

UNICORE Exercises: Server Installation

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Grid Summer School, July 28th, 2004

Aims

- Create a Unicore server installation
 - Gateway
 - NJS
 - Single
 - With UUDB
 - TSI
- Test using Server administration tool
- Test by running a job from Unicore client

Requirements

- Java 1.4
- Perl
- Unix/Linux
- Familiarity with using Unix

Exercise Package

- Extract from the tar archive
- Contents:
 - Gateway_4.0.1_build2.tar.gz
 - NJS_4.0.5.tgz
 - TSI_4.0.3.tar.gz
 - uudb/UUDB.tar.gz
 - CERTIFICATES
 - Certificates and private keys for exercise
 - GSExercises.pdf
 - This document
 - Template for client gateways file

Gateway 1

- Configure the Gateway to
 - Listen for UPL requests on your local machine
 - Accept requests signed by the FZJ Projects CA
 - Obtain NJS details by “registration”
- See
 - `READ_ME_GATEWAY`
 - `gateway/docs/Gateway_Manual_4.0.1.pdf`
- Configuration file is `gateway/conf/gateway.properties`

Gateway 2

- Required information
 - Local machine name
 - A port number that the Gateway will listen on
 - Do not conflict with other installations on same machine
 - Convention is 4433
 - CA certificates:
 - CERTIFICATES/fzj_ca.pem
 - CERTIFICATES/NewIntelTestGridCA.pem
 - Gateway private key is in CERTIFICATES/GSSGateway.p12
 - Password is GSS2004

Gateway 3

- Do not read a connections file
 - Comment out line
- Do not restrict allowed NJSs
 - Comment out line `gw.named_njs`

Gateway

- To start the Gateway:
 - `cd gateway; bin/start_gateway conf`
- To stop the Gateway:
 - `cd gateway; bin/stop_gateway`
- Log files in `gateway/conf/logs`

Gateway: installation test

- Configure client to use your new Gateway
 - Use the gateways.xml file as a template for your gateway
 - Configure client to uses this file (see Ralf?)
- Refresh resources
 - Go offline, then online
 - Check that is OK
 - No bar
 - No NJSs as yet

Install NJS

- Steps
 - Install UUDB
 - Install TSI
 - Install NJS
 - Configure IDB

UADB

- cd to uadb directory
- Unpack and follow instructions
- Populate UADB with your certificate
 - Export certificate from client
 - Settings -> keystore editor -> export public key
 - In uadb directory
 - bin/add <exported file name> <any string>

TSI

- Unpack TSI
- Follow instructions
- Want a No batch TSI, using Linux
- Start up from script
 - 2 Port numbers required
 - TSI listening for NJS
 - NJS listening for TSI
 - Must match NJS configuration values
 - Note that care is required here as Gateway, NJS and TSI run on same machine - this is not usual

NJS 1

- Configure the NJS to
 - Register with Gateway
 - Use configured TSI and UUDB
- See
 - READ_ME_INSTALL
 - [njs/docs/NJS_and_TSI_manual_4.0.3.pdf](#)
- Configuration file is `njs/conf/njs.properties`

NJS 2

- Required information
 - Local machine name
 - A port number that the Gateway listens on
 - TSI port numbers
 - UUDB directory
 - CA certificates are:
 - CERTIFICATES/fzj_ca.pem
 - CERTIFICATES/NewIntelTestGridCA.pem
 - Gateway private key is in CERTIFICATES/GSSNJS.p12
 - Password is GSS2004
 - NJS saves state
 - Create a directory (njs/state), use this
 - IDB is example.idb

IDB

- Minimal configuration
- Uspace directory
 - mkdir njs/uspaces
 - Set: -DEFINE NJS_FILE_SPACE njs/uspaces
- EXECUTION_TSI
 - NAME
 - SOURCE - TSI contact details
 - Single NODE/PROCESSOR machines
 - Check paths (lines 207 to 238 ish)
 - Comment out APPLICATION line with "meta_data"
- Point IDB to tsi_ls (near file end)

Test

- Start NJS
 - `cd njs; bin/start_njs conf`
- Administration test
 - `perl bin/njs_admin -m <machine name>`
 - Execute: `test_commands`
 - To stop NJS: `stop now`
- Refresh client view of resources
 - Check that there is a Vsite
 - Inspect resources
 - Make a simple job (e.g. script) and execute it