

Release Notes



IBM® Tivoli® Identity Manager

Dispatcher Component for Directory Integrator-based Adapters (TDI v6.1.1)

Version 5.125

(repackaging 5.1.4 release, build 5.120 for use with TIM 4.6 and 5.0)

First Edition (January 3, 2011)

This edition applies to version 5.1 of Tivoli Identity Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

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Preface

Welcome to the IBM Tivoli Identity Manager Dispatcher Component.

These Release Notes contain information for the following products that was not available when the IBM Tivoli Identity Manager manuals were printed:

- IBM Tivoli Identity Manager Dispatcher Component Installation and Configuration Guide

Component Features and Purpose

The Dispatcher Component is designed to support integration between Tivoli Directory Integrator and Identity Manager. The Dispatcher is shipped with each Directory Integrator based adapter and is updated to the current release version with each adapter release. This package provides the Dispatcher as a separately shipped component to fast-track upgrade and maintenance delivery.

Contents of this Release

Component Version

Component	Version
Release Date	January 3, 2011
Adapter Version	N/A
Component Versions	Dispatcher: 5.125
Documentation	Directory Integrator RMI Dispatcher Installation and Configuration Guide Version 5.1 (SC23-9626-00)

New Features

Enhancement # (FITS)	Description
	Items included in current release
	This Dispatcher has been updated and tested with both TIM v5.1, 5.0, and 4.6. The documentation packaged with this adapter mentions TIM v5.1, but applies to all releases.
	<p>IMPORTANT INSTALLATION NOTE</p> <p>1. Before installing this version of dispatcher, you need to uninstall the earlier versions of dispatcher. This installer cannot be run on top of existing dispatcher installation (builds 5.124 or earlier).</p> <p>2. Dispatcher installer will not ask for instance name and port number while upgrade.</p> <p>3. The user who is running the installer must have execute permissions on "ps" command on non-windows platforms.</p>
N/A	<p>Updated Installation Program.</p> <p>Installer is now built using Install Anywhere (2009). Silent installation is now provided.</p> <p>See "Corrections to Installation Guide" for more information.</p>
N/A	<p>Non-root installation support</p> <p>The dispatcher installer will no longer need root permissions to run. Installer can be run from any user's account as long as that particular user account have read, write and execute permissions on ITDI_HOME directory, its subfolders and ITDI Solution directory.</p>
	Items included in 5.1.6 release
	None
	Items included in 5.1.5 release
MR0804085838	Multiple RMI dispatchers installation is required on the same machine

Enhancement # (FITS)	Description
	Items included in 5.1.4 release
MR0507096955	SiebelJDB Adapter needs support for Siebel 8.1 This release of Dispatcher is updated to provide support for the above enhancement. Changes made in SiebelJDBAdapterUtils.java component of Dispatcher, for SiebelJDB adapter to support Siebel8.1
	Items included in 5.1.3 release
	None
	Items included in 5.1.2 release
	None
	Items included in 5.1.1 release
	Initial release for TIM v5.1

Closed Issues

CMVC#	APAR#	PMR# / Description
		Items closed in current version
		<p>IMPORTANT INSTALLATION NOTE</p> <p>1. Before installing this version of dispatcher, you need to uninstall the earlier versions of dispatcher. This installer cannot be run on top of existing dispatcher installation (builds 5.124 or earlier).</p> <p>2. Dispatcher installer will not ask for instance name and port number while upgrade.</p> <p>3. The user who is running the installer must have execute permissions on "ps" command on non-windows platforms.</p>
		Items closed in 5.1.6 version
	N/A	N/A AdaptersException missing serialVersionUID.
	N/A	N/A GlobalRunALCount getting incremented twice if ITDIAGENTException is thrown from AL.
		Items closed in 5.1.5 version
		None
		Items closed in 5.1.4 version
		None
		Items closed in 5.1.3 version
	N/A	PMR 48655,999,000 Dispatcher memory leak suspect - Dispatcher is running out of memory if TDI is 70. However it is working fine if TDI is 611.
	N/A	PMR 10530,500,000 Customer defined custom TDI/RMI adapters to have logging defined at the AL level, this is opening a new file descriptor to the log file each time the AL runs and these are not closing.
	N/A	N/A AL cache interfering with GlobalRunALCount - The AL cache (ALCacheSize and AssemblylineCacheTimeout?) is interfering with the GlobalRunALCount parameter yielding unexpected and undesirable results.

CMVC#	APAR#	PMR# / Description
		Items closed in 5.1.2 version
	N/A	N/A Corrected release notes. Adding configuration information on case insensitive filtering
		Items closed in 5.1.1 version
		Initial release for TIM v5.1

Known Issues

CMVC#	APAR#	PMR# / Description
		Dispatcher on Windows User must not specify the service name which consists of blank spaces on either side of service name. However user can specify the blank spaces between the words of service name such "TIM Adapters", "Test Service" etc. But "TIM Adapter "(Blank at the end) or " TIM Adapters"(Blank at start) will not create the service on windows.

Installation and Configuration Notes

See the IBM Tivoli Identity Manager Dispatcher Installation Guide for detailed instructions.

Corrections to Installation Guide

The following corrections to the Installation Guide apply to this release:

IMPORTANT INSTALLATION NOTE for Version 5.1.7 (Build 5.125)

1. Before installing this version of dispatcher, you need to uninstall the earlier versions of dispatcher. This installer cannot be run on top of existing dispatcher installation (builds 5.124 or earlier).
2. Dispatcher installer will not ask for instance name and port number while upgrade.
3. The user who is running the installer must have execute permissions on "ps" command on non-windows platforms.

Uninstalling or Upgrading the Dispatcher

The itim_listener.properties file is a dispatcher configuration file and is present in the TDI Home directory. Upgrading dispatcher component will replace this property file with newer version but the installer will take care to create back up of old file. Similarly, the uninstaller will also create a back up of "itim_listener.properties" file while uninstalling the dispatcher.

The back-up of this file will be created in following format.

itim_listener.000
itim_listener.001
itim_listener.002
(etc.)

New Installation Options for Build 5.125

Updates to Install Guide:

As installer has been built with Install Anywhere(2009), following commands have been changed:

1. To run the dispatcher installer in console mode, command switch has been changed from "console" to "-i console".
To run the installer in console mode, use following commands:
 - a. Installing the dispatcher on Windows:
DispatcherInstall_win.exe -i console
 - b. Installing the dispatcher on AIX, Solaris and HP-UX:
ITDI_HOME/jvm/jre/bin/java -jar DispatcherInstall.jar -i console
 - c. Installing the dispatcher on Linux:
./DispatcherInstall_linux.bin -i console

2. To run the installer in silent mode command switch has been changed from “-silent” to “-i silent”.
To run the installer in silent mode, use following commands:
 - a. Installing the dispatcher on Windows:
DispatcherInstall_win.exe -i silent -DLICENSE_ACCEPTED=TRUE -
DUSER_INSTALL_DIR="C:\Program Files\IBM\TDI\V6.1.1" -
DUSER_SELECTED_SOLDIR="C:\Program Files\IBM\TDI\V6.1.1\timsol" -
DUSER_DISPATCHER_SERVICE_NAME="TIM Adapters" -
DUSER_INPUT_PORTNUMBER=16231
 - b. Installing the dispatcher on AIX, Solaris and HP-UX:
DispatcherInstall.jar -i silent -DLICENSE_ACCEPTED=TRUE -
DUSER_INSTALL_DIR="/opt/IBM/TDI/V6.1.1" -
DUSER_SELECTED_SOLDIR="/opt/IBM/TDI/V6.1.1/timsol" -
DUSER_INPUT_PORTNUMBER=16231
 - c. Installing the dispatcher on Linux:
DispatcherInstall_linux.bin -i silent -DLICENSE_ACCEPTED=TRUE -
DUSER_INSTALL_DIR="/opt/IBM/TDI/V6.1.1" -
DUSER_SELECTED_SOLDIR="/opt/IBM/TDI/V6.1.1/timsol" -
DUSER_INPUT_PORTNUMBER=16231
3. To run the dispatcher uninstaller in console mode, command switch has been changed from – “console” to “-i console”.
To run the uninstaller in console mode, use following commands:
 - a. Uninstalling the dispatcher on Windows:
DispatcherUninstall.exe -i console
 - b. Uninstalling the dispatcher on AIX, Solaris and HP-UX:
ITDI_HOME/jvm/jre/bin/java -jar uninstaller.jar -i console
 - c. Uninstalling the dispatcher on Linux :
ITDI_HOME/DispatcherUninstaller/DispatcherUninstaller -i console
4. To run the uninstaller in silent mode use following commands:
 - a. Uninstalling the dispatcher on Windows:
DispatcherUninstall.exe -i silent
 - b. Uninstalling the dispatcher on AIX, Solaris and HP-UX:
ITDI_HOME/jvm/jre/bin/java -jar uninstaller.jar -i silent
 - c. Uninstalling the dispatcher on Linux :
ITDI_HOME/DispatcherUninstaller/DispatcherUninstaller -i silent

Important Notes:

- The -D option is followed by a variable and a value pair without any space after the -D option.
- You must wrap value with quotation marks when it contains spaces.

- If you install dispatcher in silent mode, the uninstaller runs in silent mode irrespective of whether you are using -i silent option or not.
- If you install the dispatcher in GUI mode, you can uninstall it in GUI, Console or silent mode.
- If you install in console mode, you cannot uninstall in GUI mode. However you can use console and silent mode.
- If you install in silent mode you are allowed to uninstall on silent mode only.
- If you install dispatcher using DispatcherInstall.jar, use uninstaller.jar created in "ITDI_HOME/DispatcherUninstaller" directory to uninstall the dispatcher.
- If you install dispatcher using DispatcherInstall_linux.bin, use "DispatcherUninstaller" file created in "ITDI_HOME/DispatcherUninstaller" directory to uninstall the dispatcher.

Starting, Stopping, and Restarting the RMI Dispatcher service:

1. If dispatcher service/process is already running before the upgrading the dispatcher, then the dispatcher installer will stop the service and restarts it after the completion of the dispatcher upgrade process.
2. If dispatcher service/process is not running before the upgrading the dispatcher, then the dispatcher installer will not start the service after the completion of the dispatcher installation process. However, if you want to start the dispatcher service forcefully, you must use following command line option when you run the dispatcher installer:

`FORCE_DISPATCHER_SERVICE_START_ONINSTALL=yes`

e.g:

`DispatcherInstall_win.exe -`

`DFORCE_DISPATCHER_SERVICE_START_ONINSTALL=yes`

Valid values for `FORCE_DISPATCHER_SERVICE_START_ONINSTALL` option are "yes" or "no."

Configuration Notes

The following configuration notes apply to this release:

Port 0 Behavior

Please note that If the dispatcher is installed without specifying port or as port zero, the dispatcher will not listen at port zero but at any random port selected by OS.

Service Scaling and Tuning

On the adapter service form, there are attributes (or parameters) that will allow you to scale and tune the Dispatcher instance running within the Tivoli Directory Integrator:

“Disable AL Caching”
“Max Connection Count”
“AL FileSystem Path”

This section describes each parameter and its usage.

“Disable AL Caching” service parameter

By default, the Dispatcher will cache assembly lines for the “add, modify, delete, and test” operations. Caching an assembly line will retain connection to the managed resource and could improve performance. However, caching could introduce issues such as memory allocations and time-outs by the managed resource.

To disable assembly line caching for a particular service, select (check) the "Disable AL Caching" option on the service form under the "Dispatcher Attributes" panel.

Additional caching options (ALCacheSize):

There is a global cache setting at the Dispatcher level. You can specify the maximum number of assembly lines that the dispatcher caches for all services. To do so, set property `ALCacheSize` in the `itim_listener.properties` file. Refer to the adapter or dispatcher installation guide for more information on how to update the `itim_listener.properties` file. The default assembly line cache size is 100. Setting the assembly line cache size to 0 disables the caching in the dispatcher.

“Max Connection Count” service parameter

By default, the Dispatcher will run (execute) as many requests as it gets per service simultaneously. Such behavior could be beneficial if the managed resource can handle a high number of simultaneous connections. However, most managed resources support a limited number of simultaneous connections due to resource allocation or security precautions.

To specify the maximum number of assembly lines that the dispatcher can execute simultaneously for the service, enter a positive integer value for "Max Connection Count" on the service form under the "Dispatcher Attributes" panel. A value of 0 implies no limit.

In order for "Max Connection Count" to take effect, the following must be done:

- The `GlobalRunALCount`, in `itim_listener.properties` file, must be set to nonzero (see below).
- After changing the value of "Max Connection Count", you must restart the Dispatcher/Adapter service.

Additional connection options (GlobalRunALCount):

The dispatcher allows an upper limit to be defined for the maximum number of assembly lines that can be executed simultaneously for all services. To do so, set property GlobalRunALCount in the itim_listener.properties file. Refer to the adapter or dispatcher installation guide for more information on how to update the itim_listener.properties file. The default value is 100.

“AL FileSystem Path” service parameter

Optionally, you can now store the assembly lines on the file system where the dispatcher is running. This field is the full path to where the assembly lines files are located. The assembly file names should be the same as specified in the resource.def file.

This feature can be used to load customized assembly lines without the need to rebuild and import the profile. It will reduce the testing time as you can simply place the assembly line in a folder and submit a request from TIM.

For example, you can specify the following file path to load the assembly lines from the profiles directory of the Windows operating system: `c:\Files\IBM\TDI\V6.1.1\profiles` or you can specify the following file path to load the assembly lines from the profiles directory of the UNIX/Linux operating system: `/opt/IBM/TDI/V6.1.1/profiles`.

CaselnSensitiveFilter

This Property determines if dispatcher filtering is case sensitive or case insensitive. At present this property is not on the service form of the adapter. The dispatcher filtering will be case sensitive for those adapters which do not support this property.

How to use CaselnSensitiveFilter Property:

1. Unzip the Adapter Profile jar.
2. Take service.def file from this unzip folder.
3. Open the service.def file
4. Add following dispatcher parameters in search operation and save the service.def file.
<dispatcherParameter name="CaselnSensitiveFilter"> <default>true</default>
</dispatcherParameter>
5. Create Adapter Profile jar again with updated Service.def file.
6. Import this jar in to ITIM. Execute any request from ITIM it will pass the "CaselnSensitiveFilter" property values for Recon request as dispatcher parameter.

Note: If you set filtering Case Sensitive all filters including lookup will now be case sensitive. Similarly if you set filtering Case Insensitive then all filters including lookup will now be case Insensitive

Multiple Instances of TDI on One Server

This release of dispatcher supports multiple instances of dispatcher on same machine. However there can be only One Dispatcher per TDI instance. For multiple dispatchers to run on same machine the user must specify a unique Service name (Windows) or subsystem name (AIX). All platforms require a unique port number on which dispatcher service will listen.

Changes to the Installation Folders

Beginning in this release of Dispatcher, the installer will not copy ITIMAd script to etc/init.d folder on UNIX platform. Therefore, for all the UNIX platforms start, stop, restart the dispatcher service from the ADAPTER_SOL_DIR. The syntax is given below for each platform.

UNIX Platforms :

Browse to ADAPTER_SOL_DIR and then fire below mentioned commands.

i) AIX :

ITIMAd startsrc

ITIMAd stopsrc

ITIMAd restartsrc

ii) LINUX\SOLARIS\HP-UX

ITIMAd start

ITIMAd stop

ITIMAd restart

Troubleshooting

Unsupported Installation Scenarios

Scenarios in which user can face problem:

Mixed Dispatcher Versions

If two versions of the Dispatcher are used on a single server, both version of the Dispatcher must support the “multiple Dispatchers” feature. If previously released ITDI based adapters that doesn't support multiple instances of Dispatcher is installed on Dispatcher that supports multiple instances.

i) Impact :

WINDOWS :

Adapter will get installed, but if multiple services are running or a non-TIM-Adapter TDI service is running then installer log will show error because it will not find the correct service to stop.

SOLARIS\LINUX:

For Solaris and Linux platform ,service \ Subsystem name is not the issue as unique pid is created for each process, hence we can get the pid of dispatcher process running on mentioned TDI by user.

For Solaris \ linux platform ,as in old adapter we start \ stop the dispatcher service from etc\init.d\ folder, but from this release of Dispatcher 5.122 ,installer doesnt copy ITIMAd script to etc\init.d folder,hence adapter installation may not be successful.

ii)WorkAround :

WINDOWS :

i) Stop the Dispatcher service ,Install the intended adapter, Restart the Dispatcher service.

SOLARIS\LINUX :

i) Before installing the adapter on dispatcher that supports multiple instances manually stop the Dispatcher service from ADAPTER_SOL_DIR.Install Adapter .After successfull installation of adapter ,manually start the Dispatcher service.

II)Port Number specified by user should not be used by any other process OR all dispatcher services installed on a machine should be running (not stopped)

Consider a scenario, User installs Dispatcher on TDI611 in drive (say DRIVE1) which is listening at port 16231 and its service is started. Now user installs dispatcher on TDI611 in another drive (DRIVE2), if he enters the port no as 16231, then according to logic in custom bean for port validation, Installer will bounce back with "Port already in use". message.This is the case when another dispatcher service is listening on port 16231.

Now assume that service of dispatcher installed on DRIVE1 is stopped and then user installs the dispatcher on DRIVE2 , then according to currently logic in custom bean for port validation,it will not find the port in use so the installer will proceed installing the dispatcher with port no value as 16231.Now when user try to start the first service which was stopped earlier, then it will give error in starting dispatcher service "Port Already in use" as second service has used 16231 port.

Supported Configurations

Installation Platform

The IBM Tivoli Identity Manager Dispatcher was built and tested on the following product versions.

Adapter Installation Platform:

This adapter installs into Tivoli Directory Integrator and may be installed on any platform supported by the product. IBM recommends installing Tivoli Directory Integrator on each node of the Identity Manager WebSphere cluster and then installing this adapter on each instance of Tivoli Directory Integrator. Supported Tivoli Directory Integrator versions include:

Tivoli Directory Integrator 6.1.1 with Fix Pack 3 or higher

Managed Resource:

N/A

IBM Tivoli Identity Manager:

Identity Manager v5.1, 5.0, 4.6

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