TBSM 6.2 Installation Guide

A step by step example

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Software prerequisite list

- 1. Installation Manager 1.8.6
- 2. IBM DB2 Workgroup Server Edition 11.1.2.2
- 3. IBM Tivoli Netcool/OMNIbus v8.1.0.5
- 4. IBM WebSphere Application Server Version 8.5.5 Fix Pack 12
- 5. Jazz for Service Management 1.1.3.0 and Cumulative Patch 5 (1.1.3.0-TIV-JazzSM-DASH-Cumulative-Patch-0005)
- 6. IBM JAVA 7.0.9.30
- 7. IBM Tivoli Netcool/OMNIbus 8.1.0.4-webgui Fix Pack 12
- 8. IBM Tivoli Netcool/Impact 7.1 Fix Pack 13

Software prerequisite configurations that need attention

1. TBSM installation requires each component to be configured with FQDN, therefore this should be used during each product installation and also /etc/hosts file should be configured accordingly.

Entry example:

ip-adress FQDN Hostname-shortname

172.26.7.11 Dooku.gpsg.ro Dooku

- 2. The user installing TBSM should be the user who installed all the prerequisite software. In this material the installation is done with user root.
- 3. The Netcool/Impact server that is required by TBSM must have server name TBSM for primary, or TBSM_B for secondary and cluster name TBSMCLUSTER.
- 4. Impact, JazzSM and TBSM should be configured to use the same user repository.
- 5. Before proceeding with TBSM installation, TBSM schema must be added within the ObjectServer.
- 6. Waapi should be setup for webgui prior to TBSM installation and also a datasource should be defined within it.

Complete documentation guide:

 $https://www.ibm.com/support/knowledgecenter/SSSPFK_6.2.0/com.ibm.tivoli.itbsm.doc/installation_guide.pdf$

Install Installation Manager 1.8.6

Download link:

https://www-

945.ibm.com/support/fixcentral/swg/selectFixes?parent=ibm%7ERational&product=ibm/Rational/IBM+Installation+Manager&release=1.8.6.0&platform=Linux&function=all&useReleaseAsTarget=true



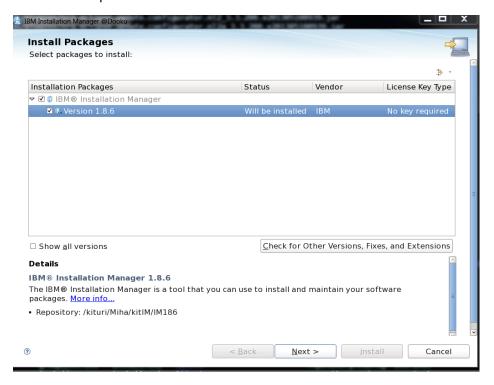
download and unzip:

```
[root@Dooku kitIM]#
[root@Dooku kitIM]# unzip agent.installer.linux.gtk.x86_64_1.8.6000.20161118_1611.zip -d IM186
```

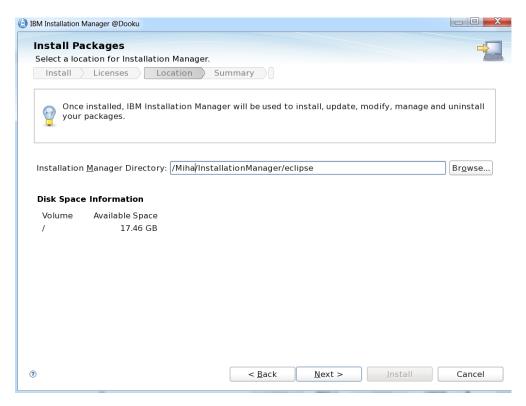
- launch install script:

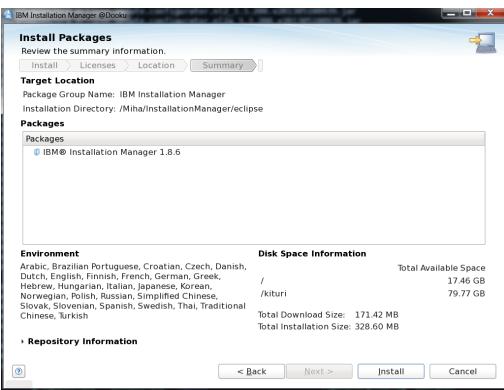
```
[root@Dooku IM186]# pwd
/kituri/Miha/kitIM/IM186
[root@Dooku IM186]#
[root@Dooku IM186]# ls
con-disk-set-inst.sh groupinstc
                                      installc
                                                     jre_7.0.90060.20161108_1344
                                                                                  plugins
configuration
                      groupinstc.ini
                                      installc.ini
                                                     license
                                                                                   readme.ht
                      aroupinst.ini
documentation
                                      install.ini
                                                     native
                                                                                   repositor
                    install
groupinst
                                      install.xml
                                                     Offerings
                                                                                   repositor
[root@Dooku IM186]# ./install
```

select product to be installed and click next:



- enter installation path directory and install





Install IBM DB2 Workgroup Server Edition 11.1.2.2

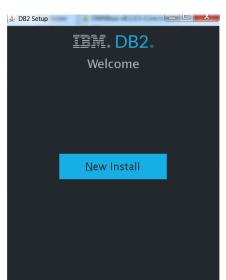
- unzip DB2 package:

```
[root@Dooku KitDB2]# mkdir DB2Base
[root@Dooku KitDB2]# tar -xzf DB2_AWSE_REST_Svr_11.1_Lnx_86-64.tar.gz -C DB2Base
```

- go to server_awse_o directory and run ./db2setup script:

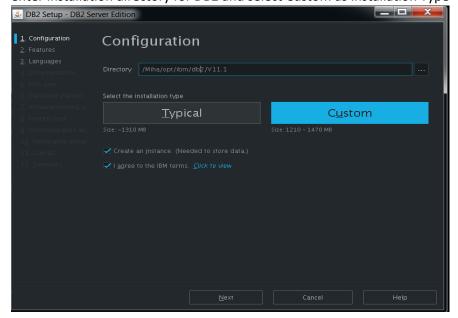
[root@Dooku server_awse_o]# pwd /kituri/Miha/KitDB2/DB2Base/server_awse_o

- select New Install and DB2 Version 11.1.0.0. Workgroup, Enterprise and Advanced Editions

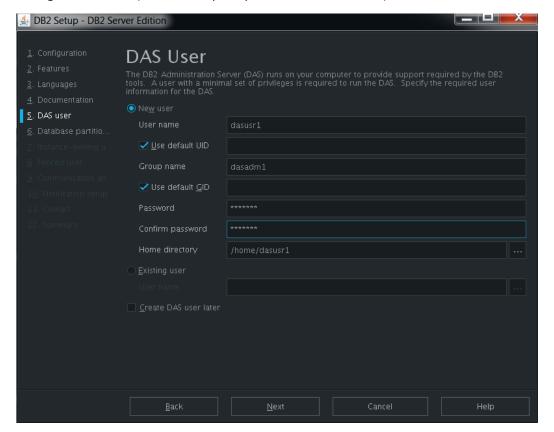




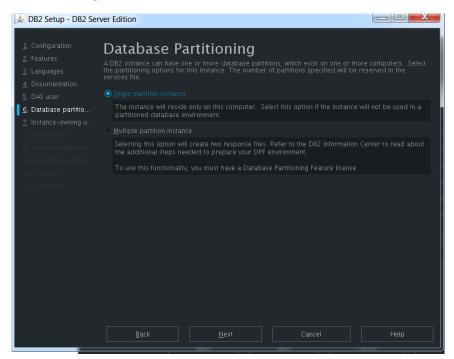
enter installation directory for DB2 and select Custom as installation Type



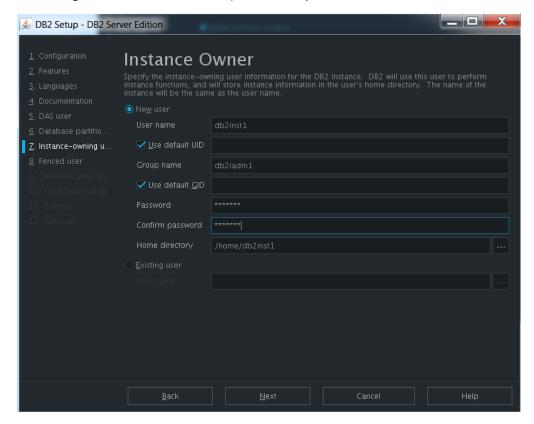
- Configure DAS User (in this example – password user: netcool) and default username dasusr1



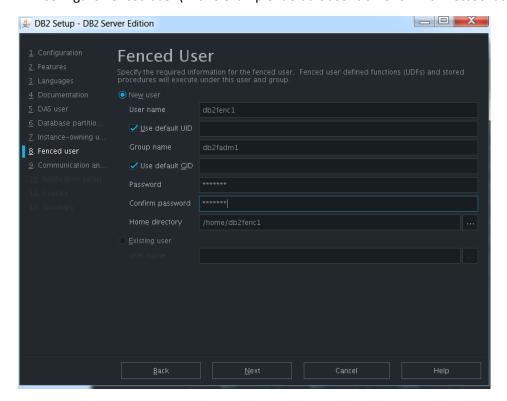
Select Single Partition Instance and Next



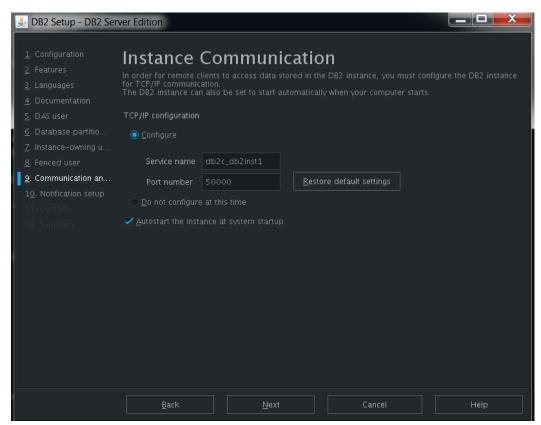
- Configure Instance Owner user (in this example—default user db2inst1 with netcool as password)



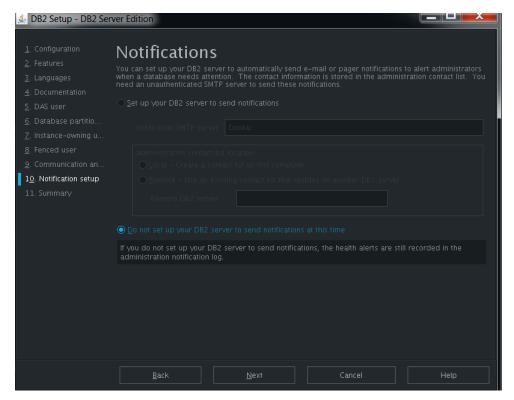
- Configure Fenced user (in this example-default user db2fenc1 with netcool as password)



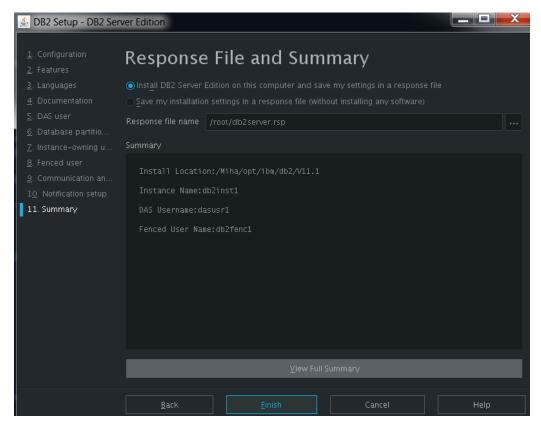
- configure service name and port number



- select "do not set up your DB2 server to send notification"



select Install DB2 Server Edition.. option and Finish:



Login on the server with db2inst1 user and go to DB2 installation Directory -> bin

```
[db2inst1@Dooku root]$ cd /Miha/opt/ibm/db2/V11.1/
[db2inst1@Dooku V11.1]$ cd bin
```

- run db2val script and make sure the validation is successful:

```
[db2inst1@Dooku bin]$ ./db2val
DBI1379I The db2val command is running. This can take several minutes.

DBI1335I Installation file validation for the DB2 copy installed at
/Miha/opt/ibm/db2/V11.1 was successful.

DBI1339I The instance validation for the instance db2inst1 was
successful.

DBI1343I The db2val command completed successfully. For details, see
the log file /tmp/db2val-180907_160334.log.
```

- add licence for DB2 – unzip downloaded licence and go to /wse o/db2/licence directory:

```
[db2inst1@Dooku license]$ pwd
/kituri/Miha/KitDB2/DB2_WSE_Restricted_Activation_11.1/wse_o/db2/license
[db2inst1@Dooku license]$
```

- run db2licm -a db2wse_o.lic

```
[db2inst1@Dooku license]$ db2licm -a db2wse_o.lic

LIC1402I License added successfully.

LIC1426I This product is now licensed for use as outlined in your License Agreement. USE OF THE PRODUCT CONSTITUTES ACCEPTANCE OF TERMS OF THE IBM LICENSE AGREEMENT, LOCATED IN THE FOLLOWING DIRECTORY: "/Miha/opt/ibm/db2/V11.1/license/en_US.iso88591"
[db2inst1@Dooku license]$
```

- run **db2licm -I** to make sure everything is ok:

```
[db2inst1@Dooku license]$ db2licm -1
Product name:
                                   "DB2 Workgroup Server Edition"
License type:
                                   "Restricted"
                                   "Permanent"
Expiry date:
Product identifier:
                                   "db2wse"
Version information:
                                   "11.1"
Max amount of memory (GB):
                                   "128"
Features:
IBM DB2 Performance Management Offering:
                                                        "Not licensed"
```

Upgrade to 11.1.2.2

- unzip mod 2 fix pack 2 for db2 11.1:

```
[root@Dooku universal]# tar xvzf v11.1.2fp2_linuxx64_universal_fixpack.tar.gz -C /DBKIT/
```

- stop DB2 and go to /universal directory and run ./installFixPack script

```
[root@Dooku KitDB2]# cd /DBKIT/universal/
```

```
[root@Dooku universal]# 1s
db2 db2ckupgrade db2_deinstall db2_install db2ls db2prereqcheck db2setup installFixPack nlpack
[root@Dooku universal]# ./installFixPack
```

enter DB2 installation directory and continue with the installation:

```
[root@Dooku universal] # ./installFixPack
Enter the full path of the base installation directory:

/Miha/opt/ibm/db2/V11.1/

Do you want to choose a different installation directory for the fix pack? [yes/no]

no

DBI1017I installFixPack is updating the database products installed in location /Miha/opt/ibm/db2/V11.1/.

The execution completed successfully.

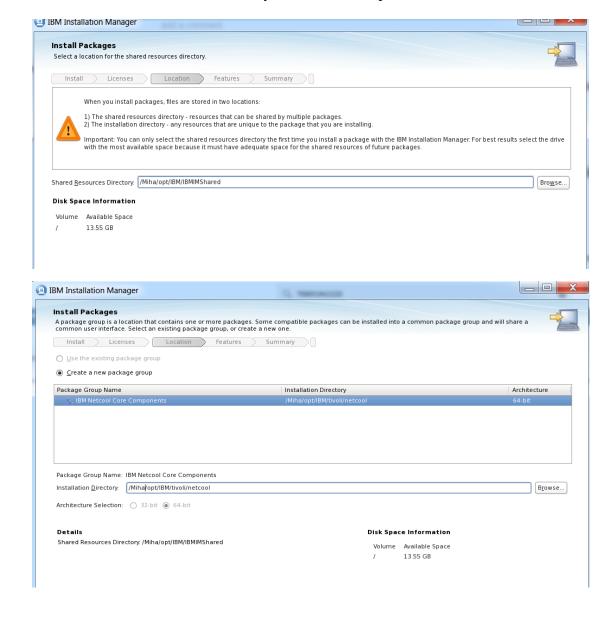
For more information see the DB2 installation log at "/tmp/installFixPack.log.43472".
```

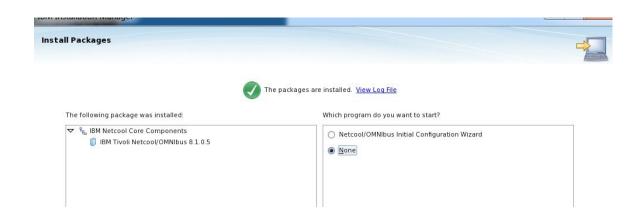
Install Omnibus core 8.1.0.5

- add repository within Installation Manager 1.8.6 and select Install option



- enter Shared Resources Directory and Installation path for Omni 8.1



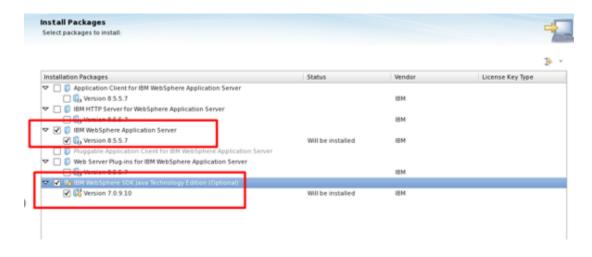


Install WAS 8.5.5.7 and upgrade to WAS 8.5.5.12

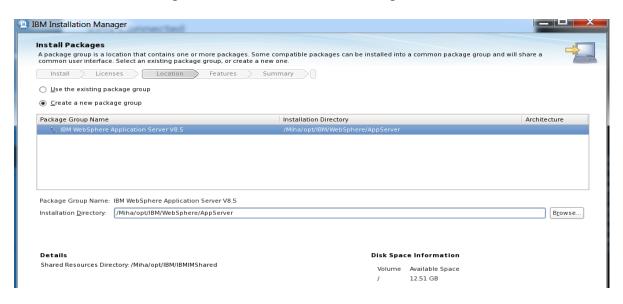
- unzip downloaded WAS package and add repository within IM:

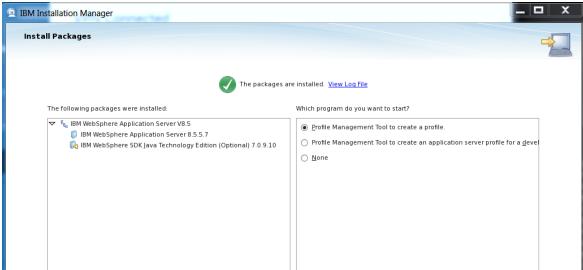


- select WAS 8.5.5.7 and Java SDK to install:



- enter installation path and at the end create a WAS profile:

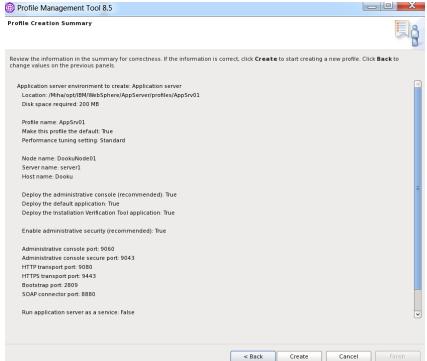




- select *create* option and to enable administrative security add a username and password for this user (default smadmin with netcool)







Upgrade to WAS 8.5.5 FP12

- extract all 3 parts into the same directory, add repository within IM and select Update from IM main menu:

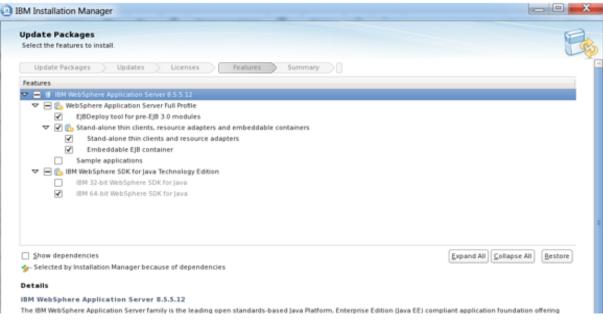
```
unzip 8.5.5-WS-WAS-FP012-part1.zip -d WASFP
unzip 8.5.5-WS-WAS-FP012-part2.zip -d WASFP
unzip 8.5.5-WS-WAS-FP012-part3.zip -d WASFP
```

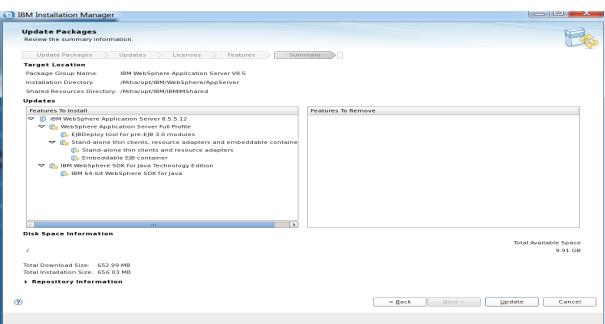
Add a repository

Specify a repository and add to the repository preference list.



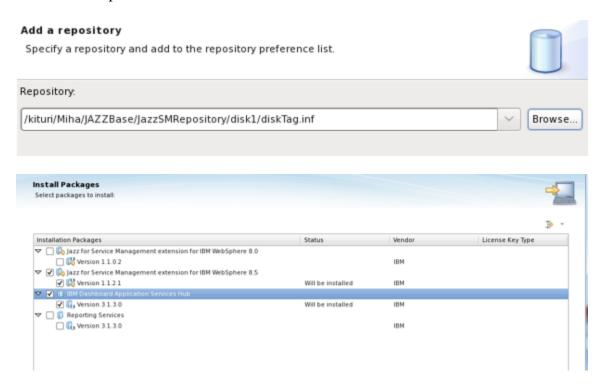
- make sure the correct options are selected then "Next" and "Update"



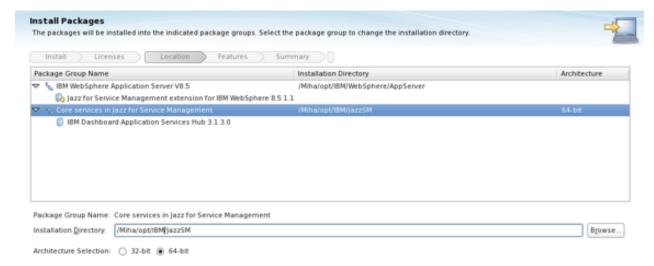


Install JazzSM 1.1.3/ DASH 3.1.3

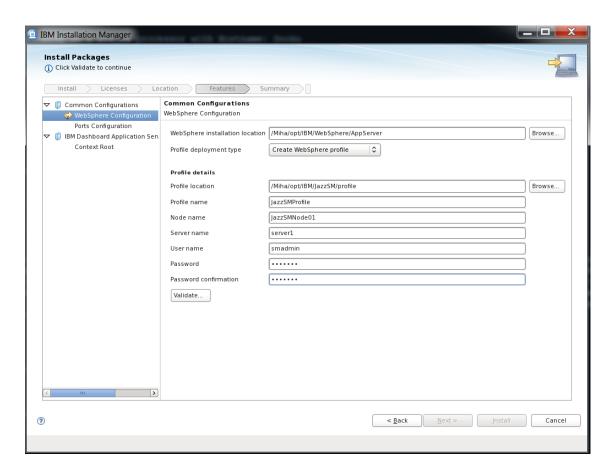
- add repository, select as minimum requirements: Jazz for IBM WebSphere 8.5 and IBM Dash options



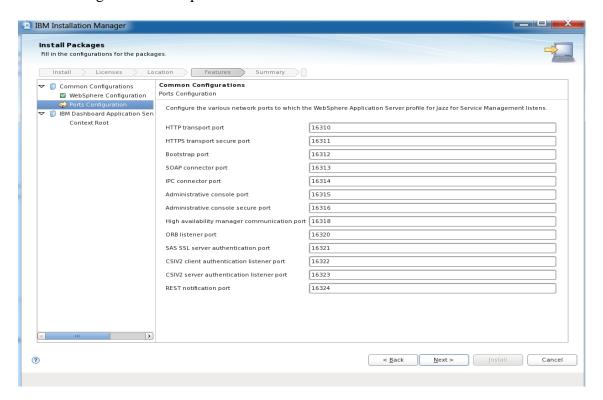
- enter installation path for both options by selecting each of them:



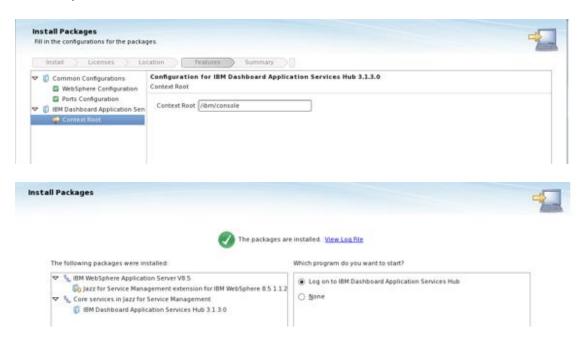
- select Next, enter WebSphere installation location and smadmin password; afterwards click on "Validate" option:



- change installation ports if needed and continue with the installation:

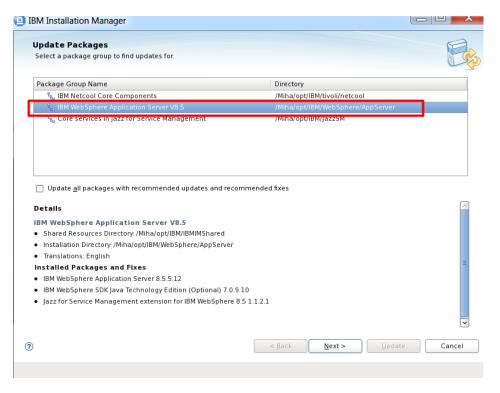


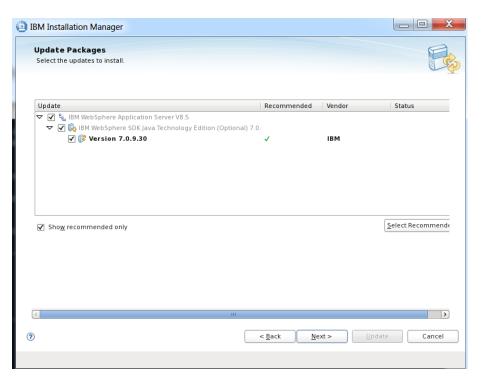
- by default, context root is /ibm/console; continue with the installation:

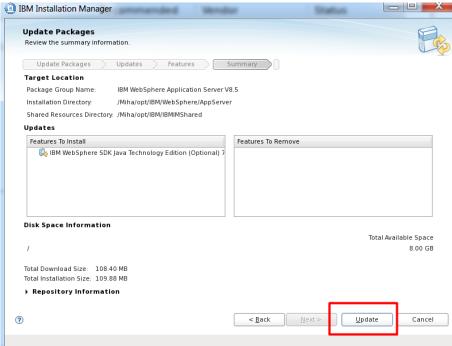


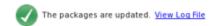
Upgrade Java to 7.0.9.30

unzip Java package, add repository, select Update option and IBM WebSpehere from the list. Afterwards select "Next" and "Update":









The following update was installed:



Install WebGUI 8.1.0.4 and upgrade to Fix Pack 12

- add repository, select Install from IM, check Web GUI option to be installed:



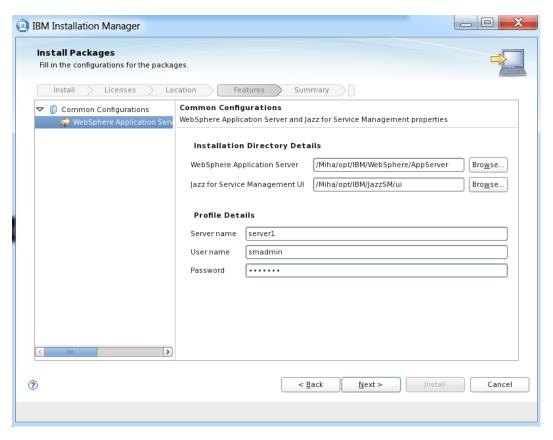
- enter installation directory for webgui:

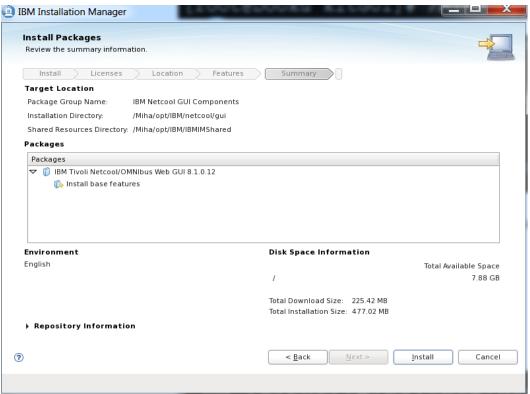


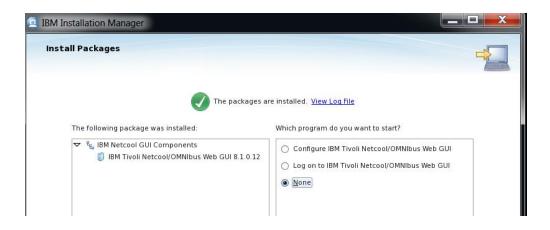
- select as least "Install base feature" option:



- enter WebSphere and JazzSM installation directories as well as the profile details for webgui (username and password – by default, smadmin with netcool). Afterwards continue with the installation:







OMNIbus configuration

- create new object server (in this example, object server name will be TBSM):

cd /Miha/opt/IBM/tivoli/netcool/omnibus/bin run: nco_dbinit -server <server_name>

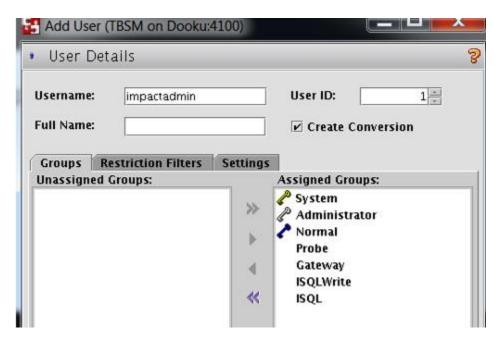
```
/Miha/opt/IBM/tivoli/netcool/omnibus/bin/nco_dbinit -server TBSM
```

- edit omni.dat file and add the required details – port, hostname, object server name:

- run nco_igen for the changes to be saved and start the object server:

```
[root@Dooku kitGUI]# /Miha/opt/IBM/tivoli/netcool/bin/nco_igen
[root@Dooku kitGUI]# /Miha/opt/IBM/tivoli/netcool/omnibus/bin/nco_objserv -name TBSM &
[1] 15509
[root@Dooku kitGUI]#
Netcool/OMNIbus Object Server - Version 8.1.0 64-bit
(C) Copyright IBM Corp. 1994, 2012
Server 'TBSM' initialised - entering RUN state.
```

- to prepare for Impact 7.1 installation, add **impactadmin** user within object, add its password and assign groups to this user:



add password as well in "settings" tab



add TBSM schema to object server

go to unzipped directory for TBSM and from here to data_linux/omnibus/schema_files directory:

```
# cd /kituri/Miha/TBSM/data_linux/omnibus/schema_files
```

run: ./import_schema.sh \$NCHOME tbsm_db_update.sql RAD <OBJServer_Name> root <rootpassword>

example:

./import_schema.sh /Miha/opt/IBM/tivoli/netcool/ tbsm_db_update.sql RAD TBSM root

in this material object server has root as administrative user with no password;

```
[root@Dooku schema files]# ./import schema.sh /Miha/opt/IBM/tivoli/netcool/ tbsm db update.sql RAD TBSM root
Param 1: InstallDir: /Miha/opt/IBM/tivoli/netcool/
Param 2: Name/Location of RAD Schema file to use: tbsm_db_update.sql
Param 3: Pass in the schema validation string to use: RAD
Param 4: The ObjectServer name to use (NCOMS): TBSM
Param 5: The ObjectServer user name to use (root): root
Param 6: The ObjectServer password to use (): nusr-defined
Running: export NCHOME=/Miha/opt/IBM/tivoli/netcool/
Running: export OMNIHOME=/Miha/opt/IBM/tivoli/netcool//omnibus
Determine if Object Server is running
Running: cat tbsm db update.sql | /Miha/opt/IBM/tivoli/netcool//omnibus/bin/nco sql -s TBSM -u root -p --hidden--
ERROR=Object exists on line 83 of statement
near 'BSM Identity'
(0 rows affected)
(0 rows affected)
ERROR=Object not found on line 15 of statement
 or near 'service deps'
 (0 rows affected)
(0 rows affected)
 (0 rows affected)
 (O rows affected)
 (0 rows affected)
 (0 rows affected)
(0 rows affected)
Verifying schema
Running: describe=/Miha/opt/IBM/tivoli/netcool//omnibus/bin/nco sql -s TBSM -u root -p --hidden-- << EOF
 describe alerts.status;
αo
EOF
echo $describe | grep -o RAD | wc -l
Schema import has been completed successfully. 33 rows found.
 [root@Dooku schema files]#
```

run: ./import_schema.sh \$NCHOME ClearServiceDeps.auto RAD <OBJServer_Name> root <root-password>

example:

./import schema.sh /Miha/opt/IBM/tivoli/netcool/ ClearServiceDeps.auto RAD TBSM root

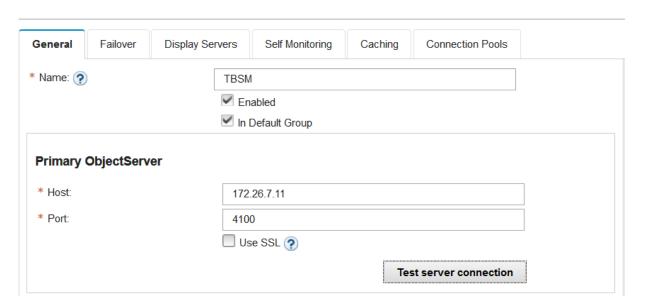
```
[root@Dooku schema files] # ./import_schema.sh /Miha/opt/IBM/tivoli/netcool/ ClearServiceDeps.auto RAD TBSM root
Param 1: InstallDIr: /Miha/opt/IBM/tivoli/netcool/
Param 2: Name/Location of RAD Schema file to use: ClearServiceDeps.auto
Param 3: Pass in the schema validation string to use: RAD
Param 4: The ObjectServer name to use (NCOMS): TBSM
Param 5: The ObjectServer user name to use (root): root
Param 6: The ObjectServer password to use (): nusr-defined
Running: export NCHOME=/Miha/opt/IBM/tivoli/netcool/
Running: export OMNIHOME=/Miha/opt/IBM/tivoli/netcool//omnibus
Determine if Object Server is running
ObjectServer is running, continue...
Running: cat ClearServiceDeps.auto | /Miha/opt/IBM/tivoli/netcool//omnibus/bin/nco_sql -s TBSM -u root -p --hidden--
(0 rows affected)
Verifying schema
Running: describe=/Miha/opt/IBM/tivoli/netcool//omnibus/bin/nco_sql -s TBSM -u root -p --hidden-- << EOF
describe alerts.status;
go
EOF
echo $describe | grep -o RAD | wc -l

Schema import has been completed successfully. 33 rows found.
```

- add object server as repository for webgui and create datasource in webgui console

```
[root@Dooku bin]# ./confvmm4ncos.sh /Miha/opt/IBM/JazzSM/profile root '' Dooku 4100
configfile=/Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/wim/config/wimconfig.xml
Warning : 0
Result - Success : 0
Please restart the server for these changes to take effect.
```

Create New Data Source



Apply Cumulative Patch 5 for JazzSM

- make sure that JazzSM is stopped
- go to extracted CP5 directory
- add 777 permission to applyPatch.sh script

```
[root@Dooku CP5]# cd 3.1.3.0CumulativePatch005/
[root@Dooku 3.1.3.0CumulativePatch005]# ls
applyPatch aix.sh applyPatch.bat applyPatch.sh FILES
[root@Dooku 3.1.3.0CumulativePatch005]# chmod 777 applyPatch.sh
[root@Dooku 3.1.3.0CumulativePatch005]#
[root@Dooku 3.1.3.0CumulativePatch005]# ls -altr
total 68
-rwxr-xr-x 1 root root 18748 Dec 12
                                     2017 applyPatch.sh
-rwxr-xr-x 1 root root 24196 Dec 12
                                     2017 applyPatch.bat
-rwxr-xr-x 1 root root 18803 Dec 20
                                     2017 applyPatch aix.sh
drwxr-xr-x 1 root root
                          0 Dec 20
                                    2017 FILES
drwxr-xr-x 1 root root 4096 Dec 22
                                     2017
drwxr-xr-x 1 root root
                          0 Aug 29 08:38
```

- run the following script with the correct parameters:

./applyPatch.sh -username *smadmin* -password *netcool* -dashHome /*Miha/opt/IBM/JazzSM/ui* -servername *server1*

```
tuvo
t ./applyPatch.sh -username smadmin -password netcool -dashHome /Miha/opt/IBM/JazzSM/ui -servername serverl
```

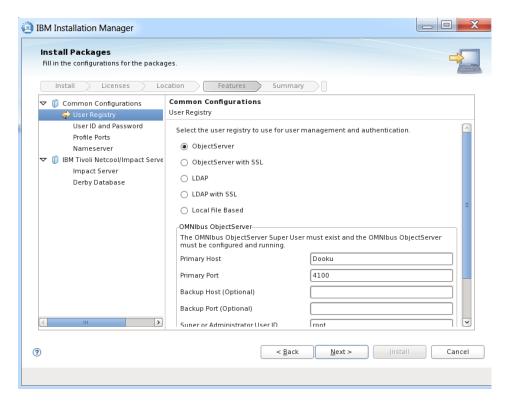
```
[root@Dooku 3.1.3.0CumulativePatch005] # ./applyPatch.sh -username smadmin -password netcool -dashHome /Miha/opt/IBM/JazzSM/ui -servername serverl
Installing DASH version 3.1.3.0 cumulative patch 201712110242
Checking DASH version...
Checking DASH patch level...
Checking DASH patch level...
Checking server status...
Preparing patch...
Backing up original files from profileinstalledApps...
Backing up original files from profile/config/cells/..
Backing up original files from /Miha/opt/IBM/JazzSM/ui ...
Backing up original files from /Miha/opt/IBM/JazzSM/ui ...
Backing up original files specific to ActiveMg fix ...
Creating rollback script...
Installing patch files to profile/config/cells...
Installing patch files to profile/config/cells...
Installing patch files to /Miha/opt/IBM/JazzSM/ui/...
Installing patch files to /Miha/opt/IBM/JazzSM/ui/...
Setting patch deploy commands...
Setting patch level...
Patch 201712110242 successfully installed.
```

Install Impact 7.1.0.4 and upgrade to Fix pack 13

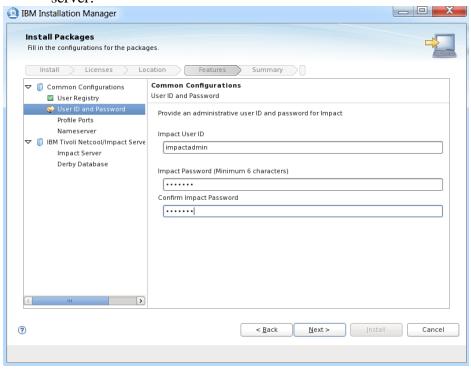
- Impact server name should be TBSM and cluster name should be TBSMCLUSTER
- add repository for both Impact base product and for fix pack 13 as well in order to install directly 7.1.0.13
- enter installation path directory:



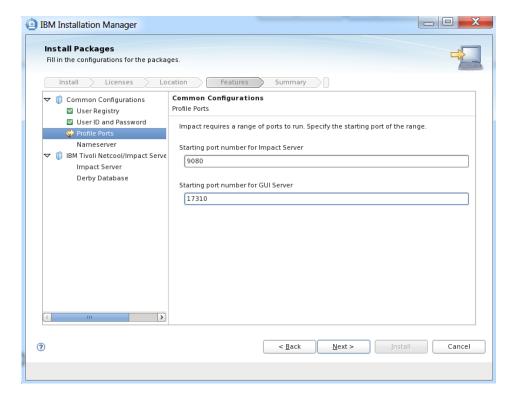
- configure user registry – this should be the same as for webgui and tbsm; in this example object server is being used for user registry, hence configure the required details for omnibus: host, port and credentials details:



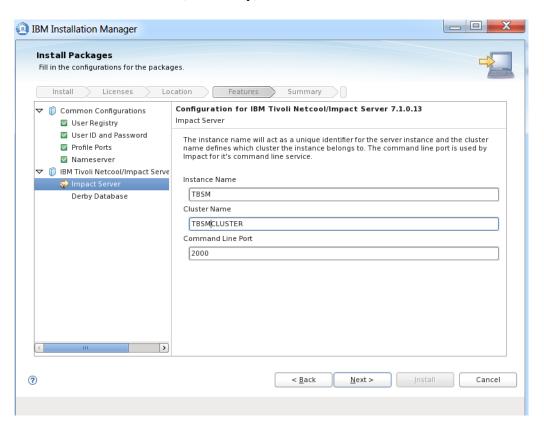
- enter impactadmin passsword – should be the same as the one configured in object server:



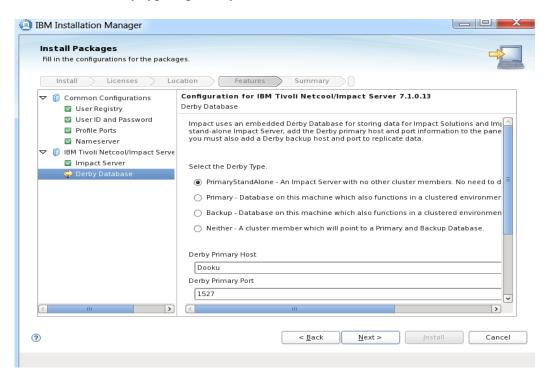
- enter port numbers for Impact Server and GUI Server (this is recommended to be different to the one configured for webgui if they are on the same server)



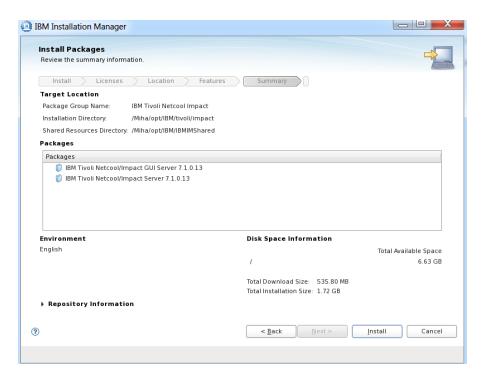
 enter Impact Instance Name and Cluster Name – this should be TBSM and TBSMCLUSTER (mandatory)



- select derby type – primarystandalone is used in this case and enter host name details:



- continue with the Installation:



The following packages were installed:



Install TBSM Database Configuration Utility

- login as db2inst1 user:
- go to the directory were TBSM package was extracted and from here go to dbconf_linux directory:
- run ./install_gui_dbconf.sh script:

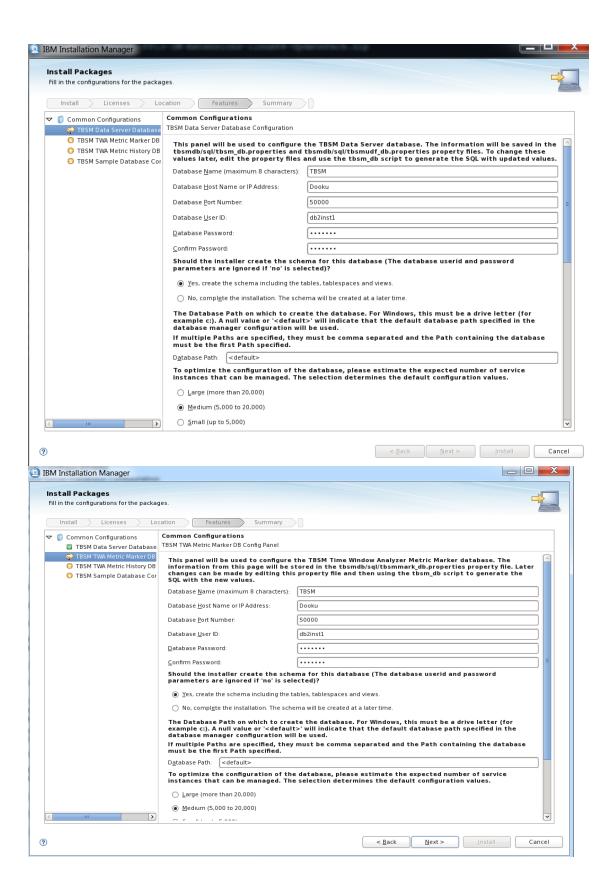
[db2inst1@Dooku ~]\$ cd /kituri/Miha/TBSM/dbconf_linux/ [db2inst1@Dooku dbconf_linux]\$./install gui dbconf.sh

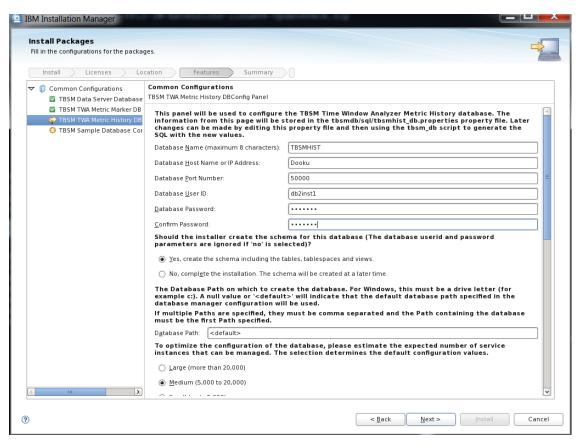


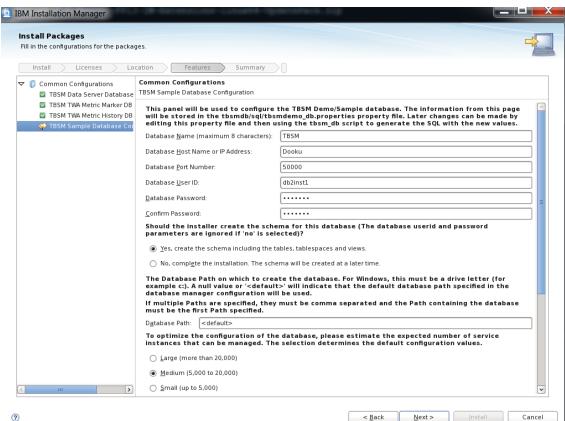
- enter installation directory for TBSM database configuration utility; db2inst1 user needs to have write permission to this directory:



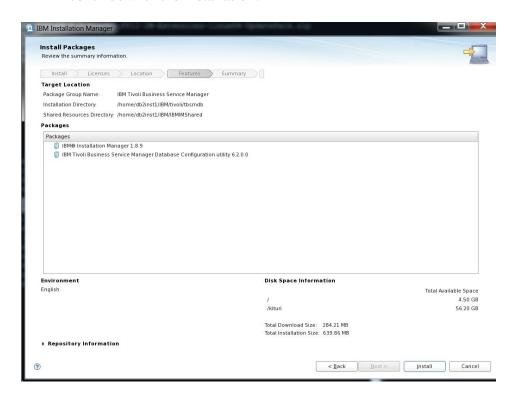
- enter details for TBSM database name, host, port, user id and password; select yes to create the schema; as database path this could be left as default; same configuration details is required for the next 3 common configuration panels:







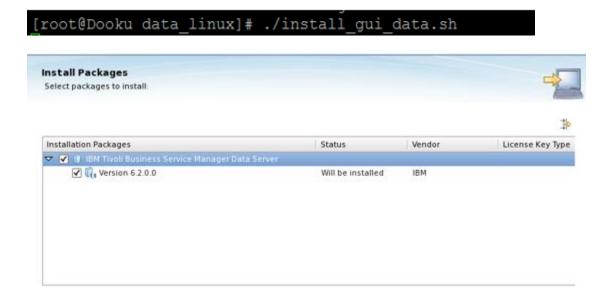
- continue with the installation:



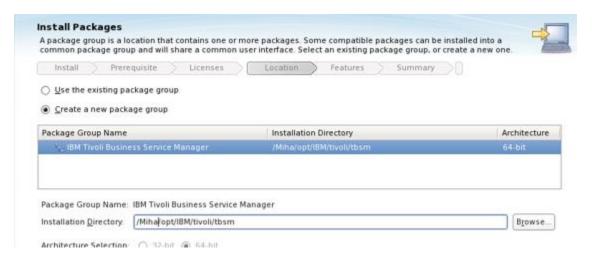


Install TBSM Data Server

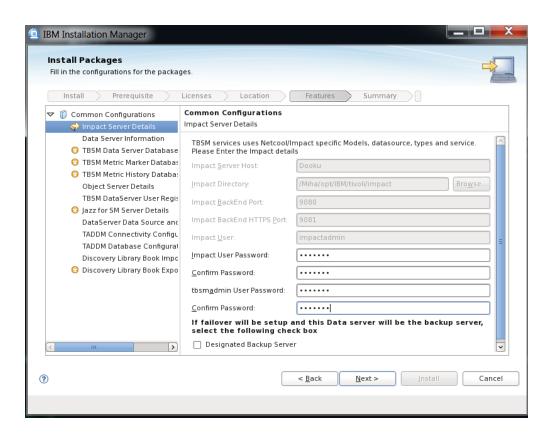
- go to the directory where TBSM was extracted and from here to data_linux directory:
 cd /kituri/Miha/TBSM/data_linux
- run ./install_gui_data.sh script:



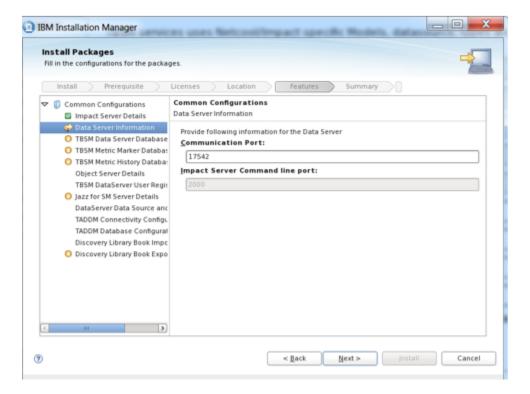
- enter installation directory for TBSM Data Server component



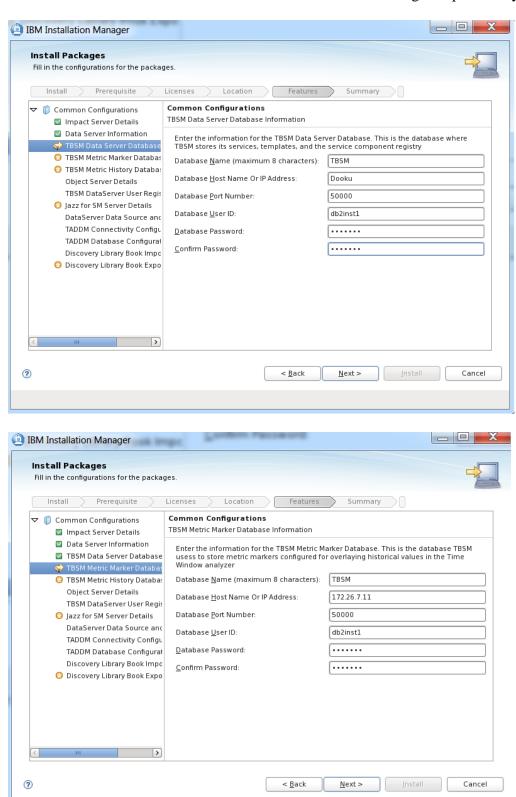
- enter Impact server details (for host details FQDN is required, make sure /etc/hosts is properly configured)

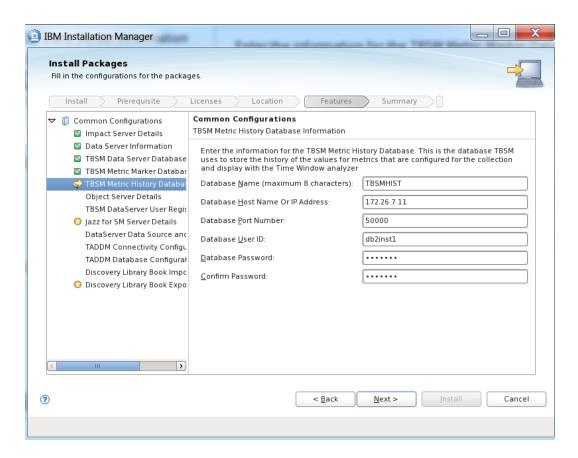


- enter data server communication port, by default this is 17542:

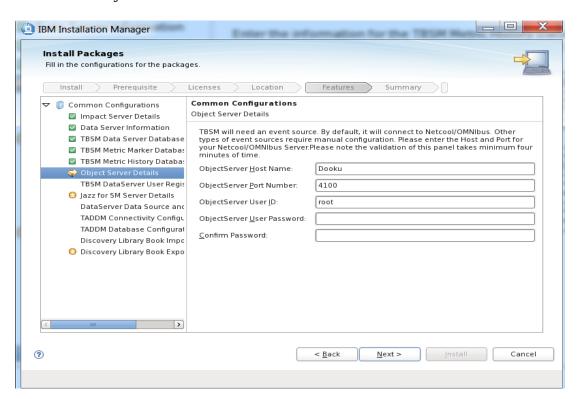


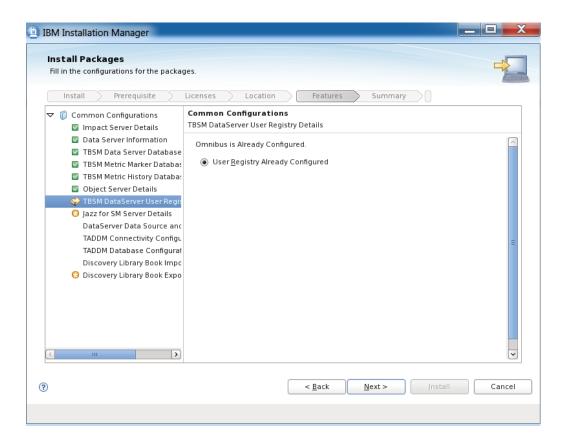
- enter TBSM Data Server Database information as configured previously:



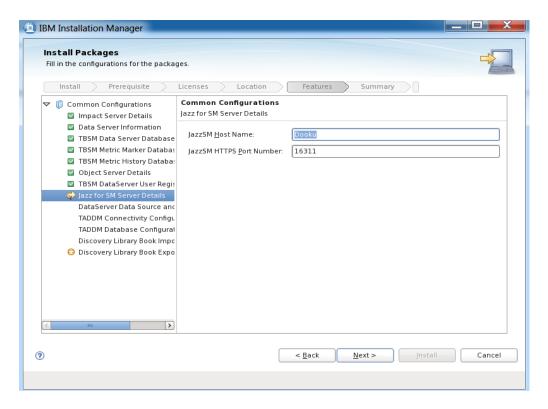


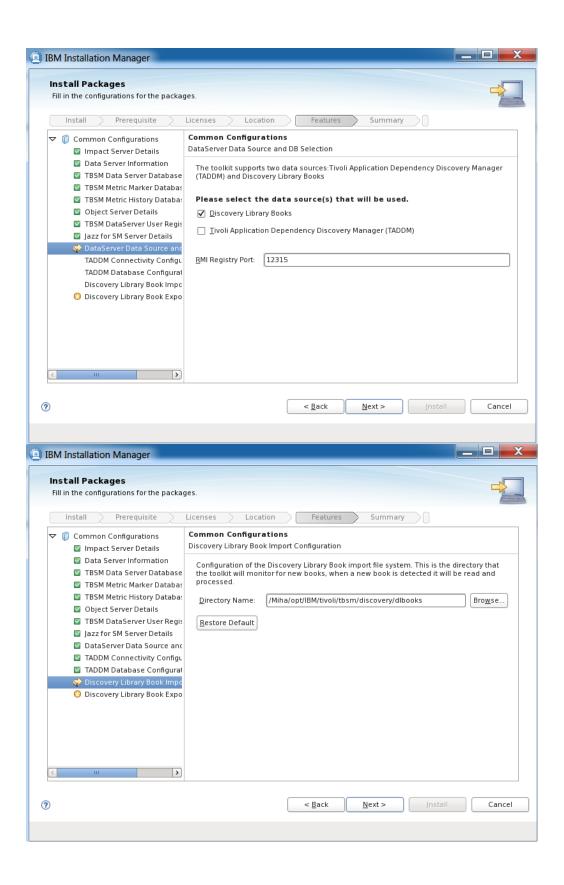
enter object server details:

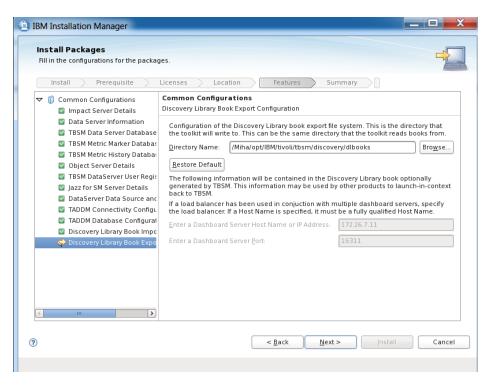


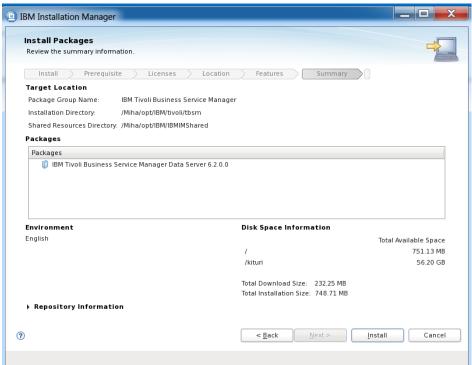


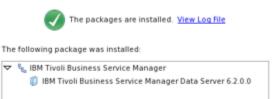
enter Jazz SM details:







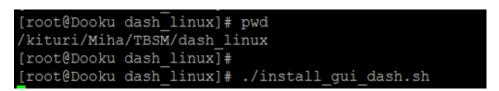




Install TBSM Dashboard Server

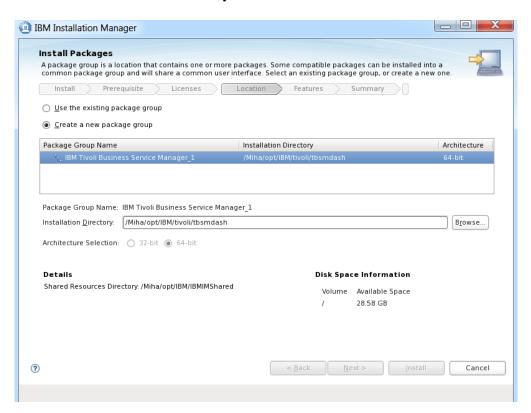
- Impact, WebGUI and Omnibus should be running
- make sure waapi.init is properly configured and runwaapi can run without problems, test example below:

- go to the directory where TBSM was extracted and from here to dash_linux directory
- run ./install_gui_dash.sh script:

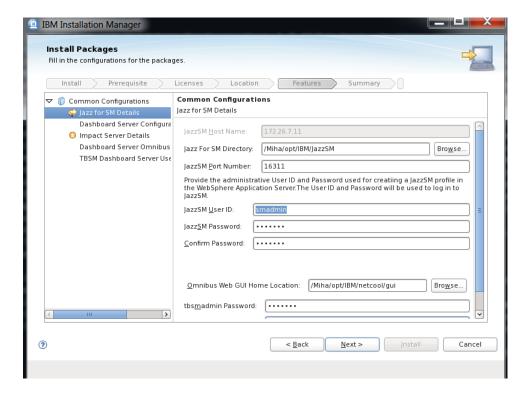




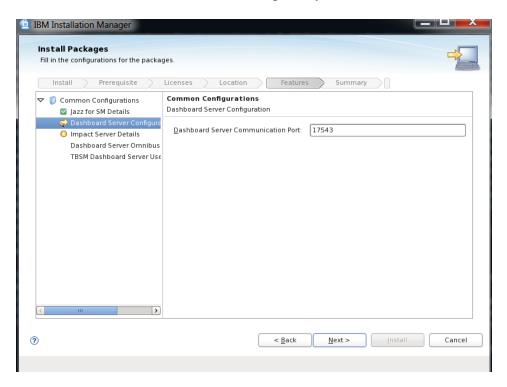
- enter installation directory for TBSM Dashboard server:



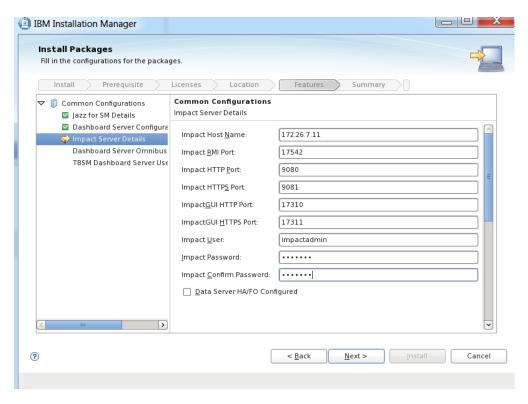
- enter Jazz SM and WebGUI details:



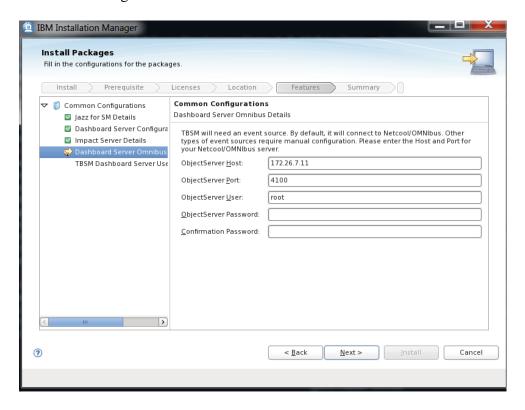
- enter dashboard communication port, by default this is 17543:



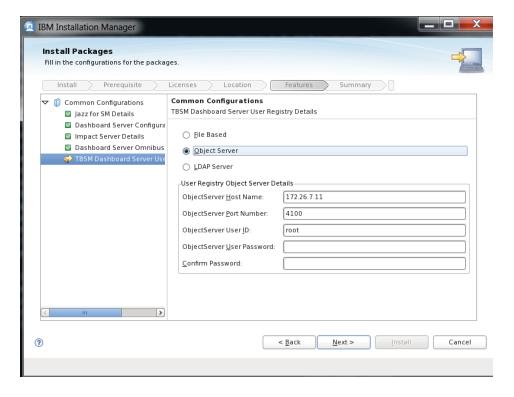
- enter impact server details:



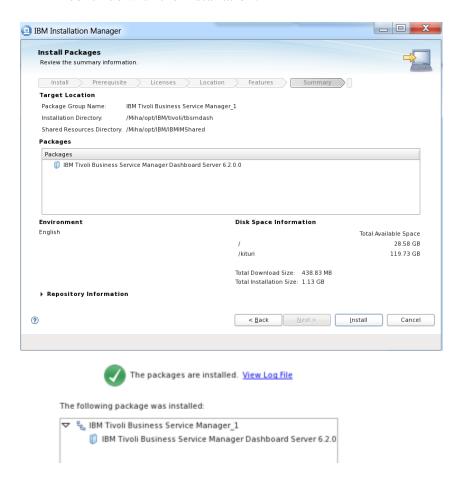
- enter object server details – these should be the same as the ones configured for impact and webgui:



- enter user registry details – these should be the same as the ones configured for impact and webgui, in this example omnibus was user as user repository:



- continue with the installation:



- screenshot example from gui console:

