IBM Tivoli Software

Introduction to IBM Tivoli Directory Server 6.0 – Installation and Configuration Using AIX Native Utilities

Excerpt taken from presentation given on April 10, 2007
Step-by-step demonstration of installation using AIX native utilities

Support Technical Exchange Web site
http://www-306.ibm.com/software/sysmgmt/products/support/supp_tech_exch.html

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Installation and Configuration

Installation and Configuration of ITDS 6.0 on AIX 5.3 via Native AIX methods

- Install ITDS v6.0 and prerequisite software using SMIT
- Manual configuration of the Embedded Websphere Application Server
- User Creation
- Directory Server instance creation using the idsicrt utility
- Database Creation and configuration using the idscfgdb utility
- Set the Admin Dn and Password using the idsdnpw utility
- Configure a suffix using the idscfgsuf utility
- Load sample data using the idsldif2db utility
- Start the ITDS server

Installation – Native

The AIX Operating System provides two options for installing the IBM Tivoli Directory Server using native utilities.

You can use either of the following utilities to install IBM Tivoli Directory Server on AIX:

- **SMIT – System Management Interface Tool**
- **installp**

For this demonstration we will be using the preferred method SMIT.

Installation – Native

If you are downloading the Native install of ITDS version 6.0 from Passport Advantage please verify that you have downloaded the appropriate packages:

Native:

C83WNML.iso -> itds60-aix-ppc-native.iso

C84FUML.tar -> itds60-aix-ppc-native.tar

Installation - Native

For this Native installation we will use the following package:

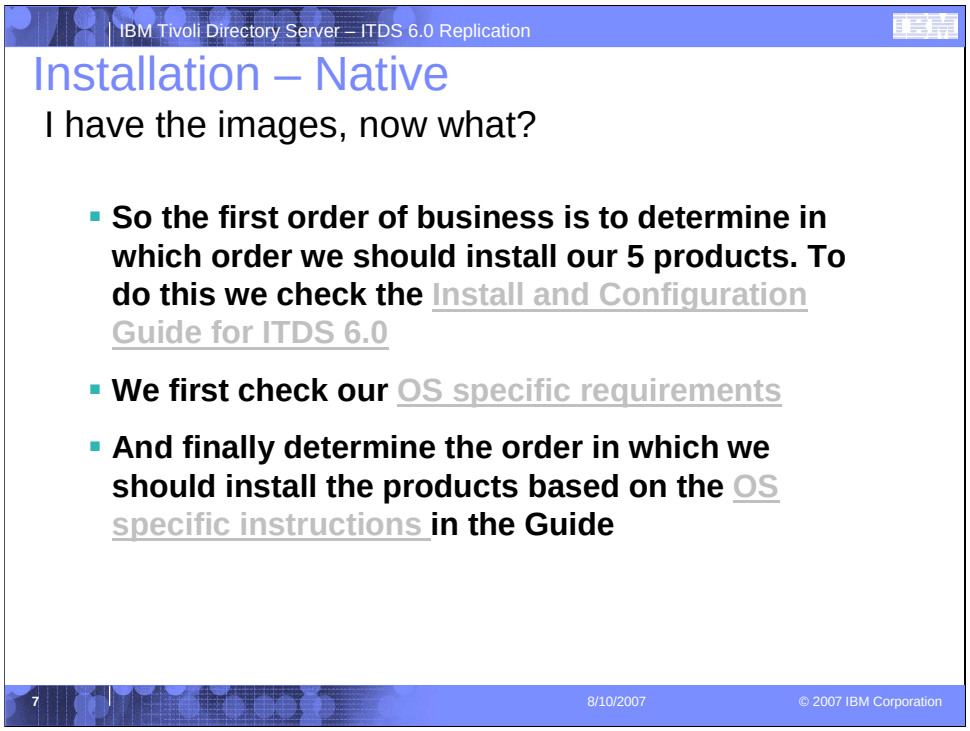
C84FUML.tar -> itds60-aix-ppc-native.tar

Installation – Native

Download and extract the C84FUML.tar file.

Notice that subdirectories have been created which contain the files needed to install the prerequisite software.

```
==> ls
C84FUML.tar
[ root:/tmp/C84FUML ]
==> tar -xf C84FUML.tar
[ root@ldapaixc1:/tmp/C84FUML ]
==> ls
C84FUML.tar  itdsV60
[ root:/tmp/C84FUML ]
==> cd itdsV60
[ root@ldapaixc1:/tmp/C84FUML/itdsV60 ]
==> ls
appsrv       doc          itds          license
db2          gskit        itdsLangpack  tools
[ root:/tmp/C84FUML/itdsV60 ]
==>
```



Installation and Configuration Guide: http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/topic/com.ibm.IBMDS.doc/install.htm

OS Product Requirements: http://www-306.ibm.com/software/tivoli/products/directory-server/requirements.htm

Installation – Native : order of installation

So using the Install Guide we can see that the products should be installed in the following order:

1. **DB2**
2. **GSKIT**
3. **ITDS Client**
4. **ITDS Server and WebAdmin**

Installation –Native – DB2

When we extracted the C84FUML.tar a db2 subdirectory was created.

- **cd to the db2 subdirectory**

```
==> ls
appsrv          doc             itds            license
db2             gskit           itdsLangpack    tools
[ root:/tmp/C84FUML/itdsV60 ]
==> cd db2
[ root:/tmp/C84FUML/itdsV60/db2 ]
==> ls
db2             db2_deinstall   db2_install     doc
[ root:/tmp/C84FUML/itdsV60/db2 ]
==>
```

Installation –Native – DB2 continued…

To start the native installation of DB2, perform the following steps:

#ls

db2 db2_deinstall db2_install doc

The installation is as easy as running:

#./db2_install

Installation –Native – DB2 running the install script

- **You will notice that when you kick of the install script it will present you with the following prompt:**
  ./db2_install

Specify one or more of the following keywords,
separated by spaces, to install DB2 products.

Keyword	Product Description
DB2.ESE	DB2 Enterprise Server Edition for AIX

Enter "help" to redisplay product names.
Enter "quit" to exit.
****

Simply enter: DB2.ESE

You must enter DB2.ESE to have the install continue.

Installation –Native – DB2 verify the install:

You will see the following type of message when the script completes

```
+-----------------------------------------------------------------------------+
                        Summaries:
+-----------------------------------------------------------------------------+
Installation Summary
--------------------
Name                 Level        Part       Event      Result
-------------------------------------------------------------------------------
db2_08_01.essg       8.1.1.80     USR        APPLY      SUCCESS
The installation logfile can be found in /tmp/db2_install_log.266254.
db2_install program completed successfully.
```

- **We can check the /tmp/db2_install_log.266254 if there were any failures or issues to address.**

Installation –Native – Global Security Kit (gskit)

Again when we extracted the C84FUML.tar a gskit subdirectory was created.

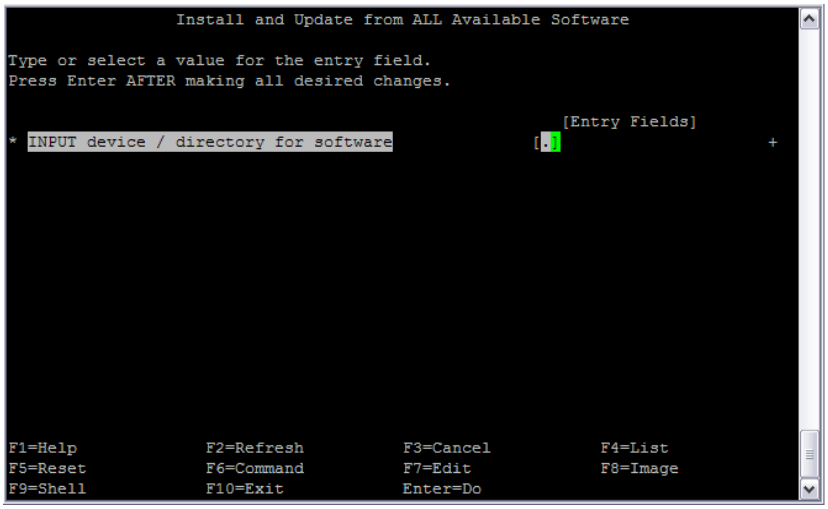
- **cd to the gskit directory to proceed with the installation of gskit.**

```
==> ls
appsrv          doc             itds            license
db2             gskit           itdsLangpack    tools
[ root:/tmp/C84FUML/itdsV60 ]
==> cd gskit
[ root:/tmp/C84FUML/itdsV60/gskit ]
==> ls
.toc        qsksa.rte   qskta.rte
[ root:/tmp/C84FUML/itdsV60/gskit ]
==>
```

Installation –Native – gskit install

- **We use a typical smitty install screen to install GSKIT from the directory:**
- **#ls**
  .toc gsksa.rte gskta.rte
- **So we run:**
  #smitty install_all
- **The first thing smitty will ask us for is the directory where the install images are stored, since we were in that directory we can simply fill the prompt with a period.**

Installation –Native – gskit install



Installation –Native – gskit install continued

- **Next smitty will ask us to configure the install. The first thing we must select is:**
- *** SOFTWARE to install [F4]**
- **Move the cursor to the selection box and generate a list of available options to install.**
- **Select gsksa and gskta from the list (F7) and then hit enter:**

Installation –Native – gskit install continued

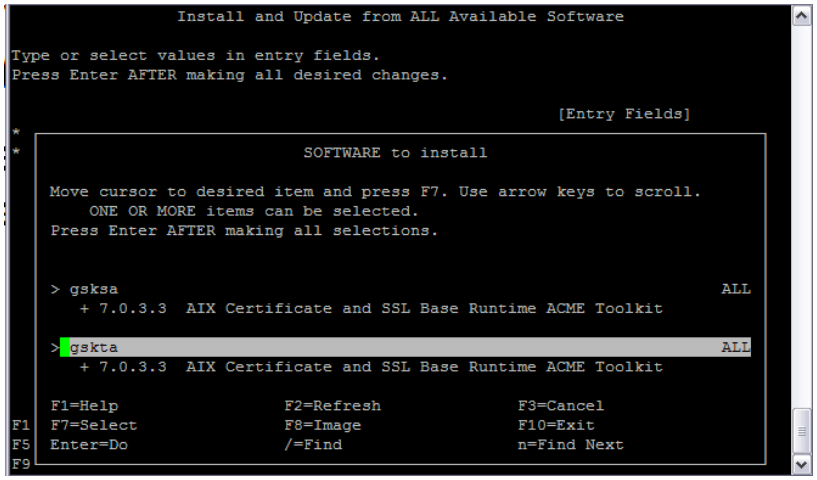
```
                Install and Update from ALL Available Software

Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                                      [Entry Fields]
* INPUT device / directory for software                .
* SOFTWARE to install                                  [F4]                +
  PREVIEW only? (install operation will NOT occur)     no                  +
  COMMIT software updates?                             yes                 +
  SAVE replaced files?                                 no                  +
  AUTOMATICALLY install requisite software?            yes                 +
  EXTEND file systems if space needed?                 yes                 +
  OVERWRITE same or newer versions?                    no                  +
  VERIFY install and check file sizes?                 no                  +
  DETAILED output?                                     no                  +
  Process multiple volumes?                            yes                 +
  ACCEPT new license agreements?                       no                  +
  Preview new LICENSE agreements?                      no                  +


F1=Help             F2=Refresh          F3=Cancel           F4=List
F5=Reset            F6=Command          F7=Edit             F8=Image
F9=Shell            F10=Exit            Enter=Do
```


Installation –Native – gskit install continued



Installation –Native – gskit install continued

```
                Install and Update from ALL Available Software

Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                                      [Entry Fields]
* INPUT device / directory for software                .
* SOFTWARE to install                                  [gsksa                  > +
  PREVIEW only? (install operation will NOT occur)     no                      +
  COMMIT software updates?                             yes                     +
  SAVE replaced files?                                 no                      +
  AUTOMATICALLY install requisite software?            yes                     +
  EXTEND file systems if space needed?                 yes                     +
  OVERWRITE same or newer versions?                    no                      +
  VERIFY install and check file sizes?                 no                      +
  DETAILED output?                                     no                      +
  Process multiple volumes?                            yes                     +
  ACCEPT new license agreements?                       no                      +
  Preview new LICENSE agreements?                      no                      +


F1=Help             F2=Refresh          F3=Cancel           F4=List
F5=Reset            F6=Command          F7=Edit             F8=Image
F9=Shell            F10=Exit            Enter=Do
```

Installation –Native – gskit install continued

```
                                COMMAND STATUS

Command: OK            stdout: yes           stderr: no

Before command completion, additional instructions may appear below.

[TOP]
geninstall -I "a -cgNqwX -J"  -Z   -d . -f File 2>&1

File:
    I:gsksa.rte                   7.0.3.3
    I:gskta.rte                   7.0.3.3


+-----------------------------------------------------------------------------+
                    Pre-installation Verification...
+-----------------------------------------------------------------------------+
Verifying selections...done
Verifying requisites...done
[MORE...76]

F1=Help             F2=Refresh          F3=Cancel           F6=Command
F8=Image            F9=Shell            F10=Exit            /=Find
n=Find Next
```


Installation –Native – gskit verify

- **The method I like to use to verify if the correct gskit filesets are installed is to take advantage of the AIX lslpp command:**
- **#lslpp –l |grep gsk**

gsksa.rte 7.0.3.3 COMMITTED AIX Certificate and SSL Base

gskta.rte 7.0.3.3 COMMITTED AIX Certificate and SSL Base

Installation – Native

Now that we have successfully installed the prerequisite software we can install ITDS.

There are many possible ITDS configurations.

For example:

- **Client Only**
- **Client and Web Admin**
- **Client and Server**
- **Client, Server and Web Admin**

For this demonstration we will install the Client, Server and Web Admin using SMIT.

Installation – Native

To begin the ITDS native installation, cd to the directory where we extracted the C84FUML.tar file.

- **cd to the itds subdirectory**

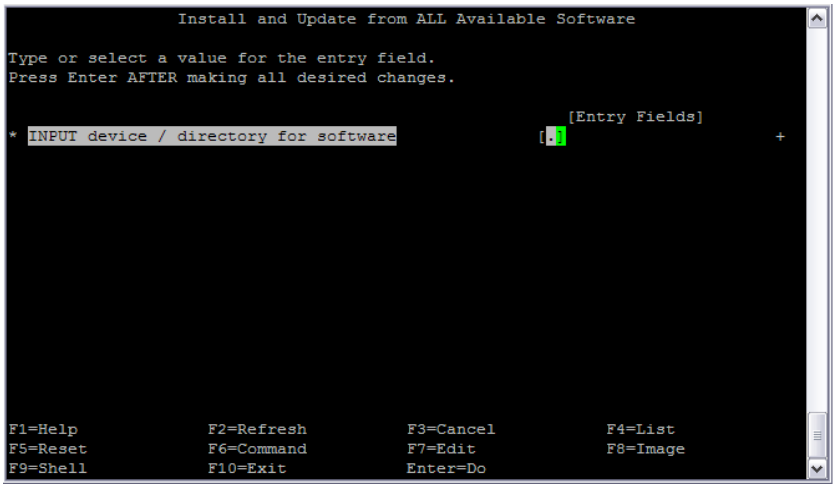
```
==> ls
C84FUML.tar  itdsV60
[ root:/tmp/C84FUML ]
==> cd itdsV60
[ root:/tmp/C84FUML/itdsV60 ]
==> ls
appsrv        doc           itds          license
db2           gskit         itdsLangpack  tools
[ root:/tmp/C84FUML/itdsV60 ]
==> cd itds
[ root:/tmp/C84FUML/itdsV60/itds ]
==> ls
.toc                                idsldap.cltjava_max_crypto60
idsldap.clt32bit60                  idsldap.msg60.en_US
idsldap.clt64bit60                  idsldap.srv64bit60
idsldap.clt_max_crypto32bit60       idsldap.srv_max_cryptoproxy64bit60
idsldap.clt_max_crypto64bit60       idsldap.srvproxy64bit60
idsldap.cltbase60                   idsldap.webadmin60
idsldap.cltjava60                   idsldap.webadmin_max_crypto60
[ root:/tmp/C84FUML/itdsV60/itds ]
==>
```

Installation – Native

As we did previously with the gskit installation invoke SMIT to install all of the ITDS packages.

```
idsldap.clt32bit60                  idsldap.msg60.en_US
idsldap.clt64bit60                  idsldap.srv64bit60
idsldap.clt_max_crypto32bit60       idsldap.srv_max_cryptoproxy64bit60
idsldap.clt_max_crypto64bit60       idsldap.srvproxy64bit60
idsldap.cltbase60                   idsldap.webadmin60
idsldap.cltjava60                   idsldap.webadmin_max_crypto60
[ root@ldapaixc1:/tmp/C84FUML/itdsV60/itds ]
==> smitty install_all
```

Installation – Native



Enter a "." in the "Input device /directory for software" field to indicate that you are installing from the current working directory and hit "Enter".

Installation – Native

In the “Software to install” field enter “all” to install all available packages.

In the “ACCEPT new license agreements?” field select “yes”.

Hit the “Enter” key to install the ITDS packages.

Installation - Native Complete

```
                                COMMAND STATUS

Command: OK            stdout: yes           stderr: no

Before command completion, additional instructions may appear below.

[TOP]
geninstall -I "a -cgNqX -J"  -Z   -d . -f File 2>&1

File:
    all


+-----------------------------------------------------------------------------+
                    Pre-installation Verification...
+-----------------------------------------------------------------------------+
Verifying selections...done
Verifying requisites...done
Results...

SUCCESSES
---------
  Filesets listed in this section passed pre-installation verification
  and will be installed.

  Selected Filesets
  -----------------
  idsldap.clt32bit60.rte 6.0.0.0              # Directory Server - 32 bit Cl...
  idsldap.clt64bit60.rte 6.0.0.0              # Directory Server - 64 bit Cl...
[MORE...406]

F1=Help             F2=Refresh          F3=Cancel           F6=Command
F8=Image            F9=Shell            F10=Exit            /=Find
n=Find Next
```


Installation Success! Now we need to configure the Web Administration tool.

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