 3rd party user will automatically be placed in this User Policy during the enrollment process started in the BioBridge Enrollment Client. The User Policy selected here must be a “Per User” access mode policy.

User Synchronization Start Time and End Time

The user synchronization engine will only be permitted to run in this time frame.

Delay between Each User Synchronization

The duration that the User Synchronization Engine will sleep between each user sync. Increase the delay time to use less system resources, but this will also extend the time it takes for all the users to be updated.

Allow User Sync While User Cached 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 to disable this setting when using large databases.

User Cache Refresh Schedule

The specified times when the user cache refresh may start. The ideal schedule would be 24/7, but this is not always possible with large databases.

Using the BioBridge Enrollment Client

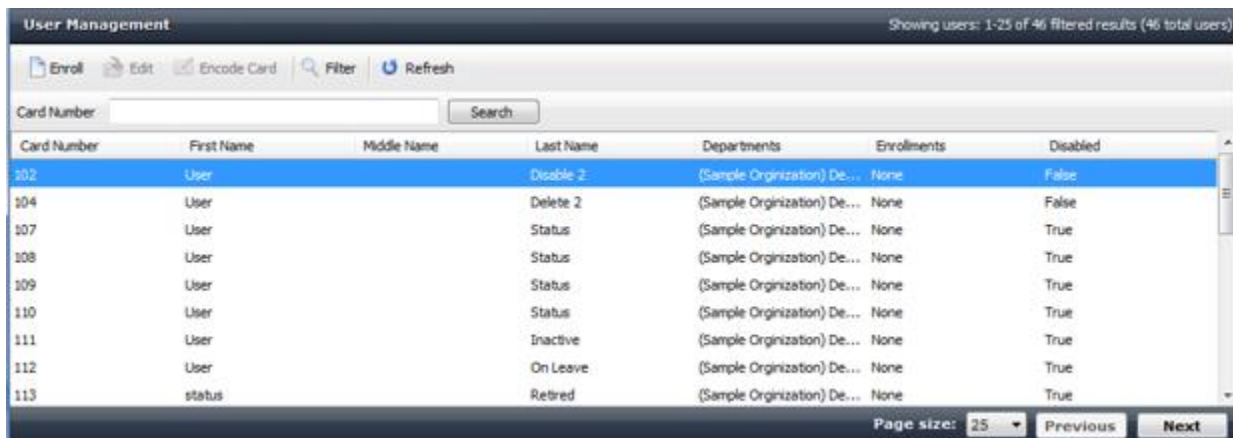
After configuring BioBridge you will now utilize the BioBridge Enrollment Client. This client will check if BioBridge Integration has been enabled and configured. If it is has not, the application will display the message “BioBridge integration has not been enabled and configured” and you will need to go back to MorphoManager/Administration/System Configuration/BioBridge to configure it properly.

If BioBridge integration is configured the application will display a user management screen. The screen will consist of a toolbar and a data grid.

Toolbar

The toolbar will have the following items:

- Enroll
- Edit
- Encode Card
- Filter
- Refresh
- Search Field



The screenshot shows the 'User Management' interface. At the top right, it says 'Showing users: 1-25 of 46 filtered results (46 total users)'. Below this is a toolbar with icons for Enroll, Edit, Encode Card, Filter, and Refresh. A search field is located below the toolbar. The main area is a data grid with the following columns: Card Number, First Name, Middle Name, Last Name, Departments, Enrollments, and Disabled. The grid contains 13 rows of data, with the first row highlighted in blue.

Card Number	First Name	Middle Name	Last Name	Departments	Enrollments	Disabled
102	User		Disable 2	(Sample Organization) De...	None	False
104	User		Delete 2	(Sample Organization) De...	None	False
107	User		Status	(Sample Organization) De...	None	True
108	User		Status	(Sample Organization) De...	None	True
109	User		Status	(Sample Organization) De...	None	True
110	User		Status	(Sample Organization) De...	None	True
111	User		Inactive	(Sample Organization) De...	None	True
112	User		On Leave	(Sample Organization) De...	None	True
113	status		Retired	(Sample Organization) De...	None	True

At the bottom right of the grid, there is a 'Page size' dropdown set to 25, and 'Previous' and 'Next' buttons.

Enroll

Enroll will start the enrollment of the selected user. The enrollment process will be derived from the standard MorphoManager user add/edit wizard with the following pages (For details on the enrollment process please see the User Management section of the MorphoManager User Manual):

- Authentication Type (Only if more than one mode is configured)
- 3D Face Selection
- 3D Face Enrollment
- Finger Selection
- Finger Enrollment

If a card based authentication method is configured the operator will be prompted if they want to encode a card.

Edit

Opens the already enrolled user details for viewing or editing.

Encode Card

Encode card will display an animation of the card being presented to a SDI 011 and wait for the card encoding to complete or be cancelled.

Filter

The screenshot shows a 'Filter' dialog box with the following sections:

- User Details:**
 - First Name:
 - Last Name:
 - Card Number:
 - Enabled: Any Enabled Disabled
- Sort By:**
 - Primary:
 - Secondary:
 - Tertiary:
- Departments:**
 - Select All Clear All
 - (Sample Organization) Department 1
 - (Sample Organization) Department 2

At the bottom right, there are three buttons: (with a red eraser icon), (with a green checkmark icon), and (with a red X icon).

Filter will show a popup inline form that allows filtering on the following items:

- First Name
- Last Name
- Card Number
- Enabled/Disabled
- Departments

Refresh

Refresh will update the data currently being shown using the currently set filter conditions.

Search Field

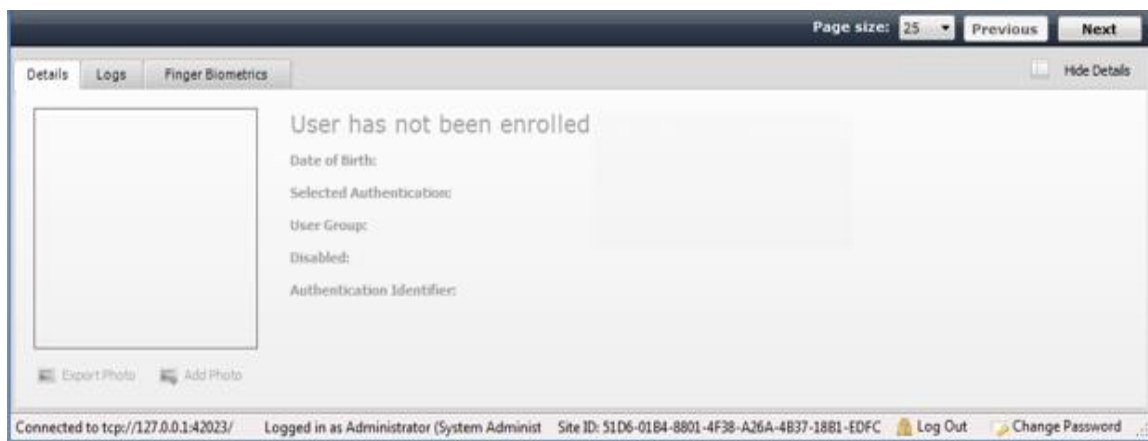
The Search Field can be used to find individual users quickly and/or to migrate users from Cisco PAM to the BioBridge Enrollment Client without waiting for a cache refresh.

Data Grid

The data shown in the data grid is a combination of your system and MorphoManager. Only users that exist in your system will be shown. A MorphoManager user does not exist until the user is enrolled. By default pagination is set for the first 25 BioBridge users to be shown. Operators may change the pagination to 25, 50, 100 & 250.

The data grid will have the following columns:

- Card Number
- First name
- Middle name
- Last name
- Departments – All of the Department groups that your user is a member of in your system.(Comma separated values)
- Enrollments (None, Finger, Finger & 3D Face, 3D Face) (Derived from linked MorphoManager User)
- Disabled- A value of either True or False will be present.



Enrolled user will show their MorphoManager details in the “Show Details” panel below the data grid. This area will be blank if the user has not been enrolled.

Embedded enrollment setup

Embedded enrollment is not supported for Cisco PAM.