Release Notes

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IBM® Tivoli® Identity Manager

BMC Remedy AR System Adapter for TDI 6.1.1

Version 5.0.2

First Edition (March 31, 2010)

This edition applies to version 5.0 of Tivoli Identity Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Preface

Welcome to the IBM Tivoli Identity Manager Remedy AR System Adapter.

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 Remedy AR System Adapter Installation and Configuration Guide

Adapter Features and Purpose

The Remedy AR System Adapter is designed to create and manage accounts on BMC's Remedy AR System (Remedy). The adapter runs in "agentless" mode installed remotely from your Remedy server. The adapter uses the Remedy Java API to establish communication with the Remedy AR system server. The Remedy API provides a mechanism for adding, retrieving, updating, and removing data from the Remedy AR system server.

IBM recommends the installation of this Adapter (and the prerequisite Tivoli Directory Integrator) on each node of an Identity Manager WebSphere cluster. A single copy of the adapter can handle multiple Identity Manager Services. The deployment configuration is based, in part, on the topology of your network domain, but the primary factor is the planned structure of your Identity Manager Provisioning Policies and Approval Workflow process. Please refer to the Identity Manager Information Center for a discussion of these topics.

The Identity Manager adapters are powerful tools that require Administrator Level authority. Adapters operate much like a human system administrator, creating accounts, permissions and home directories Operations requested from the Identity Manager server will fail if the adapter is not given sufficient authority to perform the requested task. IBM recommends that this adapter run with administrative (root) permissions.

Contents of this Release

Adapter Version

Component	Version
Release Date	March 31, 2010
Adapter Version	5.0.2
Component Versions	Adapter Build 5.0.1000 Profile 5.0.1000 Connector: 5.100 Dispatcher: 5.119 or higher
Documentation	Remedy AR System Adapter Installation and Configuration Guide Version 5.0 (SC27-2720-00)

New Features

Enhancement # (FITS)	Description
	Items included in current release
OSDB	Updated adapter to support Remedy 7.5
	Items included in 5.0.1 release
	Initial release for Tivoli Identity Manager v5.0
MR090308436	ITIM Remedy adapter support for Remedy 7.1.00
MR020309436	Tivoli Identity Manager - Remedy Adapter Connection Use TCP Protocol
MR0203095943	Tivoli Identity Manager - Remedy Adapter - Client wants to have TCP connection for Remedy Adapter Not RPC.
MR1109054829	Remedy Agent won't reconcile if Remedy is configured to not allow 'unqualified searches'
MR030308343	Remedy: Support for ARS without Help Desk
MR1102064511	Remedy: enhance the adapter to work with custom remedy forms

Closed Issues

CMVC#	APAR#	PMR# / Description
		Items closed in current release
		None

Known Issues

CMVC#	APAR#	PMR# / Description
N/A	N/A	**Limitation on length of Remedy Login Name** Login Name (eruid) is supported to maximum of 244 characters because of Remedy AR System API limitation.
N/A	N/A	**Error on "Dynamic Group Access"** Adapter returns attribute level failure for "Dynamic Group Access" attribute during USER ADD and USER MODIFY operations even though it is set on Remedy AR System server. Work around: If Customer wants to set value for attribute "Dynamic Group Access", then this attribute must be provided a value ends with semicolon. For example, 'User1';
N/A	N/A	**Application License Attribute** Application License is not supported attribute. It is hidden attribute, but Customer can bring it to TIM Account Form using Form Customization Feature of TIM and use it.
N/A	N/A	**Limitations on removing Remedy attributes** Replacing with blank values for following attributes from TIM Account Form will set 0 on Remedy AR System server. (a) Number of Days Before Expiration (b) Number of Warning Days (c) Days After Expiration Until Disablement NOTE: use caution when defining provisioning policy attributes on these fields since the Recon will bring back a "0" value not a blank or Null.
N/A	N/A	**AIX Test Connection error: Cannot load native libraries.** On AIX platform, following error might occur during Test Connection: "ERROR [com.bmc.arsys.api.NativeLibraryLoader] - Could not load native library java.lang.UnsatisfiedLinkError: arjni71 (Not found in java.library.path)" Solution: Refer to C API files for AIX platform mentioned in Table 6 of Remedy AR System Adapter Install Guide. Copy C API files for AIX platform to ITDI_HOME/jvm/jre/bin/classic folder. Navigate to the ITDI_HOME/jvm/jre/bin/classic directory. Run the following commands: ln -s libicui18nbmc32.0.a libicui18nbmc32.a ln -s libicudatabmc32.0.a libicudatabmc32.a ln -s libicuucbmc32.0.a libicuucbmc32.a Restart the Dispatcher service.

CMVC#	APAR#	PMR# / Description
N/A	N/A	**HP-UX Test Connection error: Cannot load native libraries.** On HP-UX platform, following error might occur during Test Connection: "ERROR [com.bmc.arsys.api.NativeLibraryLoader] - Could not load native library java.lang.UnsatisfiedLinkError: arjni71 (Not found in java.library.path)" Solution: Refer to C API files for HP-UX platform mentioned in Table 6 of Remedy AR System Adapter Install Guide. Copy C API files for HP-UX platform to ITDI_HOME/jvm/jre/lib/PA_RISC2.0/server folder. Navigate to the ITDI_HOME/jvm/jre/lib/PA_RISC2.0/server directory. Run the following commands: ln -s libicui18nbmc.sl.32.0 libicui18nbmc.sl.32 ln -s libicudatabmc.sl.32.0 libicudatabmc.sl.32 ln -s libicuucbmc.sl.32.0 libicuucbmc.sl.32 Restart the Dispatcher service.
N/A	N/A	**Upgrading Remedy from 7.x to 7.5** Upgrading between versions of the adapter and versions of Remedy are not supported. The solution is to uninstall and reinstall this version of the adapter.

Installation and Configuration Notes

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

Corrections to Installation Guide

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

    None

Configuration Notes

The following configuration notes apply to this release:

Copying the Remedy AR System 7.5 Library Files

BEFORE installing the adapter it is required that the following files be copied from the Remedy 7.5 Server installation directory and placed in the TDI setup. After copying the files the dispatcher must be restarted.

Following is a list of files for the various platforms.

1)WINDOWS platform:

Sr No.	File Name	Location to be taken from the Server	Location to be placed in TDI setup
1	arapi75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
2	arapiext75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
3	arutil75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
4	log4j-1.2.8.jar	TDI_HOME\jars\3rd party\others	TDI_HOME\jvm\jre\lib\ext
5	arapi75.dll	\BMCSoftware\ARSystem\Arserver\api\lib	TDI_HOME\libs
6	arjni75.dll	\BMCSoftware\ARSystem\Arserver\api\lib	TDI_HOME\libs
7	arrpc75.dll	\BMCSoftware\ARSystem\Arserver\api\lib	TDI_HOME\libs
8	arutiljni75.dll	\BMCSoftware\ARSystem\Arserver\api\lib	TDI_HOME\libs
9	arutl75.dll	\BMCSoftware\ARSystem\Arserver\api\lib	TDI_HOME\libs
10	arxmlutil75.dll	\BMCSoftware\ARSystem\Arserver\api\lib	TDI_HOME\libs
11	icudt32.dll	\BMC Software\ARSystem	TDI_HOME\libs
12	icuinbmc32.dll	\BMC Software\ARSystem	TDI_HOME\libs
13	icuucbmc32.dll	\BMC Software\ARSystem	TDI_HOME\libs
14	Xalan-Cbmc_1_10.dll	\BMC Software\ARSystem	TDI_HOME\libs

15	XalanMessagesbmc_1_10.DLL	\BMC Software\ARSystem	TDI_HOME\libs
16	xerces-cbmc_2_8.dll	\BMC Software\ARSystem	TDI_HOME\libs
17	xerces-depdombmc_2_8.dll	\BMC Software\ARSystem	TDI_HOME\libs

2) AIX platform.

Sr No.	File Name	Location to be taken from the Server	Location to be placed in TDI setup
1	arapi75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
2	arapiext75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
3	arutil75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
4	log4j-1.2.8.jar/	TDI_HOME\jars\3rd party\others	TDI_HOME\jvm\jre\lib\ext
5	libar.a	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
6	libarjni75.a	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
7	libarutiljni75.a	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
8	libicudatabmc32.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
9	libicui18nbmc32.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
10	libicuiobmc32.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
11	libicuucbmc32.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
12	libxalan-cbmc.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
13	libxalanMsg.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
14	libxerces-cbmc.a	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs

3) HPUX Platform :

Sr No.	File Name	Location to be taken from the Server	Location to be placed in TDI setup
1	arapi75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
2	arapiext75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
3	arutil75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
4	log4j-1.2.8.jar	TDI_HOME\jars\3rd party\others	TDI_HOME\jvm\jre\lib\ext
5	libar.sl	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
6	libarjni75.sl	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
7	libarutiljni75.sl	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
8	libicui18nbmc.sl.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
9	libicuiobmc.sl.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
10	libicuucbmc.sl.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
11	libicudatabmc.sl.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
12	libxalan-cbmc.sl	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
13	libxalanMsgbmc.sl	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
14	libxerces-cbmc.sl	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs

4)SOLARIS platform :

Sr No.	File Name	Location to be taken from the Server	Location to be placed in TDI setup
1	arapi75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
2	arapiext75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
3	arutil75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext

Sr No.	File Name	Location to be taken from the Server	Location to be placed in TDI setup
4	log4j-1.2.8.jar	TDI_HOME\jars\3rd party\others	TDI_HOME\jvm\jre\lib\ext
5	libar.so	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
6	libarjni75.so	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
7	libarutiljni75.so	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
8	libicudatabmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
9	libicui18nbmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
10	libicuiobmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
11	libicuucbmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
12	libxalan-cbmc.so	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
13	libxalanMsgbmc.so	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
14	libxerces-cbmc.so	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs

5)LINUX platform :

Sr No.	File Name	Location to be taken from the Server	Location to be placed in TDI setup
1	arapi75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
2	arapiext75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
3	arutil75.jar	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\jvm\jre\lib\ext
4	log4j-1.2.8.jar	TDI_HOME\jars\3rd party\others	TDI_HOME\jvm\jre\lib\ext
5	libar.so	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
6	libarjni75.so	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs
7	libarutiljni75.so	\BMC_SOFTWARE\ ARSystem\arserver\api\lib	TDI_HOME\libs

8	libicudatabmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
9	libicui18nbmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
10	libicuiobmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
11	libicuucbmc.so.32	\BMC_SOFTWARE\ ARSystem\arserver\bin	TDI_HOME\libs
12	libxalan-cbmc.so	\BMC_SOFTWARE\ ARSystem\approvalserver\bin	TDI_HOME\libs
13	libxalanMsgbmc.so	\BMC_SOFTWARE\ ARSystem\approvalserver\bin	TDI_HOME\libs
14	libxerces-cbmc.so	\BMC_SOFTWARE\ ARSystem\approvalserver\bin	TDI_HOME\libs

Note :
Add the TDI_HOME\libs folder to the Library path for the Unix platforms.

(1)For AIX set the environment variable LIBPATH to /opt/IBM/TDI/V6.1.1/libs path where /opt/IBM/TDI/V6.1.1 is TDI 6.1.1 installation directory.

(2)For HPUX set the environment variable SHLIB_PATH to /opt/IBM/TDI/V6.1.1/libs path where /opt/IBM/TDI/V6.1.1 is TDI 6.1.1 installation directory.

(3)For Solaris and Linux set the environment LD_LIBRARY_PATH to /opt/IBM/TDI/V6.1.1/libs path where /opt/IBM/TDI/V6.1.1 is TDI 6.1.1 installation directory.

Customizing or Extending Adapter Features

The Identity Manager adapters can be customized and/or extended. The type and method of this customization may vary from adapter to adapter.

Getting Started

Customizing and extending adapters requires a number of additional skills. The developer must be familiar with the following concepts and skills prior to beginning the modifications:

- Tivoli Identity Manager administration
- Tivoli Directory Integrator management
- Tivoli Directory Integrator Assembly Line development
- LDAP schema management
- Working knowledge of Java scripting language
- Working knowledge of LDAP object classes and attributes
- Working knowledge of XML document structure

Note: If the customization requires a new Tivoli Directory Integrator connector, the developer must also be familiar with Tivoli Directory Integrator connector development and working knowledge of Java programming language.

Tivoli Identity Manager Resources:
> Check the "Learn" section of the [Tivoli Identity Manager Support web site](#) for links to training, publications, and demos.

Tivoli Directory Integrator Resources:
> Check the "Learn" section of the [Tivoli Directory Integrator Support web site](#) for links to training, publications, and demos.

Tivoli Identity Manager Adapter Development:
> Adapter Development Tool
>> The Adapter Development Tool, ADT, is a tool used by IBM Tivoli Identity Manager (ITIM) customers and consultants to create custom TIM adapters. It reduces adapter delivery time by about 50% and it helps in the development of custom adapters. The Adapter development tool is available on the [IBM Open Process Automation Library](#) (OPAL).

Support for Customized Adapters

The integration to the Identity Manager server – the adapter framework – is supported. However, IBM does not support the customizations, scripts, or other modifications. If you experience a problem with a customized adapter, IBM Support may require the problem to be demonstrated on the GA version of the adapter before a PMR is opened.

Supported Configurations

Installation Platform

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

The IBM Tivoli Identity Manager Adapter was built and tested on the following product versions.
This adapter installs into Tivoli Directory Integrator (TDI) and may be installed on any platform supported by the TDI product and supported by the target system libraries or client, where applicable. IBM recommends installing TDI on each node of the ITIM WAS Cluster and then installing this adapter on each instance of TDI. Supported TDI versions include:

Adapter Installation Platform:

Tivoli Directory Integrator v6.1.1 with Fix Pack FP0003 or later

Managed Resource:
BMC Remedy AR System Server v7.1
BMC Remedy AR System Server v7.5

IBM Tivoli Identity Manager:
Identity Manager v5.0 with Fix Pack IF23 or later

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