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Identity Manager Driver for Remedy Action Request System (ARS)

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About this Guide

This guide explains how to install, configure, and manage the Identity Manager Driver for a Remedy Action Request System (Remedy ARS).

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- Chapter 2, “Installing the Driver” on page 8
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The Remedy Action Request System* is a platform and development environment for automating Service Management business processes.

This guide includes information about the Identity Manager Driver for ARS. For more information on Identity Manager, refer to *the Novell Identity Manager 3 Administration Guide* (http://www.novell.com/documentation/idm36/index.html).

Documentation Updates

For the most recent version of this guide, refer to the Identity Manager Drivers Documentation Web Site (http://www.novell.com/documentation/idm36drivers).

User Comments

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation, or go to http://www.novell.com/documentation/feedback.html and enter your comments.

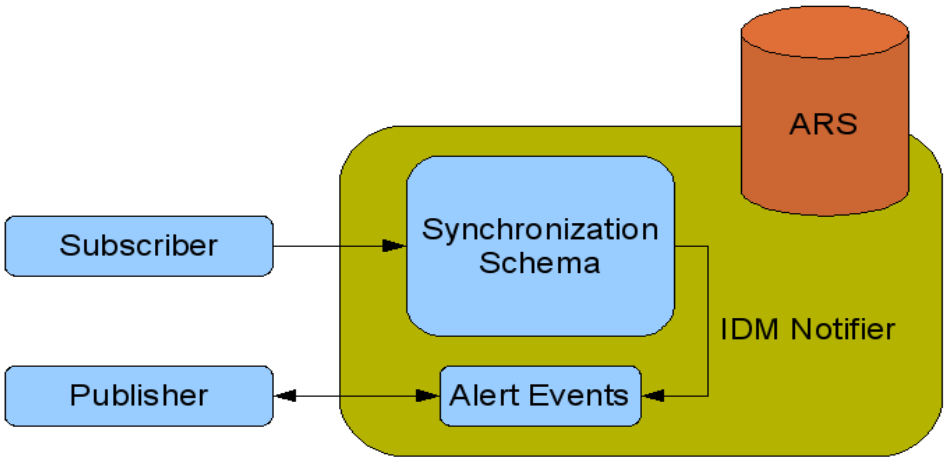
1.Overview

The Remedy Action Request System (Remedy ARS) is a platform and development environment for automating Service Management business processes.

Identity Manager Driver 1.0 for Remedy ARS provides data integration between Novell® eDirectory™ and Remedy ARS.

The driver uses the Remedy Java* API to access Remedy objects and data. Preconfigured driver policies allow synchronization, creation, and management between eDirectory and Remedy ARS for both users and groups. For example, the driver can syncrhonize new employee data from eDirectory and then send the information to Remedy ARS, where an account and password are created automatically.

The driver can also synchronize other Remedy data to the directory.



Local Platforms

This driver can run on local Windows and Linux systems.

Remote Platforms

This driver can run on remote Windows and Linux systems.

Role Based Entitlements Support

By default, no entitlements are interpreted by the driver.

Password Synchronization Support

This driver supports password synchronization only on subscriber channel. For more information on subscriber channel, refer to Understanding Driver Concepts.

Synchronised Objects

The default driver configuration synchronizes the Users and Groups objects.

2.Installing the Driver

Requirements

- Identity Manager 3.5.1 or later
- Remedy ARS Server 5.x or 6.x for Remedy70 Driver (ARSDriver.jar)
- Remedy ARS Server 7.1 for Remedy71 Driver (ARSDriver71.jar)
- A Remedy User with Administrator rights and a fixed license for the driver operations and login
- Remedy Java API

Installation

The driver needs filters for the Publisher operations. Use the Remedy Administrator application to install them.

1. Select the Remedy Server.
2. Click Tools > Import Definitions > From Definition File.
3. Locate IDM_Notifier.xml.
4. Select the required filter to import (DirXML Notifier is required).

The driver needs the ARS API library to operate correctly. The ARS API library consists of two parts, the Java portion and the native portion. These files can be found in the AR System installation directory.

The Java files (*.jar) in the api directory of the ARS installation must be copied to the same directory as the Driver Shim (for windows: *C:\Novell\NDS\lib*, for Linux: */opt/novell/eDirectory/lib/dirxml/classes/*)

- *For Windows*

  The native files (ar*.dll and icu*.dll) must be copied to the remote loader directory or to the *C:\Novell\NDS* directory.

- *For Linux*

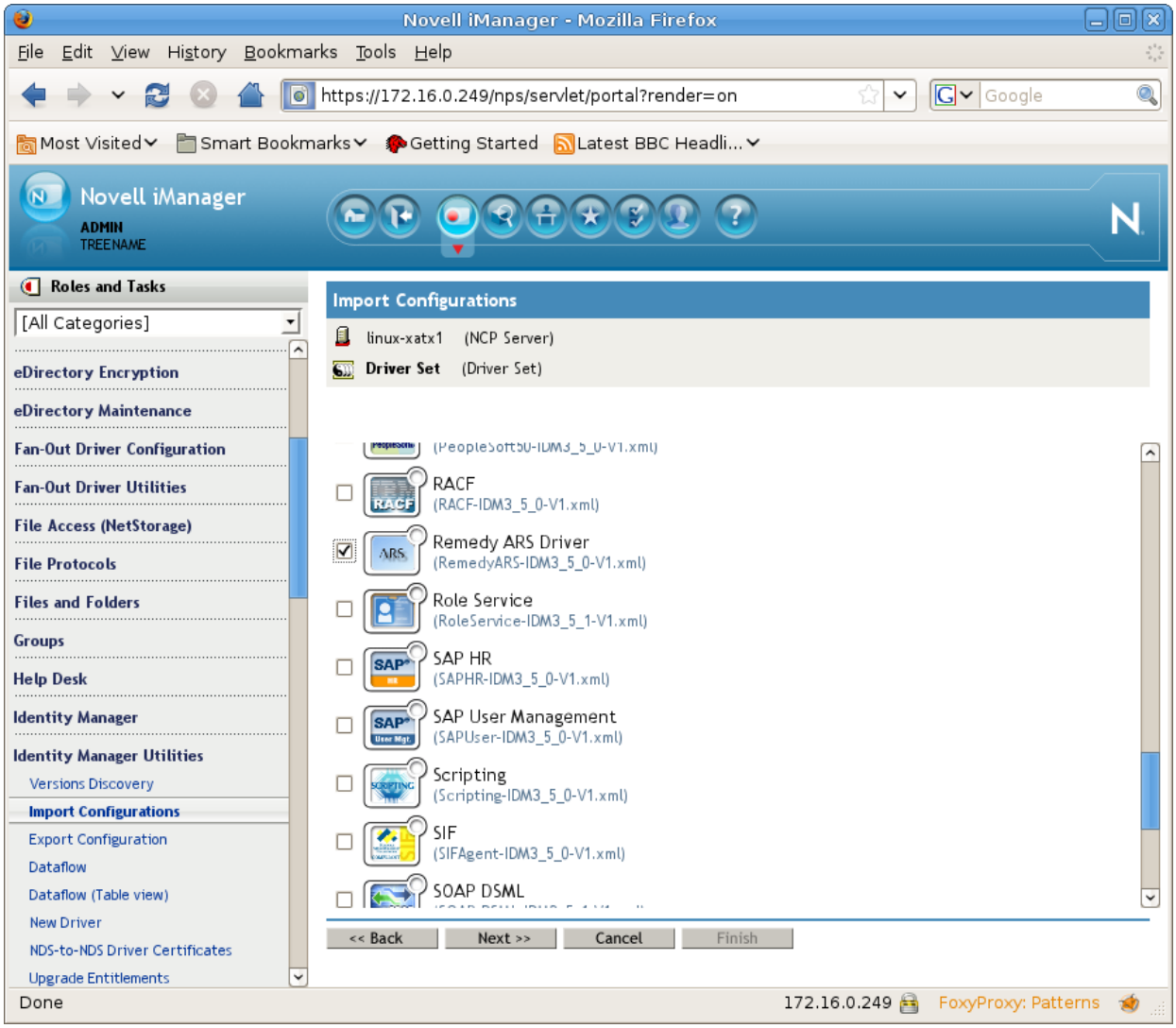
  The native files (lib*.*) in *api/lib* of the ARS installation directory must be copied to the directory *lib/i386* of the JRE. The file *libarrpc.so* in *bin* of the ARS installation directory must be copied to the directory *lib/i386* of the JRE.

  For native libraries dependencies, refer to the Remedy Java API Documentation (http://www.javasystemsolutions.com/documentation/thirdparty/arapi/).

3.Importing the ARS Driver Configuration Using iManager

Follow the instructions in “Managing Identity Manager Drivers” in the *Novell Identity Manager Administration Guide* http://www.novell.com/documentation/idm36/index.html.

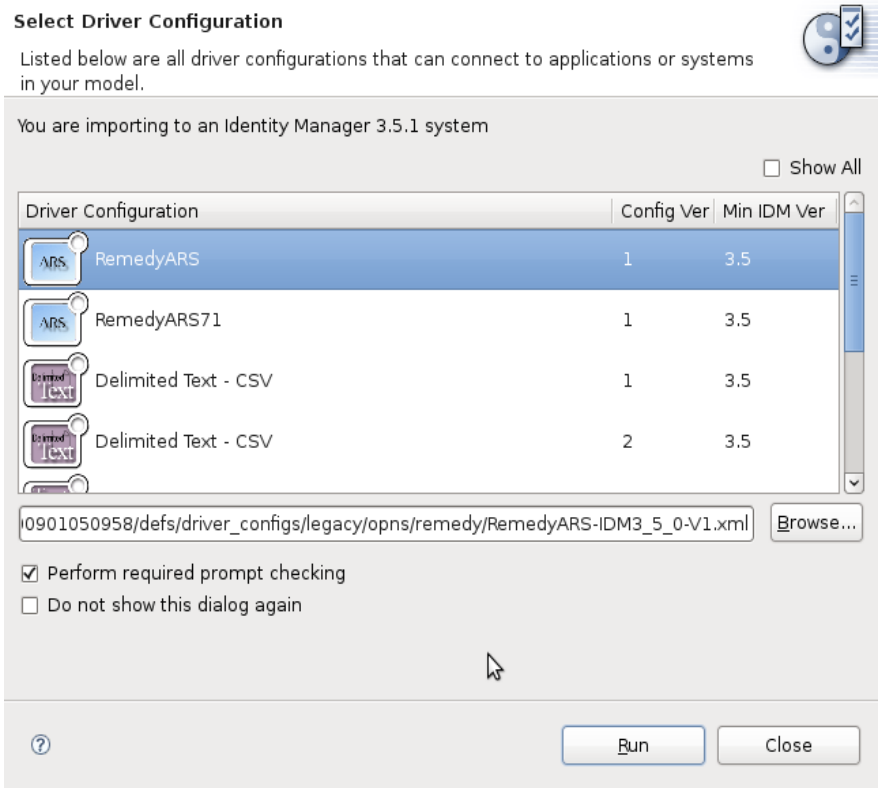
When importing the driver configuration, select the Remedy ARS Driver, as shown in the following figure:



4.Importing the ARS Driver Configuration Using Designer

Select any one of the following Remedy Connector in the Palette and specify the configuration file you want to use:

- RemedyARS for remedy ARS 7.0 and below
- RemedyARS71 for Remedy ARS 7.1 and above



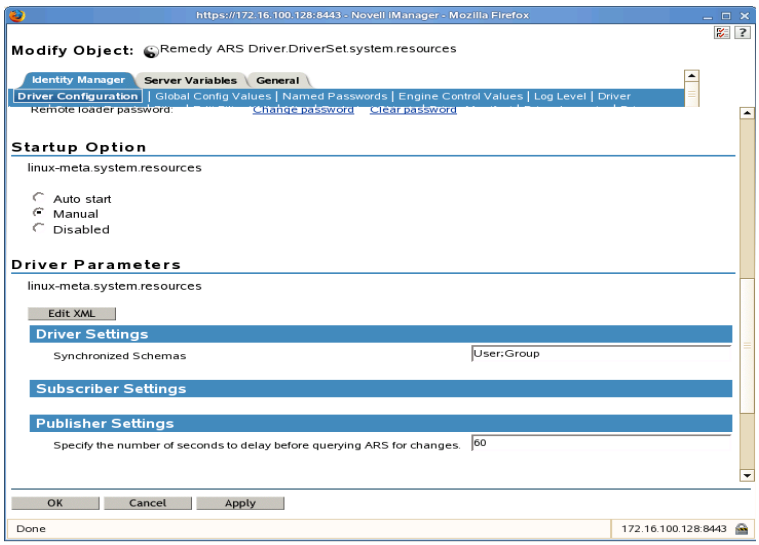
5.Configuring the Driver

Driver Authentication

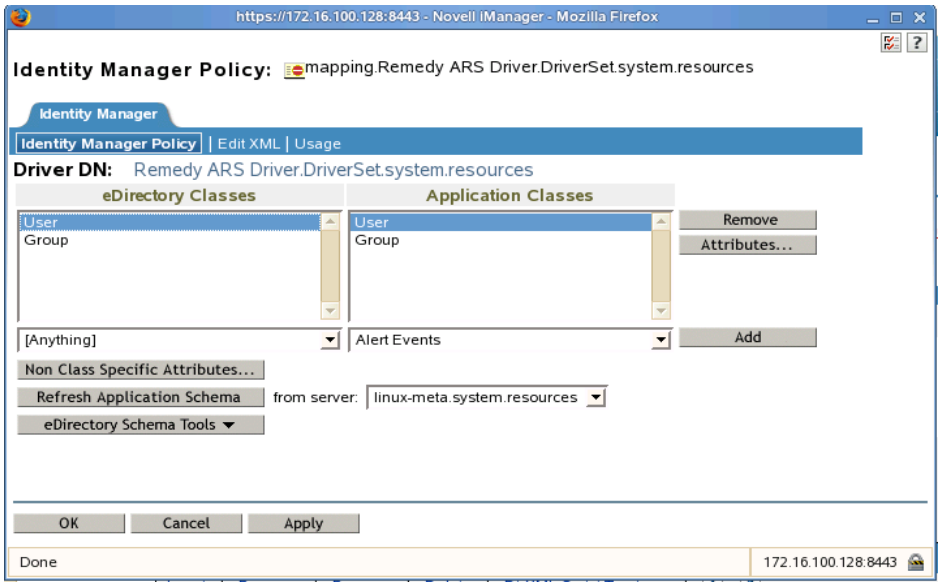
Parameter Name	Sample Configuration Value	Required Field	Description
Authentication ID	dirxml	Yes	Authentication ID is the name of the ARS Server user/login account of the driver. This user account must exist and be granted login/session privileges on the ARS Server for a connection to be established. Additionally, this user must have rights to select, insert, update, and delete in the synchronization schema tables; otherwise, the synchronization will fail.
Authentication Context	remedy.domain.com	Yes	Authentication Context is the ARS Server network name (or address). Example: REMEDY If you are not using the RPC port mapper service, you must specify the listening port of the ARS Server. Example: REMEDY:1234
Authentication Password	dirxml	Yes	Authentication Password is the password for the ARS Server user/login account that is used by the driver. You must create a user/login account on the ARS Server and grant login/session privileges to this account; otherwise, the driver will be unable to connect.

Driver Parameters

- **Polling Interval in Seconds***:* Specifies how long the driver has to sleep before polling the ARS server for pending events.
- **Synchronised Schemas**: Specifies the forms the are synchronised. It also prevents the driver from retrieving the full remedy schemas (that is, User;Group).



Edit these parameters to add other forms to the synchronized schemas (each form is separated by a semicolon). You can then refresh the application schema in the Mapping Policy and add the new mapping.



Policies and Filters

- The policies allow synchronization for Users and Groups between Remedy and the Identity Vault™. Group membership is also supported.
- The Create policy and filter are configured to allow object synchronization on both channels with their mandatory attributes.
- The Matching policy matches eDirectory User CN with Remedy User Login Name and eDirectory Group CN with Remedy Group Name.

6.Understanding Driver Concepts

The driver supports both subscriber and publisher channels.

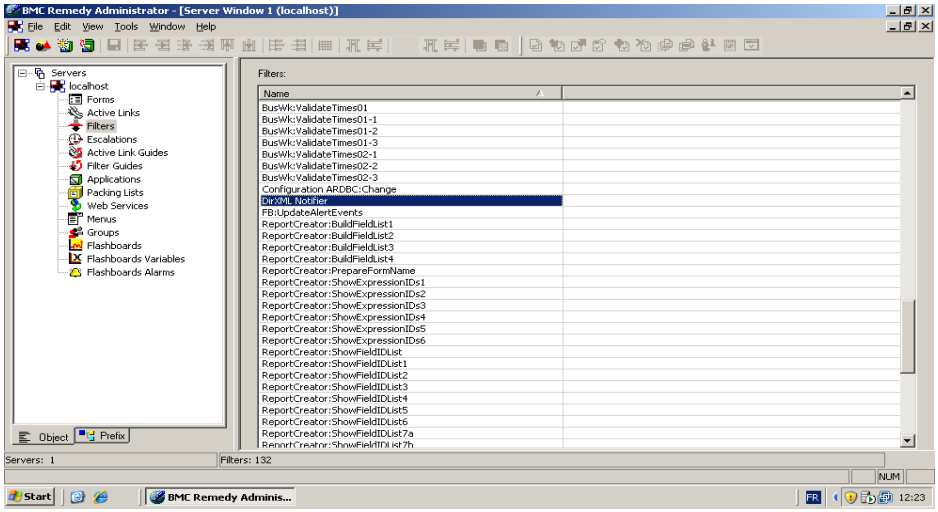
Data Synchronization

- **Subscriber Channel**: The subscriber channel directly updates the entries in the database. The driver can only synchronize regular tables (no view).
- **Publisher Channel**: The publication filter inserts rows into the “Alert Events” form, when a customer table is updated. The publisher channel then reads the inserted rows and updates the Identity Vault™.

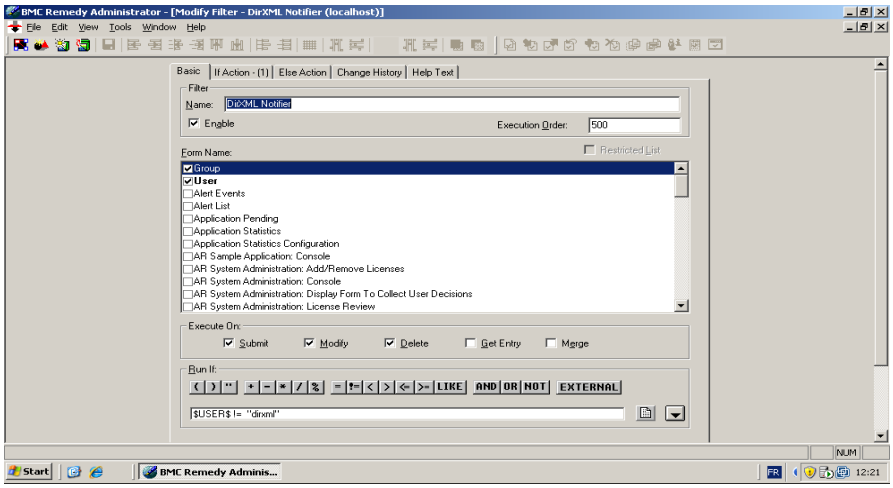
After sending the event to the Identity Vault™, the publisher channel deletes the rows in the “Alert Events” form.

The publication filter can be extended to any ARS schema (using the Remedy Administration Tool).

1. Start the Remedy Administration Tool.
2. Select the DirXML Notify Filter.

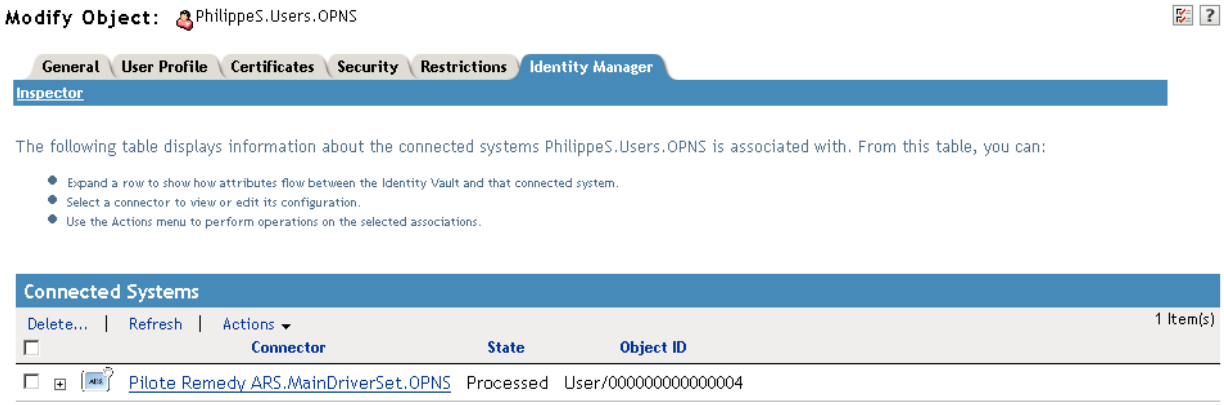


3. Edit the Filter name and select the Forms you want the publisher to react on.



Associations

Identity Manager associations are built with the schema name and the Request ID of the entry.



Limitations

- The driver currently supports only the Character, Date/Time, Integer, Drop-down List, and Radio button fields. Referential attribute (Views, Tables, and so on) synchronization is not supported.
- Password Synchronization is supported only on subscriber channel. The driver can sent passwords to Remedy. However, the passwords cannot be retrieved from Remedy because Remedy does not capture passwords.
- The <move> commands are not supported by this driver because the ARS is a flat name-space. Hence, you cannot move objects in Remedy, however you can move them in eDirectory.

7.Customizing the Driver

This driver, like other Identity Manager drivers, can be customized to meet your specific business policies. The driver uses the following policies:

- **Create Policy**: Checks for mandatory attributes for the User and Group classes.
- **Placement Policy**: Places all synchronised objects in a single Dir container.
- **Matching Policy**: Matches entries on their “CN” attributes.
- **Transformation Policy**: Requires the default XSLT “rename handler” to handle <rename> events of the driver.

When starting the driver for the first time, if the Synchronized Schemas driver parameter is empty, the driver reads the full ARS schema. The larger the size of the ARS schema is, the longer this operation takes.

To set the Synchronized Schemas parameter, refer to Driver Parameters.

8.Using the Remote Loader

When setting up the Remote Loader, you must ensure the following:

- The driver is a Java driver.
- The class name is “be.opns.dirxml.driver.ars.arsremedydrivershim.ARSDriverShim” for Remedy70 and below.

  Sample configuration file:

  ```
  -commandport 8000
  -connection “port=8090”
  -tracefile ./trace8000.log
  -class be.opns.dirxml.driver.ars.arsremedydrivershim.ARSDriverShim
  ```

- The class name is “be.opns.dirxml.driver.xds.arsdriver.ARSDriverShim” for Remedy71 and above.

  Sample configuration file:

  ```
  -commandport 8000
  -connection “port=8090”
  -tracefile ./trace8000.log
  -class  be.opns.dirxml.driver.xds.arsdriver.ARSDriverShim
  ```

- The JVM running the remote loader needs the jar files and the natives files (for Windows *.dll and for Linus *.so) from the ARS installation directory. For more information on native files, refer to Installing the Driver.

Follow the instructions in the “Configuring Remote Loaders” Chapter of the *Novell Identity Manager Administration Guide* (http://www.novell.com/documentation/idm36/idm_remoteloader/data/bs0q40g.html).

9.Troubleshooting

The following is a list of common error messages, that occur in the driver, and their possible causes:

- **No authentication information**: No login/password/server is supplied to the driver. Check the driver configuration in iManager. This is a fatal error and the driver will shut-down.
- **No schemas to sync**: No schema names are supplied to the driver. Check the driver configuration in iManager. This is a fatal error and the driver will shut-down.
- **Unable to connect to ARS server**: The driver did not successfully log in. Check the driver authentication configuration (login name, password and context).
- **Error trying to build Entry DN**: An error occurred when the driver tried to build the DN for the Entry. As the driver installs the required fields to handle the DN, this error occurs only if the 'eDir Container DN' field is undefined for an Entry.
- **No SchemaDef was found for xxxx**: The driver tried to get information for an unknown Schema. Check if all the Classes in the Pub/Sub Filter are mapped and check the driver parameter '*Schemas to synchronize'* in the Driver Configuration.
- **Problem with natives libraries:** The driver can not access the Remedy libraries. Check if the Remedy .dll files are present in the system path (usually for windows: /WINNT/System32 and for Linux: /usr/lib).
- **No events published:** Check if the IDM notifier is installed correctly on the ARS server.
- **Issues when synchronising national characters**: Install the driver in a remote loader and add the following lines at the beginning of the dirxml_jremote script:

  `LANG=en.US.ISO-8859-1` (or any other character encoding)

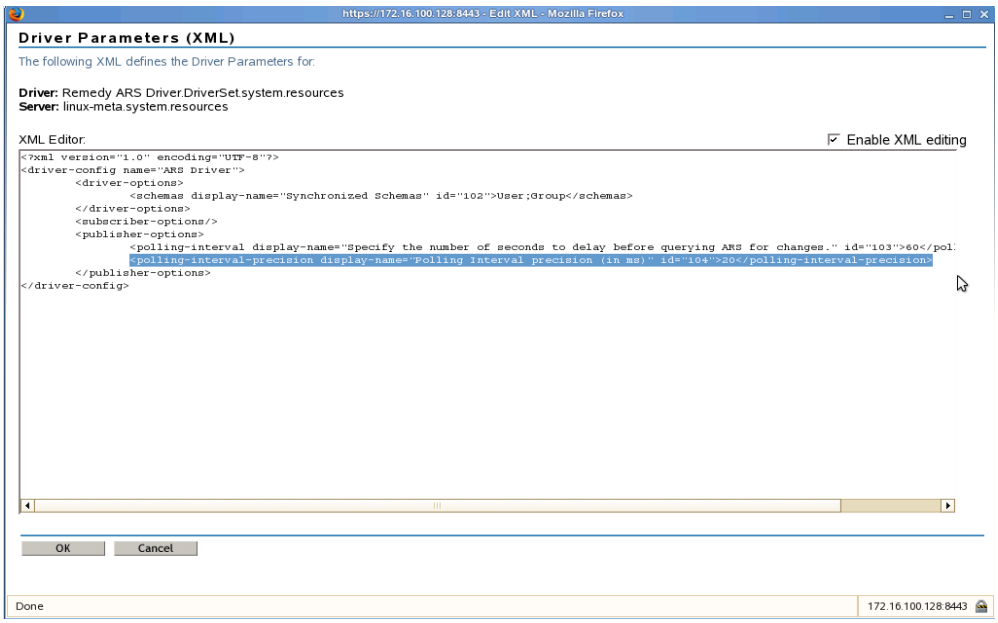
  ```
  export LANG
  ```

- **Issues with polling interval cycle in VM environment:** VM time precision can interfere with the polling process (that is, the polling is done only the other cycle). To correct this behavior, a special publisher option is available. Add the following tag to the publisher options:

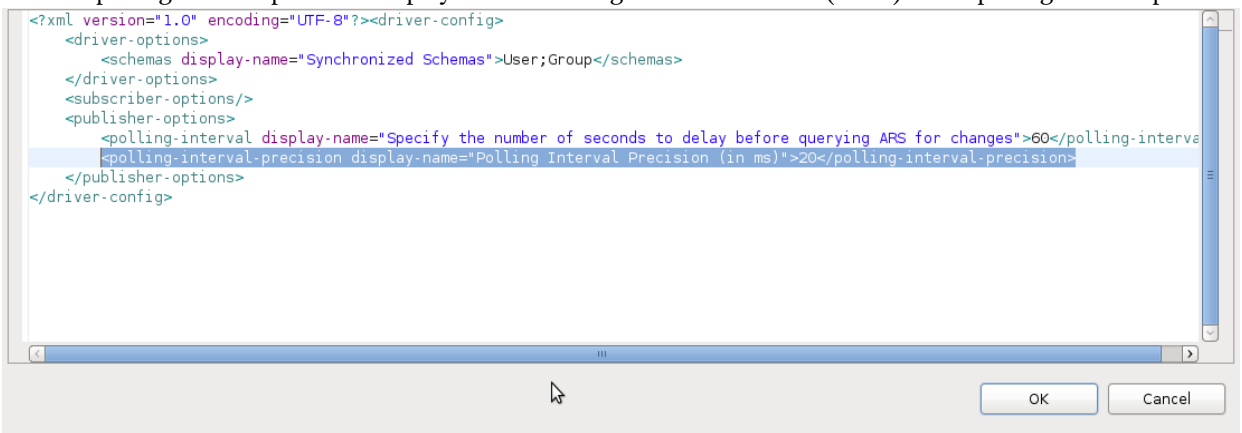
  ```
  <polling-interval-precision display-name="Polling Interval Precision (in ms)">20</polling-interval-precision>
  ```

  This adapts the precision of the polling cycle to allow a differences of 20 milliseconds.

  Edit the XML driver parameters in iManager to add the tag to the publisher options, as shown in the following figure:



Edit the driver option in Designer:

1. Edit the driver properties.
2. Select the Driver Configuration in the list on the left-hand side.
3. Select the Driver Parameters tab.
4. Click Edit XML.
5. Add the following tag to the XML file:

   <polling-interval-precision display-name=”Polling Interval Precision (in ms)”>20</polling-interval-precision>