Setting up IBM Update Installer to install and uninstall WebSphere Partner Gateway maintenance fixes and fixpacks.

1. Introduction

WebSphere Partner Gateway (WPG) fixes and fixpacks can now be installed and uninstalled through IBM® Update Installer for WebSphere Software (7.0.0.1 and above).

Users need to follow the instructions provided in this document to be able to use IBM Update Installer to install/uninstall fixes and fixpacks for WebSphere Partner Gateway.

Currently the following versions of WebSphere Partner Gateway are enabled.

WPG 6.1	Fixpack 3 onwards
WPG 6.2	All fixes and fixpacks

2. Setup Instructions

A. Download and install IBM Update Installer V7.0 fixpack 1 or above

Download and install IBM Update Installer 7.0 fixpack 1 or above on all machines where components of WebSphere Partner Gateway are installed.

Link to download –

http://www-01.ibm.com/support/docview.wss?rs=180&uid=swg24020212

B. Download and extract WebSphere Partner Gateway specific installer files for IBM Update Installer

1) Download UPDI for <version>.zip from the given link on the machines where WebSphere Partner Gateway Deployment manager, Hub, WebSphere Partner Gateway Application database, and MAS database is installed.

   version* = WPG version currently installed on your Machine
   http://www-01.ibm.com/support/docview.wss?uid=swg27015150

2) Unix users, login as root.

3) Extract this zip in the *<DMGR installed location>*, *<Hub Installed location>*, *<WebSphere Partner Gateway Application Database Installed location>* and *<WebSphere Partner Gateway MAS Database Installed location>*.

After extraction, the folder structure on *<DMGR installed location>* should look like the following.

<DMGR installed location>/properties/version/…
/responsefiles/…
/bin/bcgHistory.sh

C. Set up the IBM UPDI for WebSphere Partner Gateway

The user needs to place required JDBC driver and WebSphere Application Server (WAS) Admin client jar files under properties folder of WebSphere Partner Gateway installed locations.

Copy the following files.

- `<WAS_installation_path>\AppServer\runtimes\com.ibm.ws.admin.client_6.1.0.jar`
- `<WPG_Hub_Installation_path>\wasND\Profiles\bcgprofile\installedApps\wpgCell\BCGDocMgr.ear\lib\db2jcc.jar`
- `<WPG_Hub_Installation_path>\wasND\Profiles\bcgprofile\installedApps\wpgCell\BCGDocMgr.ear\lib\db2jcc_license_cu.jar`
- For Oracle users, Oracle JDBC driver which is being used with WebSphere Partner Gateway database.

Place the copied files above in the below locations.

- `<DMgr_Installation_path>\bcghub-dmgr\properties\version\nif\update\config\install\lib`
- `<DMgr_Installation_path>\bcghub-dmgr\properties\version\nif\update\config\uninstall\lib`
- `<Hub_Installation_path>\bcghub-distrib\properties\version\nif\update\config\install\lib`
- `<Hub_Installation_path>\bcghub-distrib\properties\version\nif\update\config\uninstall\lib`
- `<WPG_DB_Installation_path>\bcgappsdb\properties\version\nif\update\config\install\lib`
- `<WPG_DB_Installation_path>\bcgappsdb\properties\version\nif\update\config\uninstall\lib`
- `<MAS_DB_Installation_path>\bcgmasdb\properties\version\nif\update\config\install\lib`
- `<MAS_DB_Installation_path>\bcgmasdb\properties\version\nif\update\config\uninstall\lib`

D. Provide the system configuration details

Update the appropriate locale specific response file with the required parameter values. The response file is named as bcgupdate_<locale>.txt. These response files are available under the below locations:

- *<DMGR installed location>/responsefiles/*
- *<HUB installed location>/responsefiles/*
- *<Application Database installed location>/responsefiles/*
- *<MAS Database installed location>/responsefiles/*

Refer to the section – "Response file parameters" in this document for details on the parameters.

Now your system is ready for using IBM Update Installer for applying WebSphere Partner Gateway maintenance fixes and fixpacks.

3. Installing and uninstalling a Fix Pack

Prerequisites

1. Take the backup of WebSphere Partner Gateway application database before installing the fixpack.

2. Stop all WebSphere Partner Gateway servers.

   Note: On simple mode deployment, the server should be up and running while applying the FixPack.

3. Make sure that Deployment Manager (DMGR) and all node agents are up and running for simple distributed and fully distributed deployments.

Points to remember

1. The fixpack must be installed and uninstalled with "root" user on UNIX platforms.

   Note: On simple mode deployment on UNIX platforms, the fixpack should be installed and uninstalled with "WPGUser" on hub installed location. On application DB location , UPDI should be run with root user.

   Note: While running UPDI on simple mode on UNIX, Please provide all permissions to WPGUser on UPDI installed location.

2. The fix pack .pak file needs to be installed using IBM Update Installer in the following order. During un-installation, it should be on the reverse order.
   a. WebSphere Partner Gateway Deployment Manager (Not applicable for Simple mode deployment)
   b. WebSphere Partner Gateway Hub

c. WebSphere Partner Gateway Application DB

3. For silent mode installation or uninstallation, following parameters must be provided in the response file.
   - maintenance.package
   - update.type

Installation Steps in UI mode

1. Launch IBM Update Installer by executing the script update.sh/.bat available under IBM Update Installer installed location.
2. The IBM Update Installer will guide through out the installation process. Please verify the logs for more information on success or failure of the installation.
3. Refer to WPGUpdateInformation.log under `<DMGR installed location\ logs\update\<pakname>.uninstall\WPGUpdateLogs` for more information on install and uninstall operations.

Un-installation Steps in UI mode

1. Launch IBM Update Installer by executing the script update.sh/.bat available under IBM Update Installer installed location.
2. The IBM Update Installer will guide through out the uninstallation process. Please verify the logs for more information on success or failure of the uninstallation.
3. Restore the WebSphere Partner Gateway application database from the backup taken before the fixpack installation process.

Note: Uninstallation of a fixpack using IBM Update Installer does not uninstall the database changes. Restoring the database from the backup needs to be done manually as mentioned above to achieve complete uninstallation of the fixpack.

Installing / Uninstalling a fixpack in silent mode

1. Execute update.sh file located under IBM Update Installer installed location. The install or uninstall operation will be executed as per the action provided for update.type parameter in the response file.

   Example:
   ```
   update -options /opt/bcghub-dmgr/responsefiles/
   bcgupdate_en_US.txt -silent
   ```

This command will install or uninstall the fixpack provided in bcgupdate_<locale>.txt.

2. Verify the logs for more information on success or failure.

4. Installing and uninstalling an iFix

Prerequisites

1. Taking backup of WebSphere Partner Gateway application database is not always required. If required, IBM will provide this information while delivering a specific fix.
2. On simple mode deployment, the server should be up and running while applying the fix.
3. Make sure that Deployment Manager (DMGR) and all node agents are up and running for simple distributed and fully distributed deployments.

Points to remember

1. The fix must be installed and uninstalled with "root" user on UNIX platforms.

2. Installing the fix on all machines may not be required and is dependent on the type of the fix. If a fix is required to be executed on multiple machines, it will be communicated while delivering the fix. However, the order should be followed if a fix .pak is required to be installed on multiple machines.

   a. WebSphere Partner Gateway Deployment Manager (Not applicable for Simple mode deployment)
   b. WebSphere Partner Gateway Hub
   c. WebSphere Partner Gateway Application DB

3. For silent mode installation or uninstallation, the following parameters must be provided in the response file.
   • maintenance.package
   • update.type

4. Refer to WPGUpdateInformation.log under `<DMGR installed location\ logs\update\<pakname>.uninstall\WPGUpdateLogs` for more information on install and uninstall operations.

Installation Steps in UI mode

1. Launch IBM Update Installer by executing the script update.sh/.bat available under IBM Update Installer installed location.
2. The IBM Update Installer will guide through out the installation process. Please verify the logs for more information on success or failure of the installation.

Un-installation Steps in UI mode

1. Launch IBM Update Installer by executing the script update.sh/.bat available under IBM Update Installer installed location.
2. The IBM Update Installer will guide through out the uninstallation process. Please verify the logs for more information on success or failure of the uninstallation.
3. Restore the WebSphere Partner Gateway application database from the backup taken before the fix installation process (if required).

Installing / Uninstalling an iFix in silent mode

Refer to the section – "Installing / Uninstalling a fixpack in silent mode". The steps for applying a fix in silent mode are exactly same as that for a fixpack.

Advanced options for iFix installation

Refer to the section "Installing an iFix on selected nodes".

5. History of fixes

To view the history of fixes applied, run bcgHistory.sh/bcgHistory.bat file located under DBGR/bin location. This file needs either of these two parameters - Complete / Current. "Complete" option will create a file named FixHistory.txt under the same directory. It will list the history of fixes that are installed and uninstalled. "Current" option will display the current list of fixes applied on the system.

<u>**Note:**</u>
- This script should be executed with root user on UNIX platform.
- If the absolute path of the bcgHistory.bat./.sh contains any space, one more parameter that is absolute path of the bcgHistory.bat/.sh must be provided as a third parameter.
- The bcgHistory.bat / .sh file should not be run from the WPG application database location.

6. Response file parameters

Below are the *examples* of each parameter name value pairs in the Response file and their descriptions.

- `-W product.location ="/opt/IBM/bcghub-dmgr"`

  This value refers to the installed location of WebSphere Partner Gateway component. Please mention relevant location for Deployment Manager, HUB, application Database and MAS database in their respective response files.

- `-W update.soapport="55880"`

  This value refers to the soap port of DMGR (Server port in case of simple mode, default port number for simple mode is 58880).

- `-W update.dbtype="DB2"`

  This value refers to the DB type. Possible values will be DB2 or ORACLE.

- `-W update.dbhost="9.184.117.114"`

  This value refers to the hostname or IP of the server where database is installed.

- `-W update.dbname="bcgapps"`

  This value refers to name of application database. This will be the SID name in case of Oracle.

- `-W update.dbport="50000"`

  This value refers to the port of the of application database. In case of Oracle, the default port would be 1521.

- `-W update.ownername="db2inst1"`

  This value refers to the DB owner name.

- `-W product update.ownerpassword=" db2inst1 "`

  If the DB type is DB2, this value refers to the DB owner password, and if it is ORACLE then this refers to schema owner password.

- `-W update.dbschemaname="DB2INST1"`

  If the DB type is DB2 this value refers to the SCHEMA NAME of the application database, and if it is ORACLE then this refers to schema owner name.

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- `-W update.nodename="bcgnode_9.184.112.234;bcgnode_9.185.11.23"`

  This value refers to the node name on which user wants to apply the fix. If you would like to install the fix on all nodes (entire cluster), then enter the value as "Cluster".

  Note:
  1. Multiple node names can be provided as semi colon separated values.
  2. If the fix has any DB fix, the value should be set to "Cluster", else fix application will fail.
  3. The node names must be exactly same as provided while installing the WebSphere Partner Gateway. These names can be taken from WebSphere Application Server admin console.
  4. On Simple mode, this value must always be "Cluster".
  5. While installing FixPack this value should be "Cluster".

- `-W update.groupname="bcggroup"`

  This value refers to WebSphere Partner Gateway group name.

- `-W update.RunSQLFiles="YES"`

  This parameter is used while installing the FixPack only. This is used for user to choose whether the Update Installer should only create SQL files OR create the SQL files and then run them to update the database. The Update Installer saves the files to the <Install Root>\<WPGUpdate>\<PakName>\database\ directory. If you want the Update Installer to run the SQL files, provide YES, if not then provide NO. Default value is set to "YES", Please change this to "YES" if you want UPDI to update the DB while applying fixpack automatically.

Note: While installing Temp Fix of I fix this value will not be read by UPDI, so can be left as default.

7. Troubleshooting

In case of fix or fixpack installation/uninstallation failure, check the logs updateconfig.log.gz, from both the install / uninstall locations.

For example, the install locations would be as below:

<DMGR installed location>/logs/update/<pakfilename>.install/
<Hub installed location>/ logs/update/<pakfilename>.install/
<Database installed location>/ logs/update/<pakfilename>.install/

Following are the common issues for which the installation / uninstallation may fail.

- Node agent is not running.
- Wrong soap port is provided in bcgupdate.txt.
- Node name provided in bcgupdate_Locale.txt is incorrect.
- DMGR is down.
- Not able to connect to the database because of wrong credentials provided in bcgupdate.txt file.
- JDBC driver or WebSphere Application Server client jar is not copied under required locations (as mentioned in Prerequisite section above).
- Cannot apply any fix that has database changes on selected nodes. That is the reason UPDI will fail if you provide any node name as a parameter for -W update.nodename in bcgupdate_Locale.txt file. You must provide "Cluster" in this file whenever a fix has database changes. If you provide node name(s), the installation will fail. In this case, correct the node name to have "Cluster" and run UPDI again. This will recover from the failure and run the installation again.
- If you have WebSphere Partner Gateway installed on mounted system, you might get "Space not available" error while invoking UPDI. In this case, UPDI will not let you proceed with the installation.
  You can refer to the WebSphere Application Server UPDI Technote, which addresses this issue.
  http://www-01.ibm.com/support/docview.wss?rs=2311&uid=swg21301250
  Refer to the point 2 under "Resolving the problem", which is relevant for the 'Update installer problem with UPDI 6.1.0.13 and above'.
  If you are applying any new WAS FP, please update the client jar.
- In case users upgrade WAS fix pack , they need to take WAS client com.ibm.ws.admin.client_6.1.0.jar and paste again to the locations given in above section "Set up the IBM UPDI for WebSphere Partner Gateway".

8. Limitations

- Application of **only one** fix at a time using UPDI is currently supported for WebSphere Partner Gateway UPDI. So please select only one package while installing WebSphere Partner Gateway maintenance.

- If any kind of WAS security is enabled for WebSphere Partner Gateway, User needs to disable it while applying the maintenance.

- While applying the Fixpack, for users having **Simple Mode** installed on Unix platform, UPDI should be executed with WPG user only (example bcguser), not with root, and also before starting UPDI, user needs to change the owner of the Update installer installed location to WPG user (for example bcguser) (do not forget to revert back owner to root after applying the fix).

  <u>Note</u>: Running UPDI with root, while applying fixpack on Simple mode of

WebSphere Partner Gateway, will cause UPDI to hang.

- For some of the console fixes, console application needs to be restarted manually after **uninstallation** of the fix.

- UPDI will not perform install/uninstall of the database schema changes completely. In some cases of fixes having schema changes, IBM Support will provide the required information while sending the fix.

- Fixes having database changes will always be applied on the whole cluster. If you try to install the database fix on one node (by providing node name in response file), UPDI will fail the installation.

- UPDI will not be able to track any external manual synchronization from WebSphere Application Server admin console.

- UPDI synchronizes all the nodes before and after uninstalling any maintenance package. At any given point of time, the system (all nodes or a particular node) can have only one fix under evaluation. That is, if you have applied any fix on one node, verified the same and applied the second fix, then UPDI will first synchronize all the nodes and will federate the first fix to all the nodes.

- Some warning messages will be shown on console while running UPDI as shown below:

```
bash-3.00# ./update.sh

Executing command: /usr/IBM/WebSphere/UpdateInstaller7.0.0.1/java/jre/bin/java -
cp /usr/IBM/WebSphere/UpdateInstaller7.0.0.1/update.jar -Xms48m -Xmx384m run

Dec 15, 2008 1:45:43 PM com.ibm.websphere.management.AdminClientFactory
WARNING: ADMC0046W
Dec 15, 2008 1:45:44 PM com.ibm.ws.management.connector.interop.JMXClassLoader
WARNING: Could not find tmx4jTransform.jar in null/etc/tmx4jTransform.jar - Inte
roperability to older versions of WebSphere is disabled
Dec 15, 2008 1:45:44 PM com.ibm.ws.ssl.config.SSLConfigManager
INFO: ssl.disable.url.hostname.verification.CWPKI0027I
bash-3.00#
```

These warnings do not make any impact on fix installation.
To avoid these warnings, provide two more parameters as given below:
```
update.sh -Dwas.install.root "<WebSphere
Application Server_HOME>" -Dcom.ibm.SOAP.ConfigURL
"file:<WebSphere Application
Server_HOME>\profileTemplates\cell\dmgr\documents\
properties\soap.client.props"
```

- On Solaris platform, some exceptions will be seen on Console whenever UPDI is invoked. These exceptions do not affect the WebSphere Partner Gateway installation/uninstallation of maintenance packages, and can be ignored.

This issue will be solved in future releases of UPDI.

9. Installing an iFix on selected nodes

Note: This feature is provided to verify some fixes and should not be used on production systems.

WebSphere Partner Gateway UPDI can be also used to apply the maintenance only on selected nodes. This is helpful when user does not want the fix to be synchronized to the whole cluster automatically by WebSphere Application Server. To achieve this, please follow the steps given below.

Disable auto sync using the admin console.

1. Go to **System administration/Node agents > nodeagent > file synchronization service**.
2. Uncheck Enable service at server startup and Automatic synchronization and restart all the node agents and Deployment manager (DMGR).

After disabling the auto sync of WebSphere Application Server(WAS), UPDI can be used to apply the fix only on one node by giving the appropriate node name in the response file (-W update.nodename).

Note: 1) This step is just for the users who would like to apply the maintenance on single node rather than on entire cluster for test purpose.
2) FixPack can not be applied on single node so users should have auto sync "On" while applying the FixPack.

If you need to apply any fix on one or selected nodes for testing purpose, provide the node name(s) delimited by semicolon in `bcgupdate_Locale.txt file in property -W update.nodename`. Once the fix is applied and verified, synchronize the other nodes using the admin console manually.

To synchronize other nodes, follow the process mentioned below:
1. Launch WebSphere Application Server admin console.
2. Go to **System Administration -> Nodes**.
3. Select rest of the nodes and click **Full Resynchronize.**

Note: FixPack can not be applied on selected nodes in Cluster, It has to be applied on entire cluster, and hence users are suggested to have the Auto Sync "ON" while applying a FixPack.