TBSM 6.2

Installation and Configuration of SSO and SSL and upgrade to TBSM6.2 FP1

A step by step example

Author: Gheorghe Mihaela, IBM NSA Software Engineer | IBM Clouds Lab Mihaela.Gheorghe1@ibm.com

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Software prerequisite

TBSM 6.2 requires the following **minimum** version of each product. They need to be installed separately as they are not part of the TBSM package.

- 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

Within this guide the following version were used:

- 1. Installation Manager 1.8.9
- 2. IBM DB2 Workgroup Server Edition 11.1.2.2
- 3. IBM Tivoli Netcool/Omnibus v8.1.0.18
- 4. IBM WebSphere Application Server Version 8.5.5 Fix Pack 15
- 5. Jazz for Service Management 1.1.3 Fix Pack 3
- 6. IBM JAVA 8.0.5.27.
- 7. IBM Tivoli Netcool/Omnibus 8.1.0.4-webgui Fix Pack 16
- 8. IBM Tivoli Netcool/Impact 7.1 Fix Pack 16
- 9. TBSM 6.2 Fix Pack 1

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-address FQDN Hostname-short name 172.20.20.12 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 and TBSM_B for secondary and cluster name should be 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 Object Server.
- 6. Waapi should be setup for WebGUI prior to TBSM installation and also a datasource should be defined within it.
- 7. If an existing Omnibus installation is being used, then a new object server needs to be created if the existing one is used by another TBSM installation. If an old TBSM server is reading events from an object server, the new server cannot read them also, hence, a new object server is needed to be used for TBSM 6.2.
- 8. TBSM 6.2 should not be installed on a server where there is already another TBSM installation.
- 9. The following 2 users impactadmin and tbsmadmin should not contain special characters within their password as this usually generated installation problems.

This guide has the purpose to illustrate a complete step by step example for a split TBSM 6.2 installation.

All the TBSM prerequisites and components were installed as follows:

- On server 1: Installation Manager, Omnibus, Netcool/Impact, DB2, TBSM Database Configuration Utility and TBSM Data Server
- On server 2: Installation Manager, WAS, JazzSM/DASH, WebGUI, TBSM Dashboard Server

Other references:

Complete official documentation guide:

https://www.ibm.com/support/knowledgecenter/SSSPFK_6.2.0/com.ibm.tivoli.itbsm.doc/installa tion_guide.pdf

Installation example with everything installed and configured on one server: https://www.ibm.com/developerworks/community/blogs/7d5ebce8-2dd8-449c-a58e-4676134e3eb8/entry/TBSM_6_2_Installation_Step_by_step_example_with_all_the_prerequisite s_installation_and_configuration_steps?lang=en_us

Installation example with everything installed and configured on two servers: https://www.ibm.com/developerworks/community/blogs/cdd16df5-7bb8-4ef1-bcb9-

<u>cefb1dd40581/entry/TBSM_6_2_Split_Installation_Guide_Step_by_step_example_with_all_the</u> <u>prerequisites_installation_and_configuration_steps?lang=en_us</u>

Installation example with everything installed and configured on two servers including SSO configuration between DASH and Impact:

https://www.ibm.com/developerworks/community/blogs/cdd16df5-7bb8-4ef1-bcb9cefb1dd40581/entry/TBSM_6_2_Installation_Guide_Step_by_step_example_with_all_the_prere quisites_installation_and_configuration_steps_including_SSO_configuration_between_DASH_a nd_Impact?lang=en

Failover installation and configuration example for TBSM 6.2: https://www.ibm.com/developerworks/community/blogs/cdd16df5-7bb8-4ef1-bcb9cefb1dd40581/entry/TBSM_6_2_Failover_Configuration_Guide_step_by_step_example?lang=e <u>n</u>

Known limitations, Problems and Workarounds for TBSM 6.2: https://www-01.ibm.com/support/docview.wss?uid=ibm10716855

TBSM 6.2 Upgrade to Fix Pack 1 - A step by step example: <u>https://www-01.ibm.com/support/docview.wss?uid=ibm10886187</u>

Setting up the server for TBSM Data Server (server 1)

Install or upgrade to Installation Manager 1.8.9

If Installation Manager is not installed on the server, you have the option to either install it along with Omnibus core installation as this one will automatically install IM if it detects that it doesn't exists, or you can manually install it after downloading IM package.

If IM is installed on the server and you have an older version, you can try to upgrade it to the latest version which is 1.8.9.

Option A: Manually download and install IM 1.8.9

Download link: <u>https://www-</u> 945.ibm.com/support/fixcentral/swg/selectFixes?parent=ibm%7ERational&product=ibm/Ration al/IBM+Installation+Manager&release=1.8.9.0&platform=Linux&function=all&useReleaseAsT arget=true

```
refresh pack: \rightarrow <u>1.8.9.0-IBMIM-LINUX-X86-20180313</u> <u>1417</u>
IBM Installation Manager Install Kit for all x86 Linux versions supported by version 1.8.9.0
```

- 2018/03/23
- extract IM 1.8.9 package, go to the extracted directory and run ./install :

[root@busy1 tmpIM]# 1s	5	
con-disk-set-inst.sh	installc.ini	repository.config
configuration	install.ini	repository.xml
documentation	install.xml	silent-install.ini
groupinst	jre_7.0.100020.20180227_1440	tools
groupinstc	license	userinst
groupinstc.ini	native	userinstc
groupinst.ini	Offerings	userinstc.ini
install	plugins	userinst.ini
installc	readme.html	user-silent-install.ini

Option B: Install IM along with OMNIbus

- go the directory where you have extracted omnibus 8.1.0.5 core and run ./install_gui.sh script:

[root@busy1 tmpIM]# /	ls /mnt/images/ibm	/netcool/omnibus_core/8.1.0.5/linux_x86_64
im.linux.x86 64	install gui.sh	OMNIbusRepository
install_console.sh	install_silent.sh	scripts
frage to Alexand the second at the second se		

You will get the option to install IM as well:

nstall Packages		-1
Select packages to install:		1
		_
Installation Packages	Status	Vendor
 IBM® Installation Manager 		
🖌 🚺 Version 1.8.3	Will be installed	IBM
👻 🚺 IBM Tivoli Netcool/OMNIbus		
Version 8.1.0.5	Will be installed	IBM
0.00		

Option C: If IM is already installed or you have selected option B previously you can try to upgrade to the latest version.

- one solution for this would be to use the service repositories feature from the already installed IM. Run ./IBMIM script -> go to File > Preferences.
- on the Repositories tab, select Search service repositories during installation and updates.

Service repositories are remote locations where updates or extensions to packages (including the Installation Manager itself) are stored.
Search service repositories during installation and updates.

- then click Updates and select the Search for Installation Manager updates option.



- click OK to close the Preferences page and afterwards click one of these wizards: Install or Update. Installation Manager searches for updates to itself and you will be prompted to update Installation Manager; click yes to proceed with the upgrade:

BM Installation Manager	Х	Restart Installation Manager	×
A new version of IBM Installation Manager is available. If you do not update the Installation Manager you will not be allowed to install some packages that require the new version of the Installation Manager. Do you want to update the Installation Manager?		Installation Manager has been updated to version: 1.8.9.2 Click OK to restart it.	
No Details>> Yes			ок

Install Omnibus 8.1.0.5 core and upgrade to Fix Pack 18

- Extract the downloaded package for 8.1.0.5 and for Fix Pack 18 as well:

Download link for Omnibus 8.1 Fix pack 18: https://www-01.ibm.com/support/docview.wss?uid=ibm10733443

- Add both repositories (for core and fix pack) to installation manager -> preferences panel:

for omnibus core location path should be: <extracted_core_path>/<OS>/OMNIbusRepository/repository.config

Repository.

/mnt/images/ibm/netcool/omnibus_core/8.1.0.5/linux_x86_64/OMNIbusRepository/repository.config

for omnibus fix pack 18 the below 2 repositories files should be added: <extracted_fixpack_path>/OMNIbusRepository/5.50.81.delta.core/repository.config < extracted_fixpack_path>/OMNIbusRepository/5.50.81.servicedelta.core/repository.config

Repository.	
/Miha/tmp0mniFP18/OMNIbusRepository/5.5	0.81. delta. core/repository.config
Repository:	
/Miha/tmp0mniFP18/0MNIbusRepository/5.50.	B1.servicedelta.core/repository.config
	and the second of the second second line

By adding all 3 repositories omnibus can be directly installed as 8.1.0.18.:

/mnt/images/ibm/netcool/omnibus_core/8.1.0.5/linux_x86_64/OMNIbusRepository/repository.config
 /Miha/tmpOmniFP18/OMNIbusRepository/5.50.81.delta.core/repository.config
 /Miha/tmpOmniFP18/OMNIbusRepository/5.50.81.servicedelta.core/repository.config

- After configuring the repository section, select "Install" option from IM main menu and check the product to be installed:

Select packages to install.			1
Installation Dackages	Chadrage	Vandar	

- enter the location path for the shared resources directory and continue with the installation:



- enter the installation directory path for Omnibus 8.1.0.18 if the default one needs to be changed and click "Next" to continue with the installation process:

Install Licenses Location	Features Summary	
Use the existing package group		
Create a new package group		
Package Group Name	Installation Directory	Archite
IBM Netcool Core Components	/Miha/opt/IBM/tivoli/netcool	64-bit
Installation Directory. //Miha/opt/IBM/tivoli/netcool		Browse
Installation Directory. //Miha/opt/IBM/tivoli/netcool		Browse
Installation Directory: //Miha/opt/IBM/tivol/netcool Architecture Selection: 32-bit (1) 54-bit		Browse
Installation Directory: [/Miha/opt/IBM/tivoli/netcool Architecture Selection: 32-bit () 64-bit Details	Disk Space Information	Browse
Installation Directory: //Miha/opt/IBM/tivoli/netcool Architecture Selection: 32-bit 64-bit Details Shared Resources Directory: /Miha/opt/IBM/IBMIMShared	Disk Space Information ed Volume Available Space	Browse
Installation Directory: //Miha/opt/IBM/tivoli/netcool Architecture Selection: 32-bit () 64-bit Details Shared Resources Directory: /Miha/opt/IBM/IBMIMShare	Disk Space Information ed Volume Available Space / 226.34 GB	Browse
Installation Directory: //Miha/opt/IBM/tivoli/netcool Architecture Selection: 32-bit (64-bit Details Shared Resources Directory: //Miha/opt/IBM/IBMIMShare	Disk Space Information ed Volume Available Space / 225.34 GB	Browse

- select the features to be installed (by default all are selected):

Install Packages Select the features to install.			
		T	
Install Licenses Location Features Summary			
Features		_	
V II IBM Tivoli Netcool/OMNibus 8.1.0.18			
Administrator components			
Constants			
Operator GIII			
ObjectServer			
ObjectServer gateways			
Bridge server			
Descenter and the second secon			
Show dependencies Expand All Collapse J	All Resto	ore Default	
g- Selected by Installation Manager because of dependencies			
Details IBM Tivoli Netcool/OMNIbus 8.1.0.18 IBM Tivoli Netcool/OMNIbus			
Back Next >	Install	c	ancel

- you can select to migrate data from another omnibus install or you can do this post install if needed:

ate data	
Migrate data from another Netcool/OMNIbus installation	
nter or select a migration source (an existing Netcool/OMNIbus installation directory):	
	Bro <u>w</u> se
igration information	
Source directory:	
Target directory: /Miha/opt/IBM/tivoli(netcool	
Migration log file: /Miha/opt/IBM/tivol/netcool/omnibus/log/migrate.log	

- select the Install option for the installation process to begin:

IBM Installation Manager		-		×
Install Packages				_
Review the summary information.			7	-
Install Licenses Location Features	Summary			
Target Location				
Package Group Name: IBM Netcool Core Components				
Installation Directory: /Miha/opt/IBM/tivoli/netcool				
Shared Resources Directory. /Miha/opt/IBM/IBMIMShared				
Packages				
Packages				
Environment	Disk Space Information			
English		Total Av	ailable Spa	e
	1		226.35 G	в
	Total Download Size: 451.1	2 MB		
	Total Installation Size: 1.15	GB		
 Repository Information 				
0	< Back Next >	Install	Car	ncel

- make sure the installation went fine and afterwards you can create and configure your object server either by using the Netcool/OMNIbus Initial Configuration Wizard option that is available at the end of the installation, either by manually running the commands to create and configure a new object server after the installation:

nstall Packages	4
The pa	ackages are installed. <u>View Log File</u>
The following package was installed:	Which program do you want to start?
 ¹/₀₀ IBM Netcool Care Components ¹/₀₀ IBM Twoli Netcool/OMNIbus 8.1 	0.18 Netcol(OMNIbus Initial Configuration Witard Note: Netcol(OMNIbus Initial Configuration Witard Note: Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard Netcol(OMNIbus Initial Configuration Witard
Note: If the packages support rollback, the te- can delete the files on the <u>Files for rollback</u> pre-	nporary directory contains rollback files for installed packages. You ference page.

Configure Omnibus 8.1.0.18

Option A:

If you have selected None when the Omnibus installation finished, you will need to manually create and configure an object server.

- some environment variables can be setup to easy navigate between directories:

export NCHOME=/Miha/opt/IBM/tivoli/netcool export OMNIHOME=/Miha/opt/IBM/tivoli/netcool/omnibus

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

cd \$OMNIHOME/bin ./nco_dbinit -server NCOMS

Command example:

[root@busy1 bin]# ./nco dbinit -server NCOMS

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

cd \$NCHOME/etc vi omni.dat



run ./nco_igen script for the changes to be saved and start the object server afterwards:

cd \$NCHOME/bin

./nco_igen

[root@busy1 bin]# /Miha/opt/IBM/tivoli/netcool/bin/nco igen

cd \$NCHOME/bin ./nco objserv -name NCOMS &

[root@busy1 bin]# /Miha/opt/IBM/tivoli/netcool/omnibus/bin/nco objserv -name NCOMS

Check to see if the object server is up and running:

[root@busy1 bin]# ps -ef|grep nco root 9226 5602 1 01:46 pts/0 86/bin64/nco_objserv -name NCOMS 00:00:00 /Miha/opt/IBM/tivoli/netcool/omnibus/platform/linux2x 9295 5602 0 01:46 pts/0 00:00:00 grep --color=auto nco

Option B

You can select "Netcool/OMNIbus Initial Configuration Wizard" to configure your object server. Enter the hostname details and installation path for Omnibus and continue with the wizard steps:



A Netcool/OMNIbus Initial Configuration Wizard		A Netcool/OMNIb	ous Initial Configuration Wizard		-		×
Initial Configuration Wizard The wizard will guide you through creating your configuration for your Tivoli Netcool/OM environment. The configuration is saved to a file called the deployment descriptor that you can apply computer where this wizard is installed. You can configure a distributed deployment now and assign each component to a spect When you apply the deployment descriptor on each computer, only components that is for that computer will be configured there. Before you start, assess your requirements and plan your deployment. You will be ask the following information: • The number of Collection and Display layer ObjectServers required, if any • Details of the computers that will host each component • Process Agent details for each computer • Aggregation layer ObjectServer details • Collection layer ObjectServer details (optional) • Display layer ObjectServer details (optional)	INIbus on any ific computer. are intended ed to provide	Define ho n a typical configuratio computer in your envir irrectory. There a host name. To pualified domain name Host Host NCHOME Curvier1 castle. fyre.ib	Dest computers ion, most of the components are installed ironment, enter the host name and the opensure that all computers in your deplo es (FQDN) such as myhost.example.com o//OMNIbus installation directory. The ins mment variable.	id on separate Tivoli Netcool/O yment recogni n.	computer MNIbus i ze each o rry is typi	s. For each stallation ther, use fi cally define	h fully ed by

After having the object server properly configured and running, in order to prepare for Impact 7.1 installation, add **impactadmin** user within object, add its password and assign groups to this user:

cd \$OMNIHOME/bin ./nco_config

[root@tother1 bin]# /Miha/opt/IBM/tivoli/netcool/omnibus/bin/nco config

Go to User tab -> right click and select "Add User" option:

_				Add User (NCOMS on tother1.castle.fyre.ibm.com:4100)	Х
Б				• User Details	?
Н	Configuration of	NCOMS on tother	r1.castle.fyre.ibm.c		
P	▼ 1 ¹) User	• Users		Username: impactadmin User ID: 1	
1	A .	Name	Full Nan	n Full Name: 🛛 🗹 Create Conversion	
H	u u	👔 nobody	Nobody		
ш	lisers	🔋 root	Root User	Groups Restriction Filters Settings	
ш				Passwords	
Ш	1			Descenard:	on 📗
ш	1 1 1				
Ш	Groups			Verify: ****** Change	
П	1 1			User Type: Super User 🗹 User Enabled	
Ч	99				

Install Netcool/Impact 7.1.0.14 and upgrade to Fix Pack 16

- download and extract Impact 7.1.0.14 and Fix Pack 16 for Impact

Download link for Fix Pack 16: https://www-01.ibm.com/support/docview.wss?uid=ibm10881009

- add both the repository from Impact 7.1.0.14 base as well as the repositories from Impact Fix Pack 16 within Installation Manager -> Preferences panel if you want to install both at a time or install first the base Impact 7..10.14 and then update to Fix Pack 16.

<extracted_path_for_impact71014>/ImpactRepository/disk1/diskTag.inf <extracted_path_for_impactFP16>/ImpactRepository/repository.config

/tmpIMPBase14/ImpactRepository/disk1/diskTag.inf	
/tmpFP16/ImpactRepository/repository.config	

Add the ones from the NOI extension as well if needed.

- select "Install" from IM main menu and check both GUI and Server options for Impact 7.1.0.16 to be installed:

Installation Packages	Status	Vendor
🔻 📝 间 IBM Tivoli Netcool/Impact GUI Server	Installed	
🕑 🕅 0 Version 7.1.0.16	Will be installed	IBM
🔹 🗹 🧊 IBM Tivoli Netcool/Impact Server	Installed	
Version 7.1.0.16	Will be installed	IBM

- enter installation path directory for Impact 7.1.0.16 and continue with the installation:

Package Group Nan	ne	Installation Directory	Architec
🐁 🐛 IBM Tivoli Netci	ool Impact	/Miha/opt/IBM/tivoli/impact	64-bit
ackage Group Name:	IBM Tivoli Netcool Impact		
ackage Group Name: stallation <u>D</u> irectory:	IBM Tivoli Netcool Impact /Mihałopt/IBM/tivoli(impact		Browse

- 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

Install Licenses Locati	on Features Summary	
 Common Configurations Common Configurations User ID and Password Profile Ports Nameserver IBM Tivoli Netcool(Impact Server 7 Impact Server Derby Database 	Common Configurations User Registry Select the user registry to use for user ma ObjectServer ObjectServer with SSL LDAP LDAP with SSL LCal File Based OMNIbus ObjectServer The OMNIbus ObjectServer The OMNIbus ObjectServer Super Officer must be configured and run Primary Port Backup Host (Optional) Backup Host (Optional) Super or Administrator User ID Super or Administrator User ID Super or Administrator User Password Confirm Password	nagement and authentication. nust exist and the OMNIbus ning. busy1 castle.fyre.ibm.com 4100

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

BM Installation Manager				×
Install Packages Fill in the configurations for the packages.	ion Features Summary		4	
 Common Configurations User Registry User ID and Password 	Common Configurations User ID and Password Provide an administrative user ID and password for Imp.	act		
 User ID and Password Profile Ports Nameserver IBM Tivoli Netcool/Impact Server 7 Impact Server Derby Database 	Impact User ID impactadmin Impact Password (Minimum 6 characters)			
	Confirm Impact Password]
0	< Back Next >	Install	Can	cel

- enter port numbers for Impact Server and GUI Server

IBM Installation Manager		<u></u>		
Install Packages Fill in the configurations for the packages.			->	1
Install Licenses Loca	tion Features Summary			
 Common Configurations User Registry 	Common Configurations Profile Ports	+ing and of	*	
Oser ID and Password	impact requires a range of ports to run. Specify the sta	rung port of	the range.	3
Nameserver IBM Tivoli Netcool/Impact Server 7 Impact Server Derby Database	Starting port number for Impact Server 9080]
	Starting port number for GUI Server			
	16310			ļ
				_
0	< Back Next >	Install	Can	ce

- make sure you use FQDN address:

 Common Configurations User Registry 	Common Configurations Nameserver
User ID and Password	Nameserver
Profile Ports	The installed server uses the Impact Nameserver to publish its services.
🤿 Nameserver	same on each Impact server so that each Nameserver can participate in
▼ 🧊 IBM Tivoli Netcool/Impact Server 7	cluster management.
Impact Server Derby Database	Primary Nameserver Host busy1.castle.fyre.ibm.com
	Primary Nameserver Port 9080
	Secondary Nameserver Host Secondary Nameserver Port
	Local Host Specify a fully qualified local host name. A fully qualified local host name is required to create server certificate. Local Host busy1.castle.fyre.ibm.com

- Impact server name should be **TBSM** and cluster name should be **TBSMCLUSTER**:

Install Licenses Loca	tion Features Summary	
 ♥ Common Configurations ♥ User Registry ♥ User ID and Password ♥ Profile Ports ♥ Nameserver ♥ IBM Tivoli Netcool/Impact Server 7 ♥ Impact Server Derby Database 	Configuration for IBM Tivoli Netcool/Impact Server 7.1.0.15 Impact Server The instance name will act as a unique identifier for the server instance and the cluster name defines which cluster the instance belongs to. The comma line port is used by Impact for it's command line service. Instance Name TBSM Cluster Name TBSMCLUSTER Command Line Port 2000	nd

- select derby type - PrimaryStandAlone is used in this case and enter host name details

🎁 Common Configurations 🗹 User Registry	Configuration for IBM Tivoli Netcool/Impact Server 7.1.0.16 Derby Database
User ID and Password Profile Ports Nameserver	Impact uses an embedded Derby Database for storing data for Impact Soluti stand-alone Impact Server, add the Derby primary host and port information you must also add a Derby backup host and port to replicate data.
 IBM Tivoli Netcool/Impact Server 7 Impact Server Derby Database 	Select the Derby Type. PrimaryStandAlone - An Impact Server with no other cluster members. Primary - Database on this machine which also functions in a clustered e Backup - Database on this machine which also functions in a clustered e Neither - A cluster member which will point to a Primary and Backup Database on the second sec
	Derby Primary Host busy1.castle.fyre.ibm.com Derby Primary Port
	1527 Derby Backup Host
	Derby Backup Port
	Derby Replication Port 4851

- continue with the Installation:

	tion.		7-
Install Licenses	Location Features Summ	ary	
arget Location			
Package Group Name:	IBM Tivoli Netcool Impact_1		
Installation Directory:	/opt/IBM/tivoli/impact		
Shared Resources Directory:	/Miha/opt/IBM/IBMIMShared		
Packages			
Packages			
📋 IBM Tivoli Netcool/In	npact GUI Server 7.1.0.16		
🎁 IBM Tivoli Netcool/In	npact Server 7.1.0.16		
invironment	Disk Space Info	rmation	
invironment. Inglish	Disk Space Info	rmation Total Ava	ilable Space
invironment Inglish	Disk Space Info	rmation Total Ava	ilable Space 226.57 GB
invironment Ingliah	Disk Space Info / Total Download S	rmation Total Ava ze: 0.0 KB	ilable Space 226.57 GB
invironment ingish	Disk Space Info / Total Download S Total Installation 1	rmation Total Ava ize: 0.0 KB ize: 1.25 GB	ilable Space 226.57 GB
invironment inglah • Repository Information	Disk Space Info / Total Download S Total Installation :	rmation Total Ava ize: 0.0 KB ize: 1.26 GB	ilable Space 226.57 GB
invironment ingish	Disk Space Info / Total Download S Total Installation :	rmation Total Ava ize: 0.0 KB ize: 1.26 GB	iable Space 226.57 GB

- make sure your installation finish with success:

	There are a first
All the following updates were installed:	
Update	Installatio
👻 🦉 IBM Tivoli Netcool Impact	/Miha/opt/IE
🎁 IBM Tivoli Netcool/Impact GUI Se	erver 7.1.0.1
and the second second shift in second s	

Install DB2 Advanced Workgroup Server Edition 11.1.2.2

TBSM 6.2 requires DB2 Advanced Workgroup Server Edition and the minimum version needed for this is: 11.1 Mod 2 Fix Pack 2.

From software compatibility report:

Databases					Filter 3		
Prerequisite	Version	Prerequisite () Minimum	Product 🛈 Minimum	Components 🛈	Operating System Restrictions?	Notes	Details
DB2 Advanced Workgroup Server Edition	11.1.1.1	11.1.2.2	6.2	• •	No		📕 View

One part-number example for DB2 11.1 for Linux: CNB8FML

Download link for DB2 11.1 Mod 2 Fix Pack 2:

http://www-01.ibm.com/support/docview.wss?uid=swg24043789

- download and extract DB2 Advanced Workgroup Server Edition 11.1 and Activation License for this as well

DB2	AWSE	Restr	icte	ed Act	tivat	ion	11.1.	zip
DB2	AWSE	REST	Svr	11.1	Lnx	86-6	4.tar	.gz

go to the extracted directory and to /server_awse_o/ directory and run the following command from this directory:
 ./dbsetup

./db2setup

[root@busy1 server]# ls							
db2	db2checkCOL.tar.gz	db2_deinstall	db21s	db2setup	installFixPack		
db2checkCOL_readme.txt	db2ckupgrade	db2_install	db2prereqcheck	ibm_im	nlpack		
[root@busy1 server]# ./	db2setup						
BI11901 db2setup is preparing the DB2 Setup wizard which will guide							
you through the p	rogram setup process	. Please wait.					

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



- enter installation directory for DB2. Afterwards you can select either "Custom" as installation Type in order to customize different properties for DB2 such as the DB2 instance port or select "Typical" and the default settings will be used. In this example I have selected "Custom" installation

🕌 DB2 Setup - DB2 Server	r Edition	-) X
1. Configuration 2. Features	Configuration		
	Directory /Miha/opt/ibm/db2/v11.1		
	Select the installation type		
	Typical	Custom	
	Турісаі	C <u>u</u> stom	
	🗹 C eate an <u>i</u> nstance. (Needed to store data.)		
	☑ Ingree to the IBM terms. <u>Click to view</u>		

Make sure you select "Create an instance" and "I agree to the IBM terms".

- select the DB2 features you want to install (you can let them as default):



- configure DAS user name (by default dasusr1 user will be created; add a password for it):

DB2 Setup - DB2 Server	Edition			-		×
<u>1</u> . Configuration <u>2</u> . Features <u>3</u> . Languages <u>4</u> . Documentation	DAS User The DB2 Administration Se DB2 tools. A user with a n user information for the D	erver (DAS) runs on your ninimal set of privileges AS.	computer to provide supp is required to run the DAS.	ort requir Specify t	ed by th he requ	
5. DAS user						
 Database partition Instance-owning 	✓ <u>U</u> se default UID					
g. Fended user						
10. Notification set	🖌 Use default <u>G</u> ID					
11. Contact	Password					
12. Summary	Confirm password	*****				
	Home directory					
	<u>C</u> reate DAS user later					
	Back	Next	Cancel		Help	

- select single partition instance for DB2



- configure Instance owner user (by default db2inst1 user will be created):

DB2 Setup - DB2 Server	Edition		-		×
1. Configuration 2. Features 3. Languages 4. Documentation 5. DAS user	Instance C Specify the instance-ow perform instance functi name of the instance w • Ne <u>w</u> user	WHET ming user information for the DB2 instance. DB2 will us ons, and will store instance information in the user's ho ill be the same as the user name.	e this u me dire	iser to ectory.	The
6. Database partiti	User name				
 B. Fenced user Gammunication Q. Communication 	Group name	db2ladm1			
11. Contact 12. Sümmary	Password Confirm password	******			
	Home directory	/home/db2inst1			

- configure fenced user for DB2 (by default db2fenc1 user will be created)

🛃 DB2 Setup - DB2 Server I	Edition		-		×
 Configuration Features Languages Documentation 	Fenced Us Specify the required inf stored procedures will New user	er formation for the fenced user. Fenced user defined fur execute under this user and group.	nctions (UDFs) a	ind
5. DAS user 6. Database partiti 7. Instance-owning 8. Fenced user 9. Communication	User name <u>Us</u> e default UID Group name Use default GID	db2fenc1 db2fadm1			
1 <u>0</u> . Notification set 11. Contact 12. Summary	Password Confirm password	****** ****** /horro//lb@awc1			
	O Existing user User name				

- Change the DB2 port or service name if needed, by default DB2 port will be 50000:

🛃 DB2 Setup - DB2 Server I	Edition			2 <u>—</u> 6		×
 <u>1</u>. Configuration <u>2</u>. Features <u>3</u>. Languages <u>4</u>. Documentation <u>5</u>. DAS user <u>6</u>. Database partiti 	Instance In order for remote of Instance for TCP/IP of The DB2 instance ca TCP/IP configuration	Commun lients to access dat ommunication. n also be set to star	ication a stored in the DB2 instance, yo t automatically when your comp	u must config uter starts.	ure the	DB2
 2. Instance-owning 8. Fenced user 9. Communication 10. Notification set 11. Contact 12. Summary 	Service name Port number Do not configure	db2c_db2inst1 50000 at this time ance at system star	<u>R</u> estore default settings			

- configure if you want the DB2 server to send notification; within this example this won't be configured:

🛃 DB2 Setup - DB2 Server I	Edition – 🗆 🗙
 <u>1</u>. Configuration <u>2</u>. Features <u>3</u>. Languages <u>4</u>. Documentation <u>5</u>. DAS user <u>6</u>. Database partiti <u>7</u>. Instance-owning <u>8</u>. Fenced user 	Notifications You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrators when a database needs attention. The contact information is stored in the administration contact list. You need an unauthenticated SMTP server to send these notifications. Set up your DB2 server to send notifications Notification SMTP server Intervention SMTP server
9. Communication 1 <u>0</u> . Notification set 11. Summary	Contract ist occation Contact list on this computer Contact list on this computer Remote - Use an existing contact list that resides on another DB2 server Remote DB2 server Contact list on this computer Remote DB2 server to send notifications at this time If you do not set up your DB2 server to send notifications, the health alerts are still recorded in the administration notification log.

- select "Install DB2 Server Edition" option and "Finish" to start the installation and make sure everything completed successfully:



Setup Complete	N		\times				
Setup has completed successfully							
If you have not already done so, it is recommended that you complete the post-install steps after installation.							
You can also review the log file for more detail process. The setup log files db2setup.log and located in the /tmp directory.	ls of the db2se	e setup tup.err a	ire				
Post-install steps Log	file						
Click Finish to exit.							
		E					

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



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

```
[db2instl@tother1 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-190114_045758.log.
```

- add license for DB2 - unzip downloaded license package



- go to <extract_path>/wse_s/db2/licence directory:

[db2inst1@tother1 license]\$ pwd /Miha/tmpDB2Activation/wse s/db2/license

- run db2licm -a db2wse_s.lic

[db2inst1@tother1 license]\$ db2licm -a db2wse_s.lic LIC1402I License added successfully. LIC1426I This product is now licensed for use as outlined in your License Agreem ent. USE OF THE PRODUCT CONSTITUTES ACCEPTANCE OF THE TERMS OF THE IBM LICENSE A GREEMENT, LOCATED IN THE FOLLOWING DIRECTORY: "/Miha/opt/ibm/db2/V11.1/license/en US.iso88591" [db2inst1@tother1 license]\$

- run db2licm -l to make sure everything is ok

```
[db2inst1@tother1 license]$ db2licm -1Product name:"DB2 Workgroup Server Edition"License type:"Server Option"Expiry date:"Permanent"Product identifier:"db2wse"Version information:"11.1"Max amount of memory (GB):"128"Enforcement policy:"Soft Stop"
```

Upgrade to 11.1.2.2

Download link for DB2 11.1 Mod 2 Fix Pack 2 http://www-01.ibm.com/support/docview.wss?uid=swg24043789

fix pack: → <u>DB2-linuxx64-universal_fixpack-11.1.2.2-FP002</u> DB2 11.1.2 Fix Pack 2 for Linux/x86-64 (64 bit), DB2 Universal Fix Pack

- stop DB2; connect to the server as db2inst1 user run: db2stop

[db2inst1@tother1 ~]\$ db2stop 01/14/2019 05:03:17 0 0 SQL1064N DB2STOP processing was successful. SQL1064N DB2STOP processing was successful.

- go to /universal directory from the one where you have extracted the fix and run ./installFixPack script

```
[root@tother1 tmpDB2FP2]# ls
v11.1.2fp2_linuxx64_universal_fixpack.tar.gz
[root@tother1 tmpDB2FP2]# tar xvzf v11.1.2fp2_linuxx64_universal_fixpack.tar.gz
[root@tother1 universal]# pwd
/Miha/tmpDB2FP2/universal
```

- enter DB2 installation directory and continue with the installation

```
[root@tother1 universal]# ./installFixPack
Enter the full path of the base installation directory:
______/Miha/opt/ibm/db2/V11.1
```



- make sure the update completed successfully:



Setting up the server for TBSM Dash Server (server 2)

Install Installation Manager 1.8.9

Download link: <u>https://www-</u> 945.ibm.com/support/fixcentral/swg/selectFixes?parent=ibm%7ERational&product=ibm/Ration al/IBM+Installation+Manager&release=1.8.9.0&platform=Linux&function=all&useReleaseAsT arget=true

refresh pack: → <u>1.8.9.0-IBMIM-LINUX-X86-20180313</u> 1417_	2018/03/23
IBM Installation Manager Install Kit for all x86 Linux versions supported by version 1.8.9.0	

- extract IM 1.8.9 package, go to the extracted directory and run: ./install

[root@motleys1 tmpIM]	# ls	
con-disk-set-inst.sh	installc.ini	repository.config
configuration	install.ini	repository.xml
documentation	install.xml	silent-install.ini
groupinst	jre_7.0.100020.20180227_1440	tools
groupinstc	license	userinst
groupinstc.ini	native	userinstc
groupinst.ini	Offerings	userinstc.ini
install	plugins	userinst.ini
installc	readme.html	user-silent-install.ini
[root@motleys1 tmpIM]	#	
[root@motleys1 tmpIM]	#	т
[root@motleys1 tmpIM]	# ./install	

- select IBM Installation Manager Version 1.8.9 for this to be installed

	7
Status	Vendor
Will be installed	IBM
	Status

- select the directory where you want to install Installation Manager

packages.	niev, rom mistanation manager Will De Used to Install, updati	a, modity, manage and uninstall your
nstallation Manager	Directory. //Mihaljopt/IBM/InstallationManager/eclipse	Browse
Disk Space Inform	ation	
•		
•		

- continue with the installation by selecting "next" and "install". Make sure everything worked fine, you should get "the packages are installed" message at the end:

			U	
Install Packages				r
Review the summary information.			4	2
Install Licenses Location S	ummary			
Target Location				
Package Group Name: IBM Installation Manager				
Installation Directory. /Miha/opt/IBM/InstallationManage	r/eclipse			
Packages				
Packages				
Environment Arabic Brazilian Portuguese Croatian Caech Danish	Disk Space Information			
Environment Arabic Brazilian Portuguesa, Croatian, Csach, Daniph, Dutch, English, Franch, Garman, Graek, Habrew, Hungarian, Italian, Japanese, Korean, Norwegian, Poleh, Ruscian, Simolfied Chriness, Slovak, Sloverian, Snarich	Disk Space Information	Total Ar	vailable Spa 234.59	aci
Environment Arabic, Brazilian Portuguese, Croatian, Czech, Danish, Dutch, English, Finnsh, French, German, Greek, Hebrew, Humana Simplified Chrinsse, Stovak, Slovensan, Spanish, Swedish, Thai, Traditional Chinese, Turkish	Disk Space Information / Total Download Size: 171.5	Total A	vailable Spa 234.59	GE
Environment Arabic, Brazilian Portuguese, Croatian, Czech, Danish, Dutch, English, Finnsh, French, German, Greek, Habrew, Hungarian, Takitan, Japanses, Korea, Storeagian, Polish, Hungarian, Takitan, Japanses, Korea, Storeagian, Polish, Swedish, Thai, Traditional Chinese, Turkish	Disk Space Information / Total Download Size: 171.5 Total Installation Size: 329.0	Total A 51 MB 56 MB	vailable Spa 234.59 (aci
Environment Arabic, Brazilian Portuguese, Croatian, Czech, Danish, Duch, English, Fnnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Russian, Simplified Chinese, Stovak, Slovenian, Spanish, Swedish, Thai, Traditional Chinese, Turkish	Disk Space Information / Total Download Size: 171.5 Total Installation Size: 329.0	Total A 51 MB 56 MB	vailable Spa 234.59 (aci

IBM Installation Manager			_		×
Install Packages				->	
				Part of the second seco	and and a second
	The packages are installed. <u>View Log File</u>				
	The following package was installed:				
	▼ ¹ / ₆₀ IBM Installation Manager IBM® Installation Manager 1.8.9				
	Click on "Restart Installation Manager" to launch the new Installation Manager and to start installation of other				
	package(s).				
0		Resta	art Instal	ation Man	ager

Install WAS 8.5.5.15, JazzSM 1.1.3.1/DASH 3.1.3.1 and Java SDK 8.0.5.27

You can install all these directly, at the same step.

- download and extract WAS 8.5.5.9 core and 8.5.5 Fix Pack 15

Download link for 8.5.5 Fix Pack 15: https://www-01.ibm.com/support/docview.wss?uid=ibm10871944

- add both repositories within Installation Manager -> Preferences section:

<extracted_path_8.5.5.9>/linux_x86_64/disk1/diskTag.inf <extracted_path_8.5.5.15>/repository.config

- download and extract JazzSM 1.1.3.1 package and add the repository within Installation Manager -> Preferences panel:

<extracted_path_JazzSM>/JazzSMRepository/disk1/diskTag.inf

- download and extract Java 8.0.5.27 package and add the repository within IM

<extracted_path_java>/repository.config

Download link for Java SDK 8.0.5.27 for WAS 8.5.5.15:

https://www-01.ibm.com/support/docview.wss?uid=ibm10873198

The following list of repositories should be added for this installation:

Repositories:	
Location	Connection
/tmpDASHBase/JazzSMRepository/disk1/diskTag.inf	9 <u>1</u>
/tmpJavaSDK/repository.config	9 <u>1</u>
/mnt/images/ibm/was/8.5.5.15/repository.config	0
/mnt/images/ibm/netcool/was/8.5.5.9/linux_x86_64/disk1/diskTag.inf	34.

- return to Installation Manager main menu and select the Install option
- select the products you want to install; you should select at least: WAS 8.5.5.15, Java SDK 8.0.5.27, Jazz for IBM WebSphere 8.5 version 1.1.2.1 and IBM Dash 3.1.3.1.

			11 11 11 11
Installation Packages	Status	Vendo	Dr License Key Type
🔻 🗹 🧊 IBM WebSphere Application Server			
🖌 🕅 , Version 8.5.5.15	Will be installed	IBM	
👻 🔲 🙀 IBM WebSphere SDK Java Technology Edition (Optional)			
🔲 🙀 Version 7.0.9.30		IBM	
🔻 🛃 🔀 IBM WebSphere SDK Java Technology Edition (Optional)			
🖌 🙀 Version 8.0.5.27	Will be installed	IBM	
🔻 📃 🙀 IBM WebSphere SDK Java Technology Edition Version 8.0 for Liberty			
🔲 🙀 Version 8.0.5.27		IBM	
🔻 🔲 🙀 Jazz for Service Management extension for IBM WebSphere 8.0			
🔲 🙀 Version 1.1.0.2		IBM	
▼ ✔ ♣ Jazz for Service Management extension for IBM WebSphere 8.5			
🖌 🔃 Version 1.1.2.1	Will be installed	IBM	
👻 🗹 🎁 IBM Dashboard Application Services Hub			
Version 3.1.3.1	Will be installed	IBM	
Reporting Services			
Show all versions		(Check for Other Versions, Fixes, and Extensions

- continue with the installation and enter the location path for the shared resources directory:

nstall Packages		-
Select a location for the sha	ared resources directory.	7
Install Licenses	s Location Features Summary	
When you install 1) The shared re 2) The installatio	l packages, files are stored in two locations: esources directory - resources that can be shared by multiple packages. In directory - any resources that are unique to the package that you are installing.	
drive with the m	can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best ost available space because it must have adequate space for the shared resources of future packages.	t results select the
Important: You drive with the m	can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best nost available space because it must have adequate space for the shared resources of future packages. //Mihałopt/IBM/IBMIMShared	t results select the Bro <u>w</u> se
Important: You drive with the m hared <u>R</u> esources Directory: Disk Space Information	can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best nost available space because it must have adequate space for the shared resources of future packages. //Miharopt/IBM/IBMIMShared	results select the Bro <u>w</u> se
Important: You drive with the m chared <u>Resources Directory</u> . Disk Space Information Volume Available Space	can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best nost available space because it must have adequate space for the shared resources of future packages. //Miharopt/IBM/IBMIMShared	Bro <u>w</u> se

- enter installation directory for WAS 8.5.5.15 and for DASH (you have to select each of them to change their directories):

Install Lice	nses Location Features	s Summary	
ackage Group Nar	ne	Installation Directory	Architectur
९ _{९०} IBM WebSpher	e Application Server V8.5	/Miha/opt/IBM/WebSphere/AppServer	
IBM WebS	ohere Application Server 8.5.5.15		
🚯 IBM WebS	ohere SDK Java Technology Edition (Option	nal) 8.0.5.27	
📳 Jazz for Se	rvice Management extension for IBM Web	Sphere 8.5	
arkane Groun Name	Crise services in Lats for Service Manager	mant	
ackage Group Name: stallation <u>D</u> irectory:	Core services in Jazz for Service Manager //Mina/opt/IBM/JazzSM	ment	Browse
ackage Group Name: stallation <u>D</u> irectory: chitecture Selection:	Core services in Jazz for Service Manager /Mihalopt/IBM/Jazz5M) 32-bt • • 4-bit	ment	Browse
uckage Group Name: stallation <u>D</u> irectory: chitecture Selection:	Core services in Jazz for Service Manager //Mihwlopt/IBMJazzSM) 32-bit	ment	Browsa
ackage Group Name: stallation <u>D</u> irectory: rchitecture Selection: etails	Core services in Jazz for Service Manager //Mihalopt/IBM/JazzSM 32-bit • 64-bit	ment Disk Space Information	Browse
ackage Group Name: stallation <u>D</u> irectory: rchitecture Selection: wetails hared Resources Dire	Core services in Jazz for Service Manager [/Mihalopt/IBM/JazzSM 32-bit 6 64-bit ectory: /Mihalopt/IBM/IBMIMShared	ment Disk Space Information Volume Available Space	Browse

- continue with the installation:

Install Packages		
Select the features to install.		
Install Licenses Location Features Summary		
Features		
🕨 🥃 🎁 IBM WebSphere Application Server 8.5.5.15		
🕑 🙀 IBM WebSphere SDK Java Technology Edition (Optional) 8.0.5.27		40 a
I azz for Service Management extension for IBM WebSphere 8.5 1.1.2.1		
▶ 📝 🗊 IBM Dashboard Application Services Hub 3.1.3.1		
Show dependencies	Expand All <u>C</u> ollapse All	<u>R</u> estore Default
🍫 - Selected by Installation Manager because of dependencies		

- enter WebSphere installation location as you initially added within the previous screens and the details needed to create a WAS profile (smadmin user password); afterwards click on the "Validate" option:

Click Next to continue.			7
Install Licenses Local	tion Features Sur	mmary	
Common Configurations	Common Configurations WebSphere Configuration		
Ports Configuration	WebSphere installation location	/Miha/opt/IBM/WebSphere/AppServer	Browse
Context Root	Profile deployment type	Create WebSphere profile 🛛 🔻	
	Profile details		
	Profile location	/Miha/opt/IBM/JazzSM/profile	Browse
	Profile name	JazzSMProfile	
	Node name	JazzSMNode01	
	Server name	serverl	
	User name	smadmin	
	Password	•••••	
	Password confirmation	•••••	
	Validate		

- change installation ports if needed and continue with the installation

In case you are installing everything on the same box, these ports are easier to be changed than the ones from Impact as they cannot run on the same port at the same time.

Install Licenses Loca	tion Features Summary	
r 🧊 Common Configurations 🛛 WebSphere Configuration	Common Configurations Ports Configuration	
 Ports Configuration IBM Dashboard Application Service 	Configure the various network ports to which the listens.	e WebSphere Application Server profi
Context Root	HTTP transport port	16310
	HTTPS transport secure port	16311
	Bootstrap port	16312
	SOAP connector port	16313
	IPC connector port	16314
	Administrative console port	16315
	Administrative console secure port	16316
	High availability manager communication port	16318
	ORB listener port	16320
	SAS SSL server authentication port	16321
	CSIV2 client authentication listener port	16322
	CSIV2 server authentication listener port	16323
	REST notification port	16324

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

-ill in the configurations for the packages.			1
Install Dicenses Dicat	ion Feat	tures Summary	
r 🧊 Common Configurations 🕎 WebSphere Configuration	Configuration for Context Root	or IBM Dashboard Application Services Hub 3.	1.3.1
 Ports Configuration IBM Dashboard Application Service 	Context Root	/ibm/console	
🥪 Context Root			

- proceed with the installation and make sure everything completed successfully:

	Fundament Commence
Install Licenses Location	Peacures Dummary
	debd
	15 hared
ackages	
Packages	Installation Directory
BM websphere Application Server V8.5	/Mina/opt/IBM/WebSphere/AppServer
IBM Websphere Application Server 8.	0.5.15
WebSphere Application Server Full	I Prome
BM websphere SDK for Java led	Fridian (Ontine 1) 0.0 5.27
IBM Websphere SDK Java lechnology	e dicion (Optional) 8.0.3.27
Install Jazz M WebSebere Extens	ion for IBM Websphere 8.5 1.1.2
Core services in Lazz for Service Manager	non ///ibs/ort//PM/stsSM
Ren Dashboard Application Services	10h3131
	tanto la cara de
Configuration	
nvironment	Disk Space Information
nglish	Total Available Space
	/ 227.00 GB
	Total Download Size: 1 39 GB
	Total Download Size: 1.39 GB Total Installation Size: 5.82 GB
0 ¹	Total Download Size: 1.39 GB Total Installation Size: 5.82 GB
Repository Information	Total Download Size: 1.39 GB Total Installation Size: 5.82 GB
Repository Information	Total Download Size: 1.39 GB Total Installation Size: 5.82 GB
Repository Information	Total Download Size: 1.39 G8 Total Installation Size: 5.82 G8 < <u>R</u> ack <u>N</u> ext > <u>Install</u> Cancel
Repository Information	Total Download Size: 1.39 GB Total Installation Size: 5.82 GB < <u>Back</u> <u>Mext</u> > <u>Install</u> Cancel
Repository Information	Total Download Size: 1.39 GB Total Installation Size: 5.82 GB < <u> g</u> ack <u>Mest</u> > <u>Install</u> Cancel
Repository Information	Total Download Size: 1.39 G8 Total Installation Size: 5.82 G8 < <u>Back</u> <u>Mest</u> > <u>Install</u> Cancel

The following packages were installed:	Which program do you want to start?
 ⁹₈₀ IBM WebSphere Application Server V8.5 IBM WebSphere Application Server 8.5.5.1 IBM WebSphere SDK Java Technology Editi IBM Jazz for Service Management extension fo ⁹₈₀ Core services in Jazz for Service Management IBM Dashboard Application Services Hub 3 	Log on to IBM Dashboard Application Services Hul Profile Management Tool to create a profile. Profile Management Tool to create an application s None

Upgrade to JazzSM/DASH Fix Pack 3

Download link:

https://www-

945.ibm.com/support/fixcentral/swg/downloadFixes?parent=ibm%2FTivoli&product=ibm/Tivol i/Jazz+for+Service+Management&release=1.1&platform=All&function=fixId&fixids=1.1.3-TIV-JazzSM-multi-FP003&includeRequisites=1&includeSupersedes=0&downloadMethod=http

fix pack: 1.1.3-TIV-JazzSM-multi-FP003	
1.1.3-TIV-JazzSM-multi-FP003	
The following files implement this fix.	
1.1.3-TIV-JazzSM-multi-FP003_Readme.txt (18.57 KE	3)

- download and extract FP3 package
- add the repository within Installation Manager -> preferences section

<extracted_path_JazzFP3>/JazzSMFPRepository/disk1/diskTag.inf

✔ /tmpDASHFP3/JazzSMFPRepository/disk1/diskTag.inf

- return to IM main menu, select the Update option and choose Jazz from the list:

Ipdate Packages	
Select a package group to find updates for.	
Package Group Name	Directory
P., IBM WebSphere Application Server V8.5	/Miha/opt/IBM/WebSphere/AppServer
🍖 Core services in Jazz for Service Management	/Miha/opt/IBM/JazzSM

- continue with the installation:

Jpdate Packages			F
Select the updates to install.			
			V.
Update	Recommended	Vendor	SI
Update	Recommended	Vendor	SI
Update • See Core services in Jazz for Service Management • See Distribution Services Hub 3.1.3.1 (Installed)	Recommended	Vendor	SI

٩.

Update Packages Select the features to install.	E
Update Packages Updates Licenses Features Summary	
Features Image: Teatures I	
 ✓ ☆ Installation ✓ Configuration 	
Show dependencies Expand All	<u>C</u> ollapse All <u>R</u> estore

- enter smadmin user details and click on the "Validate" option:

IBM Installation Manager		— [C
Update Packages (i) Click Next to continue.			E
Update Packages Updates	Licenses Features	Summary	
 Common Configurations WebSphere Configuration 	Common Configurations WebSphere Configuration		
	WebSphere installation location	/Miha/opt/IBM/WebSphere/AppServer	Bro
	Profile deployment type	Use existing WebSphere profile 🔻	
	Profile details		
	Profile location	/Miha/opt/IBM/JazzSM/profile	Bro
	Profile name	JazzSMProfile	
	Node name	JazzSMNode01	
	Server name	serverl	
	User name	smadmin	
	Password	•••••	
	Validate		
	< Back	: Next > Update	Cancel

- click on "Update" and make sure everything completed successfully:

Update Packages Updates Licenses rget Location schage Group Name: Core services in Jazz for Service M. stallation Directory: //Miha/opt/IBM/Jazz5M araed Resources Directory: //Miha/opt/IBM/JBMIMShared dates Features To Install f	Features Summary
rget Location ackage Group Name: Core services in Jazz for Service M. stallation Directory: /Miha/opt/IBM/Jazz5M hared Resources Directory: /Miha/opt/IBM/IBMIMShared dates Features To Install [] IBM Dashboard Application Services Hub 3.1.3.3 [] Isk Dashboard Application	Features To Remove
ackage Group Name: Core services in Jazz for Service M stallation Directory: //Miha/opt/IBM/Jazz5M nared Resources Directory: //Miha/opt/IBM/IBMIMShared dates Features To Install r (j) IBM Dashboard Application Services Hub 3.1.3.3 (j) IsM Dashboard Application	Features To Remove
stallation Directory: //Miha/opt/IBM/JazzSM nared Resources Directory: //Miha/opt/IBM/IBMIMShared dates Features To Install [0] IBM Dashboard Application Services Hub 3.1.3.3 [6] Installation	Features To Remove
ared Resources Directory: //Miha/opt/IBM/IBMIMShared dates Features To Install [0] IBM Dashboard Application Services Hub 3.1.3.3 [6] Installation	Features To Remove
dates Features To Install [] IBM Dashboard Application Services Hub 3.1.3.3 [], Installation	Features To Remove
Features To Install	Features To Remove
[] IBM Dashboard Application Services Hub 3.1.3.3 [] Installation Configuration	
🕼 Installation	
Configuration	
Up Configuration	
k Space Information	
	Total Available Space
	223.11 GB
- Developed Gine - DOD 45 MD	
al Installation Size: 228.57 MB	
Repository information	
	< <u>Back</u> <u>Next</u> <u>Update</u> Canc
💽 🖉 The package	s are updated. <u>View Log File</u>
The following update was installed:	
Update	Instal
	an iao Managamanta ang Kita sa
Core services in Jazz for S	ervice Mahagement /Miha/o
📋 IBM Dashboard Applic	ation Services Hub 3.1.3.3

Install WebGUI 8.1.0.14 and upgrade to Fix Pack 16

- download and extract the package for WebGUI 8.1.0.14 as well as the package for WebGUI 8.1 fix pack 16

Download link for Fix Pack 16: https://www-01.ibm.com/support/docview.wss?uid=ibm10791445

- add both WebGUI and fix pack repositories within Installation Manager -> Preferences section:

<extracted_path_webgui_base>/OMNIbusWebGUIRepository/repository.config <extracted_path_webgui_FP16>/OMNIbusWebGUIRepository/composite/repository.config Add the repositories for NOI extension as well if needed.

- select Install wizard from IM and choose the product to be installed:

Installation Packages	Status	Vendor	L
r 🛃 🎁 IBM Tivoli Netcool/OMNIbus Web GUI			
🖌 🕼 Version 8.1.0.16	Will be installed	IBM	

- enter installation path directory:

	tion Features	Summary	
Use the existing package group			
Create a new package group			Enclose to An
Package Group Name	Installati	on Directory	Archite
IBM Netcool GUI Components	/Miha/opt/l	BM/netcool/gui	64-bit
<u> </u>			
Architecture Selection: 32-bit 64	-bit		
Architecture Selection: 32-bit () 64	-bit	Disk Space Informatio	n
Architecture Selection: 32-bit 64 Details Shared Resources Directory: /Miha/opt/IBM/	-bit IBMIMShared	Disk Space Informatio Volume Available Sp	n
Architecture Selection: 32-bit	-bit IBMIMShared	Disk Space Informatio Volume Available Sp / 222.92 GB	n ace
Architecture Selection: 32-bit (a) 64 Details Shared Resources Directory: /Miha/opt/IBM/	-bt	Disk Space Informatio Volume Available Sp / 222.92 GB	n ace

- select as least "Install base feature" option:

		6
Irotal	Licenses Location Features Summary	
eatures		
. 1	M Twok Netcool/OMNibus Web GUI 8.1.0,16	
-	Install base features	
	Install event search with IBM Operations Analytics - Log Analysis	
- enter WebSphere and JazzSM installation directories as well as the profile details for WebGUI (username and password). Afterwards continue with the installation:

			_
Install Packages Fill in the configurations for the packages.			
Install Licenses Location Feat	tures Summ	hary	
Common Configurations Common Configurations WebSphere Application Server	gurations cation Server and Jaz	z for Service Man	agement properties
Installation	Directory Details		
WebSphere A	pplication Server	/Miha/opt/IBM/	WebSphere/AppServer
lan for Sonie	Hanagement III	#dibalant//RM/	
Jazz ini servi	te Management Gr	/Mina/opt/toim/j	azz5m/ui
Profile Deta	ails		
Server name	serverl		
User name	smadmin		
Password			
1 99.0			
N	< Back	Next >	Instal Can
)	· · · ·	INEAU -	1110-001
nstall Packages			
Istall Packages Review the summary information.			4
Install Packages Review the summary information.	Summary		4
Install Packages Review the summary information. Install Licenses Location Features Install Licenses Location Features	Summary		
Install Packages Review the summary information. Install Licenses Location Features arget Location Features Package Group Name: IBM Netcool GUI Components	Summary	∍₀	4
Install Packages teview the summary information. Install Licenses Licenses Location Features Package Group Name: IBM Netcool GUI Components Installation Directory: Miha/opt/IBM/metcool/qui	Summary		÷
Install Packages teview the summary information. Install Licenses Location Features 'arget Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/netcool/gui	Summary		4
Install Packages Review the summary information. Install Licenses Location Features arget Location Package Group Name: IBM Netcool GUI Components Installation Directory; Installation Directory; /MiNe/opt/IBM/IRSMINKShared	Summary		
Install Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/IMEShared Shared Resources Directory: //Miha/opt/IBM/IBMIMShared 'ackages Doctorage	Summary		4
Install Packages Review the summary information. Install Licenses Location Features Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Mina/opt/IBM/netcool/gui Shared Resources Directory: //Mina/opt/IBM/IBM/IBMIMShared tackages Packages * @ IBM Tools Netcool/OMNibus Web GUI 8.1.0.16	Summary		÷
Install Packages Review the summary information. Install Licenses Location Features Target Location Features Package Group Name: IBM Netcool GUI Components Installation Directory: /Mha/opt/IBM/IMEMINShared 'ackages Packages * IBM Twoin Netcool/OMNIbus Web GUI 8.10.16 Ip install base features Ip install base features	Summary		4
Install Packages Review the summary information. Install Licenses Location Farget Location Peatures Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM//netcool/gui Shared Resources Directory: //Miha/opt/IBM//BMIMShared Packages Packages Image: IBM Twois Netcool/OMNibus Web GUI 8.1.0.16 Ip: Install base features	Summary		4
Install Packages Review the summary information. Install Licenses Location Farget Location Peatures Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/netcool/gui Shared Resources Directory: //Miha/opt/IBM/netcool/gui Packages Packages v IBM Tirefi Netcool/OMNibus Web GUI 8.10.16 IBM Tirefi Netcool/OMNibus Web GUI 8.10.15	Summary		
Install Packages Review the summary information. Install Licenses Location Features Farget Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/metcool/gui Shared Resources Directory: //Miha/opt/IBM/IBM/IBMIMShared Packages Packages ▼ ① IBM Twoin Netcool/OMNIbus Web GUI 8.1.0.16 ↓ Install base features ↓	Summary		4
nstall Packages Review the summary information. Install Licenses Location Features Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/IBM/IMShared Yackages Packages ▼	Summary		4
Install Packages Review the summary information. Install Licenses Location Peatures farget Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Mha/opt/IBM/Inetcool/gui Shared Resources Directory: //Mha/opt/IBM/IBM/IBMIMShared Packages Packages	Summary		4
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nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Mha/opt/IBM/InteCool/gui Shared Resources Directory: //Mha/opt/IBM/IBMIMShared Packages Packages V I IBM Tirosi Netcool/OMNibus Web GUI 8.10.16 Imstall base features	Summary		
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nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Nama: IBM Netcool GUI Components Installation Directory: //Mina/opt/IBM/InBCOol/gui Shared Resources Directory: //Mina/opt/IBM/IBM/IBM/IMShared Packages Packages Packages	Summary Disk Space Infor	mation	Total Available Space 222 81 66
nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Nama: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/IPK0N/BM/I	Disk Space Infor	mation	Total Available Space 222.81 66
nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Mha/opt/IBM/IBMIMShared Packages ▼ I IBM Twois Netcool/OMNibus Web GUI 8.10.16 I IBM Twois Netcool/OMNibus Web	Summary Disk Space Infor / Total Dominad Siz Total Dominad Siz	mation	Total Available Space 222 81 66
nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //Miha/opt/IBM/netcool/gui Shared Resources Directory: //Miha/opt/IBM/netcool/gui Packages Packages Compared Theorem State	Disk Space Infor / Total Download Siz Total Instalation Siz	mation e: 256.49 MB re: 538.41 MB	Total Available Space 222.81.6E
nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Package Group Name: IBM Netcool GUI Components Installation Directory: //hiha/opt/IBM/INEMIMShared Packages Packages T I IBM Tiroli Netcool/OMNibus Web GUI 8.1.0.16 I IbM Tiroli Netcool/OMNibus Web GUI 8.1.0.16 I IbM Tiroli Netcool/OMNibus Web GUI 8.1.0.16 Review Install base features	Summary Disk Space Infor / Total Download Siz Total Installation Siz	mation e: 256.49 MB re: 538.41 MB	Total Available Space 222.81.66
nstall Packages Review the summary information. Install Licenses Location Peatures Target Location Packages Installation Directory: //Miha/opt/IBM//Retcool/gui Shared Resources Directory: //Miha/opt/IBM//BM/IBM/IMShared Packages Packages To IBM Trois Netcool/OMNibus Web GUI 8.10.16 () Install base features Install base features Install base features Install base features	Summary Disk Space Infor / Total Download Siz Total Instalation Siz	mation e: 256.49 MB ae: 538.41 MB	Total Available Space 222 81 6E

- make sure everything completed successfully. Afterwards WebGUI configuration can be made within the wizard that is available to be selected or manually after completing the installation.

Install Packages	4
The packages ar The following package was installed:	re installed. <u>View Log File</u> Which program do you want to start?
▼ ¹ ₀₀ IBM Netcool GUI Components IBM Tivoli Netcool/OMNIbus Web GUI 8.1.0.1	Configure IBM Tivoli Netcool/OMNIbus Web GUI Log on to IBM Tivoli Netcool/OMNIbus Web GUI

Add object server as repository for WebGUI and create datasource in WebGUI console

Option A: Use the wizard that is available at the end of webgui installation.

Which program do you want to start?	
Configure IBM Tivoli Netcool/OMNIbus Web GUI	
Log on to IBM Tivoli Netcool/OMNIbus Web GUI	
O None	
]
Configure a single server setup using default settings.	
Configure an advanced setup.	

- enter object server details (host, port, user id and password):

The default OMNIbus	; users and groups will be created.			
ObjectServer				
Host:	curvier1.casstle.fyre.ibm.com	Port:	4100	
Authentication				
11 10-		Barrand		
User ID:	root	Password:		

	ObjectServer Repository
	 curvier1.castle.tyre.ibm.com : 4100 (Primary Server)
	• root (User)
You ha	e opted to create the following users and groups:
Defau	: Users (2)
	ncoadmin
	ncouser
Defau	Groups (2)
	Netcool_OMNIbus_Admin
	Netcool_OMNIbus_User
The sy:	em will also configure a data source called OMNIBUS
CE-L N	

At the end login to webgui console and add roles to smadmin user.

	Roles	dm
	Group Roles	
	Roles	t
₽	User Roles	
?		

Option B: Select "none" at the end of the installation and manually add object server as repository for webgui and create a datasource in webgui console.

- go to \$WAS_HOME/bin directory

```
[root@motleys1 eclipse]# cd /Miha/opt/IBM/WebSphere/AppServer/bin/
```

use confvmm4ncos.sh script to add the created object server as repository for webgui.

Run the following command after you replace with your own values:

./confvmm4ncos.sh \$JazzSM_HOME/profile objserver_root_user objserver_root_user_pass FQDN_omnibus objserver_port

```
Command example:
[root@motleys1 bin]# ./confvmm4ncos.sh /Miha/opt/IBM/JazzSM/profile root '' busy1.castle.fyre.ibm.com 4100
[root@motleys1 bin]# ./confvmm4ncos.sh /Miha/opt/IBM/JazzSM/profile root '' busy1.castle.fyre.ibm.com 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.
```

- restart webgui by running below commands:

./stopServer.sh server1 ./startServer.sh server1

[root@motleys1 bin]# /Miha/opt/IBM/JazzSM/profile/bin/stopServer.sh server1 -username smadmin -password netco

[root@motleys1 bin]# /Miha/opt/IBM/JazzSM/profile/bin/startServer.sh server1

- login to webgui console and add roles to smadmin user

	Roles	
	Group Roles	
	Roles	
₽	User Roles	
?		

- click on Search -> select smadmin user -> select all roles -> save configuration

sinaunin in sinaunin sinaunin istaunins, tran-uninistratui, sampies, auninistratui		smadmin	1	smadmin	smadmin	iscadmins, chartAdministrator, samples, administrator
--	--	---------	---	---------	---------	---

- logout/login with this user.
- create datasource within webgui to the object server created on server 1:

Q	Administration			
\star	Event Management Tools			
2	Filters			
►	Views			
<u> </u>	Relationships			
 .	Tool Configuration			
1/2	Tool Prompt Configuration			
	Menu Configuration			
	Metrics			
	CGI Registry			
	Maps			
	Map Creation			
	Map Resources			
	Data Sources			
	Event Database Query			
Data	Sources V			
Data	Jources of			
Dat	a Sources			
Use	this page to manage data sources in the Ti	voli Netcool/OMNIbus Web GUI. You must configure	the Web GUI server to connect to at least or	ne data source. You can optionally co
read	from, and write to, one or more individual d	ata sources or failover pairs.		
Note	: Data sources configured using Web GUI a	apply to the current node only. To replicate these data	sources across other nodes in your Web G	UI cluster, you must copy the ncwDa
\$ON	INIBUS_WEBGUI_HOME/etc/datasources d	irectory on this node to the corresponding directories	s on the other nodes. You must restart the W	/ebSphere Application Server on eac
		u Create New Data Source	Freehland	In Default Conus
		Na Cleate New Data Source	Enabled	In Default Group
			No data sources	

- enter a name for this data source, add the hostname where the object server was installed, and the port used for this one; test the connection and make sure it can successfully connect and save the new data source

	splay Servers Self Monitoring Caching Connection Pools	
Name: 🕐	NCOMS	1
	Enabled	
	In Default Group	
Primary ObjectServer		
* Host:	busv1.castle.fvre.ibm.com	
* Port:	4100	
	Lise SSL (2)	
	Test server connection	
These authentication cred backup and display serve	Jentials apply to all servers defined in this data source (primary, ers).	
	root	
* User ID:		
* User ID: Password:		
* User ID: Password:	Encrypted	
* User ID: Password: Encryption Standard:	Encrypted Advanced Encryption Standard (AES)	
* User ID: Password: Encryption Standard:	Encrypted Advanced Encryption Standard (AES)	
* User ID: Password: Encryption Standard: * Connection Timeouts	Encrypted Advanced Encryption Standard (AES)	

Configure SSO between DASH and Impact

On the DASH side:

• Login to dash -> go to WebSphere administrative console -> security -> global security -> web and sip security -> single sign on



WebSphere. software		Welcome smadmin Help Logout IBM.
Minus All Angles	Cell=JazzSMNode01Cell, Profile=JazzSMProfile	Close page 🔥
View: All tasks	Global security	2
= Welcome		
Guided Activities	Global security	
Servers	Use this panel to configure administration and the default application security policy	. This security configuration applies to the security policy for all administrative
Applications	applications.	ains can be defined to override and customize the security policies for user
Resources	Security Configuration Wizard Security Configuration Report	
Security	Administrative security	Authentication
Global security	Enable administrative security Administrative user roles	Authentication mechanisms and expiration
Security domains	= Administrative group roles	
SSL certificate and key management	Administrative authentication	
 Security auditing 		Kerberos and LTPA
Bus security	Application security	
Environment ■		USWAM (deprecated): No authenticated communication between servers
	Enable application security	Authentication cache settings
Users and Groups	Java 2 security	web and SIP security
Monitoring and Tuning	Use Java 2 security to restrict application access to local resources	General settings
Troubleshooting	Warn if applications are granted custom permissions	 Single sign-on (SSO) SONECO web authentication
Service integration	Restrict access to resource authentication data	- Spicedo web addrenitiation
± UDDI		s SIR digest authentication
	User account repository	RMI/IIOP security
	Realm name	- Java Authentication and Authenization Consist
	defaultWIMFileBasedRealm	H Java Admentication and Admonization Service
	Current realm definition	Enable Java Authentication SPI (JASPI)
	Federated repositories	Providers
	Available realm definitions	Use realm-qualified user names
	Federated repositories V Configure Set as current	
		Security domains

- make sure SSO enabled is checked
- add the domain name of the servers
- add LTPA V2 cookie name and make sure that web inbound security is checked

Configure the LTPA V2 cookie name to a unique value. The default is LtpaToken2. Make a note of the LTPA V2 cookie name for the Impact configuration.

Global security
<u>Global security</u> > Single sign-on (SSO) Specifies the configuration values for single sign-on. General Properties
Enabled
Domain name .castle.fyre.ibm.com
Interoperability mode
LTPA V2 cookie name LtpaToken2
Web inbound security attribute propagation
Set security cookies to HTTPOnly to help prevent cross-site scripting attacks
Apply OK Reset Cancel

- click OK and select Save from the output you get:

Cell=Jazz5MNode01Cell, P	rohle=Jazz5MProhle
Ulobar secondy	 Messages Changes have been made to your local configuration. You can: Save directly to the master configuration. Review changes before saving or discarding. The server may need to be restarted for these changes to take effect.
Global security Use this panel to con functions and is used	figure administration and the default application security policy. This security configuration applies to the security policy for all adm as a default security policy for user applications. Security domains can be defined to override and customize the security policies f

• Under the *Security* menu, select the *Global Security* link -> under the *User account repository* section, select *Configure*

			om permissions	
	Restrict access to reso	urce authentica	tion data	
oerault	vimniesasedkeaim			
urrent	ealm definition			
	ad reportinger			

- from here you can configure the Realm name and make note of the name as you will need it for the Impact Realm configuration. defaultWIMFileBasedRealm is default.

<u>Global security</u> > Federated repositories					
By federating repositories, identities stored in multiple repositories can be managed in a single, virtual realm. The realm can consist of identities in the file-based repository that is built into the system, in one or more external repositories, or in both the built-in repository and one or more external repositories.					
General Properties					
* Realm name defaultWIMFileBasedRealm * Primary administrative user name smadmin					
Server user identity					
Automatically generated server identity Server identity that is stored in the reposit Server user ID or administrative user on a Password	ory Version 6.0.x node				
Ignore case for authorization Allow operations if some of the repositories are down Repositories in the realm:					
Add repositories (LDAP, custom, etc) Use	e built-in repository Remove				
Select Base Entry	Repository Identifier	Repository Type			
You can administer the following resources:					
o=defaultWIMFileBasedRealm	InternalFileRepository	File			
o=netcoolObjectServerRepository	NetcoolObjectServer	Custom			

- click OK and Save the configuration

- In the WebSphere console, add the Netcool/Impact SSL certificate into the Dashboard Applications Services Hub truststore
- go to Security -> SSL certificate and key management -> under Related Items section-> key stores and certificates -> NodeDefaultTrustStore -> Signer Certificates -> Retrieve from port:



SSL certif	icate and key management			? -		
SSL ce	<u>SSL certificate and key management</u> > Key stores and certificates					
Define	Defines keystore types, including cryptography, RACF(R), CMS, Java(TM), and all truststore types.					
Keysto	Keystore usages					
55	L Reystores					
± Pre	ferences					
Nev	w Delete Change passwo	rd Exchange signers				
Select	Name 🗘	Description 🗘	Management Scope 🗘	Path 🗘		
You d	an administer the following reso	urces:				
	<u>NodeDefaultKeyStore</u>	Default key store for JazzSMNode01	(cell):JazzSMNode01Cell: (node):JazzSMNode01	\${CONFIG_ROOT}/cells /JazzSMNode01Cell/nodes /JazzSMNode01/key.p12		
	NodeDefaultTrustStore	Default trust store for JazzSMNode01	(cell):JazzSMNode01Cell: (node):JazzSMNode01	\${CONFIG_ROOT}/cells /JazzSMNode01Cell/nodes /JazzSMNode01/trust.p12		
Total	2					

eneral Properties	Additional Properties
lame	Signer certificates
NodeDefaultTrustStore	Personal
Description	certificates
Default trust store for JazzSMNode01	Personal certificate
lanagement scope	requests
(cell):JazzSMNode01Cell:(node):JazzSMNode01	= <u>Custom</u>
Path	properties
\${CONFIG_ROOT}/cells/JazzSMNode01Cell/nodes/JazzSMNode01/trust.p12	
Password	
Type	
PRCS12	
Read only	
Initialize at startue	
Enable cryptographic operations on hardware device	
Anniv OK Reset Cancel	
Apply or reset concer	

SSL certificate and key mana	agement > <u>Key store</u>	<u>s and certificates</u> > <u>NodeDefaultTrustStore</u> > Signer certificates	
Manages signer certificates in key stores.			
Preferences			
Add Delete Extract	Retrieve from port		

- add the details for the server where Impact is installed (hostname and port)
- add an Alias for the Impact certificate

SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates > Retrieve from port		
Makes a test connection to a Secure Sockets Layer (SSL) port and retrieves the signer from the server during the handshake.		
General Properties		
* Host busy1.castle.fyre.ibm.com		
* Port 16311		
SSL configuration for outbound connection NodeDefaultSSLSettings		
* Alias ImpactUICert		
Retrieve signer information		
Apply OK Reset Cancel		

- select Retrieve signer information option:

SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates > Retrieve from port
Makes a test connection to a Secure Sockets Layer (SSL) port and retrieves the signer from the server during the handshake.
General Properties
* Host busy1.castle.fyre.ibm.com
* Port 16311
SSL configuration for outbound connection NodeDefaultSSLSettings
+ Alias ImpactUICert
Retrieve signer information
Retrieved signer information
Serial number
1529458963
Issued to
CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US
Issued by
CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US
Fingerprint (SHA digest)
20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39
Validity period
30-Jun-2029
Apply OK Reset Cancel

- select OK and Save the configuration

SSL certif	icate and key management			2 -		
 Messages Changes have been made to your local configuration. You can: Save_intectly to the master configuration. Review changes before saving or discarding. A The server may need to be restarted for these changes to take effect. 						
SSL o Manag ± Pre	SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates Manages signer certificates in key stores. Preferences Add Delete Extract Retrieve from port					
You o	an administer the following resources	Issued to 🖓	Fingerprint (SHA Digest) 💝	expiration 🖓		
	impactuicert	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US	20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39	Valid from 03-Jul-2019 to 30-Jun-2029.		
	root	CN=motleys1.castle.fyre.ibm.com, OU=Root Certificate, OU=JazzSMNode01Cell, OU=JazzSMNode01, O=IBM, C=US	FA:41:A0:62:8C:54:0B:B8:E1:06:65:AF:FA:C7:48:55:8F:26:38:EF	Valid from 02-Jul-2019 to 28-Jun-2034.		
Total	2	1	1			

- Export the ltpa.keys file from the DASH and apply a password to the ltpa.keys file
- go to Security -> Global Security -> Authentication -> LTPA

WebSphere, software		Welcome smadmin Help Logout IRM.
View: All tasks V	Call=JazzSMNode01Call, Profile=JazzSMProfile Global security	Close page 🔒
	Global security Use this panel to configure administration and the default application security polic functions and is used as a default security policy for user applications. Security dom applications. Security Configuration Wizard Security Configuration Report Administrative security Administrative user roles Administrative authentication Administrative authentication 	y. This security configuration applies to the security policy for all administrative nains can be defined to override and customize the security policies for user Authentication Authentication The transmission and expiration The transmission of the transmission of transmission of the transmission of t
Security auditing Bus Security Environment System administration	Application security Enable application security	Kerberos configuration SWAM (deprecated): No authenticated communication between servers Authentication cache aettings With between 10 (Department)
Users and Groups Monitoring and Tuning Troubleshooting Gereal integration Users	Java 2 security Use Java 2 security to restrict application access to local resources Warn if applications are granted custom permissions Restrict access to resource authentication data	Web and our seturity RMJ/IIOP security Java Authentication and Authorization Service Final-Lava Authentication SPI (JASPI) Denvideare
	User account repository Realm name defaultWIFIleBasedRealm Current realm definition Federated repositories Available realm definitions Federated repositories V Configure Set as current	Use realm-qualified user names Security domains External authorization providers Programmatic session cookie configuration Custom properties

- set password for the ltpa.keys
- enter the complete path to the place where you will store the exported ltpa.keys

<u>Global security</u> > LTPA
Encrypts authentication information so that the application server can send the data from one server to another in a secure manner. The encryption of authentication information that is exchanged between servers involves the LTPA mechanism.
Key generation
Authentication data is encrypted and decrypted by using keys that are kept in one or more key stores.
Key set group NodeLTPAKeySetGroup Generate keys
Key set groups
LTPA timeout
LTPA timeout value for forwarded credentials between servers 1440 minutes
Cross-cell single sign-on
Single sign-on across cells can be provided by sharing keys and passwords. To share the keys and password, log on to one cell, specify a key file, and click Export keys. Then, log on to the other cell, specify the key file, and click Import keys.
* Password
Fully qualified key file name
/Miha/tmpKeys/ltpa.keys
Import keys Export keys

- select "Export Keys" option and make sure everything completed successfully:

Global security	2	-
	 Messages The keys were successfully exported to the file /Miha/tmpKeys/ltpa.keys. 	
Global securit	ty > LTPA entication information so that the application server can send the data from one server to another in a secure	
Manner. The	encryption of authentication information that is exchanged between servers involves the LTPA mechanism.	
Authenticat	tion data is encrypted and decrypted by using keys that are kept in one or more key stores.	
Key set gr NodeLTP/	AKeySetGroup V Generate keys	
= <u>Key</u>	set groups	

To cross check this, go to the directory where you have exported ltpa.keys file and check the content of this file:



On the Netcool/Impact side:

- take a backup of ltpa.keys files from the below directories:

/Miha/opt/IBM/tivoli/impact/wlp/usr/servers/ImpactUI/resources/security/ltpa.keys /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSMls /resources/security/ltpa.keys

```
[root@busy1 server]# cd /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/ImpactUI/resources/security
You have mail in /var/spool/mail/root
[root@busy1 security]# ls
key.jks ltpa.keys trust.jks
[root@busy1 security]#
[root@busy1 security]# cp ltpa.keys ltpa.keys_bak
[root@busy1 security]# ls
key.jks ltpa.keys ltpa.keys_bak trust.jks
```

[root@busy1 security]# cp /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/ltpa.ke
ys /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/ltpa.keys_bak
[root@busy1 security]# ls /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/
key.jks ltpa.keys ltpa.keys_bak trust.jks

- make sure both DASH and Impact have the same Realm name e.g.: **defaultWIMFileBasedRealm** (or how you have configured this in DASH)

Global security	8
Global security Use this panel to configure administration and the default application security poli functions and is used as a default security policy for user applications. Security do applications.	cy. This security configuration applies to the security policy for all administrative mains can be defined to override and customize the security policies for user
Security Configuration Wizard Security Configuration Report	
Administrative security	Authentication
Finable administrative security Administrative user roles	Authentication mechanisms and expiration
Administrative group roles	LITPA
= <u>Administrative authentication</u>	Kerberos and LTPA
Application security	
	SWAM (deprecated): No authenticated communication between servers
Enable application security	Authentication cache settings
Java 2 security	m RMI/IIOR courts
Use Java 2 security to restrict application access to local resources	King Hor Security
Warn if applications are granted custom permissions	Java Authentication and Authorization Service
Restrict access to resource authentication data	Enable Java Authentication SPI (JASPI)
User account repetitery	Providers
oser account repository	Use realm-qualified user names
Realm name defaultWIMFileBasedRealm	
Ourset and a fight the	Security domains
Federated repositories	External authorization providers
Available realm definitions	Programmatic session cookie configuration
	<u>Custom properties</u>
Federated repositories Configure Set as current	

If the name is not the same as the one from Impact, you will need to update the Realm Name for Impact first.

Make sure the object server is up and running and not hanging and afterwards in Impact and that within /Miha/opt/IBM/tivoli/impact/install/security/**impactncos.properties** you have **NCOSPrimaryHost** property set to FQDN of Impact hostname.

- disable object server repository authentication by running:

```
cd /Miha/opt/IBM/tivoli/impact/install/security
./confAuth4OMNIbus.sh disable impadmin netcool netcool
```

where: impadmin – new temporary user created in file based repository netcool – current impadmin password netcool – current impact administrative user that was used for the current repository

```
Command example:
[root@busy1 security]# ./confAuth4OMNIbus.sh disable impadmin netcool netcool
Buildfile: /Miha/opt/IBM/tivoli/impact/install/security/cfg_scripts/confAuth4OMNIbus.xml
init:
```

- update impactncos.properties file to reflect the new realm name

/Miha/opt/IBM/tivoli/impact/install/security/impactncos.properties

vi /Miha/opt/IBM/tivoli/impact/install/security/impactncos.properties



- enable object server repository authentication again

cd /Miha/opt/IBM/tivoli/impact/install/security ./confAuth4OMNIbus.sh enable impactadmin netcool "" netcool

where:

impactadmin – object server user created for impact with admin permissions netcool – current impactadmin password

"" – object server administrative user (root with no password)

netcool – current impact administrative user that was used for the current repository (for impa dmin user created in file based repository)

Command example:

[root@busy1 security]# ./confAuth4OMNIbus.sh enable impactadmin netcool "" netcool

- make sure everything completed successfully:

updatePLUGINS:
[echo] Updating plugin registration
[echo] Run command java -jar /Miha/opt/IBM/tivoli/impact/install//cli/cli.jar -deletePlugin Pr
eferences -pluginurl username impactadmin -pluginurl password xxxxxx -consoleRest https://localhost:1
6311/ibm/console/rest -username impactadmin -password xxxxxx
[java] Deleting a plugin.
[java] Authenticating against REST with username:impactadmin Password: ********
[java] {"status":"success"}
[java] Command completed successfully.
[echo] Run command java -jar /Miha/opt/IBM/tivoli/impact/install//cli/cli.jar -addPluginUrl /i
mpactAdmin/jsp/impactAdminPrefsRegister.jsp -pluginurl_username impactadmin -pluginurl_password xxxxx
x -consoleRest https://localhost:16311/ibm/console/rest -username impactadmin -password xxxxxx
[java] Adding a plugin.
[java] Authenticating against REST with username:impactadmin Password: ********
<pre>[java] {"result":0,"resultLabel":"Success"}</pre>
[java] Command completed successfully.
checkGUIDisabled:
disableNCOS_GUI:
BUILD SUCCESSFUL
Total time: 1 minute 42 seconds

- copy the exported key file name on the impact server and replace the initial files for both TBSM and ImpactUI Impact components with the exported one:

cd /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/ImpactUI/resources/security cp /Miha/tmpDashKey/ltpa.keys ltpa.keys

cd /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security cp /Miha/tmpDashKey/ltpa.keys ltpa.keys

```
[root@busy1 security]# cd /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/ImpactUI/resources/security
[root@busy1 security]#
[root@busy1 security]# cp /Miha/tmpDashKey/ltpa.keys ltpa.keys
cp: overwrite `ltpa.keys'? y
[root@busy1 security]# cd /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security
[root@busy1 security]# cp /Miha/tmpDashKey/ltpa.keys ltpa.keys
cp: overwrite `ltpa.keys'? y
```

- enable SSO configuration by running configImpactSSO.sh script:

cd /Miha/opt/IBM/tivoli/impact/install/security/

 $./configImpactSSO.sh\ defaultWIMFileBasedRealm\ LtpaToken2\ .castle.fyre.ibm.com\ netcool$

where:

defaultWIMFileBasedRealm – common realm name for both impact and dash LtpaToken2 – ltpa cookie as was set in dash .castle.fyre.ibm.com – domain name (. is mandatory) netcool - password for the ltpa cookie name as was set in dash netcool – password for the impact admin user

Command example:

```
[root@busy1 security]# ./configImpactSSO.sh defaultWIMFileBasedRealm LtpaToken2 .castle.fyre.ibm.com
netcool netcool
```

- make sure everything completed successfully:



Test SSO between Impact-DASH

After the SSO steps you need to either add roles to impact admin user so that is can access DASH features or use mapRoles on ncoadmin or another integration user so that is can see Impact features.

Command example:

./mapRoles.sh -add -user ncoadmin -roles " impactAdminUser|impactFullAccessUser" In this example I have added permissions to impactadmin user.

- login in DASH with smadmin user -> User roles -> select impactadmin user

Search	1 Logout					Eller		_
Select	User ID \$	Active \$	First Name \$	Last Name	Roles	↓ 1 inter	E-mail ≎	^
	impactadmin	Not Active						
	nobod,	ctadmin Active		Nobody				~

User I	Roles		?
Availab	le Roles		^
•	Filter		
Select	Roles	^	
	administrator		
	chartAdministrator		
	chartCreator		
	chartViewer		
	configurator		
	iscadmins		
	monitor		
	ncw_admin		
	ncw_dashboard_editor		
	ncw_gauges_editor	~	

- login in DASH with impactadmin user and configure Console Integration



Console Integrations ×				🗎 + •
Console Integrations				?
Console Integration is used to integrate tasks from other supported consoles into DASH.	i. The table sho	ws the Console Integrations currently in the console.		
13.2			Filter	
Select Name	\$	Status	\$	^
None				

- click on New to add a new console integration
- add a name and URL (<impact_hostname:port>/ibm/console/rest)

Console Integrations ×			
Console Integration	S		
General information regarding	the Console Integration being created or edited. Specify t	he name of yo	our UI, as you would like it to appear in the navigation/palette.
 Required field 			
Console Integration ID:	impact]	
Console Integration Name:	impact]	
Console Integration URL:	tps://busy1.castle.fyre.ibm.com:16311/ibm/console		
Integration Location:	console/Console Integrations	Location	
Save Cancel			-
Test your UI to see which	tasks will be integrated into this console.		
Test			

- test and check if the connection is successful

Console Integration	s				
General information regarding	the Console Integration being created o	or edited. Specify the name of your UI, as you wou	ald like it to appear in the navigation/palette.		
 Required field 					
Console Integration ID:	impact				
Console Integration Name:	impact				
Console Integration URL:	https://busy1.castle.fyre.ibm.com:1	6311/ibm/conso			
Integration Location:	console/Console Integrations	Location			
Save Cancel					
Test your UI to see which Test	tasks will be integrated into th	is console.			
Status: Connection Succ The following tasks will be inte	essful grated into this console. Pages will b	e added to the navigation tree under the folder	impact. Widgets will be added to the catalog r	named impact.	
Name	D	Roles	Supported Platforms	Federated	Туре
Impact	impactView	impactAdminUser, impactFullAccessUser, impactOpViewUser, impactMWMAdminUser, impactMWMUser	DESKTOP	true	page

- save the console integration

Console Integrations ×		
Console Integrations		?
Console Integration is used to integrate tasks from other supported	consoles into DASH. The table shows the Console Integrations currently in the console.	
1 🖲 🖉		Filter
Select Name	⇔ Status	 أ
Impact	Connection Successful	

- this should be afterwards available within DASH menu:





Install TBSM Components

TBSM Data Server and TBSM Dash Server could be installed in any order. In case TBSM Dash Server is first, then you need to first create tbsmadmin user within the object server.

Before starting the installation of either Data Server or Dash Server, TBSM Configuration Utility should be installed and TBSM schema should be added within the object server.

TBSM 6.2 package should be downloaded and extracted on both server 1 and server 2. TBSM 6.2 data server will be installed on server 1, along with Omnibus, Impact. TBSM 6.2 dash server will be installed on server 2, along with JazzSM, webgui.

Add TBSM Schema to Object Server

This will be applied on server 1 where OMNIbus was installed and configured, hence on server 1.

- go to unzipped directory for TBSM and from here to the following directory: <extracted_tbsm_path>/data_linux/omnibus/schema_files:

[root@busy1 schema_files]# pwd /tmpTBSM/data linux/omnibus/schema files

- run the following command:

./import_schema.sh \$NCHOME tbsm_db_update.sql RAD <OBJServer_Name> root <root - password>

Command example:

```
[root@busy1 schema_files]# ./import_schema.sh /Miha/opt/IBM/tivoli/netcool tbsm_db_update.sql RAD NCOMS
```

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

Any warnings about the existence of some of the objects could be safely ignored



- run the following second command:

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

Command example:





Install TBSM Database Configuration Utility

- login as db2inst1 user on server1 where DB2 has been installed
- go to the directory were TBSM package was extracted and from here go to dbconf_linux directory:



- run the following command:

./install_gui_dbconf.sh

[db2inst1@busy1 dbconf linux]\$./install gui dbconf.sh

IBM Installation Manager	-	- 🗆
Install Packages		
Select packages to install:		
Installation Packages	Status	Vendor
▼ 🕑 🗊 IBM® Installation Manager		
Version 1.8.9	Will be installed	IBM
 IBM Twoli Business Service Manager Database Configuration utility Image: Configuration 0.2.0.0 	Will be installed	IBM
Show all versions	Sh	eck for Other Ver
Show <u>all versions</u>	Chr	eck for Other Ver
Show <u>all</u> versions Details IBM® Installation Manager 1.8.9 The IBM® Installation Manager is a tool that you can use to install and maintain y • Repository: //MinattmpTBSM/dbconf_linux/im.linux.x86	<u>Ch</u> rour software packages. <u>More</u>	eck for Other Ver 1 info
Show <u>all versions</u> Details BM® Installation Manager 1.8.9 The IBM® Installation Manager is a tool that you can use to install and maintain y • Repository: /Miha/tmpTBSM/dbconf_linux/im.linux.x86	Chr rour software packages. More	eck for Other Ver

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



- enter installation path

	enses Location F	eatures Summary	
 Use the existing Create a new part 	package group ckage group		
Package Group Na	ame I	Installation Directory	Archite
🔪 IBM Tivoli Bus	iness Service Manager /	home/db2inst1/IBM/tivoli/tbsmdb	64-bit
Architecture Selection	x 🔵 32-bit 💿 64-bit		
		Disk Space Information	n
Details			
Details Shared Resources Di	rectory: /home/db2inst1/IBM/IBMIMS	hared Volume Available Spa	ice
Details Shared Resources Di	rectory: /home/db2inst1/IBM/IBMIMS	hared Volume Available Spa / 214.97 GB	ice

- add details for TBSM Data Server Database Configuration – database name, database hostname, port, user and its password (db2inst1 user is required

nstall 🔆 Licenses 🔆 Locat	tion Features Summary	
Common Configurations	Common Configurations TBSM Data Server Database Configuration	
 TBSM Data Server Database TBSM TWA Metric Marker DB C TBSM TWA Metric History DBC 	This panel will be used to configure the tbsmdb/sql/tbsm_db.properties and the values later, edit the property files and the states are states as the states as the states are states as the states are states as the states as the states are states as the states as the states are states	e TBSM Data Server database. The information will be saved in th smdb/sql/tbsmudf_db.properties property files. To change these d use the tbsm_db script to generate the SOL with updated value
Ο TBSM Sample Database Confi	Database <u>N</u> ame (maximum 8 characters):	TBSM
	Database <u>H</u> ost Name or IP Address:	busy1.castle.fyre.ibm.com
	Database <u>P</u> ort Number:	50000
	Database <u>U</u> ser ID:	db2inst1
	<u>D</u> atabase Password:	•••••
	<u>C</u> onfirm Password:	•••••
	Should the installer create the schema parameters are ignored if 'no' is select	a for this database (The database userid and password ed)?
	 Yes, create the schema including the tag 	ables, tablespaces and views.
	No, complete the installation. The sche	ma will be created at a later time.
	The Database Path on which to create example c:). A null value or ' <default> database manager configuration will b</default>	the database. For Windows, this must be a drive letter (for ' will indicate that the default database path specified in the e used.
	If multiple Paths are specified, they m must be the first Path specified.	ust be comma separated and the Path containing the database
	Patrice Patrice Patrice	
	Database Path: < default>	
	To optimize the configuration of the da instances that can be managed. The s	tabase, please estimate the expected number of service election determines the default configuration values.
	To optimize the configuration of the da instances that can be managed. The s	tabase, please estimate the expected number of service election determines the default configuration values.

- add details for TBSM TWA Metric Marker DB - database name, database hostname, port, user and its password (db2inst1 user is required)

Common Configurations	Common Configurations TBSM TWA Metric Marker DB Config Panel	
TBSM TWA Metric Marker DB C TBSM TWA Metric History DBC	This panel will be used to configure the information from this page will be stor changes can be made by editing this p with the new values.	TBSM Time Window Analyzer Metric Marker database. The ed in the thsmdb/sql/tbsmmark_db.properties property file. Late roperty file and then using the tbsm_db script to generate the SQ
	Database <u>N</u> ame (maximum 8 characters):	TBSM
	Database <u>H</u> ost Name or IP Address:	busy1.castle.fyre.ibm.com
	Database <u>P</u> ort Number:	50000
	Database <u>U</u> ser ID:	db2inst1
	Database Password:	•••••
	<u>C</u> onfirm Password:	•••••
	Should the installer create the schema	a for this database (The database userid and password
	parameters are ignored if 'no' is select	
	parameters are ignored if 'no' is select	ables, tablespaces and views.
	Parameters are ignored if 'no' is select ① Yes, create the schema including the t ① No, complete the installation. The sche	aw, i ables, tablespaces and views. ma will be created at a later time.
	parameters are ignored if 'no' is select • Yes, create the schema including the ti No, complete the installation. The sche The Database Path on which to create example c:). A null value or 's default's database manager configuration will be	aw : ables, tablespaces and views. ma will be created at a later time. the database. For Windows, this must be a drive letter (for ' will indicate that the default database path specified in the e used.
	parameters are ignored if 'no' is select • Yes, create the schema including the t. No, compligte the installation. The sche The Database Path on which to create example ci. A null value or 'c default's database manager configuration will be if multiple Paths are specified, they m must be the first Path specified.	awr, ables, tablespaces and views. ma wil be created at a later time. the database. For Windows, this must be a drive letter (for ' will indicate that the default database path specified in the e used. ust be comma separated and the Path containing the database
	parameters are ignored if 'no' is select • Yes, create the schema including the t. No, complyte the installation. The sche The Database Path on which to create example c.). A null value or 'cdefault' database manager configuration will b If multiple Paths are specified, they m must be the first Path specified. Dgtabase Path: ">default>	ables, tablespaces and views. ma will be created at a later time. the databases. For Windows, this must be a drive letter (for ' will indicate that the default database path specified in the e used. ust be comma separated and the Path containing the database
	parameters are ignored if 'no' is select • Yes, create the schema including the t No, complete the installation. The sche The Database Path on which to create example c:). A null value or 'cdefault' database manager configuration will bi if multiple Paths are specified, they m must be the first Path specified. Dgtabase Path: <elefault> To optimize the configuration of the da instances that can be managed. The s</elefault>	ables, tablespaces and views. ma will be created at a later time. the database. For Windows, this must be a drive latter (for 'will indicate that the default database path specified in the e used. ust be comma separated and the Path containing the database tabase, please estimate the expected number of service election determines the default configuration values.
	parameters are ignored if 'no' is select • Yes, create the schema including the t • No, complete the installation. The sche The Database Path on which to create example ci). A null value or 'c defaulty database manager configuration will b if multiple Paths are specified, they m must be the first Path specified. Dgtabase Path:	ables, tablespaces and views. ma will be created at a later time. the database. For Windows, this must be a drive letter (for 'will indicate that the default database path specified in the e used. ust be comma separated and the Path containing the database tabase, please estimate the expected number of service election determines the default configuration values.
	parameters are ignored if 'no' is select • Yes, create the schema including the t • No, complete the installation. The sche The Database Deft on which to create database manager configuration will be the first path secified, they m must be the first Path specified, they m must be the first Path specified. Database Path: <default> To optimize the configuration of the da instances that can be managed. The s • Large (more than 20,000) • Mardiam (5 2001= 20,000)</default>	and is ablespaces and views. ma will be created at a later time. The database. For Windows, this must be a drive letter (for ' will indicate that the default database path specified in the used. ust be comma separated and the Path containing the database tabase, please estimate the expected number of service election determines the default configuration values.

- add details for TBSM TWA Metric History DB - database name, database hostname, port, user and its password (db2inst1 user is required)

Install Licenses Loca	tion Features Summary	
Common Configurations TBSM Data Server Database (TBSM TWA Metric Marker DB C	Common Configurations TBSM TWA Metric History DBConfig Panel This panel will be used to configure th	e TBSM Time Window Analyzer Metric History database. The
TBSM TWA Metric History DBC TBSM Sample Database Confi	information from this page will be stor changes can be made by editing this p with the new values.	red in the tbsmdb/sql/tbsmhist_db.properties property file. Later property file and then using the tbsm_db script to generate the S0
_	Database <u>N</u> ame (maximum 8 characters):	TBSMHIST
	Database <u>H</u> ost Name or IP Address:	busy1.castle.fyre.ibm.com
	Database <u>P</u> ort Number:	50000
	Database <u>U</u> ser ID:	db2inst1
	Database Password:	•••••
	<u>C</u> onfirm Password:	••••••
	Should the installer create the schem parameters are ignored if no is selec • yes, create the schema including the t No, complete the installation. The sche The Database Path on which to create example c.). A null value or 'database manager configuration will lif if multiple Paths are aspecified. Dgtabase Path: <	a for this database (The database userid and password ted)? ables, tablespaces and views. ama will be created at a later time. the database. For Windows, this must be a drive letter (for b' will indicate that the default database path specified in the se used. ust be comma separated and the Path containing the database
	To optimize the configuration of the di instances that can be managed. The s	atabase, please estimate the expected number of service election determines the default configuration values.
	Large (more than 20,000)	
	Medium (5,000 to 20,000)	

- add details for TBSM Sample DB configuration - database name, database hostname, port, user and its password (db2inst1 user is required)

in the configurations for the packages.		
Install Licenses Local	ion Features Summary	
 Common Configurations TBSM Data Server Database (Common Configurations TBSM Sample Database Configuration	
TBSM TWA Metric Marker DB C TBSM TWA Metric History DBC	This panel will be used to configure the will be stored in the tbsmdb/sql/tbsmd editing this property file and then usin	e TBSM Demo/Sample database. The information from this page lemo_db.properties property file. Later changes can be made by g the tbsm_db script to generate the SQL with the new values.
😴 TBSM Sample Database Confi	Database <u>N</u> ame (maximum 8 characters):	TBSM
	Database <u>H</u> ost Name or IP Address:	busy1.castle.fyre.ibm.com
	Database <u>P</u> ort Number:	50000
	Database <u>U</u> ser ID:	db2inst1
	Database Password:	•••••
	<u>C</u> onfirm Password:	•••••
	Should the installer create the scheme parameters are ignored if 'no' is select Yes, create the schema including the t No, complete the installation. The sche	n for this database (The database userid and password ted)? ables, tablespaces and views. ma will be created at a later time.
	The Database Path on which to create example c:). A null value or ' <default> database manager configuration will b</default>	the database. For Windows, this must be a drive letter (for · will indicate that the default database path specified in the e used.
	If multiple Paths are specified, they m must be the first Path specified.	ust be comma separated and the Path containing the database
	D <u>a</u> tabase Path: <default></default>	
	To optimize the configuration of the da instances that can be managed. The s	atabase, please estimate the expected number of service election determines the default configuration values.
	 Large (more than 20,000) Medium (5,000 to 20,000) 	
	C	

Summary utility 6.2.0.0				*
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Disk Space	Informati	ion		
			Total Av	vailable Spac
/				214.97 G
Total Downloa	ad Size:	284.21 MB		
Total Installati	ion Size:	639.86 MB		
_				
	Disk Space / Total Downlo: Total Installat	Disk Space Informat / Total Download Size: Total Installation Size:	Disk Space Information / Total Download Size: 284.21 MB Total Installation Size: 639.86 MB < Back Next >	Disk Space Information I Total Av Total Download Size: 284.21 MB Total Installation Size: 639.86 MB < Back Next > Install

Install Packages	4	
The packages are installed. <u>View Log File</u>		
The following package was installed:		
🐨 🧊 IBM Tivoli Business Service Manager Database Configuration ι		
Installation Manager was successfully installed into: /home/db2instJ/IBM/		
InstallationManager/eclipse Note: If the packages support rollback, the temporary directory contains rollback files for installed packages. You can delete the files on the <u>Files for</u> rollback preference page.		
•	Fir	nish

Install TBSM Data Server

- go to the directory where TBSM was extracted on server 1 and from here to data_linux directory:



- run the following command and select TBSM Data Server to be installed:

./install_gui_data.sh

ootepusyl data_linux]# .	/install_	gui_data.
BM Installation Manager		- 0
Install Packages Select packages to install:		4
Installation Packages	Status	Vendor
Version 6.2.0.0	Will be installed	IBM
Show <u>a</u> ll versions		Check for Other Ver
Details IBM Tivoli Business Service Manager Data Server 6.2.0.0 IBM Tivoli Business Service Manager Data Server 6.2.0.0 <u>More info</u> • Repository: //Miha/tmpTBSM/data_linux/data_media_linux/disk1		
		_

- enter the installation directory path for TBSM data server

nstall Packages		
A package group is a location that contains one or more common package group and will share a common user in one.	packages. Some compatible packages can be installe nterface. Select an existing package group, or create	d into a 📌
Install Prerequisite Licenses	Location Features Summary	
 Use the existing package group <u>C</u>reate a new package group 		
Package Group Name	Installation Directory	Archited
IBM Tivoli Business Service Manager	/Miha/opt/IBM/tivoli/tbsm	64-bit
Package Group Name: IBM Tivoli Business Service Man Installation <u>D</u> irectory: //Miha/opt/IBM/tivoli/tbsm	lager	Browse
Package Group Name: IBM Tivoli Business Service Man Installation <u>D</u> irectory: //Miha/opt/IBM/tivoli/tbsm	ager	B <u>r</u> owse
Package Group Name: IBM Tivoli Business Service Man Installation Directory: //Miha/opt/IBM/tivoli/tbsm Architecture Selection: 32-bit () 64-bit	ager	Browse
Package Group Name: IBM Tivoli Business Service Man Installation <u>D</u> irectory: //Miha/opt/IBM/tivoli/tbsm Architecture Selection: 32-bit (a) 64-bit Details	ager Disk Space Information	Browse
Package Group Name: IBM Tivoli Business Service Man Installation Directory: //Miha/opt/IBM/tivoli/tbsm Architecture Selection: 32-bit (a) 64-bit Details Shared Resources Directory: //Miha/opt/IBM/IBMIMShare	ager Disk Space Information ed Volume Available Space	Browse
Package Group Name: IBM Tivoli Business Service Man Installation <u>D</u> irectory: //Miha/opt/IBM/tivoli/tbsm Architecture Selection: 32-bit (a) 64-bit Details Shared Resources Directory: //Miha/opt/IBM/IBMIMShare	Disk Space Information ed Volume Available Space / 211.85 GB	Browse
Package Group Name: IBM Tivoli Business Service Man Installation <u>D</u> irectory: //Miha/opt/IBM/tivoli/tbsm Architecture Selection: 32-bit (8) 64-bit Details Shared Resources Directory: /Miha/opt/IBM/IBMIMShare	Disk Space Information ed Volume Available Space / 211.85 GB	Browse

- enter Impact server username details (for host details FQDN is required, make sure /etc/hosts is properly configured) and also the password for the tbsmadmin user that will be created

Common Configurations	Common Configurations		
W Impact Server Details	Impact Server Details		
Data Server Information	TBSM services uses Netcool/Im service. Please Enter the Impa	ipact specific Models, datasource, ct details	types and
O TBSM Metric Marker Databas	Impact <u>S</u> erver Host:	busyl castle fyre ibm com	
C) TBSM Metric History Databas Object Server Details	• Impact Directory:	/Miha/opt/IBM/tivoli/impact	Browse
TBSM DataServer User Regis	Impact BackEnd Port:	9080	
Jazz for SM Server Details DataServer Data Source and	Impact BackEnd HTTPS Port:	9081	
TADDM Connectivity Configur TADDM Database Configurati	impact <u>U</u> ser:	impactadmin	
Discovery Library Book Impor	t Impact User Password:		
Discovery Library Book Expor	t <u>C</u> onfirm Password:	•••••	
	tbsmadmin User Password:	•••••	
	<u>C</u> onfirm Password:	•••••	
	If failover will be setup and	this Data server will be the b	ackup
	Designated Backup Serve	r check box	
	0		

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

IBM Installation Manager	_	L ;	×
Install Packages Fill in the configurations for the packages.		-	
Install Prerequisite Licenses Common Configurations Impact Server Details Data Server Details TBSM Data Server Databases TBSM Metric History Databases Object Server Details TBSM DataServer User Regist Jazz for SM Server Datails DataServer Data Source and I TADDM Connectivity Configuration Discovery Library Book Export	Location Peatures Summary non Configurations		
0	< Back Next > Install	Cancel	

- enter TBSM Data Server Database information as configured during DB2 installation

Install Prerequisite Lice	enses Location Features	Summary
 Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I 	Common Configurations TBSM Data Server Database Information Enter the information for the TBSM Data Ser database where TBSM stores its services, ten component registry	ver Database. This is the plates, and the service
TBSM Metric Marker Database TBSM Metric History Database	Database <u>N</u> ame (maximum 8 characters):	TBSM
Object Server Details	Database <u>H</u> ost Name Or IP Address:	busy1.castle.fyre.ibm.com
TBSM DataServer User Regist Jazz for SM Server Details	Database <u>P</u> ort Number:	50000
DataServer Data Source and I TADDM Connectivity Configura	Database <u>U</u> ser ID:	db2inst1
TADDM Database Configuratic	<u>D</u> atabase Password:	•••••
Discovery Library Book Import Discovery Library Book Export	<u>C</u> onfirm Password:	•••••

Install Prerequisite Li	censes Location Features	Summary
🗊 Common Configurations 🖾 Impact Server Details	Common Configurations TBSM Metric Marker Database Information	
💟 Data Server Information 💟 TBSM Data Server Database I	Enter the information for the TBSM Metric M. database TBSM usess to store metric marker historical values in the Time Window analyzer	arker Database. This is the 's configured for overlaying
😴 TBSM Metric Marker Database 🕄 TBSM Metric History Database	Database <u>N</u> ame (maximum 8 characters):	TBSM
Object Server Details	Database <u>H</u> ost Name Or IP Address:	busy1.castle.fyre.ibm.com
Jazz for SM Server Details	Database <u>P</u> ort Number:	50000
DataServer Data Source and I TADDM Connectivity Configur≀	Database <u>U</u> ser ID:	db2inst1
TADDM Database Configuratic	<u>D</u> atabase Password:	•••••
Discovery Library Book Import Discovery Library Book Export	<u>C</u> onfirm Password:	•••••

Install Prerequisite Li	censes Location Features	Summary
 Common Configurations Impact Server Details Data Server Information 	Common Configurations TBSM Metric History Database Information Enter the information for the TBSM Metric H database TBSM uses to store the history of t	story Database. This is the he values for metrics that are
 TBSM Data Server Database TBSM Metric Marker Database TBSM Metric History Database 	configured for the collection and display with the Database <u>N</u> ame (maximum 8 characters):	TBSMHIST
Object Server Details	Database <u>H</u> ost Name Or IP Address:	busy1.castle.fyre.ibm.com
TBSM DataServer User Regist Jazz for SM Server Details	Database <u>P</u> ort Number:	50000
DataServer Data Source and I	Database <u>U</u> ser ID:	db2inst1
TADDM Connectivity Configura TADDM Database Configuratic	<u>D</u> atabase Password:	•••••
Discovery Library Book Import Discovery Library Book Export	<u>C</u> onfirm Password:	•••••

- enter object server details:

	icenses Location	Features Summary
Common Configurations Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database DBSM Metric History Database Discovery Data Server Details DataServer Data Source and I TADDM Connectivity Configurati Discovery Library Book Import Discovery Library Book Export	icenses Location Common Configurations Object Server Details TBSM will need an event source OMDIbus, Other types of event enter the Host and Port for you, validation of this panel takes mi ObjectServer Host Name: ObjectServer Port Number: ObjectServer Port Number: ObjectServer User [D: ObjectServer User Password: Confirm Password:	Features Summary By default, it will connect to Netcool/ sources require manual configuration. Please require manual configuration. Please innum four minutes of time. busy1.castle.fyre.ibm.com 4100 root

IBM Installation Manager	-	
Install Packages Fill in the configurations for the packages.		
Install Prerequisite Li Common Configurations Impact Server Information TBSM Data Server Information TBSM Metric Marker Database Object Server Details Object Server Details Object Server Details DataServer User Regist Jazz for SM Server Details DataServer Database Configuratic Discovery Library Book Export Discovery Library Book Export	Common Configurations Features Summary TBSM DataServer User Registry Details Omnibus is Already Configured. Image: Transformed Strategy Details Image: Transformed Strategy Details	
)	< Back Next > Install	Cancel

- enter Jazz SM details, make sure to add the correct FQDN from server 2 where JazzSM is installed



IBM Installation Manager				-	-		×
Install Packages Fill in the configurations for the packages.						->	
Install Prerequiste	Location Common Configurat DataServer Data Sourn The toolkit supports t Manager (TADDM) a Please select the ✓ Discovery Libra Tivoli Application RMI Registry Port:	Fee ions ce and DB Sele woo data source(ry Books n Dependency I 12315	atures action es:Tivoli Applic abrary Books s) that will b Discovery Mar	Summary ation Depend re used.	a)	scovery	
)		< Back	Next >	Insta	dl (Cano	el

Install Packages		4	5
Fill in the configurations for the packages.			
Install Prerequisite Lic	enses Location Featur	es Summary	
	Common Configurations		
Impact Server Details	IADUM Database Configuration		
Data Server Information	Configuration Definitions for Connecti	ng to the TADDM Database.	
TBSM Data Server Database I	IBM DB2		
TBSM Metric History Database	Oracle		
Object Server Details			
🗹 TBSM DataServer User Regist	Database User ID:	db2inst1	
Jazz for SM Server Details	Database Password:		
TADDM Connectivity Configura	Confirm the Database Password:		
🤿 TADDM Database Configuratio			-
Discovery Library Book Import	Database Host Name or IP Address:	tother1.castle.fyre.ibm.com	
Discovery Library Book Export	Port used by the Database:	50000	
	Database Name:	СМДВ	
	w while the transformers		
	Database Schema:		
)	< Back	Next > install C	Can
) BM Installation Manager	< Back	Next> instal C	Cano
) BM Installation Manager Install Packages Fill in the configurations for the packages.	< Back	Next> Install C	Can
) BM Installation Manager Install Packages Fill in the configurations for the packages.	< Back	Next> Install C	Can
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic	< Back	Next> Install C	Cano
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Common Configurations	enses Location Featur Common Configurations Discovery Library Book Import Configurations	Next > Install C	Cano
) BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic ♥ (i) Common Configurations ♥ (i) Common Configurations ♥ Impact Server Details ♥ Data Server Information	enses Location Featur Common Configurations Discovery Library Book Import Configuration of the Discovery Library	Next > Install C	Cano
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic ▼ (i) Common Configurations	enses Location Featur Common Configurations Discovery Library Book Import Configuration of the Discovery Library directory that the toolkit will monitor for detected it will be read and processed.	Next > Install C 	Can
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Common Configurations Data Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database	enses Location Peatur Common Configurations Discovery Library Book Import Configural Configuration of the Discovery Library directory that the toolat will romator for detected it will be read and processed. Directory Name: //Miha/opt/IBM/t	Next > Install C 	
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BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic (Common Configurations Common Configurations Data Server Information TBSM Data Server Database TBSM Metric Marker Database TBSM Metric Marker Database Object Server Details TBSM DataServer User Regist Jazz for SM Server Details DataServer Data Source and I	< Back enses Location Peatur Common Configurations Discovery Library Book Import Configurati directory that the toolidt will monitor fo detected it will be read and processed. Directory Name: [Miha/opt/IBM/t Restore Default	Next > Install C 	2 and
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lice Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database TBSM Metric Marker Database Object Server Details TBSM DataServer User Regist Jazz for SM Server Details DataServer Data Source and I TADDM Connectivity Configura	< Back enses Location Peatur Common Configurations Discovery Library directory that the toolist will monitor fo detected it will be read and processed. Directory Name: //Miha/opt/IBM/t Restore Default	Next > Install C 	2 and
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Common Configurations Common Configuration Common C	< Back enses Location Peatur Common Configurations Discovery Library directory Hat the toolik will monitor for detected it will be read and processed. Directory Name: //Miha/opt/IBM/t Restore Default	Next > Install C 	
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BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database TBSM Metric Marker Database TBSM Metric Marker Database TBSM DataServer Datails TBSM DataServer User Regist Jazz for SM Server Details DataServer Data Source and I TADDM Connectivity Configuratic Discovery Library Book Export	< Back enses Location Featur Common Configurations Discovery Library Book Import Configurat Configuration of the Discovery Library directory Nath the toolk will monitor for detected it will be read and processed. Directory Name: //Miha/opt/IBM/t Restore Default	Next> Install C	
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database TBSM Metric Marker Database TBSM Detric History Database TBSM DataServer Details TBSM DataServer User Regist Jazz for SM Server Details DataServer Data Source and I TADDM Connectivity Configuratic Discovery Library Book Export	< Back enses Location Featur Common Configurations Discovery Library Book Import Configurat Configuration of the Discovery Library directory Nath the toolki will monitor for detected it will be read and processed. Directory Name: //Miha/opt/IBM/t Restore Default	Next> Install C	
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Databases Object Server Details TBSM DataServer User Regist Jazz for SM Server Details DataServer User Regist Jazz for SM Server Details DataServer Data Source and I TADDM Connectivity Configuratic Discovery Library Book Export	< Back enses Location Featur Common Configurations Discovery Library Book Import Configurat Configuration of the Discovery Library directory Nath the toolki will monitor for detected it will be read and processed. Directory Name: //Miha/opt/IBM/t Restore Default	Next> Install C - - - res Summary - tion - - Book import file system. This is the r new books, when a new book is - ivolitbsm/discovery/dlbo Browse.	
BM Installation Manager Install Packages Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Common Configurations Data Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database TBSM Metric Marker Database TBSM Metric Marker Database Discover Data Server Details DataServer Details DataServer Details DataServer Data Source and I TADDM Connectivity Configuratic Discovery Library Book Export	< Back enses Location Peatur Common Configurations Discovery Library Book Import Configurat Configuration of the Discovery Library directory Nath the toolki will monitor for detected it will be read and processed. Directory Name: //Miha/opt/IBM/t Restore Default	Next > Install C	- and
BM Installation Manager Fill in the configurations for the packages. Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations Impact Server Details Data Server Information TBSM Data Server Database I TBSM Metric Marker Database TBSM Metric Marker Database TBSM Metric Marker Database Discover Data Server Details DataServer Details DataServer Details DataServer Data Source and I TADDM Connectivity Configuratic Discovery Library Book Export	< Back enses Location Featur Common Configurations Discovery Library Book Import Configurat Configuration of the Discovery Library directory that the toolkit will monitor fo detected it will be read and processed Directory Name: //Miha/opt/IBM/t Restore Default	Next> Install C	
BM Installation Manager Fill in the configurations for the packages. Fill in the configurations for the packages. Install Prerequisite Lic Common Configurations □ Impact Server Details □ Data Server Information □ TBSM Data Server Database I □ TBSM Metric Marker Database □ TBSM Metric Marker Database □ TBSM Metric Marker Database □ TBSM Metric History Database □ Discover Data Server Details □ DataServer Details □ DataServer Data Source and I □ TADDM Connectively Configuratic Discovery Library Book Export Discovery Library Book Export	< Back enses Location Featur Common Configurations Discovery Library Book Import Configura Configuration of the Discovery Library directory that the toolkt will monitor fo detected it will be read and processed Directory Name: //Miha/opt/IBM/t Restore Default	Next> Install C	



Install Packages					5
Review the summary inform	nation.				
Install Prerequ	site Licenses Location	Features	Sun	nmary	
Target Location					
Package Group Name:	IBM Tivoli Business Service Manager				
Installation Directory:	/Miha/opt/IBM/tivoli/tbsm				
Shared Resources Director	y. /Miha/opt/IBM/IBMIMShared				
Packages					
Packages					
Environment	Dis	k Space Informa	tion		
Environment English	Dis	k Space Informa	tion	Total Availa	able Space
Environment English	Dis	k Space Informa	tion	Total Availa	able Spac
Environment English	Dis / Tota	k Space Informa I Download Size:	tion 232.25 MB	Total Availa	able Spac 211.16 G
Environment English	Dis / Tota Tota	k Space Informa I Download Size: I Installation Size:	tion 232.25 MB 748.71 MB	Total Availa	able Spac 211.16 G
Environment English • Repository Informatic	Dis / Tota Tota	k Space Informa I Download Size: I Installation Size:	tion 232 25 MB 748.71 MB	Total Avail	able Spac 211.16 G
Environment English) Repository Informatio	Dis / Tota Tota	k Space Informa I Download Size: I Installation Size:	ttion 232.25 MB 748.71 MB	Total Avail	able Space 211.16 G
Environment English) Repository Informatio	Dis / Tota Tota	k Space Informa I Download Size: I Installation Size: < Back	tion 232.25 MB 748.71 MB Next >	Total Avail	able Spac 211.16 G Car

- make sure everything completed successfully:



Install TBSM Dashboard Server

TBSM 6.2 package should be extracted on server 2 as well where WAS, JazzSM and webgui are installed. On this server TBSM Dash Server should be installed.

Make sure webgui is up and running and that you can run runwaapi commands as this is being used during TBSM dash install. For this waapi.init file should be configured.

Output example and waapi.init file configuration:



[root@botfly1 bin]# cd /Miha/opt/IBM/netcool/gui/omnibus webgui/waapi/bin/
<pre>[root@botfly1 bin]# ./runwaapi -file/etc/samples/list_map.xml</pre>

WAAPIClient: Request sent to server on http://localhost:16310/ibm/console/webtop/
Tue Jan 15 02:48:47 PST 2019
Maps hosted on the server **********************************
Example E-Commerce
Example_Europe
Example_Geographic

WAAPIClient: 1 method was fully executed.

go to the directory where TBSM was extracted and from here to dash_linux directory
run the following command:

./install_gui_dash.sh



[root@motleys1 dash_linux]# ./install gui dash.sh

- select TBSM 6.2 Dashboard component to be installed:

IBM Installation Manager			_	
Install Packages				_
Select packages to install:				7
Installation Packages		Status	Vendor	
👻 🛃 🧊 IBM Tivoli Business Service Manager Dashbo	ard Server			
🕑 🕅 Version 6.2.0.0	,	Will be installed	IBM	
			Check for	Other Ve
Show all versions			<u>C</u> heck for	Other Ve
Show <u>a</u> ll versions Details			<u>C</u> heck for	Other Ve
Show all versions Details IBM Tivoil Business Service Manager Dashboard S	erver 6.2.0.0		<u>C</u> heck for	Other Ve
Show <u>a</u> ll versions Details IBM Tivoli Business Service Manager Dashboard S IBM Tivoli Business Service Manager Dashboard Server 6 • Repository. MihattymBSN/dash_micalash_media.	erver 5.2.0.0 .2.0.0 <u>More info</u> ux/diskl		<u>C</u> heck for	Other Ve
Show all versions Details IBM Tivoli Business Service Manager Dashboard S IBM Tivoli Business Service Manager Dashboard Server 6 • Repostory: //MihatmpTBSM/dash_inuu/dash_media_in	erver 6.2.0.0 .2.0.0 <u>More info</u> ux/disk1		<u>C</u> heck for	Other Ve
Show all versions Details IBM Tivoli Business Service Manager Dashboard S IBM Tivoli Business Service Manager Dashboard Server 6 • Repository: //MhattmpTBSM/dash_linuv/dash_media_linuv/dash	erver 6.2.0.0 .2.0.0 <u>More info</u> ww/disk1		<u>C</u> heck for	Other Ve
Show <u>all versions</u> Details IBM Tivoli Business Service Manager Dashboard S IBM Tivoli Business Service Manager Dashboard Server 6 Repository: /MihatmpTBSM/dash_linux/dash_media_lin	erver 6.2.0.0 .2.0.0 <u>More info</u> uu/disk1		<u>C</u> heck for	Other Ve
Show <u>all versions</u> Details IBM Tivoli Business Service Manager Dashboard S IBM Tivoli Business Service Manager Dashboard Server 6 Repository: /Miha/tmpTBSM/dash_linus/dash_media_linus/	erver 6.2.0.0 .2.0.0 <u>More info</u> uu/diskl		<u>Check for</u>	Other Ve
Show <u>all versions</u> Details IBM Tivoli Business Service Manager Dashboard S IBM Tivoli Business Service Manager Dashboard Server 6 Repository: /Miha/tmpTBSM/dash_linux/dash_media_linux/dash_me	erver 6.2.0.0 .2.0.0 <u>More info</u> uw/disk1		<u>Check for</u>	Other Ve

- enter installation directory for TBSM Dashboard server



- enter Jazz SM and WebGUI details (make sure you entered the correct installation paths, JazzSM port, smadmin and tbsmadmin password).

	censes / Location	reatu	res Summary	
🗊 Common Configurations	Common Configuration	s		
🤿 Jazz for SM Details	Jazz for SM Details			
Dashboard Server Configurati	JazzSM <u>H</u> ost Name:	motleys1.c	astle. fyre. ibm. com	
Dashboard Server Omnibus D TRSM Dashboard Server User	Jazz For SM Directory.	/Miha/opt/l	BM/JazzSM	Bro <u>w</u> se.
Toom Dashboard Server Oser	JazzSM <u>P</u> ort Number:	16311		
	Provide the administrati profile in the WebSphere used to log in to JazzSM	ve User ID an Application S	d Password used for creatii erver.The User ID and Pass	ng a JazzSM word will be
	JazzSM <u>U</u> ser ID:	smadmin		
	Jazz <u>S</u> M Password:	•••••	•	
	<u>C</u> onfirm Password:	•••••	•	
	Omnibus Web GUI Hon	ne Location:	/Miha/opt/IBM/netcool/	Bro <u>w</u> se
	tbs <u>m</u> admin Password:	•••••	••	
	Confirm Passwor <u>d</u> :	•••••	••	

- enter dashboard communication port, by default this is 17543:
| BM Installation Manager | - | | × |
|--|--------|----|------|
| Install Packages
Fill in the configurations for the packages. | | | |
| Install Prerequisite Licenses Location Features Summa | ry 📄 | | |
| Common Configurations Common Configurations Dashboard Server Configuration | | | |
| Dashboard Server Configurati Dashboard Server Communication Port: 17543 | | | |
| Dashboard Server Onnibus D TBSM Dashboard Server User | | | |
| | | | |
| | | | |
| | | | |
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| ③ < Back Next > | nstall | Ca | ncel |

- enter impact server details as you have installed it on server1:

riscali / rierequisice / c	censes Location	Features Summary
Common Configurations	Common Configurations Impact Server Details	
Dashboard Server Configuration (Configuration) (Configuration)	Impact Host <u>N</u> ame:	busy1.castle.fyre.ibm.com
📀 Dashboard Server Omnibus D	Impact <u>R</u> MI Port:	17542
TBSM Dashboard Server User	Impact HTTP <u>P</u> ort:	9080
	Impact HTTP <u>S</u> Port:	9081
	Impact <u>G</u> UI HTTP Port:	16310
	ImpactGUI <u>H</u> ITPS Port:	16311
	Impact <u>U</u> ser:	impactadmin
	Impact Password:	•••••
	Impact <u>C</u> onfirm Password:	•••••
	Data Server HA/FO Cor	nfgured

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

Install Prerequisite Lie	censes Location	Features Summary
 Common Configurations Jazz for SM Details 	Common Configurations Dashboard Server Omnibus I	Details
🖉 Dashboard Server Configurati 🛛 Impact Server Details	TBSM will need an event so OMNIbus. Other types of e enter the Host and Port fo	ource. By default, it will connect to Netcool/ event sources require manual configuration. Please or your Netcool/OMNIbus server.
😡 🐼 Dashboard Server Omnibus D	ObjectServer <u>H</u> ost:	busylL.castle.fyre.ibm.com
TBSM Dashboard Server User	ObjectServer <u>P</u> ort:	4100
	ObjectServer <u>U</u> ser:	root
	ObjectServer Password:	
	<u>Confirmation Password</u> :	

- 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

Install Prerequisite L	icenses Location	Features Summary
Common Configurations Jazz for SM Details	Common Configurations TBSM Dashboard Server User Regi	stry Details
 Dashboard Server Configurati Impact Server Details Dashboard Server Omnibus D 	<u>F</u> ile Based <u>O</u> bject Server	
😴 TBSM Dashboard Server User	LDAP Server	
	User Registry Object Server Def ObjectServer <u>H</u> ost Name:	busy1.castle.fyre.ibm.com
	ObjectServer <u>P</u> ort Number:	4100
	ObjectServer User <u>I</u> D:	root

- continue with the installation:

BM Installation Manager	-		>
Install Packages		~	_
Review the summary infor	mation.		-
		Case	
Install Prerequ	isite Licenses Location Features Summary		
Parget Location	IDM Time During Carrier Manager		
Package Group Name:	IBM Tivoli Business Service Manager		
Installation Directory.	/Miha/opt/IBM/tivoli/tbsmdash		
Shared Resources Director	ry: /Miha/opt/IBM/IBMIMShared		
Packages			
Packages			
IBM Tivoli Busines	s Service Manager Dashboard Server 6.2.0.0		
UBM Trvok Busines	is Service Manager Dashboard Server 6.2.0.0		
IBM Trvok Busines Invironment Environment Environment	is Service Manager Dashboard Server 6.2.0.0 Disk Space Information		
IBM Trvok Busines	is Service Manager Dashboard Server 6.2.0.0 Disk Space Information Total Avail	able Space	
IBM Tivok Busines	is Service Manager Dashboard Server 6.2.0.0 Disk Space Information Total Avail	able Space 219.84 GB	
IBM Tivok Busines	is Service Manager Dashboard Server 6.2.0.0 Disk Space Information Total Avail / Total Download Size: 443.54 MB	able Space 219.84 GB	
IBM Tivok Busines	is Service Manager Dashboard Server 6.2.0.0 Disk Space Information Total Avail / Total Download Size: 443.54 MB Total Installation Size: 1.13 GB	able Space 219.84 GB	
 IBM Twok Busines Environment English Repository Informati 	s Service Manager Dashboard Server 6.2.0.0 Disk Space Information 7 Total Avail 7 Total Ovenload Size: 443.54 MB Total Installation Size: 1.13 GB on	able Space 219.84 GB	

- make sure everything completed successfully:

(a) IBM Installation Manager		-		×
Install Packages			4	
	The packages are installed. <u>View Log File</u>			
	The following package was installed:			
	 ^e_{Ra} IBM Tivoli Business Service Manager ii) IBM Tivoli Business Service Manager Dashb 			
	Note: If the packages support rollback, the temporary directory contains rollback files for installed packages. You can delete the files on the <u>Files for rollback</u> preference page.			
0			Fin	sh

Post-install steps

After everything is properly configured and running, in case an error appears when a user selects to edit a policy when creating or editing a TBSM Template Rule, then the steps documented under this section: "The Policy Editor gives exception when accessed from TBSM Rule editor" from the following list of known problems should be followed:

https://www-01.ibm.com/support/docview.wss?uid=ibm10716855

Firstly, Single Sign On between the Impact servers and the Jazz SM server must be enabled, if these steps were skipped from the above documented ones, then they should be followed now.

Once SSO is enabled, the user should enter this URL in a new tab

https://<TBSM_Dashboard_Server>:9081/restui/policyui/policy/NumericAttributeFunctions/loa dPolicyOrTemplate?policyName=NumericAttributeFunctions&template=null

and accept the prompted certificates in the browser and the Policy Editor should be accessible afterwards.

Test TBSM features

Login to TBSM DASH with tbsmadmin user

→ C 🏠 (i) 🐔 https://motleys1.castle.fg	/re.ibm.com:16311/ibm/console/navigation	90% ···· 🛡 🏠 🔍 Search		\ ⊡
Service Configuration ×				
Service Navigation	* ? Servic	e Editor		v
Templates 👻 🎦 🧗 婱 🥝)		
Template	∧ Template	e Properties		* required f
BSM GenericTemplates		Description		Edit Dropor
RSM BusinessService		Display Icon: Rowee		Edic Proper
Ren Ban ClusterCroup				
Bell Discovered appener Clusters	Rules	Tagged Services Output Expressions	SLA Additional Security	
) 👎 🖶 🏯 🞥 🛸		
	Salact	Type Pule Name	Pulo Sottings	
Bom_retwork templates	Select	Type Kule Hallie	Kule Settings	
BSM_Strivce				
	~			
<	>			

You can either connect to the Data Server component (Impact) separately or through the integration console previously configured.



Additional steps needed to be followed in case the default Realm name is changed

In case the default realm name (defaultWIMFileBasedRealm) was changed to something else when the SSO steps were performed (example: dashtest), then, some problems may appear when the tbsmadmin user is used to create a new page in DASH and add a TBSM data source.

Within this situation the following error is being displayed in SystemOut.log file:

com.ibm.websphere.wim.security.authz. AccessException

com.ibm.websphere.wim.security.authz. AccessException: CWWIM2008E The principal 'uid=tbsmadmin,o=netcoolObjectServerRepository' is not authorized to perform the option 'GET PersonAccount' on 'uid=tbsmadmin,o=netcoolObjectServerRepository'

If the realm name is being restored back to its default name e.g. defaultWIMFileBasedRealm and SSO steps are followed again, everything appears to be working correctly and the authorized error is not being generated.

There are 2 workaround that could be used to be able to use a custom Realm Name, both of them described below as follows.

Solution 1:

via the WAS console delete all the role mappings and re-add them (administrative roles + audit roles (if this feature is enabled) +security role mappings)

Login to WAS as smadmin user -> Applications -> WebSphere Enterprise Applications -> select **isc** and click on it:

WebSphere. software		Welcome smadmin			
View: All tasks	Cell=JazzSMNode01Cell, Profile=JazzSMProfile				
- Walcomp	Enterprise Applications				
Guided Activities	Enterprise Applications				
Servers	Use this page to manage installed applications. A single application can be deployed onto multiple servers.				
★ Server Types	Preferences				
- Applications	Start Stop Install Uninstall Update Rollout Update Remove File Export DDL Export File				
New Application Application Types					
WebSphere enterprise applications Business lovel applications	Select Name 🗘 Application Status 💆				
= Assets	DefaultApplication *				
Global deployment settings Services					
Resources	ivtApp *				
Security					
Global security Security domains Administrative Authorization Groups SEL cartificate and key management Security auditing Bus security	Total 4				

Select "Security role to user/groups mapping":

Enterprise Applications	is =
Enterprise Applications > isc	
Use this page to configure an enterprise application. Click the links to acc	ess pages for further configuring of the application or its modules.
General Properties	Modules
* Name	Manage Modules
isc	Metadata for modules
Application reference validation	<u>Display module build Ids</u>
Issue warnings 🗸 🗸	Web Module Properties
Detail Properties	Session management
Target specific application status	<u>Context Root For Web Modules</u>
Startup behavior	Initialize parameters for servlets
Application binaries	JSP and JSF options
Class loading and update detection	= <u>Virtual hosts</u>
Request dispatcher properties	Enterprise Java Bean Properties
Security role to user/group mapping	Default messaging provider references
<u>Custom properties</u> Security role to user/group mapping	Client Module Properties
 View Deployment Descriptor 	
Last participant support extension	Client module deployment mode
References	Web Services Properties
interences	Provide JMS and EJB endpoint URL information
<u>Resource reterences</u>	Publish WSDL files
Shared library relationships	Provide HTTP endpoint URL information
	Database Profiles
	= SOLD and announce bird film
Apply OK Reset Cancel	= aqui promes and purequery bind files

Select all roles -> click on Map Users:

Sec	urity ro	le to user/group mapping			
Ea on ba wh wro be	ch role ly wher sed on en usir ong infe given	that is defined in the application in using cross realm communication the user or group name. The ac- ing the WebSphere default author ormation in these fields will cause the access. AllAuthenticated: This	or module must map to a user or grou on in a multi domain scenario. For all of cessIds represent the user and group in ization engine. The format for the acce a uthorization to fail. AllAuthenticated i indicates that any valid user in the cu	p from the domain user registry, ar ther scenarios the accessId will be of formation that is used for Java Pla ssIds is user:realm/uniqueUserID, nTrustedRealms: This indicates tha rrent realm be given the access.	cessIds: The accessIds are required tetermined during the application start tform, Enterprise Edition authorization group:realm/uniqueGroupID. Entering t any valid user in the trusted realms
	Map U	sers Map Groups Map	Special Subjects 🔻		
	d C]			
	Select	Role	Special subjects	Mapped users	Mapped groups
Π	$\mathbf{\overline{\mathbf{A}}}$	administrator	None		
	\checkmark	operator	None		
	\checkmark	configurator	None		
	\checkmark	monitor	None		
		-	·	•	

Search for the tbsmadmin user and add it to the mapping list:

Enterprise Applications		
Enternrise Applications > isc > Security	role to user/group mapping > Map users/group	105
Use this page to search for users or grou	ips and add them to the selected roles.	-
 administrator 		
 operator 		
 configurator 		
 monitor 		
Search and Select Users		
Decide how many results to display, ente	r a search string (use * for wildcard), and click :	Search. Select users in the Available list and add them to the Sele
list.	2.	
Display a maximum of	results	
Search string	·	
*		
Search		
Available:		Selected:
smadmin 🔨		tbsmadmin 🔨
impactadmin		
tbsmuser testuser		
nobody		
<u></u>		~
OK Cancel		

Click ok and save the configuration.

ach role nly wher ased on hen usir	te to user/group mapping that is defined in the application n using cross realm communicati the user or group name. The ac g the WebSphere default autho ormation in these fields will caus	or module must map to a user or group on in a multi domain scenario. For all o ccessIds represent the user and group i ization engine. The format for the acce e authorization to fail. AllAuthenticated	up from the domain user registry. a ther scenarios the accessId will be o nformation that is used for Java Pla ssIds is user:realm/uniqueUserID, InTrustedRealms: This indicates tha	ccessIds: The accessIds are required Jetermined during the application start atform, Enterprise Edition authorization group:realm/uniqueGroupID. Entering at any valid user in the trusted realms
Map U	sers Map Groups Map	Special Subjects *	inent realm be given the access.	
r F	,,,			
	-			
Select	Role	Special subjects	Mapped users	Mapped groups
	administrator	None	tbsmadmin	
	operator	None	tbsmadmin	
	configurator	None	tbsmadmin	
	monitor	None	tbsmadmin	
			·	

Afterwards, go to "Users and Groups" -> Administrative user roles

· · · · · · · · · · · · · · · · · · ·	
Users and Groups	
Administrative user roles	
Administrative group roles	-
Manage Users	
Manage Groups	
Manage Groups	
Monitoring and Tuning	

Remove tbsmadmin user as this was mapped by default with the initial realm name

Admir	istrative user roles	5	
Use th throug	is page to add, up h the administrativ	date or to remove administrative roles to users. Assigning administrative roles to users enables them to adm e console or through wsadmin scripting.	inister application servers
Log	out Add R	emove	
	6 # \$		
Select	User 🗘	Role(s) 👶	Login Status 🗘
	smadmin	Primary administrative user name	Active
\checkmark	<u>tbsmadmin</u>	ISC Admins, Administrator, Configurator, Auditor, Admin Security Manager	Not Active
Total	2		

Re-add the administrative roles to this user:

Use the through	nis page to add, update or gh the administrative conso	to remove administrative roles to users. Assigning administrative roles to users enabl ele or through vsadmin scripting.	es them to administer application s
Log	gout Add Remove]	
¢	6 👯 🛠		
Select	: User 🛟	Role(s) 🗘	Login Status 🗘
	smadmin	Primary administrative user name	Active
Total	1		

Select all the required roles and tbsmadmin user:

Administrative user roles
Administrative user roles > User Use this page to add, update or to remove administrative roles to users. Assigning adm through the administrative console or through vsadmin scripting.
Role(s) Deployer ISC Admins Monitor Operator
Search and Select Users Decide how many results to display, enter a search string (use * for wildcard), and click Mapped to role list. Users which have already been mapped to a role will not be returne Search string
* Search
Available impactadmin nobody root tbsmuser testuser Mapped to role Mapped to role
Select All Deselect All Deselect All
OK Reset Cancel

Ok and save the configuration.

If security auditing was previously enabled, this this should be reconfigured again for tbsmadmin otherwise it is not required.

+ Resources	
- Security	
Global security	
Security domains	
Administrative Authorization Groups	
SSL certificate and key management	
Security auditing	
Bus security	

With all these changes, the below 2 files should now reflect the correct Realm name:

/Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/admin-authz.xml /Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/audit-authz.xml

/Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/audit-authz.xml

B root@botfly1://Miha/opt/IBM/InstallationManager/eclipse	_		×
<pre>?rml version="1.0" encoding="UTF-8"?> <rolebasedauthz:authorizationtableext context="domain" xmi:id="AuthorizationTableExt 11" xmi:version="2.0" xmlns:rolebasedauthz="http://www.ik appservers/schemas/5.0/rolebasedauthz:mi" xmlns:xmi="http://www.omg.org/XMI"></rolebasedauthz:authorizationtableext></pre>	n.com/w ry"/>	ebsphe	ere/
/Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/admin-a	ıthz	.xm	1
B root@botfly1:/Miha/opt/IBM/InstallationManager/eclipse	-		×
<pre>gPaml version="1.0" encoding="UFF=8"> {rolebasedauth:AthorizationTableExt xmi:version="2.0" xmlns:xmi="http://www.omg.org/XMI" xmlns:rolebasedauthz="http://www.ib appserver/schemas/5.0/rolebasedauthz.xmi" xmi:id="authorizationTableExt 1" context="domain"> {authorizations xmi:id="RoleAssignmentExt 1" role="securityRoleExt 1"> {authorizations xmi:id="RoleAssignmentExt 2" role="securityRoleExt 2"> {authorizations xmi:id="RoleAssignmentExt 2" role="securityRoleExt 2"> {authorizations xmi:id="RoleAssignmentExt 3" role="securityRoleExt 3"> {authorizations xmi:id="RoleAssignmentExt 3" role="securityRoleExt 3"> {authorizations xmi:id="RoleAssignmentExt 4" role="securityRoleExt 4"> {authorizations xmi:id="RoleAssignmentExt 4" role="securityRoleExt 5"> {authorizations xmi:id="RoleAssignmentExt 4" role="securityRoleExt 5"> {authorizations xmi:id="RoleAssignmentExt 4" role="securityRoleExt 5"> {authorizations xmi:id="RoleAssignmentExt 5" role="securityRoleExt 5"> {authorizations xmi:id="RoleAssignmentExt 6" role="securityRoleExt 5"> {authoriza</pre>	com/we y"/> y"/> y"/> y"/>	bsphe	re/

Then re-test the SSO and adding TBSM Topology as datasource for widgets -> everything seems to be working fine now, no "tbsmadmin user is not authorized" error anymore.



	Visualization Settings	
	Messages: 0	
	Selected Dataset: TBSN Service Model > TBSN Topology > TBSN Topology = Option DSN Service Model > TBSN Topology = TBSN Topology and Tee Table widget; Template metricaRPIs not evaluable Data Format tee, Dataset Type semple, No Automatic Referen, Local Data Provider Change	
	■ *Required Settings	
	No visualization attribute found for mapping to dataset columns.	
	Optional Settings	
	OK Cancel	
1/23/19 1:48:40:229 PST 1/23/19 1:48:40:382 PST] 000000ed TIPAuthorizat I the nonbrowser value is true] 0000010c TIPAuthorizat I the nonbrowser value is true	
1/23/19 1:48:40:434 PST] 0000010c TIPAuthorizat I the nonbrowser value is true	

Solution 2:

The below 2 files can be manually edited to reflect the correct Realm name for the the smadmin user and a server restart will be required to reflect the changes.

/Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/admin-authz.xml /Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/audit-authz.xml For the first file:

/Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/admin-authz.xml

<?xml version="1.0" encoding="UTF-8"?> <rolebasedauthz:AuthorizationTableExt xmi:version="2.0" xmlns:xmi="http://www.omg.org/XMI" xmlns:rolebasedauthz="http://www.ibm.com/websphere/appserver/schemas/5.0/rolebasedauthz.xmi" xmi:id="AuthorizationTableExt_1" context="domain"> <authorizations xmi:id="RoleAssignmentExt 1" role="SecurityRoleExt 1"> <users xmi:id="UserExt 1547584734008" name="tbsmadmin" accessId="user:defaultWIMFileBasedRealm/uid=tbsmadmin.o=netcoolObjectServerRepository"/> <specialSubjects xmi:type="rolebasedauthz:ServerExt" xmi:id="ServerExt_1"/> <specialSubjects xmi:type="rolebasedauthz:PrimaryAdminExt" xmi:id="PrimaryAdminExt 1"/> </authorizations> <authorizations xmi:id="RoleAssignmentExt_2" role="SecurityRoleExt_2"/> <authorizations xmi:id="RoleAssignmentExt_3" role="SecurityRoleExt_3"> <users xmi:id="UserExt_1547584734049" name="tbsmadmin" accessId="user:defaultWIMFileBasedRealm/uid=tbsmadmin,o=netcoolObjectServerRepository"/> </authorizations> <authorizations xmi:id="RoleAssignmentExt_4" role="SecurityRoleExt_4"/> <authorizations xmi:id="RoleAssignmentExt 5" role="SecurityRoleExt 5"/> <authorizations xmi:id="RoleAssignmentExt 6" role="SecurityRoleExt 6"> <users xmi:id="UserExt_1547584733976" name="tbsmadmin" accessId="user:defaultWIMFileBasedRealm/uid=tbsmadmin,o=netcoolObjectServerRepository"/> <specialSubjects xmi:type="rolebasedauthz:ServerExt" xmi:id="ServerExt" 2"/> <specialSubjects xmi:type="rolebasedauthz:PrimaryAdminExt" xmi:id="PrimaryAdminExt 2"/> </authorizations> <authorizations xmi:id="RoleAssignmentExt 7" role="SecurityRoleExt 7"/> <authorizations xmi:id="RoleAssignmentExt 8" role="SecurityRoleExt 8"> <users xmi:id="UserExt_1547584734100" name="tbsmadmin" accessId="user:defaultWIMFileBasedRealm/uid=tbsmadmin.o=netcoolObjectServerRepository"/> </authorizations> <roles xmi:id="SecurityRoleExt_1" roleName="administrator"/> <roles xmi:id="SecurityRoleExt_2" roleName="operator"/> <roles xmi:id="SecurityRoleExt 3" roleName="configurator"/> <roles xmi:id="SecurityRoleExt_4" roleName="monitor"/> <roles xmi:id="SecurityRoleExt_5" roleName="deployer"/> <roles xmi:id="SecurityRoleExt_6" roleName="adminsecuritymanager"/> <roles xmi:id="SecurityRoleExt_7" roleName="nobody"/> <roles xmi:id="SecurityRoleExt_8" roleName="iscadmins"/> </rolebasedauthz:AuthorizationTableExt>

→ All the entries "defaultWIMFileBasedRealm" should be changed to reflect the correct realm name

Same for /Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/audit-authz.xml file

<?xml version="1.0" encoding="UTF-8"?>

<rolebasedauthz:AuthorizationTableExt xmi:version="2.0" xmlns:xmi="http://www.omg.org/XMI" xmlns:rolebasedauthz="http://www.ibm.com/websphere/appserver/schemas/5.0/rolebasedauthz.xmi" xmi:id="AuthorizationTableExt_11" context="domain">

<authorizations xmi:id="RoleAssignmentExt_11" role="SecurityRoleExt_11">

<users xmi:id="UserExt 1547584733889" name="tbsmadmin"

accessId="user:defaultWIMFileBasedRealm/uid=tbsmadmin,o=netcoolObjectServerRepository"/> <specialSubjects xmi:type="rolebasedauthz:ServerExt" xmi:id="ServerExt 11"/>

<specialSubjects xmi:type="rolebasedauthz:PrimaryAdminExt" xmi:id="PrimaryAdminExt_11"/> </authorizations>

<roles xmi:id="SecurityRoleExt_11" roleName="auditor"/>

</rolebasedauthz:AuthorizationTableExt>

→ defaultWIMFileBasedRealm -> should be changed to the correct realm

After restarting the server and re-tested, everything appears to be working correctly, the error is no longer present.



</authorizations> <roles xmi:id="SecurityRoleExt 11" roleName="auditor"/>

olebasedauthz:AuthorizationTableExt>

TBSM 6.2 Upgrade to Fix Pack 1

This section has the purpose to illustrate a complete step by step example for TBSM 6.2 upgrade to FixPack 1 including the additional steps needed to be followed in case the base version of TBSM 6.2 that is already installed is the one from July 2018 instead of the November 2018 version.

Download link Fix Pack 1: https://www-01.ibm.com/support/docview.wss?uid=ibm10876634

The one used in this example, for linux: <u>https://www-</u> 945.ibm.com/support/fixcentral/swg/selectFixes?product=ibm%2FTivoli%2FTivoli+Business+S</u> ervice+Manager&fixids=6.20-TIV-BSM-LINUX-FP0001&source=SAR&function=fixId&parent=ibm/Tivoli

List of minimum prerequisites as described within the Readme.txt file that comes with the fix pack binary:

- This Fix pack requires IBM Tivoli Business Service Manager Version 6.2.0.0 to be installed.

- Installation Manager on your machine should be 1.8.8 or higher
- JazzSM 1.1.3 Fixpack3 (DASH 3.1.3 FP3)
- Impact 7.1.0 Fix Pack 15

For this guide DASH FP3 and Impact FP16 have been used.

Before installing the Fix Pack 1 it is mandatory to check the build version of the TBSM 6.2.0.0 package currently on the environment. This can be done running the versioninfo script located in the <TBSM_HOME>/bin directory.

If the utility header output shows a build date of 20181106 you <u>only need to run steps 7 and 8</u> without the additional steps for the old release!!

If the utility header output shows a built date of 2018072 then follow all the steps described in this document.

Example:

[root@busy1 schema files]# /Miha/opt/IBM/tivoli/tbsm/bin/versioninfo

```
[root@busy1 schema files]# /Miha/opt/IBM/tivoli/tbsm/bin/versioninfo
                                             201807231316
TBSM Version Utility:
                       Build date: 6.2.0.
             Thu Jul 04 05:41:56 PDT 2019
Gathered:
Java:
             1.8.0 211 [IBM Corporation]
             /Miha/opt/IBM/tivoli/impact/sdk/jre
Java VM:
             IBM J9 VM [j9jit29]
Platform:
             Linux
             3.10.0-862.3.2.el7.x86 64
             amd64
            /Miha/opt/IBM/tivoli/tbsm
TBSM HOME:
IMPACT HOME: /Miha/opt/IBM/tivoli/impact
             busy1.castle.fyre.ibm.com [172.20.20.12]
Machine:
```

1. Download the refresh TBSM 6.2.0.0 Installation package. The following are the updated TBSM 6.2.0.0 base install packages with a build date of **20181106**:

CNXG3ML IBM Tivoli Business Service Manager V6.2 Linux 64-bit Multilingual TBSM_V6.2_LINUX_64_BIT_MULTI.zip

CNXG4ML IBM Tivoli Business Service Manager V6.2 AIX 64-bit Multilingual TBSM_V6.2_AIX_64_BIT_MULTI.zip

CNXG5ML IBM Tivoli Business Service Manager V6.2 Windows 64-bit Multilingual TBSM_V6.2_WIN_64_BIT_MULTI.zip

2. Determine location where the original installation package was placed. This is the location of the original repositories directory that were used for TBSM installation. This can be done by example by running Installation Manager imcl "command line" utility to list the installed packages.

Command: /opt/IBM/InstallationManager/eclipse/tools/imcl listInstalledPackages -verbose

Example:

[root@busy1 schema files]# /Miha/opt/IBM/InstallationManager/eclipse/tools/imcl listInstalledPackages -verbose

Look for the "Repository" information associated with both the Dashboard and Data Server applications. For example:



3. Backup or rename the repository locations (identified at step 2) for each of the TBSM components (Data and Dashboard Server).

/tmpTBSM/data_linux/data_media_linux/disk1 /tmpTBSM62/dash_linux/dash_media_linux/disk1

mv / tmpTBSM /tmpTBSM.old

4. Replace the old version (build 20180723) with the new base build version (build 20181106) by extracting the new downloaded Installation package into the same location where the initial one was present.

mkdir /tmpTBSM unzip TBSM_V6.2_LINUX_64-BIT_MULTI.zip -d /tmpTBSM

5. Copy data server and dash server offerings jar files of the new Installation package of TBSM 6.2 into the Offerings directory of your Installation Manager.

Offerings directory of Installation Manager: /var/ibm/InstallationManager/installRegistry/metadata/Offerings/

Files needed to be copied into the above directory: com.ibm.tivoli.tbsm.Dataserver_6.2.0.20181106_0249.jar com.ibm.tivoli.tbsm.Dataserver_6.2.0.20181106_0249_SE.jar com.ibm.tivoli.tbsm.dashserver_6.2.0.20181106_0249_jar com.ibm.tivoli.tbsm.dashserver_6.2.0.20181106_0249_SE.jar

Their current location is under the extracted location of TBSM 6.2 base package (Nov edition):

/tmpTBSM/data_linux/data_media_linux/disk1/md/Offerings /tmpTBSM62/dash_linux/dash_media_linux/disk1/md/Offerings

[root@busy1 tmpTBSM]# cd /tmpTBSM/data linux/data media linux/disk1/md/Offerings
[root@busy1 Offerings]# ls
com.ibm.tivoli.tbsm.Dataserver 6.2.0.20181106 0249.jar toc.xml
com.ibm.tivoli.tbsm.Dataserver 6.2.0.20181106 0249 SE.jar
reat (hugu) Offaningal #
<pre>[root@motleys1 test]# ls /tmpTBSM62/dash_linux/dash_media_linux/disk1/md/Offerings</pre>
com.ibm.tivoli.tbsm.dashserver 6.2.0.20181106 0249.jar toc.xml
com ibm tivoli them dashserver 6.2.0.20181106.0249 SE jar

Therefore, commands to be run:

ср

/tmpTBSM/data_linux/data_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbsm.Dataserver_6.2 .0.20181106_0249.jar/var/ibm/InstallationManager/installRegistry/metadata/Offerings/

ср

/tmpTBSM/data_linux/data_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbsm.Dataserver_6.2 .0.20181106_0249_SE.jar/var/ibm/InstallationManager/installRegistry/metadata/Offerings/

[root@busy1 Offerings]# cp /tmpTBSM/data_linux/data_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbsm.Dataserver_ 6.2.0.20181106_0249.jar /var/ibm/InstallationManager/installRegistry/metadata/Offerings/ [root@busy1 Offerings]# cp /tmpTBSM/data_linux/data_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbsm.Dataserver_ 6.2.0.20181106_0249_SE.jar /var/ibm/InstallationManager/installRegistry/metadata/Offerings/

ср

/tmpTBSM62/dash_linux/dash_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbsm.dashserver_ 6.2.0.20181106_0249_SE.jar/var/ibm/InstallationManager/installRegistry/metadata/Offerings/

ср

/tmpTBSM62/dash_linux/dash_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbsm.dashserver_ 6.2.0.20181106_0249.jar/var/ibm/InstallationManager/installRegistry/metadata/Offerings/

[root@motleys1 test]# cp /tmpTBSM62/dash_linux/dash_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbs
rver_6.2.0.20181106_0249_SE.jar /var/ibm/InstallationManager/installRegistry/metadata/Offerings/
[root@motleys1 test]# cp /tmpTBSM62/dash_linux/dash_media_linux/disk1/md/Offerings/com.ibm.tivoli.tbs
rver 6.2.0.20181106_0249.jar /var/ibm/InstallationManager/installRegistry/metadata/Offerings/

6. Edit toc.xml to add the recently added Offerings jar files on each server

vi /var/ibm/InstallationManager/installRegistry/metadata/Offerings/toc.xml

Check the number of items you have at the beginning of the script and increase it by 1.

example:

from 7

Proot@busy1:/tmpTBSM/data_linux/data_media_linux/disk1/md/Offerings	-		X
xml version='1.0' encoding='UTF-8'?			
toc version='0.0.1'?			
<toc filecount="7"></toc>			
<file <="" md5="b8fa0572085da0586117</td><td>73ddc4</td><td>40503</td><td>le" name="com.ibm.cic.agent 1.8.9000.20180313 1417.jar" size="20450" td=""></file>			
name2='com.ibm.cic.agent 1.8.9000.20180313 1417 SE.jar' size2='90767' md52='038c7c625f8c7977b47994cc	e4f830	018'/	>
<pre><file md5="d36689d7741</pre></td><td>b88a95</td><td>5fb51</td><td>fd4c</td></tr><tr><td>272f258" md52="98f0c</td><td>b5d0b3</td><td>3c0fb</td><td>6c4a</td></tr><tr><td>5b2158d0e96b9" name="com.ibm.tivoli.omnibus.core 5.50.80.20180828 1912.jar" name2="com.ibm.tivoli.omnibus.core 5.50.80.20180828 1912 SE.jar" size="27275" size2="325681"></file></pre>			
<pre><file name='com.ibm.tivoli.impact.gui server 7.1.0.20180917 1516.jar' size='8743' md5='4a29e6f97</pre></pre>	586331	ode6c	0290

to 8:



At the end of the file add the following entry for the dataserver jar files that were added:

```
<file name='com.ibm.tivoli.tbsm.Dataserver_6.2.0.20181106_0249.jar'size='8520'
md5='4a35b62d7ac8d7c4e74a96da6c97aa35'name2='
com.ibm.tivoli.tbsm.Dataserver_6.2.0.20181106_0249_SE.jar'size='60811'
md52='c9766b8320ff8db9b92f06684806653e'/>
```

Do the same for the dash server and at the end of the file add the following entry for the dash jar files that were added:

vi /var/ibm/InstallationManager/installRegistry/metadata/Offerings/toc.xml



to:

P ro	ot@motleys1:/test
xml</th <th>version='1.0' encoding='UTF-8'?></th>	version='1.0' encoding='UTF-8'?>
too</td <td>version='0.0.1'?></td>	version='0.0.1'?>
<toc< td=""><td>fileCount='9'></td></toc<>	fileCount='9'>
<	file name='com.ibm.cic.agent 1.8.9000.2
3bc'	name2='com.ibm.cic.agent 1.8.9000.2018(
3018'	/>
<	file name='com.ibm.websphere.BASE.v85 {

<file name='com.ibm.tivoli.tbsm.dashserver_6.2.0.20181106_0249.jar'size='15770' md5='f96bdf0bbd2aa60fe6887d6e5a0ce7db' name2='com.ibm.tivoli.tbsm.dashserver_6.2.0.20181106_0249_SE.jar'size2='38879' md52='ecdd458e87905efa0cb5fac7aaf6fc0d'/>

<file name='com.ibm.tivoli.tbsm.dashserver_6.2.0.20181106_0249.jar' size='15770' md5='f96bdf0bbd2aa60fe6887d6e5a0ce7db' name2='com.ibm.tiv pli.tbsm.dashserver 6.2.0.20181106 0249 SE.jar' size2='38879' md52='ecdd458e87905efa0cb5fac7aaf6fc0d'/>

All non-vital programs should be closed prior to installation of the Fixpack. This includes the Impact Data and Dashboard servers, as well as, JazzSM (hosting the TBSM Dashboard Server).

7. Run the update script for the TBSM Data Server component

Go to the directory where you have extracted fix pack 1 and select the data_linux component. If needed, add the necessary permissions for the scripts to be executed.

For example, for installing via gui mode, run update_gui_linux.sh script:

[root@busy1 data linux]# ./update gui linux.sh

Select the TBSM Data server package:

Package Group Name	
Package Group Name	
	Directory
ଞ୍ଚ IBM Netcool Core Components	/Miha/opt/IBM/tivoli/netcool
💘 IBM Tivoli Business Service Manager	/Miha/opt/IBM/tivoli/tbsm
ିକ୍ଷ୍ଣ IBM Tivoli Netcool Impact	/Miha/opt/IBM/tivoli/impact
Update <u>a</u> ll packages with recommended updates and recommended fixes	
Update <u>a</u> ll packages with recommended updates and recommended fixes	
Update <u>a</u> ll packages with recommended updates and recommended fixes	
Update <u>a</u> ll packages with recommended updates and recommended fixes etails IM Tivoli Business Service Manager	
Update <u>a</u> ll packages with recommended updates and recommended fixes etails IM Tivoli Business Service Manager Shared Resources Directory. /Miha/opt/IBM/IBMIMShared	
Update <u>a</u> ll packages with recommended updates and recommended fixes etails IM Tivoli Business Service Manager Shared Resources Directory. /Miha/opt/IBM/IBMIMShared Installation Directory. /Miha/opt/IBM/tivoli/tbsm	
Update <u>a</u> ll packages with recommended updates and recommended fixes etails IM Tivoli Business Service Manager Shared Resources Directory: /Miha/opt/IBM/IBMIMShared Installation Directory: /Miha/opt/IBM/tivoli/tbsm Translations: English	
Update <u>a</u> ll packages with recommended updates and recommended fixes etails IM Tivoli Business Service Manager Shared Resources Directory: /Miha/opt/IBM/IBMIMShared Installation Directory: /Miha/opt/IBM/tivoli/tbsm Translations: English Architecture: 64-bit	

 Update
 Recommended
 Vendor

 ✓
 ✓
 ✓
 ✓

 ✓
 ✓
 ✓
 IBM

Select the features to install					
Update Packages	Updates	Licenses	Features	Summary	
Features					
🔹 📝 🧊 IBM Tivoli Busine	ss Manager Data	Server 6.2.0.1			
IBM Tivoli Bu	isiness Service Ma	anager Data Server			
					_

Review the summary informa	ation.			F
Update Packages	Updates Cicenses	Features	Summary	
larget Location				
Package Group Name:	IBM Tivoli Business Service Man	ager		
Installation Directory:	/Miha/opt/IBM/tivoli/tbsm			
Shared Resources Directory:	/Miha/opt/IBM/IBMIMShared			
Jpdates				
Features To Install		Features To Re	move	
ibit Space Information	ess Service Manager Data Serv			
/ fotal Download Size: 198.23	8 MB		Total	Available Space 204.48 GB
	3 MB			
otal Installation Size: 210.18				
fotal Installation Size: 210.18 Repository Information	(
fotal Installation Size: 210.18		< Back	Next > Update	e Cancel
otal Installation Size: 210.18	The packages	< Back	Next > Updat	e Cancel
otal Installation Size: 210.18 Repository Information	The packages	< Back are updated. d:	Next > Update	e Cancel
tal Installation Size: 210.18 Repository Information	The packages	< Back are updated. d:	Next > Update	e Cancel
tal Installation Size: 210.18 Repository Information	The packages ing update was installe	< Back are updated. d:	Next > Update	e Cancel

8. Run the update script for the TBSM DASH Server component

Go to the directory where you have extracted fix pack 1 and select the dash_linux component. If needed, add the necessary permissions for the scripts to be executed.



For example, for installing via gui mode, run update_gui_linux.sh script:

[root@motleys1 dash_linux]# ./update_gui_linux.sh

Select the TBSM Dash server package:

ect a package group to find updates for.	
ackage Group Name	Directory
🍾 IBM Tivoli Business Service Manager	/Miha/opt/IBM/tivoli/tbsmdash
Peg IBM WebSphere Application Server V8.5	/Miha/opt/IBM/WebSphere/AppServer
୧ _{୧୦} Core services in Jazz for Service Management	/Miha/opt/IBM/JazzSM
ଞ୍ଚ IBM Netcool GUI Components	/Miha/opt/IBM/netcool/gui

date	Recommended	Vendor
🖌 🎭 IBM Tivoli Business Service Manager		
▼ 📝 🗊 IBM Tivoli Business Service Manager Dashboard Server 6.2.0.0	(Ir	
✓ 1 Version 6.2.0.1	~	IBM

Update Packages	Updates		Licenses		Features	\rightarrow	Summary	
eatures								
👿 🧃 IBM Tivoli Bu	siness Service N	lanager	Dashboar	d Serve	r 6.2.0.1			

					L.
Update Packages	Updates Licenses	Features	Summar	y) ()	
Target Location					
Package Group Name:	IBM Tivoli Business Service Mana	ager_1			
Installation Directory:	/Miha/opt/IBM/tivoli/tbsmdash				
Shared Resources Directory.	/Miha/opt/IBM/IBMIMShared				
Updates					
Features To Install		Features To	Remove		
♥ []] IBM Tivoli Business 5 () IBM Tivoli Busine	ervice Manager Dashboard Sei 255 Service Manager Dashboarc				
Disk Space Information / Total Download Size: 459.14 Total Installation Size: 707.90 Repository Information	MB MB			Total Avail	able Space 204.50 GB
Disk Space Information / Total Download Size: 459.14 Total Installation Size: 707.90 ▶ Repository Information	MB	< Back	Next >	Total Avail Update	able Space 204.50 GB Cancel
Disk Space Information / Total Download Size: 459.14 Total Installation Size: 707.90 Repository Information	MB MB The packages are updated. <u>Vis</u> te was installed:	< Back	Next >	Total Avail	able Space 204.50 GB Cancel

Restart the servers, check the versions and make sure everything is running correctly.

cd /Miha/opt/IBM/InstallationManager/eclipse/tools/

./imcl listInstalledPackages -long -features

/Miha/opt/IBM/tivoli/tbsm : com.ibm.tivoli.tbsm.Dataserver_6.2.0.20190320_0120 : IBM Tivoli Business Manager Data Server : 6.2.0.1 : com.ibm.tivoli.DataServer

/Miha/opt/IBM/tivoli/tbsmdash : com.ibm.tivoli.tbsm.dashserver_6.2.0.20190320_0129 : IBM Tivoli Busin ice Manager Dashboard Server : 6.2.0.1 : com.ibm.tivoli.DashServer

¢	→ C û https://motleys1.castle.fyre.ibm.com:16311/ibm/consol	e/navig	90% ••	· 🛡 🕁	Q Search			⊻	\ ⊡	≡
9	Impact × Service Configuration ×									+ •
*	Service Navigation	? Se	rvice Edito	or						₹ ?
	Templates 👻 🍸 🅃 🥥		2							•
'	Template	Ter	nplate Properti	ies					* required	field
	Compared	^	Template Desc	Name: *BS ription: HT	M_HTTP TP Servers				Edit Prope	arties
1::: : :::	BSM_SpecializationTemplates		Displa	ay Icon: 🛛 🕍	Browse					?
	BSM_BatchJob		Rules Tagge	d Services	Output Expressions	SLA Additi	onal Security			
~~	BSM_BizTalkHost	1	K (B) (12 (623 Pas (🚳					
2		44			99 999 🔊					
		Se	lect Type	R	ule Name	Ru	le Settings			_
\mathbf{x}	Bow_dictainserver									
	BSM_CustomApplication									
	BSM_DB2Database									
	BSM_DB2DatabaseServer									
	BSM_HTTP									
	BSM_IBMApplication									
	BSM_IMS									
	DOM IDECApolication									

Configure SSL between DASH and Impact for TBSM 6.2

The following steps have worked correctly for configuring SSL within TBSM 6.2.0.1 test environment:

1. Add impact.server.iphostname=FQDN within TBSM_server.props on Impact Server and restart Impact.

/Miha/opt/IBM/tivoli/impact/etc/TBSM_server.props

impact.server.iphostname=busy1.castle.fyre.ibm.com

2. Enable SSL between Impact components

To enable SSL, run the following command:

./configImpactSSL.sh enable <keystore password>

Where <keystore password> is the keystore password that is set during the Netcool/Impact installation.



3. Restart Impact

/Miha/opt/IBM/tivoli/impact/bin/startImpactServer.sh

/Miha/opt/IBM/tivoli/impact/bin/startGUIServer.sh

- 4. Exchange certificates between DASH and TBSM
- 4.1.From the DASH

WAS -> Security -> SSL certificate and key management -> Key stores and certificates -> NodeDefaultTrustStore > Signer certificates -> Select the root JazzSM certificate and select to extract this certificate.

<u>SSL cert</u> Manages	t ificate and key m a	anagement > Key stores and cer	tificates > <u>NodeDefaultTrustStore</u> > Signer certificates		
🛨 Prefer	rences				
Add	Add Delete Extract Retrieve from port				
C C) 👯 📽				
Select A	lias 🛟	Issued to 🗘	Fingerprint (SHA Digest) 💲	Expiration 🗘	
You can	You can administer the following resources:				
	npactuicert	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US	20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39	Valid from 03- Jul-2019 to 30- Jun-2029.	
	<u>oot</u>	CN=motleys1.castle.fyre.ibm.com, OU=Root Certificate, OU=JazzSMNode01Cell, OU=JazzSMNode01, O=IBM, C=US	FA:41:A0:62:8C:54:0B:B8:E1:06:65:AF:FA:C7:48:55:8F:26:38:EF	Valid from 02- Jul-2019 to 28- Jun-2034.	
Total 2					

Enter a name for the jazzsm certificate and save it.

General Properties	
* File name	
jazzsm.cer	
Data type Base64-encoded ASCII data V	
Apply OK Reset Cancel	

Messages
The signer certificate, root, was successfully extracted to the file /Miha/opt/IBM/JazzSM/profile /etc/jazzsm.cer.

/Miha/opt/IBM/JazzSM/profile/etc/jazzsm.cer

Import jazzsm.cer into trust.jks for the front and backend components (TBSM and ImpactIUI). One option to perform this is by running:

/Miha/opt/IBM/tivoli/impact/sdk/jre/bin/ikeyman

Open truststore location for TBSM:

File Name: /Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/trust.jks

Select "signer certificated" and add a new certificate:

🙀 IBM Key Managen	nent - [/Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/trust.jks]			×
Key Database <u>F</u> il	le <u>C</u> reate ⊻iew <u>H</u> elp			
	Key database information			
DB-Type:	JKS			
File Name:	/Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/trust.jks			
Token Label:				
	Key database content			
Signer Certifica	tes 🗸 🗸	Ad	d	
default		De	lete	
localimpactcert				
		Vie <u>w</u>	/Edit	
		Extr	act	
		Baar	1 - 4 -	

Add jazzsm certificate that was copied from JazzSM server:

🔯 Open		×
<u>F</u> ile Name:	jazzsm.cer	Browse
Location:	/tmpcer	
	<u>O</u> K <u>C</u> ancel	

🐴 Ente	er a Label X
?	Enter a label for the certificate:
	Jazzsm
	<u>O</u> K <u>C</u> ancel

55 T	Key database information	
DB-Type:	jks	
File Name:	/Miha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/trust.jks	
Token Label:		
	Key database content	
Signer Certific	ates 🗸 🗸	<u>A</u> dd
default		Delete
jazzsm		
localimpactcer	t	Vie <u>w</u> /Edit

			Key database information							
DB-Type:	JKS									
File Name:	/opt,	/opt/IBM/tivoli/impact/wlp/usr/servers/ImpactUI/resources/security/trust.jks								
Token Label:										
			Key database content							
Signer Certific	ates	💆 Open		×	▼ <u>A</u> dd					
default localimpactcer	t	<u>F</u> ile Name:	jazzcert.cer	Browse	<u>D</u> elete					
		Location:	/opt/IBM/JazzSM/profile/etc		Vie <u>w</u> /Edit					
			<u>O</u> K <u>Cancel</u>		E <u>x</u> tract					
					Populate					
					Rename					

Add the same jazzsm certificate into ImpactUI truststore location as well.

Key Database <u>F</u> ile <u>C</u> reate	<u>V</u> iew <u>H</u> elp	
🗅 🚄 🖶 😤 🚯		
	Key database information	
DB-Type: JKS		
File Name: //Miha/opt/IB	M/tivoli/impact/wlp/usr/servers/ImpactUl/resources/security/trust.jks	
Token Label:		
	Key database content	
Signer Certificates		▼ <u>A</u> dd
default		Delete
localimpactcert		
		Vie <u>w</u> /Edit
		E <u>x</u> tract
🔯 Open		×
File Name:	jazzem cer	Browco

<u>F</u> ile Name:	jazzsm.cer	Browse
Location:	/tmpcer	
	<u>O</u> K <u>C</u> ancel	

	Key database information								
DB-Type:	JKS								
File Name:	/Miha/opt/IBM/tivoli/impact/wlp/usr/servers/ImpactUl/resources/security/trust.jks								
Token Label:									
	Key database content								
Signer Certifica	Signer Certificates								
default	default <u>D</u> elete								
localimpactcer	2	Vie <u>w</u> /Edit							
		E <u>x</u> tract							

4.2. From TBSM UI and backend to DASH

Go to WAS -> SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates > Retrieve from port

As SSO has been configured already within this guide the TBSM UI certificate is already present:

TOU C	an auminister the folio	wing resources:		
	impactuicert	CN=busy1.castle.tyre.ibm.com, O=IBM, OU=ImpactUI, C=US	20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39	Valid from 03- Jul-2019 to 30- Jun-2029.
	root	CN=motleys1.castle.fyre.ibm.com, OU=Root Certificate, OU=JazzSMNode01Cell, OU=JazzSMNode01, O=IBM, C=US	FA:41:A0:62:8C:54:0B:B8:E1:06:65:AF:FA:C7:48:55:8F:26:38:EF	Valid from 02- Jul-2019 to 28- Jun-2034.

The nameserver 9081 certificate for TBSM backend is also required.

SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates > Retrieve from port
Makes a test connection to a Secure Sockets Layer (SSL) port and retrieves the signer from the server during the handshake.
General Properties
+ Host busy1.castle.fyre.ibm.com
* Port 9081
SSL configuration for outbound connection NodeDefaultSSLSettings
* Alias TBSMBackend
Retrieve signer information
Apply OK Reset Cancel

SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates > Retrieve from port
Makes a test connection to a Secure Sockets Layer (SSL) port and retrieves the signer from the server during the handshake.
General Properties
* Host busy1.castle.fyre.ibm.com
* Port 9081
SSL configuration for outbound connection NodeDefaultSSLSettings
* Alias
TBSMBackend
Retrieve signer information
Retrieved signer information
Serial number
738257142
Issued to
CN=busy1.castle.fyre.ibm.com, O=IBM, OU=TBSM, C=US
Issued by
CN=busy1.castle.fyre.ibm.com, O=IBM, OU=TBSM, C=US
Fingerprint (SHA digest)
5C:3B:91:3C:E3:4D:E5:12:21:93:86:05:C0:4A:5C:D7:1B:32:2D:1F
Volidity period
30-301-2023
Apply OK Reset Cancel
Messages

⚠ Changes have been made to your local configuration. You can:
■ Save directly to the master configuration.

<u>Review</u> changes before saving or discarding.

⚠ The server may need to be restarted for these changes to take effect.

impactuicert	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US	20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39	Valid from 03- Jul-2019 to 30- Jun-2029.
root	CN=motleys1.castle.fyre.ibm.com, OU=Root Certificate, OU=JazzSMNode01Cell, OU=JazzSMNode01, O=IBM, C=US	FA:41:A0:62:8C:54:0B:B8:E1:06:65:AF:FA:C7:48:55:8F:26:38:EF	Valid from 02- Jul-2019 to 28- Jun-2034.
<u>tbsmbackend</u>	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=TBSM, C=US	5C:3B:91:3C:E3:4D:E5:12:21:93:86:05:C0:4A:5C:D7:1B:32:2D:1F	Valid from 03- Jul-2019 to 30- Jun-2029.

The following steps are also required to perform all the changes needed for SSL to be configured.

For DASH:

1. Update the chart services:

Go to JazzSM_home/ui/bin directory:

[root@motleys1 dash linux]# cd /Miha/opt/IBM/JazzSM/ui/bin

and run the following commands after changing hostname/port, user/password parameters where needed.

./consolecli.sh ChartConnection --action delete --name TBSMChartService --username smadmin --password netcool

./consolecli.sh ChartConnection --action create --name TBSMChartService --protocol https -hostname motleys1.castle.fyre.ibm.com --port 16311 --serviceName ibm/sla/rad --renderFormat BIRT --credentialType SSO --username smadmin --password netcool



2. Update the following 3 files locate under:

/Miha/opt/IBM/JazzSM/profile/installedApps/JazzSMNode01Cell/isc.ear/sla.war/etc/



nameserver.props

impact.nameserver.0.port=9080 -> change to: impact.nameserver.0.port=9081
impact.nameserver.ssl_enabled=false -> change to: impact.nameserver.ssl_enabled=true



RAD_server.props

impact.server.http.port=9080-> impact.server.http.port=9081impact.server.http.protocol=http-> impact.server.http.protocol=httpsimpact.replication.replicationhttpport=9080-> impact.replication.replicationhttpport=9081impact.server.ssl_enabled=false-> true

```
impact.server.http.port=9081
impact.server.http.protocol=https
impact.replication.replicationhttpport=9081
impact.server.ssl_enabled=true
```

RAD_sla.props

impact.sla.serverhttpport=9080 -> impact.sla.serverhttpport=9081 impact.sla.serverhttpport.backup=9080 -> impact.sla.serverhttpport.backup=9081 impact.sla.serverhttpprotocol=http -> impact.sla.serverhttpprotocol=https impact.rad.birtcharts.service.protocol=http -> impact.rad.birtcharts.service.protocol=https impact.sla.dashboard.redirect.protocol=http -> impact.sla.dashboard.redirect.protocol=https

```
impact.sla.serverhttpport=9081
# <http port of failover backend server>
impact.sla.serverhttpport.backup=9081
impact.sla.propertiestoexport=Order,GroupName,MapURL,SLAHourlyPenalty,TBSM_Dat
impact.sla.serverhttpprotocol=https
```

impact.rad.birtcharts.service.protocol=https

For DATA server:

Update the following 2 files under the below location:

/Miha/opt/IBM/tivoli/impact/etc

[root@busy1 etc]# pwd /Miha/opt/IBM/tivoli/impact/etc

TBSM_server.props

impact.server.http.port=9080->impact.server.http.port=9081
impact.server.http.protocol=http -> impact.server.http.protocol=https

```
impact.server.http.port=9081
impact.server.http.protocol=https
```

TBSM_sla.props

impact.rad.birtcharts.service.protocol=http -> impact.rad.birtcharts.service.protocol=https

and add all these as well as they are not present, can be placed anywhere within the TBSM_sla.props file:

impact.sla.serverhttpport=9081 impact.sla.serverhttpport.backup=9081 impact.sla.serverhttpprotocol=https impact.sla.dashboard.redirect.protocol=https

```
# Protocol to use for chart service
impact.rad.birtcharts.service.protocol=https
impact.sla.serverhttpport=9081
impact.sla.serverhttpport.backup=9081
impact.sla.serverhttpprotocol=https
impact.sla.dashboard.redirect.protocol=https
```

Stop DASH and Impact server and apply the test fix received from IBM for APAR IJ17100. This is created based on the Impact version used for TBSM. If you don't already have the test fix raise a case with IBM and ask for a test fix for IJ17100 for your Impact version.

Go to the location where you have extracted the zip file:

```
[root@motleys1 test]# cd /testfix/
[root@motleys1 testfix]# ls
ncCommon.jar nciClient.jar nci.jar
```

Replace those 3 jar files under the below directory with the ones from the test fix.

/Miha/opt/IBM/JazzSM/profile/installedApps/JazzSMNode01Cell/isc.ear/sla.war/WEB-INF/lib

Take a backup of the following jar files outside this directory:

ncCommon.jar nciClient.jar nci.jar

Replace the jar files with the ones from the test fix:

```
[root@motleys1 lib]# cp /testfix/ncCommon.jar ncCommon.jar
cp: overwrite `ncCommon.jar'? y
[root@motleys1 lib]# cp /testfix/nci.jar nci.jar
cp: overwrite `nci.jar'? y
[root@motleys1 lib]# cp /testfix/nciClient.jar nciClient.jar
cp: overwrite `nciClient.jar'? y
```

Restart DASH and Impact and make sure everything works fine.

TBSM features:



Configure SSL between TBSM 6.2 and OMNIbus

There is a limitation in TBSM 6.2 related to the rad_sendevent utility which does not currently support connecting to the Netcool/OMNIBus ObjectServer over SSL. As a result, if the ObjectServer is configured to only accept SSL connections, then rad_sendevent will fail. To work around this limitation, the ObjectServer needs to be configured to accept connections on an additional, non-SSL port.

Configure OMNIbus 8.1 in SSL mode

Edit omni.dat file and set a SSL port for the object server definition.

Run nco_igen script to generate the interfaces and afterwards re-start the object server

cd /Miha/opt/IBM/Tivoli/netcool/bin ./nco_igen

[root@busy1 backuptest]# /Miha/opt/IBM/tivoli/netcool/bin/nco igen



Create OMNIbus certificate for SSL

1.1. Create CMS key database (Acting as Issuing CA):

./nc_gskcmd -keydb -create -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -stash -expire 3660

[root@busy1_bin]# ./nc_gskcmd_-keydb -create -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -stash -expire 3660

1.2. Create self-signed CA certificate:

./nc_gskcmd -cert -create -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -label "CA" -size 1024 -ca true -dn "CN=CA,O=IBM,OU=Support,L=IBMRO,ST=Bucharest" -expire 3660 -x509version 3

[root@busy1 bin]# ./nc_gskcmd -cert -create -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -label "CA" -size 1024 -ca true -dn "CN=CA,O=IBM,OU=test,L=IBMRO,ST=Bucharest" -expire 3660 -x509version 3 [root@busy1 bin]#

1.3. Export the CA Certificate for distribution:

./nc_gskcmd -cert -extract -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -label "CA" -target "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/cacert.arm"

[root@busy1 bin]# ./nc_gskcmd -cert -extract -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool
-label "CA" -target "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/cacert.arm"

1.4. Create certificate request for primary ObjectServer:

Note: Label is same as the server name in omni.dat file as is the Common Name (CN)

./nc_gskcmd -certreq -create -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -label "NCOMS" -size 2048 -dn "CN=NCOMS,O=IBM,OU=Support,L=IBMRO,ST=Bucharest" -file "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/NCOMS_req.arm"

[root@busy1 bin]# ./nc_gskcmd -cert -create -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -label "NCOMS" -size 2048 -dn "CN=NCOMS,0=IBM,OU=test,L=IBMRO,ST=Bucharest" -file "/Miha/opt/IBM/tivoli/netcool/etc/se curity/keys/NCOMS_reg.arm"

1.5. Sign the certificate requests using above created signer certificate label CA:

./nc_gskcmd -cert -sign -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -label "CA" -target "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/NCOMS_req.arm" expire 3660 -file "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/NCOMS_req.arm"

[root@busy1 bin]# ./nc_gskcmd -cert -sign -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -l
abel "CA" -target "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/NCOMS_req.arm" -expire 3660 -file "/Miha/opt/IBM/tiv
oli/netcool/etc/security/keys/NCOMS req.arm"

1.6. Receive the signed certificate in omni.kdb file:

./nc_gskcmd -cert -receive -db "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/omni.kdb" -pw netcool -file "/Miha/opt/IBM/tivoli/netcool/etc/security/keys/NCOMS_req.arm"

[root@busy1 bin]	# ./nc	gskcmd	-cert	-receive	-db	"/Miha/o	pt/IBM/	/tivoli/	netcool,	/etc/s	security	/keys/	omni.	kdb"	-pw :	netcool
-file "/Miha/oj	pt/IBM/t	ivoli/n	etcool	/etc/seci	urity	/keys/NC	OMS red	1.arm"								
[root@busy1 bin]	1#						_									

1.7. Restart Object server and test SSL for OMNI

Run nco_xigen:

X Test Stat	tus X
Server : Status : Result :	NCOMS, busy1.castle.fyre.ibm.com, 4100 Test Complete. Server available.
	100 %
	Close and Test SSL Port

Select close and Test SSL Port:



Import Object Server signer's certificates into trust stores of TBSM servers

The object server certificate that will need to be imported is:

/Miha/opt/IBM/tivoli/netcool/etc/security/keys/cacert.arm

Import the certificate into the TBSM Impact Server and GUI trust-store.

Run ikeyman from /opt/IBM/Tivoli/impact/sdk/jre/bin directory:

/Miha/opt/IBM/tivoli/impact/sdk/jre/bin/ikeyman

Add the cacert.arm certificate from omnibus into ImpactUI truststore:
		Key database information		
DB-Type:	JKS			
File Name:	/Miha/opt/IBM/tivoli/impact/wlp	/usr/servers/ImpactUI/resources/security/trust.jks		
Token Label:				
		Key database content		
Signer Certifica	tes		•	<u>A</u> dd
default				Delete
localimpactcert				Vie <u>w</u> /Edit
	📴 Open		×	E <u>x</u> tract
	<u>F</u> ile Name:	cacert.arm	<u>B</u> rowse	Populate
	Location:	/Miha/opt/IBM/tivoli/netcool/etc/security/keys		Rena <u>m</u> e
		<u>O</u> K <u>C</u> ancel		<u>V</u> alidate

Add the cacert.arm certificate from omnibus into TBSM truststore:

	Key database information		
DB-Type: JKS	S		
File Name: /M	1iha/opt/IBM/tivoli/impact/wlp/usr/servers/TBSM/resources/security/trust.jks		
Token Label:			
	Key database content		
Signer Certificates	s	-	<u>A</u> dd
default			<u>D</u> elete
localimpactcert			Vie <u>w</u> /Edit
	Open Eile Name: cacert.arm	X	E <u>x</u> tract
	Location: //Miha/opt/IBM/tivoli/netcool/etc/security/keys		Populate
	<u>O</u> K <u>C</u> ancel		Rena <u>m</u> e
			Validate

Configure ObjectServer data sources on Data server

Take a backup of these files:

\$IMPACT_HOME/etc/TBSM_ObjectServer_DS.ds \$IMPACT_HOME/etc/TBSM_OutputObjectServer_DS.ds \$IMPACT_HOME/etc/TBSM_eventbroker.props

Update the following files with change the values of the following properties from FALSE to TRUE and if the secure ObjectServer channel was configured over a different port than the typical 4100, change these port number properties accordingly.

TBSM_ObjectServer_DS.ds:

USESSLPRIMARY=TRUE USESSLBACKUP=TRUE

PRIMARYPORT BACKUPPORT

[root@busy1 security]# vi /Miha/opt/IBM/tivoli/impact/etc/TBSM ObjectServer DS.ds

#This file was written by server.
#Thu Nov 05 07:57:22 EST 2009
ObjectServer_DS.ObjectServer.USESSLPRIMARY=TRUE
ObjectServer_DS.ObjectServer.BACKUPHOST=
ObjectServer DS.ObjectServer.PRIMARYHOST=busy1.castle.fyre.ibm.com
ObjectServer DS.ObjectServer.MAXSQLCONNECTION=5
ObjectServer_DS.ObjectServer.USESSLBACKUP=TRUE
ObjectServer DS.ObjectServer.BACKUPPORT=
ObjectServer_DS.ObjectServer.PRIMARYPORT=51 <mark>0</mark> 0
ObjectServer_DS.ObjectServer.JDBCDRIVER=com.sybase.jdbc3.jdbc.SybDriver
ObjectServer DS.ObjectServer.FAILOVERPOLICY=DISABLED
ObjectServer_DS.ObjectServer.DBUSERNAME=root
ObjectServer DS.ObjectServer.DISABLEFAILOVER=false
ObjectServer_DS.ObjectServer.DBPASSWORD=

TBSM_OutputObjectServer_DS.ds:

USESSLPRIMARY=TRUE USESSLBACKUP=TRUE PRIMARYPORT BACKUPPORT

vi /Miha/opt/IBM/tivoli/impact/etc/TBSM OutputObjectServer DS.ds

Restart data server after all these changes.

/Miha/opt/IBM/tivoli/impact/bin/stopImpactServer.sh /Miha/opt/IBM/tivoli/impact/bin/stopGUIServer.sh

/Miha/opt/IBM/tivoli/impact/bin/startImpactServer.sh /Miha/opt/IBM/tivoli/impact/bin/startGUIServer.sh



Configuring dashboard server secure connection to Netcool/OMNIbus as user repository

Follow these steps to establish a secure channel for communications between a TBSM dashboard server and the ObjectServer when the ObjectServer is being used as a user registry.

Retrieve the ObjectServer certificate and save it into the trust store of the dashboard server.

Go to WebSphere Administrative Console -> Security -> SSL Certificate and key management -> Key stores and certificate:



Select NodeDefaultTrustStore:

<u>SSL certificate and key management</u> > Key stores and certificates Defines keystore types, including cryptography, RACF(R), CMS, Java(TM), and all truststore types.							
Keystore usages							
SSL keystores							
Preferences							
New Delete Change password Exchange signers							
00#9							
Select Name 🛟	Description 🗘	Management Scope 🗇	Path 🗘				
You can administer the following resources:							
NodeDefaultKevStore	Default key store for JazzSMNode01	(cell):JazzSMNode01Cell: (node):JazzSMNode01	\${CONFIG_ROOT}/cells /JazzSMNode01Cell/nodes /JazzSMNode01/key.p12				
NodeDefaultTrustStore Default trust store for JazzSMNode01 (cell):JazzSMNode01Cell: (node):JazzSMNode01 \$(CONFIG_ROOT)/cells /JazzSMNode01Cell/nodes /JazzSMNode01/trust.p12							
Total 2							

Select Signer Certificate:

eneral Properties	Additional Properties
Name	Signer certificates
NodeDefaultTrustStore	Personal certificate
Description	Personal certificate
Default trust store for JazzSMNode01	requests
Management scope	Custom properties
(cell):JazzSMNode01Cell:(node):JazzSMNode01	
Path	
\${CONFIG_ROOT}/cells/JazzSMNode01Cell/nodes/JazzSMNode01/trust.p12	

Click on Retrieve from port:

<u>SSL co</u>	<u>SSL certificate and key management</u> > <u>Key stores and certificates</u> > <u>NodeDefaultTrustStore</u> > Signer certificates								
Manag	es signer certificates in	key stores.							
🛨 Pre	ferences								
Add	Add Delete Extract Retrieve from port								
Select	Alias 🛟	Issued to 🗘	Fingerprint (SHA Digest) 🗇	Expiration 🗘					
You c	an administer the follow	wing resources:							
	impactuicert	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US	20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39	Valid from 03- Jul-2019 to 30- Jun-2029.					
	root	CN=motleys1.castle.fyre.ibm.com, OU=Root Certificate, OU=JazzSMNode01Cell, OU=JazzSMNode01, O=IBM, C=US	FA:41:A0:62:8C:54:0B:B8:E1:06:65:AF:FA:C7:48:55:8F:26:38:EF	Valid from 02- Jul-2019 to 28- Jun-2034.					
	tbsmbackend	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=TBSM, C=US	5C:3B:91:3C:E3:4D:E5:12:21:93:86:05:C0:4A:5C:D7:1B:32:2D:1F	Valid from 03- Jul-2019 to 30- Jun-2029.					
Total	3								

Fill in with the object server hostname and SSL port details:

SSL certificate and key management > Key stores and certificates > NodeDefaultTrustStore > Signer certificates > Retrieve from port Makes a test connection to a Secure Sockets Layer (SSL) port and retrieves the signer from the server during the handshake.
General Properties
* Host busy1.castle.fyre.ibm.com
* Port 5100
SSL configuration for outbound connection NodeDefaultSSLSettings
* Alias omnibuscert
Retrieve signer information
Apply OK Reset Cancel

Click on retrieve signer information and afterwards save the changes:

<u>SSL certificate and key management</u> > <u>Key stores and certificates</u> > <u>Node</u>	<u>DefaultTrustStore</u> > <u>Signer certificates</u> > Retrieve from por
Jakes a test connection to a Secure Sockets Layer (SSL) port and retrieves the sign	ner from the server during the handshake.
eneral Properties	
Host	
busy1.castle.fyre.ibm.com	
Port	
5100	
SSL configuration for outbound connection	
NodeDefaultSSLSettings \vee	
Alias	
omnibuscert	
Retrieve signer information	
Retrieved signer information	
Serial number	
5163091956081942901	
Issued to	
CN=CA, OU=test, O=IBM, L=IBMRO, ST=Bucharest	
Issued by	
CN=CA, OU=test, O=IBM, L=IBMRO, ST=Bucharest	
Fingerprint (SHA digest)	
7B:A2:DC:01:76:52:26:30:F9:4F:3C:94:10:63:59:0C:A9:1F:C9:56	
Validity period	
19-Jul-2029	
L	
Apply OK Reset Cancel	



SSL ce	ertificate and key m	anagement > Key stores and cert	ificates > <u>NodeDefaultTrustStore</u> > Signer certificates						
Manag	Manages signer certificates in key stores.								
🛨 Pre	Preferences								
Add	Delete Extract	Retrieve from port							
Select	Select Alias 🗘 Issued to 🗘 Fingerprint (SHA Digest) 🗘 Expiration 🗘								
You c	an administer the follow	ving resources:							
	impactuicert	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=ImpactUI, C=US	20:C1:87:32:74:86:3E:32:31:36:1E:00:76:B9:16:33:65:36:9E:39	Valid from 03- Jul-2019 to 30- Jun-2029.					
	omnibuscert	CN=CA, OU=test, O=IBM, L=IBMRO, ST=Bucharest	7B:A2:DC:01:76:52:26:30:F9:4F:3C:94:10:63:59:0C:A9:1F:C9:56	Valid from 11- Jul-2019 to 19- Jul-2029.					
	root	CN=motleys1.castle.fyre.ibm.com, OU=Root Certificate, OU=JazzSMNode01Cell, OU=JazzSMNode01, O=IBM, C=US	FA:41:A0:62:8C:54:0B:B8:E1:06:65:AF:FA:C7:48:55:8F:26:38:EF	Valid from 02- Jul-2019 to 28- Jun-2034.					
	tbsmbackend	CN=busy1.castle.fyre.ibm.com, O=IBM, OU=TBSM, C=US	5C:3B:91:3C:E3:4D:E5:12:21:93:86:05:C0:4A:5C:D7:1B:32:2D:1F	Valid from 03- Jul-2019 to 30- Jun-2029.					
Total	4								

Make sure that SSL is enabled within the following file on the DASH server:

 $/Miha/opt/IBM/JazzSM/profile/installedApps/JazzSMNode01Cell/isc.ear/sla.war/etc/RAD_server.props$

The following property should be set to true:

impact.server.ssl_enabled=true

[root@motleys1 lib]# vi /Miha/opt/IBM/JazzSM/profile/installedApps/JazzSMNode01C ell/isc.ear/sla.war/etc/RAD_server.props<mark>.</mark>

Controls whether Impact internal connections use SSL or not. Note: certifica
te
exchanges between servers need to take place before the value of this property
is
set to true.
impact.server.ssl_enabled=true

Restart DASH server.

Configuring DASH/WebGUI connection to Netcool/OMNIBus

Take a backup of the following files:

\$NCHOME/omnibus_webgui/etc/server.init \$NCHOME/omnibus_webgui/etc/datasources/ncwDataSourceDefinitions.xml \$JazzSM_HOME/profile/config/cells/JazzSMNode01Cell/wim/config/wimconfig.xml [root@motleys1 lib]# cp /Miha/opt/IBM/netcool/gui/omnibus_webgui/etc/server.init /Miha/opt/IBM/netcool/gui/omnibus webgui/etc/server.init_back_

[root@motleys1 lib]# cp /Miha/opt/IBM/netcool/gui/omnibus_webgui/etc/datasources
/ncwDataSourceDefinitions.xml /Miha/opt/IBM/netcool/gui/omnibus_webgui/etc/datas
ources/ncwDataSourceDefinitions.xml back

Edit server.init file and set the trust store password for the property:

webtop.ssl.trustStorePassword

The default password for WebSphere trust stores is **WebAS**, so the property would look as follows:

webtop.ssl.trustStorePassword:WebAS



Edit ncwDataSourceDefinitions.xml file and change the value of the ssl attribute from false to true and change the port to match the one configured for ssl:

Edit com.sybase.jdbc3.jdbc.SybDriver.props file and set the properties to true.

```
[root@motleys1 bin]# vi /Miha/opt/IBM/JazzSM/profile/etc/com.sybase.jdbc3.SybDri
ver.props
```



Edit wimconfig.xml file and change the value of the object server port to use the ssl port that has been configured within the com.ibm.tivoli.tip.vmm4ncos.ObjectServerAdapter section as bellow:

```
[root@motleys1 bin]# vi /Miha/opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Ce
ll/wim/config/wimconfig.xml
```



Restart DASH and afterwards make sure that everything works fine.

Test the connection to the object server in DASH (WebGUI -> Data Sources -> Select the created data source and click on Test Server connection option):

eneral	Failover	Display	Servers	Self Monitoring	Caching	Connection Pools	
Name: 🧿			NCOMS				
			Enab	bled			
			💌 In De	fault Group			
rimary Obj	jectServ						
Primary Obj * Host:	jectServ	1 T	he ObjectS i100' is avai	erver at host 'busy1. ilable.	castle.fyre.ibm	.com' on port	

Check SSO to Impact from DASH and also Object Server datasouce connection in Impact:



Test TBSM features:

0	Impact × Service Configuration	×					🗎 + *
*	Service Navigation			₹ ?	Service Editor		▼ ?
	Services 🔹 扚 🧗 🔍	5 0			8		3
	Service	State ~	Time 🗸	Events ~	Template Properties	al agragate Tomplato	* required field
₩	Imported Business Services		٩		Description: Instances of Display Icon: Q Brows	this template will act as t e	Edit Properties
1.4					Rules Tagged Services Output E	expressions SLA Additional Security	
0					🏚 🝙 🎼 🏰 🖓 🎰	•	
69					Select Type Rule Name	Rule Settings	
*					ESDA_GetTopLevelAggrega	tedServiceInstances ESDA ESDA_GetTopLevel	AggregatedServiceInstance
					scctoplevelnext	Any Bad When: SCR_Retrieve child is in a B	DependentObjectsTemplate ad state or worse.

٩,	Impact × Service Configuration ×			
*	Service Navigation	* ?	Service Editor * ?	
-#>> ►	Services 🔹 🎦 🧏 🔍 👼 🥝		0	
- 🕀 🖩 🛠 😍 🛠	Service State Time Imported Business Services	Events V	Service Properties * required field Service Name: Service Spy Display Name: Service Spy Description: (Plain text or HTML permitted)	
			BSM_BizTalk44essageBox ✓ ✓ ✓ Primary Template:{None ✓	

\leftarrow	> C' û	🗇 🔬 https://motleys1.castle.fyre. ibm.com :16311/ibm/console/navigation.do	?XSS=77746a7 (90%) ···· ♥ ✿ Q Sear	rch III\ 100 ≡
0	System Status 🛛 🛪			lì + *
*	TBSM System St	atus		?
÷.	Launch System Status	Page		
►	🍯 IBM Tivoli Netcool/I	mpact - Configuration Documenter - Mozilla Firefox		- 🗆 ×
\oplus	🛈 🖍 https://busy	1.castle.fyre. ibm.com :16311/documenter/WebDoc.jsp?clusterName=TBSMCLUS	TER	◙ ☆ =
	IBM Tivoli Netcool/	Impact 7.1.0.16		Refresh
~	Configuration Doc	umenter	Server Name: TBSM Version: 7.1.0.16 (20190612103	2) Generated on: Mon Jul 15 22:13:20 PDT 2019
*			Status D	Data Sources Data Types Policies Services
- * -	Cluster Status	for TBSMCLUSTER		
	Primary Server		Host	
£	TBSM (Current Insta	nce)	busy1.castle.fyre.ibm.com	
	Server Status			
	Memory Status		Current Usage (in MB)	Max Limit (in MB)
	Heap Memory Utiliza	tion	735	2400