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## Test case #13284 XDM\_PMC\_Create\_Media

### Test Summary

<b>Keyword :</b> XDM_PMC_Create_Media	<b>Type :</b> conformity assessment
<b>Name :</b> XDM_PMC_Create_Media	<b>Peer Type :</b> NO_PEER_TEST
<b>Version :</b> 1.0	<b>Status :</b> ready
<b>Author :</b> wbars	<b>Verified by :</b> wbars
<b>Date of last</b> 2019-09-06 14:56:50.621153 by wbars	

**Short Description :** Portable Media Creator creates CD-R and/or USB

### Test Description

# Conformance tests definitions

## Special Instructions

This test applies to XDM Portable Media Creators that create CD-R and/or USB media.

This test will require you to use the Syslog Collector tool, embedded in **Gazelle Security Suite**, which will act as an Audit Record Repository.

UDP and TCP-TLS ports on which the tool is listening are available to the user on the page **Audit Trail > Syslog Collector**.

## Description

First off, configure your system to use the **Syslog Collector** as Audit Record Repository.

This test case is used to create XDM-formatted media (CD-R or USB), or ZIP archive to send in a Mail.

As a Portable Media Creator, when you create your media, we want you to put documents from the various IHE content profiles your system supports (eg: APR, BPPC, EDES, EDR, IC, XDS-MS, XDS-SD, XD-LAB, XPHR, etc). Each supported document type must be represented in your Sample. This will be part of the Evaluation.

If your system supports creating multiple submission sets on one CD-R media, you should create more than one submission set on the media for this test.

If your system can create multi-part documents, your submission set(s) should contain at least one sample multi-part document.

You will also be required to demonstrate that you send an 'export' audit message when you create an XDM media.

## To create your XDM media :

We want you to create XDM media in these formats:

1. If you support the CD-R option, create one copy of the media.
2. If you support CD-R, creating USB is optional in the context of this test. You may choose to test with only CD-R. If you only support the USB option, create one USB.
3. Create a zip file of the file structure on your XDM media. Upload that zip file into the gazelle samples area: menu **Connectathon > List of Samples**. On the 'Samples to share' tab, upload your zip file under the 'XDM' entry.

The monitor will follow along the creation of the media.

The import of the media should initiate an audit message. Your system should send the message to the Syslog Collector. Go to **Gazelle Security Suite**, on page **Audit Trail > Syslog Collector**. Filter the list of received messages by the host or the IP of the sender, and find the message sent according to the timestamps. Click on the magnifying glass to display the message details, then copy its permanent link in the corresponding [EVIDENCE] test step.

## Evaluation

The Monitor will ask you:

- which IHE document types you included on your media (it should be listed on your media)
- whether you can create multi-part documents in your submission sets
- whether you can include more than one submission set per media
- whether you support the Web Content option of the PDI profile

The monitor will **only** evaluate the structure of your media through the archive you uploaded in Gazelle. As the monitor will not have physical access to your CD-R or USB media (if you created one), no requirement will be checked on it directly.

However if you created a physical media (CD-R or USB), the monitor may ask you to open it with your computer to perform some checks.

The Monitor will then examine your media sample through the archive found in Gazelle Test Management for the following characteristics:

- There is no autorun or equivalent file in the root directory of the media.
- README.TXT is present at the root level of the media. The README.TXT will contain
  - Contact info on the institution that created the media
  - Information regarding the application that created the media
  - Contact information of the vendor of the application that created the media
  - General information about the overall organization of the media
  - (optionally, if a Media Viewer is contained) OS supported; name of the product application and software version; contact information of the vendor that provided the Media Viewer; disclaimer about the intended usage of the application; list of minimum requirements
- INDEX.HTM is present at the root level and contains properly formatted XHTML. This file *may* contain:
  - Patient ID and demographics (submission sets on the media may belong to one or more patients)
  - Source Facility information
  - a description of other content which is on the media, including the means to launch any executable that may be present on the media
- The root directory contains a folder IHE\_XDM.
- IHE\_XDM folder contains one or more subfolders for the contents of the submission sets.
- The subfolder(s) each contain the file METADATA.XML. You must use EVSClient to validate them. The validation in EVSClient for each of those files must be **PASSED**. To validate the metadata file :
  - Go to [EVSClient](#)
  - Go to **EPR > XD\* Metadata > Validate**
  - Upload the METADATA.XML file
  - Choose the validator : **CH XDM ITI-32 Distribute Document Set on Media**
  - Click on **Validate**
  - Copy the permanent link to the report in the appropriate [EVIDENCE] step.
- The subfolder(s) may contain
  - one or more files that are the single-part document(s) referenced by the METADATA.XML
  - one or more sub-directory for each multi-part document
- File names are restricted to eight characters with a three-character extension, upper case letters, numbers and underscore; maximum depth of directories is eight.
- The submission set(s) contain one or more samples of each IHE content profile the Portable Media Creator system supports.

**Note:** The metadata requirements are found in ITI TF-3: Table 4.3.1-3

Finally, the Monitor will also verify that the export action was audited. (ITI TF-2b:3.32.5.1.1).

- The audit message contains an "export" event
- The audit message describes the submission set and/or study that is exported.

### Test Participants

Role in test : PMC-XDM-MediaCreator (SUT)

Option : R

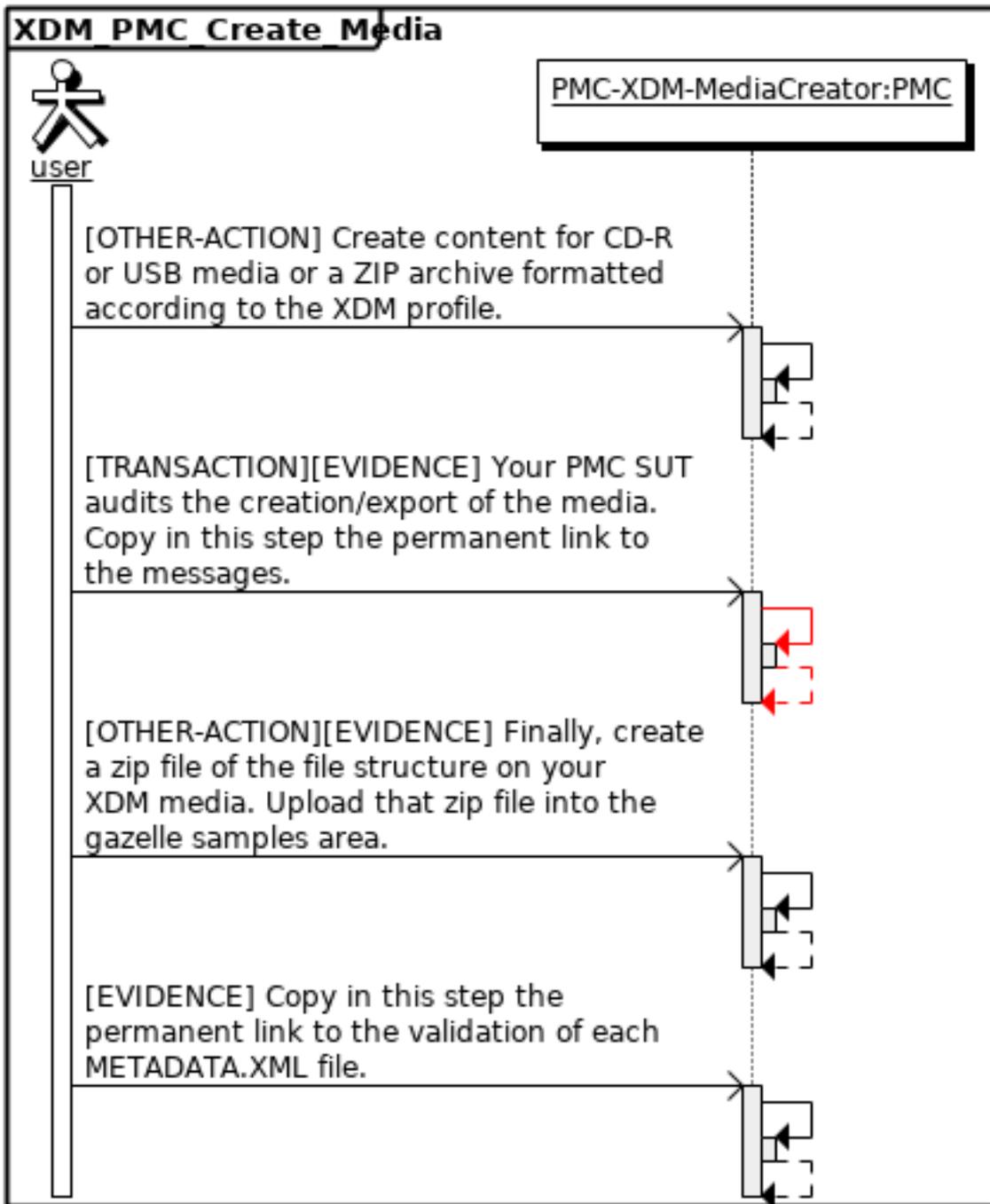
Nb of instances : 1

Actor	Profile	Option
PMC	XDM	USB
PMC	XDM	CD_R
SN	ATNA	NONE

### Test Steps

Index	Initiator	Responder	Transaction	Message Type	Secured ?	Option	Description
10	PMC-XDM-MediaCreat or	PMC-XDM-MediaCreator		None	No	Required	[OTHER-ACTION] Create content for CD-R or USB media or a ZIP archive formatted according to the XDM profile.
20	PMC-XDM-MediaCreat or	PMC-XDM-MediaCreator		ITI-20	Yes	Required	[TRANSACTION][EVIDENCE] Your PMC SUT audits the creation/export of the media. Copy in this step the permanent link to the messages.
60	PMC-XDM-MediaCreat or	PMC-XDM-MediaCreator		None	No	Required	[OTHER-ACTION][EVIDENCE] Finally, create a zip file of the file structure on your XDM media. Upload that zip file into the gazelle samples area.
70	PMC-XDM-MediaCreat or	PMC-XDM-MediaCreator		None	No	Required	[EVIDENCE] Copy in this step the permanent link to the validation of each METADATA.XML file.

Sequence Diagram



# Test case #13285 XDM\_PMC\_Validate\_ZIP

## Test Summary

**Keyword :** XDM\_PMC\_Validate\_ZIP **Type :** conformity assessment  
**Name :** XDM\_PMC\_Validate\_ZIP **Peer Type :** NO\_PEER\_TEST  
**Version :** 1.0 **Status :** ready  
**Author :** wbars **Verified by :** NicolasBailliet  
**Date of last :** 2019-09-03 15:10:40.979486 by wbars

**Short Description :** NIST tool validates XDM Zip file generated by Portable Media Creator

## Test Description

### Special Instructions

The Portable Media Creator is asked to create a zipped XDM content file. This file then needs to be successfully validated by NIST tool.

### Description

This test asks the XDM PMC to create XDM Content, zip it, then validate the zip file using the [XDM Validator in siteenv.org](http://siteenv.org).

Create a screen capture of the successful results and attach it to the dedicated test step.

### Evaluation

Verify that the validation succeeds.

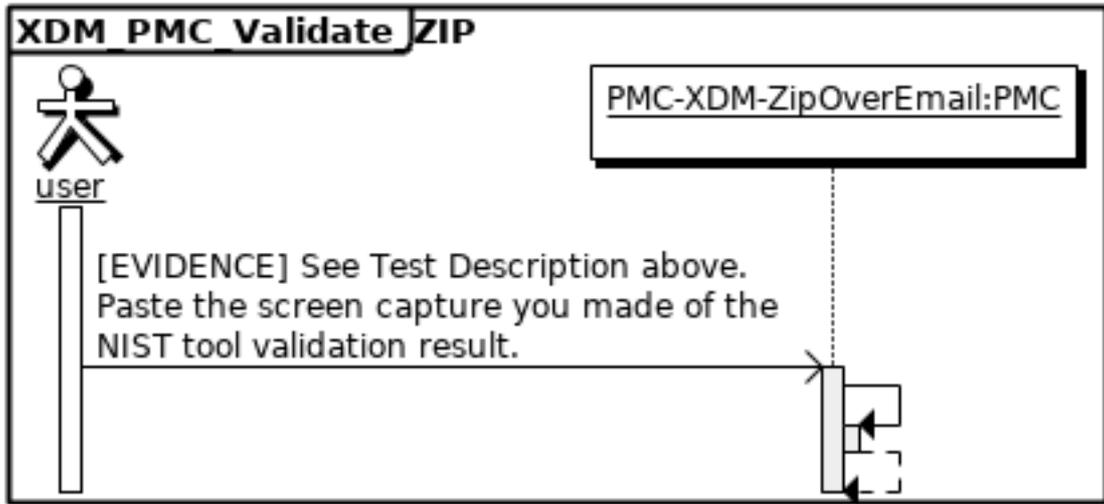
## Test Participants

Role in test : PMC-XDM-ZipOverEmail (SUT)			Option : R	Nb of instances : 1
Actor	Profile	Option		
PMC	XDM	ZIP_OVER_EMAIL		

## Test Steps

Index	Initiator	Responder	Transaction	Message Type	Secured ?	Option	Description
10	PMC-XDM-ZipOverEmail	PMC-XDM-ZipOverEmail		Instructions	No	Required	
[EVIDENCE] See Test Description above. Paste the screen capture you made of the NIST tool validation result.							

Sequence Diagram



# Test case #13515 XDM\_PMI\_Import\_Error\_case

## Test Summary

**Keyword :** XDM\_PMI\_Import\_Error\_case **Type :** conformity assessment  
**Name :** XDM\_PMI\_Import\_Error\_case **Peer Type :** NO\_PEER\_TEST  
**Version :** 1.0 **Status :** ready  
**Author :** wbars **Verified by :** wbars  
**Date of last** 2019-09-06 17:02:08.768127 by wbars

**Short Description :** Portable Media Creator and Importer exchange content on XDM media (CD-R or USB). Content is taken from gazelle samples so no PMC needed for this test. Content contains errors that shall be reported by the SUT.

## Test Description

### Special Instructions

The Portable Media Importer is asked to import XDM formatted media from Gazelle samples. This test will require you to use the Syslog Collector tool, embedded in **Gazelle Security Suite**, which will act as an Audit Record Repository. UDP and TCP-TLS ports on which the tool is listening are available to the user on the page **Audit Trail > Syslog Collector**.

### Description

First off, configure your system to use the **Syslog Collector** as Audit Record Repository.

You are then asked to import XDM-formatted media into your system. In this test case, one of the metadata is corrupted. We expect the SUT to return the error found in the hash of the metadata in the SUBSET02 to the user.

Resources for this can be found at : [https://ehealthsuisse.ihe-europe.net/test\\_data/XDM/error\\_cases](https://ehealthsuisse.ihe-europe.net/test_data/XDM/error_cases)

Use the sample **IHE\_XDM.ZIP** if you are implementing USB or ZIP over mail options to import the documents.

If you implement USB option, simply unzip the content of the archive at root of an USB key or anywhere else allowing you to simulate this kind of media.

If you implement ZIP over mail option, use the zip as you would with an archive sent by e-mail.

If you implement CD-R option, an ISO image simulating a CD-R XDM-Formatted media named : **XDM\_CD.iso** is available.

**Note:** *The metadata requirements are found in ITI TF-3: Table 4.3.1-3*

As some metadata are corrupted in this resource, your system is expected to warn the user about it. Take a screenshot of your system demonstrating that the corruption has been detected and thrown to the user.

The import of the media should initiate an audit message. Your system should send the message to the Syslog Collector. Go to **Gazelle Security Suite**, on page **Audit Trail > Syslog Collector**. Filter the list of received messages by host or IP of the sender, and find the message sent according to the timestamps. Click on the magnifying glass to display the message details, then copy its permanent link in the corresponding [EVIDENCE] test step.

### Evaluation

The Monitor will not verify the import of documents with correct metadatas. This is done during another test.

Here the monitor will verify that the SUT alert the user of the error in the Metadatas for the right Document Set from the XDM media.

The Monitor will also verify that the import action was audited. (ITI TF-2b:3.32.5.1.1).

- The audit message contains an "Import" event
- The audit message describes the submission set and/or study that is imported.

## Test Participants

**Role in test :** XDM\_PMI\_ANY\_OPTION (SUT)

**Option :** R

**Nb of instances :** 1

Actor	Profile	Option
PMI	XDM	NONE
PMI	XDM	USB
PMI	XDM	CD_R

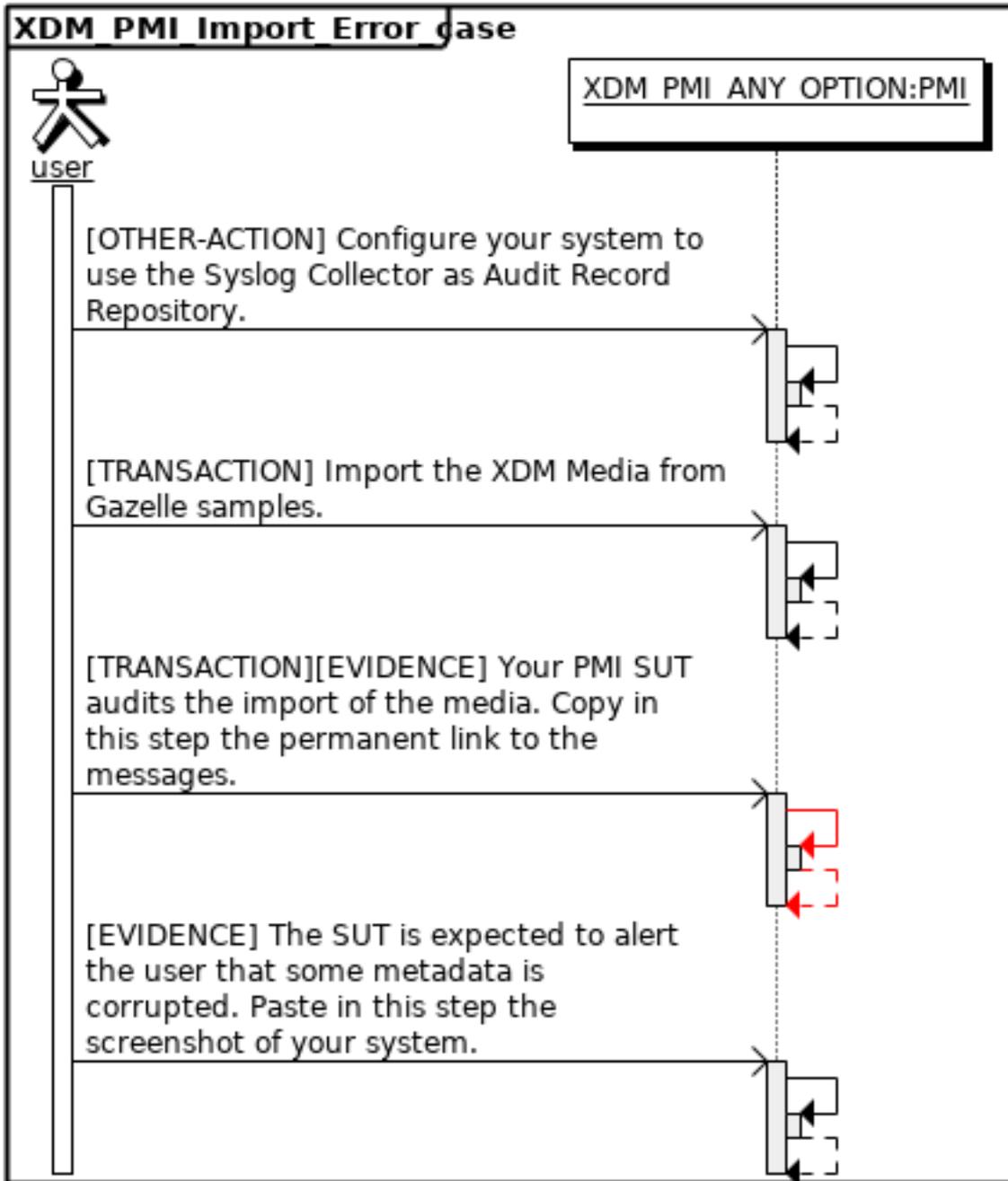
### Test Participants

Actor	Profile	Option
PMI	XDM	ZIP_OVER_EMAIL

### Test Steps

Index	Initiator	Responder	Transaction	Message Type	Secured ?	Option	Description
10	XDM_PMI_ANY_OPTION	XDM_PMI_ANY_OPTION		None	No	Required	[OTHER-ACTION] Configure your system to use the Syslog Collector as Audit Record Repository.
20	XDM_PMI_ANY_OPTION	XDM_PMI_ANY_OPTION		ITI-32	No	Required	[TRANSACTION] Import the XDM Media from Gazelle samples.
30	XDM_PMI_ANY_OPTION	XDM_PMI_ANY_OPTION		ITI-20	Yes	Required	[TRANSACTION][EVIDENCE] Your PMI SUT audits the import of the media. Copy in this step the permanent link to the messages.
40	XDM_PMI_ANY_OPTION	XDM_PMI_ANY_OPTION		None	No	Required	[EVIDENCE] The SUT is expected to alert the user that some metadata is corrupted. Paste in this step the screenshot of your system.

Sequence Diagram



# Test case #13288 XDM\_PMI\_Import\_Media

## Test Summary

**Keyword :** XDM\_PMI\_Import\_Media **Type :** conformity assessment  
**Name :** XDM\_PMI\_Import\_Media **Peer Type :** NO\_PEER\_TEST  
**Version :** 1.0 **Status :** ready  
**Author :** wbars **Verified by :** wbars  
**Date of last :** 2019-09-06 17:04:43.371691 by wbars

**Short Description :** Portable Media Creator and Importer exchange content on XDM media (CD-R or USB). Content is taken from gazelle samples so no PMC needed for this test

## Test Description

### Special Instructions

The Portable Media Importer is asked to import XDM formatted media from Gazelle samples.  
 This test will require you to use the Syslog Collector tool, embedded in **Gazelle Security Suite**, which will act as an Audit Record Repository.  
 UDP and TCP-TLS ports on which the tool is listening are available to the user on the page **Audit Trail > Syslog Collector**.

### Description

First off, configure your system to use the **Syslog Collector** as Audit Record Repository.  
 You are then asked to import XDM-formatted media into your system.  
 Resources for this test can be found at : [https://ehealthsuisse.ihe-europe.net/test\\_data/XDM](https://ehealthsuisse.ihe-europe.net/test_data/XDM)  
 Use the sample **IHE\_XDM.ZIP** if you are implementing USB or ZIP over mail options to import the documents.  
 If you implement USB option, simply unzip the content of the archive at root of an USB key or anywhere else allowing you to simulate this kind of media.  
 If you implement ZIP over mail option, use the zip as you would with an archive sent by e-mail.  
 For systems implementing CD-R option, an ISO image simulating a CD-R XDM-Formatted media named : **XDM\_CD.iso** is available.

**Note:** The metadata requirements are found in ITI TF-3: Table 4.3.1-3

The import of the media should initiate an audit message. Your system should send the message to the Syslog Collector. Go to **Gazelle Security Suite**, on page **Audit Trail > Syslog Collector**. Filter the list of received messages by host or IP of the sender, and find the message sent according to the timestamps. Click on the magnifying glass to display the message details, then copy its permanent link in the corresponding [EVIDENCE] test step.

### Evaluation

- The Monitor verifies that:
- Supported documents are successfully imported into the system. The operator of the Importer system may demonstrate this by various means, e.g. by displaying the imported document (after the media has been removed from the system) or displaying contents from the imported file(s) in the system's database
    - From ITI TF-1:16.4.3: The Portable Media Importer has two complementary ways to access the media and its content through a basic web browser :
      - By inspecting in the directory dedicated to XDM all the subdirectories that contain a specifically named metadata file compatible with XDM
      - By presenting to the user the HTML index file that lists the submission sets and documents contained in the media.
  - The Importer system can demonstrate some form of 'processing of medical data' in the types of documents it is designed to support. It means that it's not sufficient to just write the imported document to the Importer system's hard disk.
  - From ITI TF-2b: 3.32.4.1.5: The Importer has a method for verifying the integrity of the media by comparing the size and hash values of the entries in METADATA.XML to the relevant submission set directory(ies).

The Monitor will also verify that the import action was audited. (ITI TF-2b:3.32.5.1.1).

- The audit message contains an "Import" event
- The audit message describes the submission set and/or study that is imported.

## Test Participants

Role in test : XDM_PMI_ANY_OPTION (SUT)			Option : R	Nb of instances : 1
Actor	Profile	Option		
PMI	XDM	NONE		
PMI	XDM	USB		
PMI	XDM	CD_R		
PMI	XDM	ZIP_OVER_EMAIL		

**Test Participants**

**Test Steps**

Index	Initiator	Responder	Transaction	Message Type	Secured ?	Option	Description
1	XDM_PMI_ ANY_OPTI ON	XDM_PMI_A NY_OPTION		None	No	Required	[OTHER-ACTION] Configure your system to use the Syslog Collector as Audit Record Repository.
10	XDM_PMI_ ANY_OPTI ON	XDM_PMI_A NY_OPTION		ITI-32	No	Required	[TRANSACTION] Import the XDM Media from Gazelle samples.
20	XDM_PMI_ ANY_OPTI ON	XDM_PMI_A NY_OPTION		ITI-20	Yes	Required	[TRANSACTION][EVIDENCE] Your PMI SUT audits the import of the media. Copy in this step the permanent link to the messages.
30	XDM_PMI_ ANY_OPTI ON	XDM_PMI_A NY_OPTION		None	No	Required	[EVIDENCE] If the results of the import is successful, let the Monitor evaluate the results of the import.

Sequence Diagram

