Package Build Instruction

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Contents

1 Purpose 4

2 System Requirements 5

2.1 System requirement 5

2.2 Proxy Configuration setup 5

2.3 Software requirement 5

2.3.1 Install basic packages in fedora 5

2.3.2 Install basic packages in RHEL 5

2.3.3 Install basic packages in ubuntu 6

2.3.4 Install basic packages in SLES 6

3 Download OpenAttestation Required Components 7

3.1 Download OpenAttestation Source 7

3.2 Download required libraries 7

4 Package building 8

4.1 Building RPM Package for Fedora server 8

4.2 Building RPM Package for RHEL server 8

4.3 Building DEB Package for Ubuntu server 8

4.4 Building RPM Package for SLES server 8

4.5 Get install package 9

4.5.1 For fedora 9

4.5.2 For RHEL 9

4.5.3 For ubuntu 9

4.5.4 For SLES 9

5 Import Projects to Eclipse 10

5.1 Import to Eclipse 10

5.2 TPMModule 12

5.3 PrivacyCA 13

5.4 HisAppraiser 13

5.5 HisClient 13
5.6 HisPrivacyCAWebServices2 13
5.7 HisWebServices 14
5.8 AttestationService 14
5.9 WLMService 14
5.10 Portal 14

1 Purpose

How-to guide in building OpenAttestation SDK from source to package ready for installation.

2 System Requirements

2.1 System requirement

The build environment has been validated in using Fedora 14/16/17 x86_64, Ubuntu 11.10/12.04 or SLES 11.

2.2 Proxy Configuration setup

If you building package behind firewall, you would need to setup following proxies in order to download needed libraries

```
export  http_proxy=<proxy_server>:<proxy_port>
export  https_proxy=<proxy_server>:<proxy_port>
export  ftp_proxy=<proxy_server>:<proxy_port>
```

2.3 Software requirement

2.3.1 Install basic packages in fedora

```
yum install rpm-build
yum install ant
yum install trousers-devel
```

Also install following packages

* autoconf 2.63
* automake 1.11
* gcc 3.4
* pam 1.1
* java 1.6 or 1.7

2.3.2 Install basic packages in RHEL

```
yum install rpm-build
```

```
yum install ant
yum install trousers-devel
```

2.3.3 Install basic packages in ubuntu

```
apt-get install openjdk-6-jdk
apt-get install libtspi-dev
apt-get install zip
apt-get install ant
apt-get install g++
apt-get install make
```

2.3.4 Install basic packages in SLES

```
zypper install gcc-c++
zypper install kernel-default-devel
zypper install ant
zypper install trousers-devel
zypper install java-1_6_0-openjdk-devel
```

3 Download OpenAttestation Required Components

3.1 Download OpenAttestation Source

Please download source tree, say <OAT_DIR>/OpenAttestation, you are to see following tree structure, <OAT_DIR> is the directory of OAT package.

<OAT_DIR>/OpenAttestation/Source –

HisAppraiser

HisClient

HisPrivacyCAWebServices2

WLMService

AttestationService

Portal

PrivacyCA

TPMModule

Build.sh

<OAT_DIR>/OpenAttestation/Installer –

…….

<OAT_DIR>/OpenAttestation/docs -

3.2 Download required libraries

OpenAttestation project in open source tree doesn't include all the necessarily runtime libraries, such as JAR files for Java runtime …

To download runtime libraries, do

- cd <OAT_DIR>/OpenAttestation/Installer
- bash download_jar_packages.sh
- bash distribute_jar_packages.sh

4 Package building

4.1 Building RPM Package for Fedora server

Cd <OAT_DIR>/OpenAttestation/Installer

bash rpm.sh -s <OAT_DIR>/OpenAttestation/Source

Where <OAT_DIR> is from section #3.1 Download OpenAttestation. <OAT_DIR> are absolute path.

You should see "RPM build: -------- [OK]" at the end.

4.2 Building RPM Package for RHEL server

Cd <OAT_DIR>/OpenAttestation/Installer

bash rpm.sh -s <OAT_DIR>/OpenAttestation/Source

Where <OAT_DIR> is from section #3.1 Download OpenAttestation. <OAT_DIR> are absolute path.

You should see "RPM build: -------- [OK]" at the end.

4.3 Building DEB Package for Ubuntu server

Cd <OAT_DIR>/OpenAttestation/Installer

bash deb.sh -s <OAT_DIR>/OpenAttestation/Source

Where <OAT_DIR> is from section #3.1 Download OpenAttestation. <OAT_DIR> are absolute path.

You should see "DEB build: -------- [OK]" at the end

4.4 Building RPM Package for SLES server

Cd <OAT_DIR>/OpenAttestation/Installer

bash rpm_for_sles.sh -s <OAT_DIR>/OpenAttestation/Source

Where <OAT_DIR> is from section #3.1 Download OpenAttestation. <OAT_DIR> are absolute path.

You should see “RPM build: -------- [OK]” at the end

4.5 Get install package

4.5.1 For fedora

You should find rpm package in /root/rpmbuild/RPMS/x86_64/OAT-Appraiser-Base-OATapp-1.0.0-2.fcxx.x86_64.rpm.

4.5.2 For RHEL

You should find rpm package in /root/rpmbuild/RPMS/x86_64/ OAT-Appraiser-Base-OATapp-1.0.0-2.el6.x86_64.rpm.

4.5.3 For ubuntu

You should find deb package in /tmp/debbuild/DEBS/x86_64/OAT-Appraiser-Base-OATapp-1.0.0-2.ubuntu.x86_64.deb.

4.5.4 For SLES

You should find rpm package in /root/rpmbuild/RPMS/x86_64/OAT-Appraiser-Base-OATapp-1.0.1-2.x86_64.rpm.

5 Import Projects to Eclipse

In order to build OpenAttestation project within Eclipse, you should have Eclipse setup proxy accordingly as *section#2.2 Proxy Configuration Setup.*

<OAT_DIR>/OpenAttestation/Source –

HisAppraiser

HisClient

HisPrivacyCAWebServices2

WLMService

AttestationService

PrivacyCA

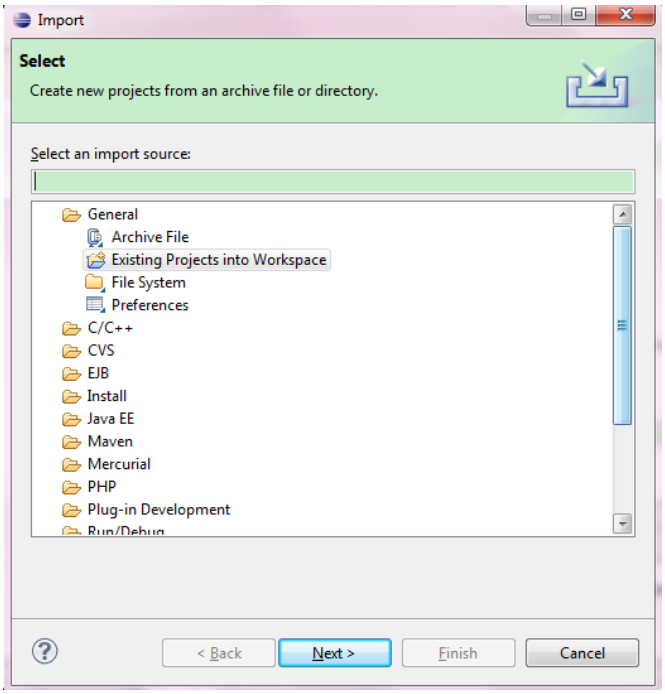
TPMModule

<OAT_DIR> is from section #3.1 Download OpenAttestation.

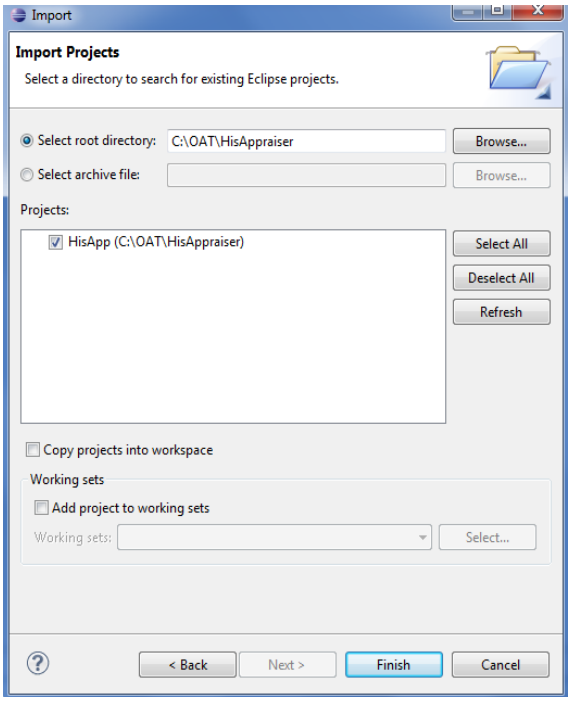
We Recommend to get OpenAttestation development package after running #3.2 " Download required libraries"

5.1 Import to Eclipse

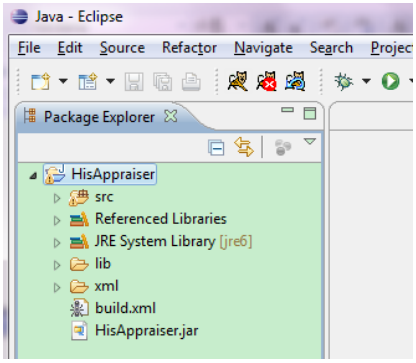
1. Open Eclipse; click File option, select Import option, select General options, and then select Existing Projects into Workspace.



2. Click Next, select one of those 7 subdirectories as the root directory, then project name will be listed in the Projects box, select the project and click Finish.



3. Project should be displayed in Eclipse Explorer Window:



4. For each of the other sub-directory, repeat step 2.

5.2 TPMModule

This module to be deployed onto the TPM client systems. This is a C++ project and should build in different ways between Windows and Linux. Here I only introduce how to build in Linux.

Below packages should be installed in fedora:

* autoconf 2.63
* automake 1.11
* gcc 3.4
* pam 1.1
* trousers 0.3.1
* trousers-devel 0.3.1
* java 1.6 or 1.7
* rpm 4.7.2

Below packages should be installed in ubuntu:

* libtspi-dev
* g++
* openjdk-6-jdk

To build TPMModule, open a terminal window,

cd <OAT_DIR>/Source/TPMModule/sha1/linux/

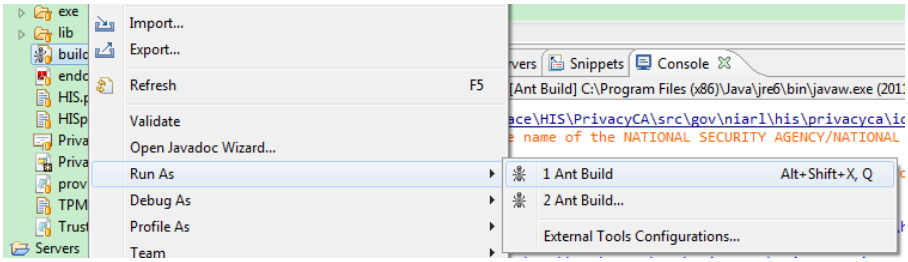
make

<OAT_DIR> is from section #3.1 Download OpenAttestation.

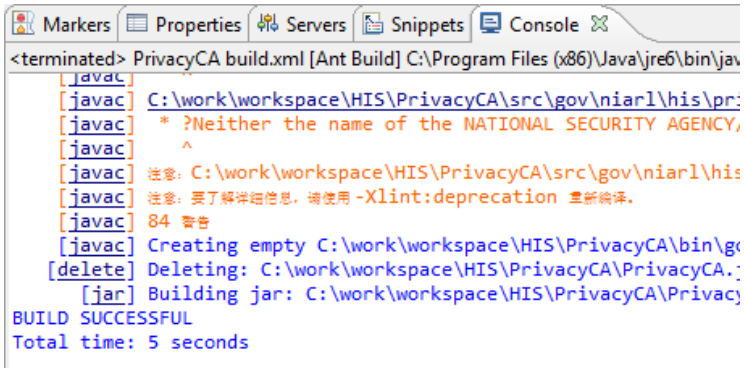
5.3 PrivacyCA

There is build.xml in this project so that Eclipse can build it easily.

1. In Eclipse Explorer window, expand PrivacyCA, right click on build.xml, then select Run As, then 1 Ant Build;



2. The build will start and output messages in Console window. You will see BUILD SUCCESSFUL in Console at the end of build. Then you will get a PrivacyCA.jar file in this project.



5.4 HisAppraiser

This module can be built on either machine. The same build steps as PrivacyCA.

5.5 HisClient

This module can be built on either machine. The same build steps as PrivacyCA.

5.6 HisPrivacyCAWebServices2

This module can be built on either machine. The same build steps as PrivacyCA.

5.7 HisWebServices

This module can be built on either machine. The same build steps as PrivacyCA.

5.8 AttestationService

This module can be built on either machine. The same build steps as PrivacyCA.

5.9 WLMService

This module can be built on either machine. The same build steps as PrivacyCA.

5.10 Portal

This is a PHP web application and is deployed under Apache. No need to build.