OpenAttestation Trouble Shooting

Version: 1.5

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Contents

1　*Server Installation*

1.1　Lack of libraries when install server

Solution:　Install Fedora 14+ with software development option

2 Client Installation

2.1 Client provisioning failed with nothing returned via run command "sh provisioner.sh"

Solution: shall start trousers daemon before client provisioning

- "service trousers start" on ubuntu
- "service tcsd start" on Fedora
    - If tcsd or trousers start with error "Starting tcsd (via systemctl): Job failed. See system journal and 'systemctl status' for details. [FAILED]" on Fedora 17, please find the solution in Section 2.5 "Fedora 17 cannot enable TPM device by default installation"

2.2 Client provisioning failed with java errors

Solution: shall make sure TPM is enabled and TPM is clear

- Ensure TPM is enabled in BIOS
- Clear TPM ownership if TPM is taken before run command "
  "$Client_Install_Path/NIARL_TPM_Module -mode 2 -owner_auth 1111111111111111111111111111111111111111"
- If the provisioning still does NOT work with error "TpmModule.getPublicEndorsementKey returned nonzero error:" after the above steps, which means the platform does not have Endorsement Key initialized. You can install tpm tools (apt-get install tpm-tools) and run "tpm_createek" to initialize Endorsement Key.

2.3 Client provisioning failed with unresolved java package relevant errors

Solution: When build installation package, the java JDK library shall have the same version with client environment

2.4 Client provisioning failed with "Web Service Error: cannot access WSDL..." errors

Solution: Solve server name resolving issue

- Configure /etc/hosts for appraiser server properly
- Or make sure appraiser server and client are in same sub net.
- Or make sure Tomcat daemon is started via "service tomcat6 restart"

2.5 Fedora 17 cannot enable TPM device by default installation

Solution: shall manually compile kernel 3.3.4 or 3.3.8 with "CONFIG_TCG_TPM = m" parameter.

3 SDK API

3.1 Cannot Access API through CURL or Python on ubuntu12.04

Solution: Shall specify "protocol = sslv3" in http header for Python, and "-sslv3" parameter for CURL

3.2 Invoking "Poll Hosts for Trust Status" API, always returns trust status as "unknown"

Solution:

- Make sure OAT client is started via "/etc/init.d/OATClient start"
- Make sure the registered client hostname is consistent with the hostname in OAT system.
- Get hostname on OAT client: hostname
- Get registered hostname on Appraiser: access portal via http://host_name/OAT/machines.php

3.3 Error returns when invoking API with special characters

Solution: Don't include special characters **# & + : " '** in API parameters

3.4 Certificate verification failed with "routines:SSL3_GET_SERVER_CERTIFICATE:certif icate verify failed…" errors

Solution: The certfile.cer is invalid if the time is not consistent between the appraiser server and client server, sync time and reinstall appraiser server and client server.

3.5 Out of expectation in case of large-scale concurrent requests of polling hosts

Solution:

- Default configuration after deploying OAT system supports 10+ concurrent poll hosts requests, saying, 10+ concurrent requests can be processed correctly and OAT server can identify clients' trustworthy without unknown exception.
- To support large-scale concurrent requests, end users should customize several configuration items to meet end users' expectation.
    - OpenAttestationWebServices.properties on Appraiser
      This file is located in the "/etc/oat-appraiser" directory. Open this file and modify the item of "default_attest_timeout" to extend default timeout setting.

Concurrent Number	SETTING
Number <= 15	50000
15 < Number <= 100	660000
100 < Number <= 500	2500000
500 < Number < 1000	6600000

- server.xml on Appraiser
  This file is located in the "$TOMCAT_HOME/conf" directory where $TOMCAT_HOME is the root directory of tomcat server. Default configuration for "acceptCount" and "maxThreads" is "100" and "200" respectively. Find the definition from official tomcat website and then check if these values meet your requirements.

  maxThreads - The maximum number of request processing threads to be created by this Connector, which therefore determines the maximum number of simultaneous requests that can be handled. If not specified, this attribute is set to 200.

acceptCount - The maximum queue length for incoming connection requests when all possible request processing threads are in use. Any requests received when the queue is full will be refused. The default value is 100.

4   *Tboot Installation*

4.1   Cannot configure GRUB successfully for Tboot on Fedora 16+ with HP 8200

Solution: To configure GRUB successfully, shall install F16/17 in legacy mode (Press F9 in Boot Menu on HP 8200) instead of EFI mode on HP 8200 and some new PCs

4.2   Tboot command "txt-stat" returns "no SINIT AC module found" log

Solution: SINIT.bin version mismatched, shall download right SINIT.bin file