

# IBM Initiate

## Patch releases 101



This presentation provides a high level overview of the IBM Initiate® Master Data Engine software patch installation process. For further information on this topic, consult the version specific maintenance release installation documentation which is referenced at the end of this presentation. This documentation contains step by step upgrade information that is not covered in this presentation.

## Agenda (1 of 2)

- Before you begin
  - Backup operational data
  - Gather existing configuration information
- Shut down sequence
- Patching Master Data Engine, external Entity Managers, and LDAP Servers (Windows)
  - Run installer
  - Run upgrade script (madconfig)
- Patching Message Broker Suite
  - Run installer
  - Update instance specific service files

This presentation provides you with an overview on the prerequisites that need to be done before applying a patch and, the proper shutdown sequence. The Master Data Engine, Entity Manager and LDAP server patch process is included and the Message Broker Suite patch process is discussed.

## Agenda (2 of 2)

- Startup sequence
- Patch install verification
- Reverting changes
- Resources
  - Documented patch install process
  - More information

The proper startup sequence for the software is explained and you will also learn how to verify that the patch was successfully installed. Next, a slide is displayed with information on where you can find maintenance release installation and other documentation.

## Before you begin (1 of 2)

- Review release notes
- Obtain patch installation documentation
- Obtain maintenance release software from Fix Central
  - <http://www.ibm.com/support/fixcentral/>
- Ensure proper permission (root/administrator) to perform patch installation
  - Stop and start service and process
  - Database and file system reading and writing

Before installing a maintenance release, review the release notes for that release to identify any issues that might affect the installation. Then, download the maintenance release software and copy it onto the server where the application to be patched resides. The maintenance release software is available for download from IBM Fix Central, which is located on the IBM Support Portal.

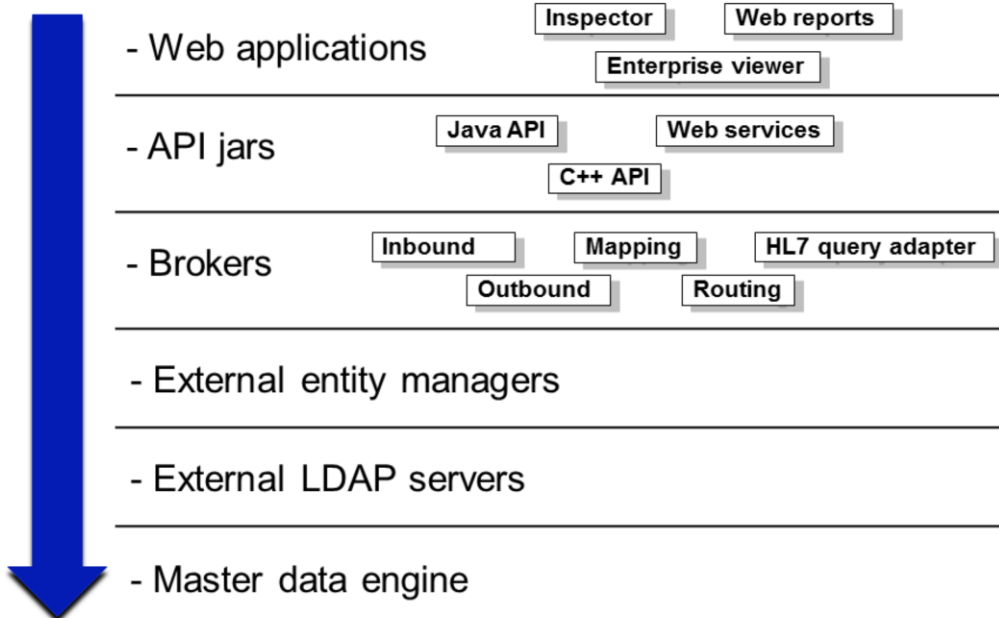
You must have administrative access to stop and start the Master Data Engine and Brokers, and permission to make changes to the database including modifying existing tables and creating new ones. Permission-related issues and other problems can typically be avoided by using a root account under UNIX. If you are installing on a Microsoft Windows server, you need to have administrator rights to properly install the software.

## Before you begin (2 of 2)

- Back up all IBM Initiate directories
  - MAD\_HOMEDIR – Instance home directory
  - MAD\_ROOTDIR – Installation directory
  - BROKER DIRs – All Broker HOME and ROOT directories
  - Web Application or any other directories that do not reside within MAD\_HOMEDIR (such as external LDAP or Entity Managers, environment variable profiles and so on)
- Back up databases
- Gather existing configuration information
  - Instance names
  - Services.ini (system variable MAD\_CONFNAME)
  - Running process/service names

Create a backup image of the data on the database server and the IBM Initiate directories on the application server in case you need to roll back. If you are running on a Windows server, take note of all of the service names for reference later. Also, note which services are currently running, which are set to manually restart, and which are set to automatically restart.

## Shut down sequence



6

Patch releases 101

© 2012 IBM Corporation

You must shut down all components in the application suite before beginning the patch install process. If IBM Support has provided specific instructions about the order in which to shut down your components, follow those instructions. Otherwise, shut down the various components in the order displayed on this slide. Your installation might not contain every component displayed.

First, shut down all client applications. This includes Web Applications, any custom application using the IBM Initiate API and any Message Brokers. Next, shut down any external Entity Managers or IBM Initiate LDAP servers. Finally, shut down the Master Data Engine instance.

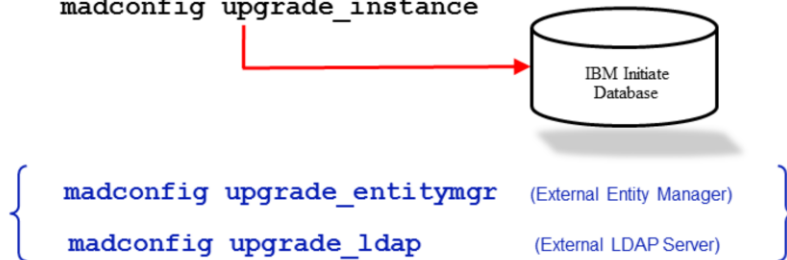
Once you have ensured that all services and or processes have been completely stopped, you can proceed to the next step.

## Patching Master Data Engine, external Entity Managers and LDAP Servers

- Step 1: Install Engine patch over existing Engine (MAD\_ROOTDIR)
  - Set “Destination directory” to your existing Engine’s root directory



- Step 2: Run MADCONFIG script
  - Go to MAD\_ROOTDIR/scripts
  - Run: `madconfig upgrade_instance`



7

Patch releases 101

© 2012 IBM Corporation

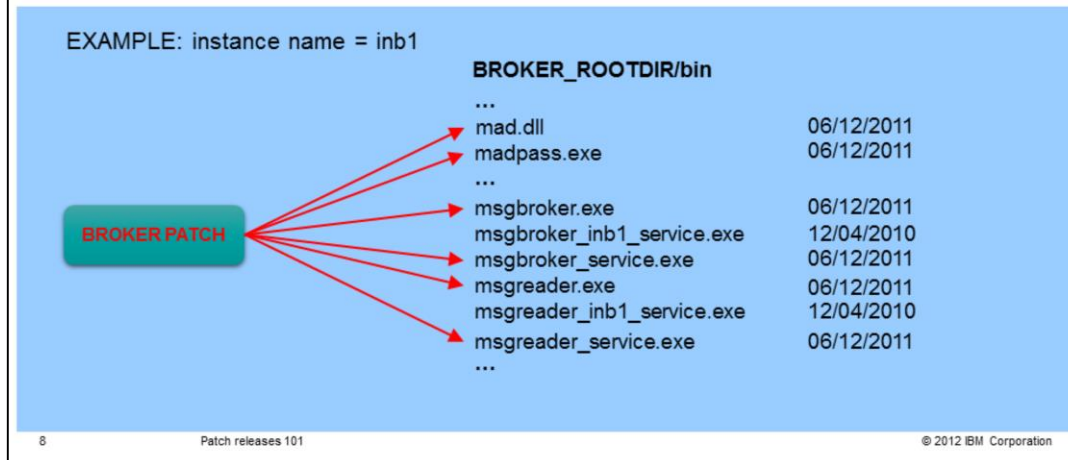
Patching the Master Data Engine is a two step process. The first step is to install the patch over the existing Master Data Engine root directory. Answer “Yes” when prompted, to confirm overwriting existing files. In Windows, the operating system will automatically update the registry, as needed.

For the second step, you will need to use the madconfig script. On the command line, browse to the MAD\_ROOTDIR/scripts directory and run madconfig with the “upgrade\_instance” parameter. Answer each question following the procedure detailed in the patch documentation for your specific version. Running the madconfig script will update the Initiate database with any changes required for the latest build.

Repeat running madconfig if you have any external Entity Managers or external LDAP servers. For a list of available commands, type “madconfig –p”.

## Patching Message Broker Suite

- Step 1: Install Broker patch over existing Broker (BROKER\_ROOTDIR).
  - Set "Destination directory" to existing Broker's root directory
- Step 2: Three step process for Windows only (UNIX based platforms are done)



Patching the Message Broker Suite is a three step process. The first step is to install the patch over the existing Broker. This only updates the base files that ship with the Broker. This includes the Master Service files which are the files with the file names containing "underscore service". From the example displayed on this slide, you see that the dates for all the base files (the files in red) were updated. Using the file dates is a good, quick, spot check, to ensure that the files have been updated. UNIX operating systems do not use instance specific files. Therefore, if your Brokers are installed on a UNIX type of operating system, you are done with the Broker patch process and can proceed to slide 13.



## Patching Message Broker Suite (Windows only 1 of 4)

- Step 3: Identify and remove all instance specific service files
  - Make list of all instance specific files
  - Delete instance specific files

EXAMPLE: instance name = inb1

<i>instance list</i>	
1 -	msgbroker_inb1_service.exe
2 -	msgreader_inb1_service.exe
	...

### BROKER\_ROOTDIR/bin

```

...
mad.dll                06/12/2011
madpass.exe           06/12/2011
...
msgbroker.exe         06/12/2011
msgbroker_inb1_service.exe 12/04/2010 ← DELETE
msgbroker_service.exe 06/12/2011
msgreader.exe         06/12/2011
msgreader_inb1_service.exe 12/04/2010 ← DELETE
msgreader_service.exe 06/12/2011
...

```

9

Patch releases 101

© 2012 IBM Corporation

This leaves instance specific files that were not updated or touched. These files were created by way of the Broker's madconfig script when the Broker instance was originally created. They are specific to your environment and will need to be manually deleted and re-created.

In this step, you delete these files but first make a list of them. You will need this list to re-create them later. Now that you have a complete list, you can delete them.

## Patching Message Broker Suite (Windows only 2 of 4)

- Step 4a: Recreate instance specific files
  - Make copy of Master Service files

EXAMPLE: instance name = inb1

<i>instance list</i>		<b>BROKER_ROOTDIR/bin</b>	
1 -	msgbroker_inb1_service.exe	...	
2 -	msgreader_inb1_service.exe	mad.dll	06/12/2011
		madpass.exe	06/12/2011
	...	...	
		msgbroker.exe	06/12/2011
		Copy of msgbroker_service.exe	06/12/2011
		msgbroker_service.exe	06/12/2011
		msgreader.exe	06/12/2011
		Copy of msgreader_service.exe	06/12/2011
		msgreader_service.exe	06/12/2011
		...	

10 Patch releases 101 © 2012 IBM Corporation

In the third step, use the Master Service files to re-create all the files you just deleted in step two. First, make a copy of the Master Service files.

## Patching Message Broker Suite (Windows only 3 of 4)

- Step 4b: Recreate instance specific files
  - Rename using list

EXAMPLE: instance name = inb1

<i>instance list</i>			
1 -	msgbroker_inb1_service.exe		
2 -	msgreader_inb1_service.exe		
	...		
		→	
		→	

BROKER_ROOTDIR/bin		
...		
mad.dll		06/12/2011
madpass.exe		06/12/2011
...		
msgbroker.exe		06/12/2011
msgbroker_inb1_service.exe		06/12/2011
msgbroker_service.exe		06/12/2011
msgreader.exe		06/12/2011
msgreader_inb1_service.exe		06/12/2011
msgreader_service.exe		06/12/2011
...		

11 Patch releases 101 © 2012 IBM Corporation

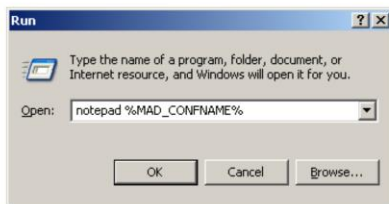
Using the list created earlier, rename the files you just copied. This copy and rename process needs to be repeated for all instance specific files that exist in your environment.

## Patching Message Broker Suite (Windows only 4 of 4)

- Example table

Broker Type	Instance name	Master Service files	Broker Service file name List
Inbound	inbl	msgbroker_service.exe msgreader_service.exe	msgbroker_inbl_service.exe msgreader_inbl_service.exe
Outbound	out1 (Base file, ships with patch)	outboundbroker_service.exe msgsender_service.exe	outboundbroker_out1_service.exe msgsender_out1_service.exe
Mapping	mpgl	mappingbroker_service.exe	mapping_mpgl_service.exe
Query	qry1	querybroker_service.exe	querybroker_qry1_service.exe
Routing	rtgl	routingbroker_service.exe	routingbroker_rtgl_service.exe

- Environment variable MAD\_CONFNAME points to master configuration file services.ini



WINDOWS

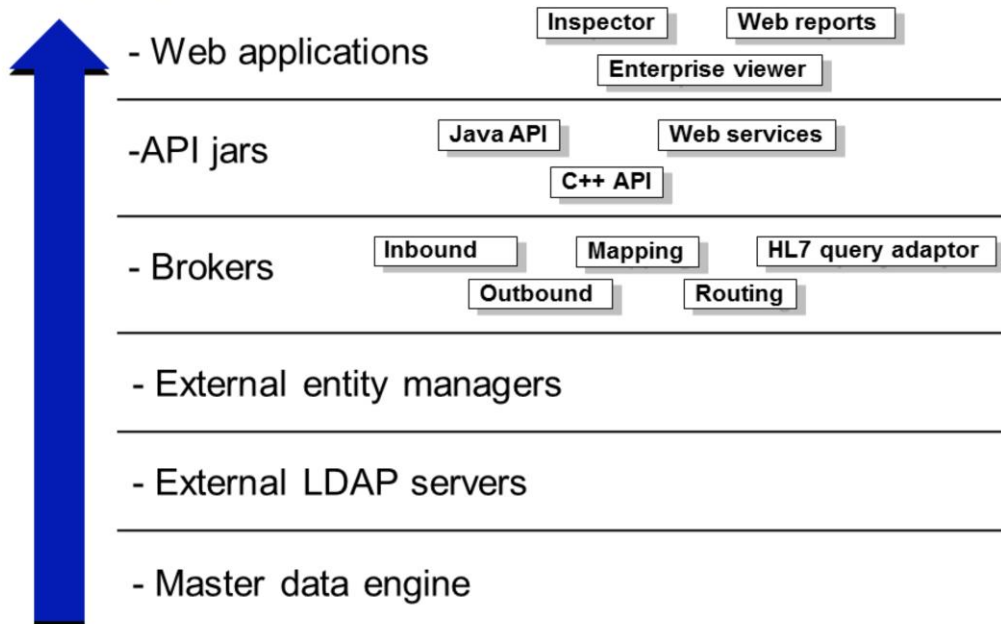
```
> echo $MAD_CONFNAME
```

UNIX

In the example used in this presentation, only the inbound Message Broker and Reader were displayed. However, in a typical environment, it is likely that there are more than one Broker type. The table displayed on this slide shows multiple Broker types along with their respective example instance names and instance specific service files.

To get a complete list of all of the instances used in your specific implementation, see the master configuration file. Typically, the master configuration file is named “services.ini” or “madman.ini”, but can be named anything as long as it is pointed to by the MAD\_CONFNAME environment variable. In Windows, open this file with Notepad. In a UNIX environment, echo \$MAD\_CONFNAME to get the location where this file resides. It is important that you do not modify this file unless instructed to do so by IBM Support.

## Start up sequence



13

Patch releases 101

© 2012 IBM Corporation

At this point, the patch has been applied and you can now proceed to restarting the processes or services. The startup sequence is the opposite of the shutdown sequence. Start with the Master Data Engine instance. Once this application is running, startup the rest of the applications. You must ensure that the Master Data Engine has completely started before starting any dependant applications.

## Patch install verification

- Master Data Engine
  - Run madconfig: **madconfig version**
- Message Broker Suite
  - Check dates on installed files
- Check logs



Once the patch has been applied, there are a couple of verification steps to take to ensure that the patch has been properly applied. For the Master Data Engine, run the madconfig script passing in “version” as the parameter. The madconfig script is located in the MAD\_ROOTDIR/scripts directory. This will display the version and build.

As previously mentioned, for the Message Broker Suite, look at the dates on the installed files and make sure that they match the patch release date. Alternatively, use the logs to verify the version and build within the logs. The first line in the log files will display the version and build. The file name of the installation package has both the version and build as well.

## Reverting changes

- Stop services or processes
- Remove ROOT directory
  - Master Data Engine: MAD\_ROOTDIR
  - Message Broker Suite: BROKER\_ROOTDIR
- Restore backed up files
  - Master Data Engine: MAD\_ROOTDIR
  - Message Broker Suite: BROKER\_ROOTDIR
- Restore Database (only if Master Data Engine has been patched)
- Start services or processes
  - Verify logs

To revert a patch install, stop all services in the order previously described and remove the patched file directories. Restore the backed up files to their original state. The path must be exactly the way it was before. Patching the Master Data Engine can update the database, therefore, restoring the database is required if the madconfig “upgrade\_instance” action was triggered. Finally, start the services or processes and verify that the old version and build are now displayed on the first line of the various log files, as previously described.

## Additional information

- Patch install documentation
  - Maintenance release installation guide for version 9.5 and later  
[http://publib.boulder.ibm.com/infocenter/initiate/v9r5/nav/1\\_1](http://publib.boulder.ibm.com/infocenter/initiate/v9r5/nav/1_1)
  - Maintenance release installation guide, versions 8.7 through 9.2  
[http://publib.boulder.ibm.com/infocenter/initiate/legacy/topic/com.ibm.patchinstall.doc/topics/c\\_patchinstall\\_introduction.html](http://publib.boulder.ibm.com/infocenter/initiate/legacy/topic/com.ibm.patchinstall.doc/topics/c_patchinstall_introduction.html)
  - For assistance applying a maintenance release for a version before 8.7, contact IBM Support directly  
<http://www.ibm.com/support>
- Support Technical Exchanges  
[http://www.ibm.com/support/entry/portal/Previous\\_tech\\_exchanges](http://www.ibm.com/support/entry/portal/Previous_tech_exchanges)
- Fix Central  
<http://www.ibm.com/eserver/support/fixes/>

This slide displays links for additional documentation about the patch install process. If you still have questions after consulting the documentation online, contact IBM Support by way of the Support Portal online.

Support Technical Exchanges are brief, informative presentations on particular support-related topics of interest. You can find these on the IBM.com website.

Finally, use Fix Central to download patches for your software. Patches are generally included in a complete bundle of the IBM Initiate software. You should upgrade all components that you are using, including the Master Data Engine, rather than, for example, just the Brokers on their own.



## Trademarks, disclaimer, and copyright information

IBM, the IBM logo, ibm.com, and Initiate are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of other IBM trademarks is available on the web at "[Copyright and trademark information](http://www.ibm.com/legal/copytrade.shtml)" at <http://www.ibm.com/legal/copytrade.shtml>

THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, or service names may be trademarks or service marks of others.

THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. WHILE EFFORTS WERE MADE TO VERIFY THE COMPLETENESS AND ACCURACY OF THE INFORMATION CONTAINED IN THIS PRESENTATION, IT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. IN ADDITION, THIS INFORMATION IS BASED ON IBM'S CURRENT PRODUCT PLANS AND STRATEGY, WHICH ARE SUBJECT TO CHANGE BY IBM WITHOUT NOTICE. IBM SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES ARISING OUT OF THE USE OF, OR OTHERWISE RELATED TO, THIS PRESENTATION OR ANY OTHER DOCUMENTATION. NOTHING CONTAINED IN THIS PRESENTATION IS INTENDED TO, NOR SHALL HAVE THE EFFECT OF, CREATING ANY WARRANTIES OR REPRESENTATIONS FROM IBM (OR ITS SUPPLIERS OR LICENSORS), OR ALTERING THE TERMS AND CONDITIONS OF ANY AGREEMENT OR LICENSE GOVERNING THE USE OF IBM PRODUCTS OR SOFTWARE.

© Copyright International Business Machines Corporation 2012. All rights reserved.