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## **EIDA Toolkit v2.4**

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### Troubleshooting Guide

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# 1 Introduction

This document is part of EIDA Toolkit documentation addressed to the developers' community. It covers the following issues:

- Toolkit troubleshooting
- Toolkit exception handling
- How to handle common issues with the Toolkit

The reminder of the document is structured as follows

- Section 2 : Setting up Toolkit environment – checklist
- Section 3: Tracing/Debugging the Toolkit
- Section 3 : Exception handling and error codes in the Toolkit
- Section 4: Troubleshooting known error scenarios in the Toolkit

## 2 Setting up Toolkit environment – checklist

After installing the Toolkit as described in the Toolkit Installation & Configuration guide, it is recommended to go through the following checks in order to verify the successful installation and readiness of the Toolkit on the developer's environment.

### 2.1 Check the Path environment variable

Verify that the Path environment variable contains the following lines:

```
<EIDA_Toolkit_Installation_Folder>\Libs;
```

In order to do so, go to My Computer > Properties > Advanced > Environment Variables > path as shown below, then click the button Edit to check the Path variable contents

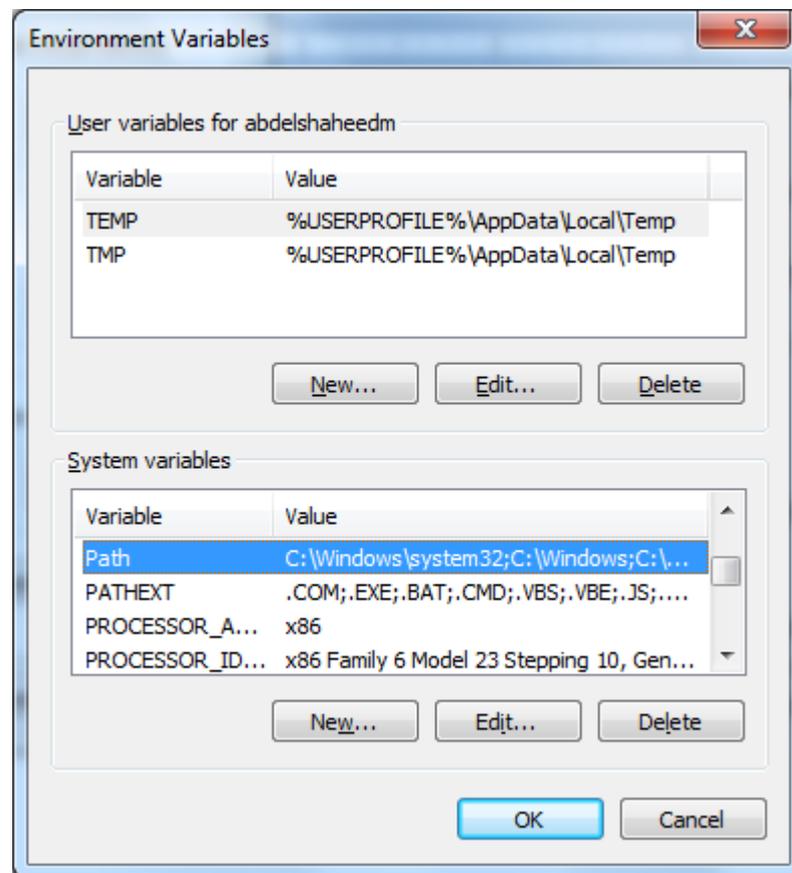


Figure 1 – Path environment variable

### 3 Tracing / debugging

EIDA Toolkit comes with built-in logging capabilities that facilitates the troubleshooting of the Toolkit and enables developers to use the Toolkit in a tracing/debugging mode. This section provides a description of the files relevant for Toolkit logging and troubleshooting.

#### 3.1 Logger.INI file

The logger.ini file holds the configuration data related to the Toolkit operating mode. It has one section called “Log” and 2 entries as follows:

1. File Path: The file path indicates where the Toolkit log file EIDA.log will be saved (default value C:\EIDA.log).
2. Level: Indicates the Toolkit operating mode and may take 2 values as follows:
  - “Error”: Default mode that comes with the logger file the after the Toolkit installation. In this mode, only errors are logged by the Toolkit functions.
  - “Trace”: In this mode, the trace values of important variables and functions are returned and logged. A developer uses this mode for troubleshooting purposes.

A sample logger.ini file is provided below:

```
-----Logger.INI Sample-----
[Log]
File Path=C:\EIDA.log
Level=Trace
-----Logger.INI Sample-----
```

#### 3.2 EIDA.log file

The EIDA.log file contains a text representation of the errors returned by the Toolkit functions. When the Toolkit is used in a trace mode, the log file logs all the important operations/functions executed by the Toolkit.

The format of the EIDA.log file is as follows:

[<Date and Time>] <Log Type >:<Error Message | Error Code or Trace message>

An example of EIDA log file entry is provided below:

[07-11-2010, 13:21:51] ERROR: MW\_Connect - Connect - PSCS Error Code : -2146434967

Date and Time

Log Type  
(ERROR or TRACE)

Error Message + [Error Code] or Trace message

## 4 Exception handling

The JAVA and .NET APIs throw exceptions that the developer can catch using the built-in functions in the Exception Class.

This section explains how exception handling can be used by application developers programming with EIDA Toolkit.

### 4.1 Catching exceptions

A try/catch mechanism should be put in place in the application where the SDK objects and their methods are used. Four kinds of exceptions are thrown:

- **MiddlewareException:** Base class for all kernel exceptions. It contains the error code and the error message.
- **CardNotGenuineException:** This exception is raised from the isCardGenuine function if the inserted card is not genuine.
- **IDApplicationBlockedException:** This exception is raised when the ID Applet is blocked.
- **MOCApplicationBlockedException:** This exception is raised when the MOC Applet is blocked.

In a Java development environment, the method signatures contain the list of exceptions raised in order to catch them explicitly. In a C# environment, the method signature does not contain the exceptions and it is necessary to check the Toolkit.

For example the matchOffCard method of the BiometricFacade raises MiddlewareException and OffCardMatchingException.

Example of exception handling in Java and C# are provided below:

Java Example:

```

...
try
{
    FTP_template template = new FTP_Template();
    // capture and convert a fingerprint image ...
    int score = matchOffCard(template);
}
catch (OffCardMatchingException ocme) // low score
{
    System.out.println(mex.getScore()+":"+mex.getMessage());
}
catch (MiddlewareException mex) // internal error
{
    System.out.println(mex.getCode()+":"+mex.getMessage());
}
...

```

## C# Example:

```

...
try
{
    FTP_template template = new FTP_Template();
    // capture and convert a fingerprint image ...
    int score = matchOffCard(template);
}
catch (OffCardMatchingException ocme) // low score
{
    System.out.println(mex.getScore()+":"+mex.getMessage());
}
catch (MiddlewareException mex) // internal error
{
    System.out.println(mex.getCode()+":"+mex.getMessage());
}

```

## 4.2 Error codes

The list of error codes thrown by the Toolkit is provided in the Table below.

Error Label	Error Value	Description
NO_ERRORS	0	Function was executed successfully
E_NULL_ARGUMENT	-100	One of the parameters is NULL
E_INVALID_ARGUMENT_VALUE	-101	One of parameters is invalid
E_NOT_SUPPORTED_IMPLEMENTATION	-102	Function not implemented
E_SELECT_ID_APPLICATION	-1	Cannot select ID Applet, may be the card was removed than inserted again
E_SELECT_CM_APPLICATION	-2	Cannot select Card Manager, may be the card was removed than inserted again
E_SELECT_MOC_APPLICATION	-3	Cannot select MOC-MA Applet, may be the card was removed than inserted again
E_GET_CARD_SERIAL_NUMBER	-4	Cannot read the card serial number
E_GET_CHIP_SERIAL_NUMBER	-5	Cannot read the chip serial number
E_GET_ISSUER_SERIAL_NUMBER	-6	Cannot read the issuer serial number
E_GET_ISSUER_REFERENCE_NUMBER	-7	Cannot read issuer reference number
E_GET_CPLC0101	-8	Cannot read the CPLC 0101
E_GET_CPLC9F7F	-9	Cannot read the CPLC 9F7F
E_MOC_GET_MAX_FAILED_MATCH	-10	Cannot read maximum number of
E_MOC_GET_SERIAL_NUMBER	-11	Cannot read the MOC serial number
E_MOC_GET_APPLET_STATE	-12	Cannot read the MOC applet state
E_MOC_GET_ALGORITHM_VER	-13	Cannot read the MOC algorithm version
E_SM_GET_CHALLENGE	-14	Secure Messaging Error, an error occurred while getting the challenge from the secure messaging module, in case of SAM check the context value.
E_SM_GET_CIPHERED_PIN	-15	Secure Messaging Error, an error occurred while computing the ciphered PIN
E_SELECT_FILEKEY	-17	The card cannot compute the card cryptogram
E_SET_USER_AUTH_SE	-18	Match on card failed, cannot set the security environment to USER_AUTH
E_SM_CARD_NOT_GENUINE	-19	Secure Messaging Error, the card is not a genuine UAE IDCard,
E_PUBLIC_DATA_PUBLIC_KEY	-22	Read public data failure, cannot parse the root certificate extracted from the card
E_PUBLIC_DATA_VERIFY_PHOTO	-23	Read public data failure, photography signature is not valid
E_PUBLIC_DATA_VERIFY_SF3	-24	Read public data failure, Non modifiable data signature is not valid
E_PUBLIC_DATA_VERIFY_SF5	-25	Read public data failure, modifiable data signature is not valid
E_MOC_GET_CHALLENGE	-26	Match on card, the MOC applet returned an error when generating a challenge

E_SM_MOC_MUTUAL_AUTHENTICATION	-27	Secure Messaging Error, cannot generate 72 bytes cryptogram
E_MOC_MUTUAL_AUTHENTICATION	-28	Match on card, cannot generate 72 bytes card cryptogram,
E_MOC_APPLICATION_BLOCKED	-29	Match on card applet is blocked
E_MOC_MUTUAL_AUTHENTICATION_UNKNOWN	-30	Match on card error while computing the 72 bytes card cryptogram,
E_MOC_SESSION_KEYS	-32	Secure Messaging Error, cannot compute the match on card session keys used to compute the Mac of the card verify fingerprint command
E_MOC_MATCH_UNKNOWN	-33	Match on card exception, the match on card
E_MOC_MATCH_GENERAL	-34	The
E_MOC_MATCH_GENERAL_UNKNOWN	-35	The card returned an incorrect response that cannot be verified, a valid response has this syntax: 99 02 XX XX 8E 08 <Mac_8_bytes>
E_MOC_GET_BIT_GROUP	-36	Cannot read the biometric information templates
E_MOC_MATCH_BAD_TEMPLATE	-37	Match on card failed, the template is not valid
E_MOC_MATCH_SEC_STATUS_NOT_SATISFIED	-38	Match on card failed, the secure messaging was not established successfully
E_ID_APPLICATION_VERIFY_CIPHERED_PIN	-39	Error when verifying the ciphered PIN, the ciphered PIN is not correct
E_ID_APPLICATION_BLOCKED	-40	The ID applet is blocked
E_ID_APPLICATION_VERIFY_CIPHERED_PIN_UNKNOWN	-41	Cannot verify the ciphered PIN
E_ID_GET_FINGERPRINTS	-42	Error while reading fingerprint templates from the card
E_PKI_SIGN_GENERAL	-43	Sign function failed, remove the card and insert it again
E_PKI_SIGN_PIN_INCORRECT	-44	The PKI PIN is incorrect
E_PKI_SIGN_PIN_BLOCKED	-45	The PKI Applet is blocked
E_PKI_SIGN_SIGNATURE_SIZE_ZERO	-46	Error wrong size of the applet, the size of the signature is zero
E_PKI_EXPORT_CERTIFICATE	-47	Error occurred while exporting the certificate
E_PKI_CERTIFICATE_SIZE_ZERO	-48	The size of the certificate is zero
E_PKI_CSP_SIGNING_INIT	-49	Cannot acquire CSP context
E_PKI_CSP_SIGNING	-50	Error occurred while signing
E_PKI_PIN_LENGTH_INCORRECT	-51	The PKI PIN length is incorrect
E_ID_READ_IDN_CN	-52	Cannot read the National ID and the Card Number from the card
E_ID_READ_PHOTOGRAPHY	-53	Cannot read the photography from the card
E_ID_READ_EF_CardHolderData_SF3	-54	Cannot read the non modifiable data from the card
E_ID_READ_EF_CardHolderData_SF5	-55	Cannot read the modifiable data from the card

E_ID_READ_EF_RootCertificate	-56	Cannot not read the root certificate from the card
E_PKI_SESSION_KEYS	-57	Cannot generate PKI session keys
E_PKI_ENCODE_PIN	-58	Cannot encode user PKI PIN
E_PKI_PIN_VERIFY_GENERAL	-59	Unknown error while verifying user PKI PIN
E_BIOMETRICS_CONVERSION	-60	Error fingerprint image conversion, check the image format (BMP Raw Data)
E_BIOMETRICS_OFFCARD_MATCHING	-61	Offcard matching failed
E_BIOMETRICS_NO_DEVICE	-62	The capture device is not connected to the machine
E_BIOMETRICS_CAPTURE_CONVERT	-63	Error capture and convert fingerprint
E_BIOMETRICS_NO_TEMPLATES	-64	Capture error, no template were captured
E_BIOMETRICS_CAPTURE	-65	Error biometric capture, because the driver is not installed or there is a problem with the capture device DLLs.
E_BIOMETRICS_SDK_BAD_LICENSE	-66	The biometric open SDK has invalidated the iengine.lic
E_BIOMETRICS_SDK_INIT	-67	Error initializing the biometric open SDK for matching or conversion
E_BIOMETRICS_CC_TEMPLATE_TO_ISO	-68	Cannot convert the Card Compact template to ISO template
E_BIOMETRICS_WRONG_FINGER_INDEX	-69	Offcard matching error, the templates passed as parameters have different finger index value, cannot perform matching operation
E_PKI_INVALID_PIN	-70	The entered PIN is not a valid PIN format
E_PKI_INVALID_CARD_VERSION	-71	Card version is not supported by toolkit
E_PKI_CONSTRUCT_PKI_APDU	-72	Cannot construct SM APDU command
E_PKI_SET_SIGN_KEY_INDEX	-73	Sign key is not selected (Auth or Sign)
E_PKI_ERROR_READ_SIGNATURE	-74	Error reading signature, after card signing
E_CHECK_CRYCKS_FAILED	-75	Failed to check crycks returned in Card Genuine Ex
E_GET_CRYCKS_FAILED	-76	Error retrieving Crycks in card genuine Ex
E_ID_GET_CHALLENGE	-78	Cannot get challenge from ID applet
E_ID_READ HOLDER SIGNATURE IMAGE	-79	Cannot read card holder signature image
E_PKI_PIN_VERIFY_SEC_STATUS_NOT_SATIS FIED	-80	Cannot execute PKI operation, mutual authentication is not done in most cases
E_PKI_PIN_BLOCKED	-81	PKI PIN is blocked
E_PKI_PIN_BAD_REFERENCE	-82	reference data invalidated, in most cases the applet was blocked
E_PKI_ADMIN_PIN_BLOCKED	-83	PKI admin PIN is blocked (SAM related)
E_PKI_ADMIN_PIN	-84	Cannot diversify PKI admin PIN
E_SELECT_PKI_APPLICATION	-85	Cannot select PKI applet
E_PKI_GET_SERIAL_NUMBER	-86	Cannot read PKI applet serial number
E_PKI_GET_CHALLENGE	-87	Cannot get PKI challenge
E_SM_PKI_MUTUAL_AUTHENTICATION	-88	Mutual authentication failed with SM module

E_PKI_MUTUAL_AUTHENTICATION	-89	Mutual authentication failed with PKI applet
E_PKI_APPLICATION_BLOCKED	-90	PKI applet is blocked
E_PKI_MUTUAL_AUTHENTICATION_UNKNO WN	-91	Unknown error in PKI applet mutual authentication
E_PKI_PIN_UNBLOCK_GENERAL	-92	Unknown/General error unblocking PKI PIN
E_PKI_PIN_CHANGE_GENERAL	-93	Unknown/General error changing PKI PIN
E_CLASS_NOT_FOUND	-201	JNI error the Java class is not found
E_FIELD_NOT_FOUND	-202	JNI error the java attribute is not found
E_NO_CONFIGURATION_FILE	-203	No configuration file is found
E_UNKNOWN_CARD	-256	Card ATR is not found in configuration file
E_WRONG_MAC	-257	Wrong MAC return from MOC applet
E_SELECT_FAMILY_BOOK_APPLICATION	-258	Cannot select family book applet
E_ID_READ_WIFE_DATA	-259	Cannot read wife date from family book
E_ID_READ_FAMILYHEAD_DATA	-260	Cannot read family head data from family book
E_ID_READ_CHILD_DATA	-261	Cannot read child data from family book
E_ID_READ_WORK_ADDRESS_DATA	-262	Cannot read Work address data
E_ID_READ_HOME_ADDRESS_DATA	-263	Cannot read Home address data
E_SM_NOT_INITIALIZED	-300	The secure messaging module is not initialized, and cannot be used, call MW_Init or MW_SM_Init if you are in C++, and call UAEIDCardLibJavaWrapper. LoadConfiguration() for Java  UAEIDCardWrapper. LoadConfiguration() for C#
E_SAM_NO_PCSC_READERS	-311	There is no Hardware SAM in any PCSC reader
E_SAM_INVALID_CONNECTION	-312	The connection to the SAM is invalid (the SAM was removed and inserted again)
E_SAM_SELECT_APPLICATION	-313	Cannot select SAM applet, may be the SAM was removed and inserted again
E_SAM_VERIFY_PIN	-314	Verify PIN with the SAM failed because the PIN is wrong, or the SAM is blocked,
E_SAM_READ_REF_IDS	-315	Cannot read the key reference Ids, it may occur if the SAM is blocked
E_SAM_READ_REF_ID_INFO	-316	Cannot read the information of a given reference Id
E_SAM_GET_ATR	-317	Cannot read the SAM ATR
E_SAM_PIN_NULL_OR_INCORRECT	-318	The SAM PIN is NULL or Incorrect
E_SAM_ATRS_NULL	-319	There is SAM ATRs configured on the sm.cfg file
E_WRONG_PIN_0	-352	Wrong PIN 0 trials left
E_WRONG_PIN_1	-353	Wrong PIN 1 trial left
E_WRONG_PIN_2	-354	Wrong PIN 2 trials left
E_WRONG_PIN_3	-355	Wrong PIN 3 trials left
E_WRONG_PIN_4	-356	Wrong PIN 4 trials left

E_MPCOS_AUTH_KEY_NOT_FOUND_ON_SAM	-357	MPCOS AUTH Key not found on SAM
E_GENERATE_DIVERSIFIED_ADMIN_PIN_PKI	-358	Cannot generate diversified admin PIN
E_MAXIMUM_NUMBER_OF_OPEN_CONTEXTS_REACHED	-359	Maximum number for SAM open context reached
E_V2Data_NOT_AVAILABLE_IN_V1	-360	Error when trying to read V2 data form V1 card
E_HSM_UNABLE_TO_LOAD_CRYPTOKI	-400	HSM error, unable to load PKCS11 library
E_HSM_UNABLE_TO_INITIALIZE_CRYPTOKI	-401	HSM error, unable to initialize the PKCS11 library, check the HSM connectivity and the cryptoki version
E_HSM_GET_SLOT_FAILED	-403	Unable to get handle to the HSM SLOT
E_HSM_OPEN_SESSION_FAILED	-404	Unable to open a session to the HSM
E_HSM_LOGIN_FAILED	-405	HSM login failed, the PIN is wrong
E_HSM_KEY_NOT_FOUND	-406	The key cannot be located on the HSM
E_HSM_ENCRYPT_INIT_FAILED	-407	Error initializing encryption with the selected key
E_HSM_ENCRYPT_FAILED	-408	Error encryption with the selected key
E_HSM_LOGOUT_FAILED	-409	Logout error, cannot close HSM session
E_ESTABLISH_CONTEXT	-1000	Cannot establish PC/SC context
E_NO_PCSC_READERS	-1001	No PC/SC readers found
E_UNKNOWN_ERROR	-1002	Unknown error (used on the API level)
E_REMOTE_SM_ADDRESS_EMPTY	-1003	Remote Secure Messaging service address is empty
E_BIOMETRICS_OFFCARD_MATCHING_FAILED_LOW_SCORE	-1004	Match off card score is less than 13,000
E_NO_CARDS_PRESENT	-1005	No card found in PC/SC reader
E_WEB_COMPONENT_NOT_INITIALIZED	-1006	Cannot call web component method before initialize method is called
E_ERROR_RETRIEVING_PUBLIC_DATA	-1007	Error reading public data
E_SERVER_ERROR	-1010	Unknown/Internal server error (Remote SM server)
E_CARD_EXCEPTION	-1011	Unknown card exception
E_GET_CARD_CRYPTOGRAM	-1012	Cannot read card cryptogram
E_GET_FINGERPRINT_BINARY_DATA	-1013	Cannot read fingerprint file from card
E_ENCODE_PIN	-1014	Error encoding PIN
E_CRYCKS_EXCEPTION	-1015	General Crycks exception
E_GET_ATR	-1016	Cannot read card ATR
E_SM_GET_RESET_COMMAND	-1017	Cannot build SM reset PIN command
E_MOC_CONSTRUCT_MOC_APDU	-1018	Cannot construct MOC APDU command

Table 1 - Toolkit error codes

## 5 Troubleshooting common Toolkit issues

This section documents some issues that the developer may face while developing with the Toolkit.

### 5.1 Unsatisfied link error (Java development)

The library UAEIDCardLibJavaWrapper.dll is not found. Possible causes would be:

- The DLL does not exist on the <EIDA\_Toolkit\_Installation\_Folder>\Libs folder. In this case, verify that this DLL exist in this folder.
- The folder <EIDA\_Toolkit\_Installation\_Folder>\Libs is not referenced in the Path environment variable. In this case, verify that the folder exists in the Path environment variable.

### 5.2 Unsatisfied link error, can't find dependant library (Java development)

This means that the library UAEIDCardLibJavaWrapper.dll has been found but one of its dependencies is missing, the cause may be:

- One of the dependencies of the DLL UAEIDCardLibJavaWrapper.dll does not exist on the <EIDA\_Toolkit\_Installation\_Folder>\Libs folder
- The Path environment variable is not correctly set as described in the Toolkit section.

### 5.3 Unsatisfied link error:

#### Can't load IA 32-bit .dll on a AMD 64-bit platform

This exception can be thrown by the java runtime when the default JRE platform doesn't match the installed toolkit platform.

If the toolkit installed is 32-bit and the default Java Runtime Environment (JRE) is 64-bit, JRE will not be able to load the installed .dll

To fix this issue make the default JRE 32-bit or install the 64-bit toolkit instead

#### Can't load AMD 64-bit .dll on a IA 32-bit platform

This exception is thrown in the same case as above, but the JRE is 32-bit and the toolkit installed is 64-bit

Use 64-bit JRE or install 32-bit toolkit instead

## 5.4 Bad Image Format (.Net Development)

*System.BadImageFormatException: An attempt was made to load a program with an incorrect format.*

This exception occurs when the application platform is different than the installed toolkit platform, the exception can be thrown in the two below cases:

- Integrating the toolkit .Net APIs within an application: in this case the solution would be changing project settings to build using the same platform as the installed toolkit. If the toolkit installed in 32-bit change the build platform option to x86, or x64 if the toolkit installed is 64-bit hence the application targets 64-bit environments
- Hosting the .NET secure messaging service using Microsoft IIS: change the application pool under which the web service is running to run 32-bit assemblies if the toolkit was installed in 32-bit, or install the 64-bit toolkit instead if you target is 64-bit server

## 5.5 Unsupported major.minor version (Java development)

This error occurs when the version of the installed Java JDK or Runtime is not correct and is prior to 1.6. This could be due to the Toolkit installation which happened after the Java Runtime was installed or because the JAVA\_HOME (or JRE\_HOME) was modified after the Toolkit was installed. A procedure to fix this issue is presented below:

1. Edit your JAVA\_HOME with the latest java home folder path
2. Edit your path variable which might already have been set with older version
3. For this go to My Computer > Properties > Advanced > Environment Variables > path
4. Remove the earlier version path which might be something like <java\_installed\_path>/bin and replace it with newer version path
5. If your server was installed on a older version of Java and if it not been used then it is better to uninstall it and then re-install it after making the above changes.

## 5.6 Invocation Target Exception (Java Development)

The JNI DLL was not loaded by the JVM. This error typically happens in a web scenario where a web application is using the Toolkit Java API UAE\_IDCardJavaAPI.jar.

In order to avoid this issue, place the UAE\_IDCardJavaAPI.jar file in the shared lib folder of the application server you are using.

## 5.7 Biometric capture exception

The Toolkit throws a Biometric capture exception error during a fingerprint capture operation. Possible causes and resolutions are provided below in a logical order:

- Sensor not connected. Connect it and retry your biometric capture operation.
- Sensor driver not installed. In case of SAGEM sensor, verify that the “**MorphoSmart MSO 1350 USB Driver**” is located on the device manager under USB Controllers.
- DLL conflict where the sensor SDK (Morpho\_SDK.dll in case SAGEM sensor) exists on one of the directories defined in the Path environment variable. In this case, the Toolkit will use it instead of the one located under the <installation directory>/Libs directory. Make sure there is no other instance of the Morpho\_SDK.dll under the directories defined in the Path environment variable.

### 5.8 ReadPublicData returns E\_ID\_READ\_PHOTOGRAPHY error

The ReadPublicData function of the Toolkit returns with an error when trying to read the photography.

This error typically happens if the ID card is an old one. In old cards, the photography used to be a protected data element that cannot be read from the card without a secure messaging operation. Therefore, reading the photography in this situation is not an operation supported by the Toolkit.

### 5.9 Invalid UAE\_IDCardCSharpAPI.dll reference (.NET development)

The developer tries to add a reference to the Toolkit C# API to his / her project and Visual Studio returns with the exception “Invalid UAE\_IDCardSharpAPI.dll reference”.

This error typically happens when the .NET framework version used by the developer is not compatible with EIDA Toolkit.

Verify that you are using .NET version 3.5 and Visual Studio 2005 with .NET 3.5 or higher.

## 5.10 Unable to load DLL 'UAE\_IDCardLib.dll'

This error typically happens when the Toolkit DLL UAE\_IDCardLib.dll or one of its dependencies cannot be loaded by the application.

Possible causes and resolution are presented below:

- The path to the Toolkit libs folder is not in the “path” environment variable. Verify this variable and set the path to the path to the Toolkit libs properly.
- Multiple versions of the Toolkit are installed on your machine. Verify that only the latest version of the Toolkit is installed on your machine.

The OS platform running the Toolkit is different from the Toolkit library platform requirements, please refer to section 5.3 and 5.4

## 5.11 SelectReader\* functions returns NULL

The Toolkit could not recognize any connected PC\SC reader. Possible causes and resolution are presented below:

- The smartcard reader you are using must be shown in the device manager under “smart card readers” snap in.
- Verify that the smartcard reader PC\SC driver is installed on the machine.
- Make sure you are calling the DiscoverReaders reader function before calling the Select Reader function.

## 5.12 IsCardGenuine (local mode) throws “SM\_NOT\_INITIALIZED\_EXCEPTION” exception

If this exception is thrown by the Toolkit, this means that no Secure Messaging (SM) module was initialized after the execution of the Toolkit function that deals with SM modules initialization (i.e. IDCardWrapper.LoadConfiguration).

Possible causes and resolution are presented below:

- The sm.cfg file shall exist under the working directory directly or in the folder “config” that is located also in the working directory.
- Values assigned to sm.cfg file entries (ID\_SM\_Name, PKI\_SM\_Name, MOC\_SM\_Name) shall be either 1,2 or 3
- You shall be calling the function IDCardWrapper.LoadConfiguration before initiating SM functions calls.

### 5.13 Getting “SELECT\_ID\_APPLICATION\_EXCEPTION” exception while accessing the card

The “SELECT\_ID\_APPLICATION\_EXCEPTION” is thrown when the connection with the ID card is lost. Remove the ID card from the smartcard reader and insert it again. Retry your operation.

### 5.14 MatchOnCard or MatchOffCard fails with a legitimate cardholder

This exception is typically thrown is the captured fingerprint index is different than the once stored on the ID card. Make sure you use a proper finger during your matching operation.

### 5.15 Failure in function MW\_Init

EIDA has recently provided a new SAM shipment, the new SAM ATR is “3B 78 18 00 00 01 53 41 4D 20 45 41 55”, this SAM causes a failure in the function “MW\_Init” if this function was called as the first step before the function “MW\_ListReaders”.

The resolution of this problem is to call “MW\_ListReaders” first then add a delay for 500 milliseconds then call “MW\_Init”.

#### NOTE:

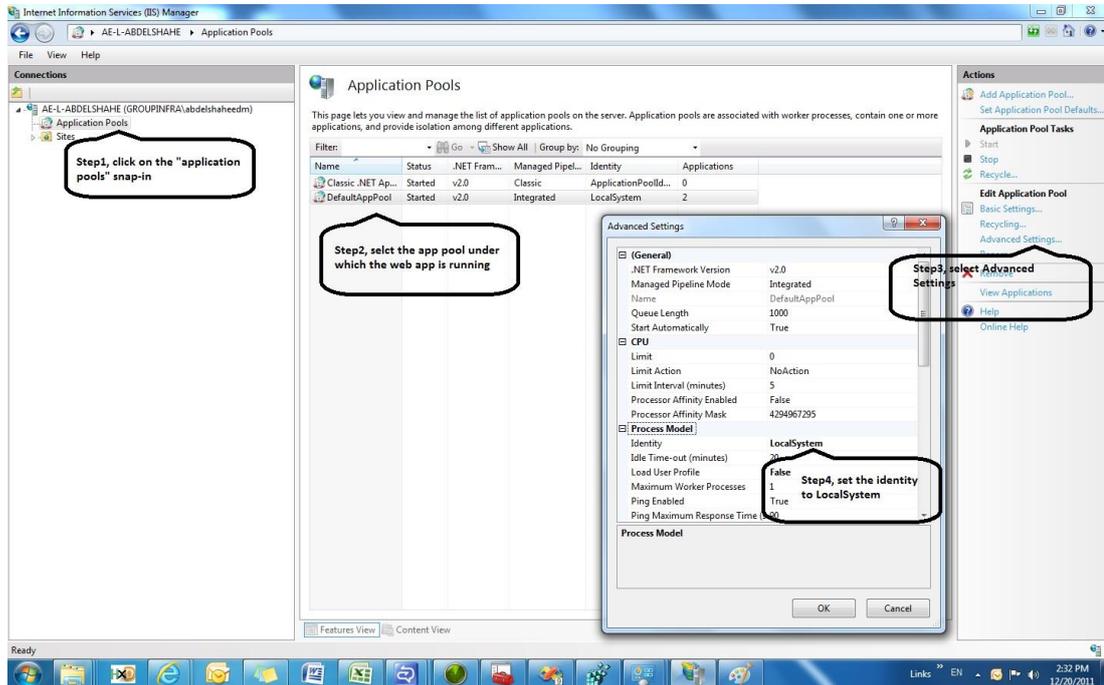
1. Sagem is working on this problem and once it is solved, there will not need to apply the resolution explained above
2. In order to use this SAM with the toolkit, the ATR has to be added to the sm.cfg as explained in the developer guide, however please note that the function Is\_UAESAM is not currently detecting this SAM as it will be fixed in the next release.

### 5.16 Error -2146435043 with the .NET remote secure messaging service

The error 2146435043 (0x8010001d s- SCARD\_E\_NO\_SERVICE - "The Smart card resource manager is not running.") occurs when using Microsoft IIS to host the .NET remote messaging service while there is no sufficient privileges assigned to the IIS worker process to access smart card resources.

The resolution is to assign the needed privileges to the IIS worker process to access smart card resources (please refer to the IIS system admin to apply this), however there is a straight forward solution that is not recommended to apply on IIS server published on untrusted networks such as the public cloud, the solution is as follows:

1. Run the command “inetmgr” from the windows run window
2. IIS manager will open, expand the tree on the left hand side then apply the steps mentioned in the below figure:



### 5.17 Error -513 (E\_REMOTE\_SM\_MODULE\_NOT\_AVAILABLE) with the .NET remote secure messaging service

Same as point 5.16

### 5.18 Error opening file for writing while installing the toolkit

This error usually occurs on a machine where a previous toolkit release is installed, when an application or a web server (Tomcat/IIS) is loading any of the existing toolkit libraries during a newer version of the toolkit is being installed.

The resolution is to stop all the applications or web servers rely on the toolkit before running the new toolkit installation.