

Effective Transport v5.0

Data Management Suite for BMC Remedy 8.1

Installation Guide



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Preface

The *Effective Transport Data Management Suite for BMC Remedy Installation Guide* provides instructions for installing the Effective Transport software.

Effective Transport is part of Effect-Tech's growing suite of data management products. Run in conjunction with the BMC Remedy applications, Effective Transport significantly streamlines the time and effort required to configure and maintain the BMC Remedy IT Service Management (ITSM), Atrium CMDB, Service Request Management (SRM), and Service Level Management (SLM) applications.

Audience

This document is written for individuals responsible for installing the Effective Transport application.

Related documents

The following documents contain additional information about the Effective Transport software:

Effective Transport Data Management Suite for BMC Remedy

- *Concepts Guide*
- *Release Notes*
- *User's Guide*
- *User's Guide, ITSM & People Data*
- *User's Guide, Asset & CMDB Data*
- *User's Guide, Service Request Management Data*
- *User's Guide, Service Level Management Data*
- *Customization Guide*

Contacting Us

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This installation guide provides information for installing the Effective Transport Data Management Suite for BMC Remedy management software (Effective Transport). Before you begin the installation process, confirm that all required BMC Software components are properly licensed and installed. See *System Requirements* below for detailed information.

NOTE: See the *Effective Transport Data Management Suite for BMC Remedy Release Notes* for updates that were made to the Effective Transport software after publication of this document.

System Requirements

The following Effect-Tech software and BMC Software products are required for installation of the Effective Transport application:

- BMC Remedy AR System® v8.1 with the latest patch
BMC Remedy Mid-Tier with Patch 002 (or higher) is required.
NOTE: Version 8.1.00.201401210137 Hotfix (or higher) of BMC Remedy Mid-Tier is required to support the Effective Transport Simplified Data Collection (SDC) feature. See the *Effective Transport Data Management Suite for BMC Remedy User's Guide* for more information about the SDC feature.
- BMC Remedy IT Service Management v8.1 with the latest patch (including all of the following modules: BMC Remedy Asset Management, BMC Remedy Change Management, and BMC Remedy Service Desk)
- BMC Atrium CMDB v8.1 with the latest patch
- BMC Service Request Management v8.1 with the latest patch
- BMC Service Level Management v8.1 with the latest patch
- BMC Remedy Developer Studio v8.1 with the latest patch (version should match the AR System version)
- BMC-supported LDAP directory, run as a service (if using the Effective Transport LDAP datalink)

See the *BMC Remedy IT Service Management Installation Guide* for complete details on installing all necessary BMC software components.

Server Requirements

See the BMC Remedy AR System compatibility matrix and *BMC Remedy IT Service Management Installation Guide* to determine server requirements.

Client Requirements

See the BMC Remedy AR System compatibility matrix to determine client requirements as well as detailed BMC Remedy product requirements and supported platforms.

Installing the Effective Transport application

You can install the Effective Transport application using either an installation file or through a silent installer. To ensure a successful installation, complete the following steps that apply to your environment:

1. Uninstalling an earlier version of Effective Transport
2. Selecting the installation method
3. Reviewing the requirements checklist
4. Installing Effective Transport using the install file
5. Installing Effective Transport using the silent installer
6. Installing Effective Transport in a Server Group Environment
7. Configuring the ARDBC LDAP Plug-in (for LDAP datalink)

NOTE: If you will be using Effective Transport to onboard data from an LDAP directory, you need to configure the ARDBC LDAP Plug-in after installation of the Effective Transport application.

8. Checking the Effective Transport installation

NOTE: If you will be using the Effective Transport's SRD QuickBuilder and/or Remedy User Account Provisioning features to manage SRM (service request management) data, you will need to import additional components after installation of the Effective Transport application. See the *Effective Transport Data Management Suite for BMC Remedy User's Guide, Service Request Management Data* for more information.

Uninstalling an earlier version of Effective Transport

If an earlier version of Effective Transport is installed, you must uninstall it before you install version 5.0 of the Effective Transport software. See *Uninstalling the Effective Transport* application for detailed information on how to uninstall the application.

NOTE: To determine the version of the Effective Transport application that is installed:

1. Log into the AR Server as a BMC Remedy User with AR Administrator or ET Admin permissions.
2. Open the form EffectTech:Datalink:Foundation:DatalinkVersion in Search mode.
3. Locate the following information in the Effect-Tech form:
 - Application Name = 'Effective Transport for Global Outsourcer and SI Edition'
 - Attribute Name = 'Product Version'

Selecting the installation method

The Effective Transport application can be installed in one of two ways:

- Using the installation file, installgs.exe (for Windows) or installgs.bin (for Unix)
- Through the command prompt or terminal window using the silent installer

The Default and Custom installation methods are available through either the installation file or silent installer. Table 1 lists the components that are installed with the two installation methods.

- Default – installs all components

- Custom – installs/configures only those components that the user selects

NOTE: For the Default installation, the BMC IT Service Management, Atrium CMDB, Service Level Management, and Service Request Management applications must be installed before you install the Effective Transport application.

Installation Option	Load Definition Files	Load Configuration Data	Load Sample Data	Server Group – Secondary installation
Default	X	X	User Defined	X
Custom	User Defined	User Defined	User Defined	User Defined

Table 1: Effective Transport installation methods

Load Sample Data option

If you select the Load Sample Data option during the installation process, the following components will be installed:

- New companies
 - Effective Technologies
 - Acme Inc.
 - My Company
- Sample projects and associated activities and journals for the Effective Technologies company

Server Group – Secondary installation option

In a server group environment, Effect-Tech recommends you select the Default installation method on the primary server. For all other servers in the group, select the Custom installation and the Server Group – secondary installation option. See *Installing Effective Transport in a Server Group Environment* for additional information.

NOTE: The Effective Transport application must be properly licensed for each BMC Remedy AR System server in the server group.

- Primary server (Default installation)

For the primary server, use the server name specified in armonitor.cfg (Windows) or armonitor.conf (Unix) when prompted during the installation process. The full Effective Transport application and all its components will be installed on the primary server.
- Secondary servers (Custom installation, Server Group option)

For each secondary server, use the server name specified in armonitor.cfg (Windows) or armonitor.conf (Unix) when prompted during the installation process. Only the necessary components of the FilterAPI will be installed on each secondary server.

Reviewing the requirements checklist

The following components and permissions are required to complete installation of the Effective Transport application:

- DSO license (required for data promotion tasks only)

If you are using the Effective Transport application to promote data from a local server to remote servers, the DSO (Distributed Server Option) license is required on the AR System on the local server. The DSO mappings will not be created without the DSO license.

- AR Server name
If multiple aliases are used for the AR server, use the AR server name that is used to start the Effective Transport Java plug-in server. If the Effective Transport Java plug-in server is started through the AR monitor file, you can find the server name on the command line for the Effective Transport Java plug-in in `armonitor.cfg` (Windows) or `armonitor.conf` (Unix).
- AR System Administrator permissions
- AR Administrator User Login and Password
- AR TCP Port number (if configured to use a specific port)

NOTE: Before you begin the installation process, make sure the Java Virtual Machine (version 1.7.15 or higher) is installed and configured on all AR server installations.

Installing Effective Transport using the install file

You can install the Effective Transport application using the install file `installgs.exe` on Windows or the install file `installgs.bin` on Unix.

Installing on Windows using the *installgs.exe* file

Complete the following steps to install the Effective Transport software on Windows using the `installgs.exe` file:

1. (Optional) Effect-Tech recommends you restart the AR server before you install the Effective Transport software.
2. Log onto your computer as a user with Administrator permissions.
3. Turn on the Development Cache Mode.
4. Double-click `installgs.exe` and follow the directions that appear on the screen.

NOTE: Listed below are default and acceptable values for parameters you can configure during the installation process.

- The Effective Transport default installation directory is `C:\Datalink`.
- The AR Login account must have AR Administrator permissions.
- Effective Transport plug-in server
Provide the following information to set up the Effective Transport plug-in server:
 - Port number (default value is 9688)
 - Number of Core Threads (default value is 5)
- Effective Transport plug-in
Provide the following information to set up the Effective Transport plug-in:
 - Private RPC socket (valid ranges are 390621-390634, 390636-390669, and 390680-390694; default value is 390688)
 - Minimum and Maximum threads for the private RPC socket (range for the minimum number of threads is from 1 to 8, default is 2; range for the maximum number of threads is from 1 to 16, default is 5)
- Default installation options
For the Default installation method, the Load Sample Data option is selected by default. Unselect the Load Sample Data option if you do not wish to install the sample data.
- Custom installation options
For the Custom installation method, all components are selected to be installed or configured. Unselect those components that you do not wish to install or configure.

- AR System restart
The AR System must be restarted before you can use Effective Transport. By default, the option to restart the AR System as part of the installation process is set to 'No.' If the restart AR option is set to 'No,' you must manually restart AR System after the installation is complete and before using the Effective Transport application.
5. After the installation is complete, turn off the Development Cache Mode.
NOTE: See *Checking the Effective Transport installation* to determine if the Effective Transport application was installed successfully.

Installing on Unix using the *installgs.bin* file

X Windows libraries are required to install the Effective Transport application using the installation file on Unix. If you do not have the X Windows libraries, you can install Effective Transport using the silent installer. See *Installing Effective Transport using the silent installer* for more information.

Complete the following steps to install the Effective Transport software on Unix using the *installgs.bin* file:

1. (Optional) Effect-Tech recommends you restart the AR server before you install the Effective Transport software.
2. Log onto your computer as a user with root permissions.
3. Turn on the Development Cache Mode.
4. Open a terminal window and type in the following command, `/installgs.bin`.

NOTE: Listed below are the default and acceptable values for parameters you can install or configure during the installation process.

- The Effective Transport default installation directory is `/Datalink`.
- The AR Login account must have AR Administrator permissions.
- Effective Transport plug-in server
Provide the following information to set up the Effective Transport plug-in server:
 - Port number (default value is 9688)
 - Number of Core Threads (default value is 5)
- Effective Transport plug-in
Provide the following information to set up the Effective Transport plug-in:
 - Private RPC socket (valid ranges are 390621-390634, 390636-390669, and 390680-390694; default value is 390688)
 - Minimum and Maximum threads for the private RPC socket (range for the minimum number of threads is from 1 to 8, default is 2; range for the maximum number of threads is from 1 to 16, default is 5)
- Default installation options
For the Default installation method, the Load Sample Data option is selected by default. Unselect the Load Sample Data option if you do not wish to install the sample data.
- Custom installation options
For the Custom installation method, all components are selected to be installed or configured. Unselect those components that you do not wish to install or configure.
- AR System restart
The AR System must be restarted before you can use Effective Transport. By default, the option to restart the AR System as part of the

installation process is set to 'No.' If the restart AR option is set to 'No,' you must manually restart AR System after the installation is complete and before using the Effective Transport application.

5. After the installation is complete, turn off the Development Cache Mode.

NOTE: See *Checking the Effective Transport installation* to determine if the Effective Transport application was installed successfully.

Installing Effective Transport using the silent installer

You can install the Effective Transport application using the silent installer through the command prompt on Windows or a terminal window on Unix.

Before you begin the installation process, you must first modify the `DLInstallerSilent.properties` file with the correct parameters to feed into the silent installer. The `DLInstallerSilent.properties` file ships with Effective Transport and can also be found in the `\lib` (for Windows) or `/lib` (for Unix) subdirectory of the product folder.

To install Effective Transport using the silent installer:

1. Log onto your computer as a user with Administrator permissions.
2. Open the `DLInstallerSilent.properties` file in a text editor (for example, Notepad).
3. Specify the User Install directory by setting `USER_INSTALL_DIR` to the correct directory. By default, it is set to `C:\Datalink`.
4. Replace the following placeholders with real values for your environment and then save the file:
 - `<Type in AR Server>`
Replace with the AR Server name.
 - `<Type in User Login>`
Replace with the AR User Login. The AR Login account must have AR Administrator permissions.
 - `<Type in User Password>`
Replace with the AR User password.
 - `<Type in Port #>`
Replace with the AR Port number, if necessary; otherwise, leave blank.
 - `<Type in Plugin Server Port #>`
Replace with Effective Transport plug-in server port number. The default value is 9688.
 - `<Type in Number of Core Threads>`
Replace with the number of Effective Transport plug-in server core threads. The default value is 5.
 - `<Type in Private RPC socket>`
Replace with the Effective Transport plug-in private RPC socket. The valid ranges are 390621-390634, 390636-390669, and 390680-390694; default value is 390688.
 - `<Type in Private RPC socket min number of threads>`
Replace with the minimum number of threads for the RPC socket. The range for the minimum number of threads is from 1 to 8; the default value is 2.
 - `<Type in Private RPC socket max number of threads>`
Replace with the maximum number of threads for the RPC socket. The range for the maximum number of threads is from 1 to 16; the default value is 5.

5. Specify the installation option at the line `USER_INPUT_INSTALL_OPTION=`
 - **Default option**
`USER_INPUT_INSTALL_OPTION="Default - ITSM, SLM, SRM must be present",\"`
`USER_INPUT_EXP_OPTION=1`
 For the Default option, specify the components to install by setting the following flags (1=Yes, 0=No):
 - Sample Data:
`USER_INPUT_EXP_LOAD_SAMPLE=0`
 - **Custom option**
`USER_INPUT_INSTALL_OPTION="\",\\"Custom\""`
`USER_INPUT_EXP_OPTION=0`
 For the Custom option, specify the components to install and configure by setting the following flags (1=Yes, 0=No):
 - Definition files: `USER_INPUT_CUSTOM_LOAD_DEF=`
 - Configuration files: `USER_INPUT_CUSTOM_LOAD_DATA=`
 - Sample Data: `USER_INPUT_CUSTOM_LOAD_SAMPLE=`
 - Server Group: `USER_INPUT_CUSTOM_CONFIG_PLUGIN=`

NOTE: Review and modify, if necessary, the following options:

 - **User Install directory**
 The User Install directory (`USER_INSTALL_DIR`) is set to `C:\Datalink` by default. Make sure to change this folder if you are installing Effective Transport on Unix.
 - **Restart AR option**
 By default, the Restart AR option is set to 'No.' If the Restart AR option is set to 'No,' you must manually restart the AR System after the installation process is complete and before using the Effective Transport application.
 - Set `USER_INPUT_RESULTS_RESTART_AR="No"` if you do not want to restart AR System as part of the installation process.
 - Set `USER_INPUT_RESULTS_RESTART_AR="Yes,"` to restart AR System as part of the installation process.
6. Complete the following, as appropriate for your platform, to run the silent installer:
 - For Windows, open a Microsoft Windows command window (`cmd.exe`) and type in the following at the prompt:
`C:> installgs -f DLInstallerSilent.properties`
 NOTE: This command assumes the `DLInstallerSilent.properties` file is in the same location as `installgs.exe`.
 By default, the silent installer will install Effective Transport in the `C:\Datalink` directory.
 - For Unix, open a terminal window and type in the following at the prompt:
`./installgs.bin -f DLInstallerSilent.properties`
 NOTE: This command assumes the `DLInstallerSilent.properties` file is in the same location as `installgs.bin`.

Installing Effective Transport in a Server Group Environment

If you are installing the Effective Transport application in a Server Group Environment, Effect-Tech recommends you complete the following steps to avoid AR server

re-caching issues during the installation process:

1. Enable Server Group and Thread logging on non-admin servers in the group.
2. Shut down the non-admin servers.
3. Leave the Primary Admin Server in Server Group configuration.
4. On the Primary Admin Server, turn on the Development Cache Mode and install the Effective Transport application using the Default installation.

Continue with the remaining steps if you are installing Effective Transport in a non-dedicated Server Group Environment.

5. Start up the first non-admin server in the server group.
6. Review the Server Group and Thread log files to monitor the re-cache process.
7. After the re-cache process is completed on the first non-admin server, restart AR System on the next non-admin server. Repeat this process until all non-admin servers are restarted.
8. On each non-admin server, install the Effective Transport application using the Custom – Server Group Secondary installation (or as applicable for your desired architecture).
9. Turn off Server Group and Thread logging on the non-admin servers.

If these recommended steps do not apply to your server group environment, contact Customer Support at information@effect-tech.com for assistance.

Configuring the ARDBC LDAP Plug-in (for LDAP datalink)

If you will be using Effective Transport to onboard data from an LDAP directory, you must configure the BMC Remedy AR System ARDBC LDAP Plug-in after you installed the Effective Transport application. The appropriate LDAP integration data will be used to enable communication between Effective Transport and the LDAP server.

The ARDBC LDAP Plug-in is configured through the BMC AR System Administrator Console. You must have AR System Administrator permissions to configure the ARDBC LDAP Plug-in.

NOTE: Effect-Tech recommends you complete the *Appendix A: ARDBC LDAP Plug-in Configuration Worksheet* before you begin configuration of the ARDBC LDAP Plug-in.

1. Log into the BMC AR System as a user with BMC AR System Administrator permissions.
2. Select AR System Administration > AR System Administration Console.
3. From the left navigation menu, select System > LDAP > ARDBC Configuration. The ARDBC LDAP Configuration form appears.
4. In the ARDBC LDAP Configuration form, enter the appropriate LDAP configuration information and save the record.
 - **Host Name:** Host name(s) of the LDAP directory from which to transfer employee data.
 - **Port Number:** Port number for the directory service.
 - **Bind User:** Name of the user account the ARDBC Plug-in will use to log into the directory service.
 - **Bind Password:** Password associated with the Bind User account.

- **Using Secure Socket Layer:** Specify whether Secure Socket Layer (SSL) will be used. If you are using SSL, you will also need to complete the Certificate Database field.
- **Certificate Database:** Path to the directory containing the certificate database file. Required only if using SSL.
- **LDAP Date-Time Format:** Format to use for representing date and time: Generalized Time Format, AD Generalized Time Format, or UTC Time Format.
- **Failover Timeout:** Length of time, in seconds, within which the directory service must respond to the plug-in server before an error is returned.
- **Directory Page Size:** Number of entries to be returned in a single page from the external directory server to the client for a search request.
- **Base DN For Discovery:** The Base DN to be used in place of the root DN as the basis for obtaining the list of vendor tables.

ARDBC Plug-in Cache:

- **Enable:** Specify whether to enable ARDBC Plug-in caching.
- **Time to Live:** Length of time, in seconds, to keep data in the ARDBC Plug-in cache.
- **Maximum Size:** Maximum size of the ARDBC Plug-in cache

Checking the Effective Transport installation

Check the following subdirectories and files to determine if the Effective Transport application was installed successfully:

- Effective Transport installation directory and subdirectories
- Log files, gsinstall.log and gsinstall-data.log
- Deployable applications
- ar.cfg file (on Windows) or ar.conf file (on Unix)
- armonitor.cfg file (on Windows) or armonitor.conf file (on Unix)
- pluginsvr_config.xml file

Effective Transport installation directory and subdirectories

After installation of the Effective Transport application is complete, you will find the following subdirectories under the Effective Transport directory (by default, C:\Datalink on Windows or /Datalink on Unix):

- ConfigData
- Customizations
- Data
- Defs
- Docs
- Lib
- Logs
- Mappings
- SRDTemplates
- Uninstall_Datalink

Log files, ginstall.log and ginstall-data.log

To check the status of the Effective Transport installation, review the ginstall.log and ginstall-data.log files located in the \Logs (for Windows) or /Logs (for Unix) directory for installation of the definition files, ARX files, and AR components.

- Definition files

For example, the following section in ginstall.log shows the successful installation of the file, EffectTech_EXP_DepApp.def on Windows:

```
Importing GS Datalink Definition Command
Import Prereq - Type: APP, Operator: None, ID: ID00C04FA081BAyBCWQwW2uf8wbAoA, Name:
Remedy Foundation Company, Ver: None, Patch: None, Import: true.
Import Prereq - Type: ARS, Operator: None, ID: ARS, Name: ARS, Ver: None, Patch: None, Import:
true.
Import Definition Sequence 10
XML item: XMLQSFile Details - ActionYet:[false],ActionYes:[false],Component Name: [GS], Component
Display Name: [Effective Transport GS], Component Version: [3.0],Type:[Definition],Datalink
Version:[NA],Application Properties: [ID00C04FA081BAyBCWQwW2uf8wbAoA], Remedy
Info:[ARS/None/None],Import Version:[Import Version
7.5],Name:[null],File:[C:\Datalink\Defs\GS\EffectTech_EXP_DepApp.def],Key:[NA],Log:[C:\Datalink\Logs
\EffectTech_EXP_DepApp.log],Wait (seconds):[480],Stage:[40],Sequence:[10].
Success - GS "C:\Datalink\Defs\GS\EffectTech_EXP_DepApp.def" Definition file was imported
Start to wait for 480 seconds
End waiting for 480 seconds
```

- ARX files

The ginstall.log file also shows the ARX files that are installed. For example, the following section shows the installation of EffectTechQSSDataLink_Groups.arx on Windows:

```
Importing GS Datalink Data file
Import Prereq - Type: APP, Operator: None, ID: ID00C04FA081BAyBCWQwW2uf8wbAoA, Name:
Remedy Foundation Company, Ver: None, Patch: None, Import: true.
2013.02.13 04:33:31 Import Prereq - Type: ARS, Operator: None, ID: ARS, Name: ARS, Ver: None,
Patch: None, Import: true.
Import Data Sequence 10
XML item: XMLQSFile Details - ActionYet:[false],ActionYes:[false],Component Name: [QSS],
Component Display Name: [Effective Transport Standard], Component Version:
[3.0],Type:[Data],Datalink Version:[NA],Application Properties:
[ID00C04FA081BAyBCWQwW2uf8wbAoA], Remedy Info:[ARS/None/None],Import Version:[Import
Version
7.5],Name:[null],File:[C:\Datalink\ConfigData\GS\EffectTechQSSDataLink_Groups.arx],Key:[106],Log:[
EffectTechQSSDataLink_Groups.log],Wait (seconds):[60],Stage:[20],Sequence:[10].
Executed command line: java -classpath
"C:\Datalink\Lib\lib\arapiext7604_build002.jar";"C:\Datalink\Lib\lib\arapi7604_build002.jar"
com.bmc.arsys.apiext.data.DataImport -x itsm801-sql-win2012 -u Demo -a 0 -o
"C:\Datalink\ConfigData\GS\EffectTechQSSDataLink_Groups.arx" -D 3 -e 106 -l
"C:\Datalink\Logs\EffectTechQSSDataLink_Groups.log"
Finished - Command line AR import for QSS
"C:\Datalink\ConfigData\GS\EffectTechQSSDataLink_Groups.arx" Data file. Please check log file
ginstall-data.log for result
Start to wait for 60 seconds
End waiting for 60 seconds
```

You can also check the file ginstall-data.log for the results of the data installation. The ginstall-data.log is the concatenation of the individual log files for the ARX files. The individual log files are located in \Logs\Backup (for Windows) or /Logs/Backup (for Unix). The individual log files have the same name as the corresponding ARX file. For example, EffectTechQSSDataLink_Groups.log is the log for EffectTechQSSDataLink_Groups.arx.

[Wed Feb 13 04:33:31.962] INFO - AR System Import Tool 7.6.04 Wed Feb 13 04:33:31.935
 [Wed Feb 13 04:33:33.026] INFO - Starting import of
 C:\Datalink\ConfigData\GS\EffectTechQSSEDataLink_Groups.arx
 [Wed Feb 13 04:33:33.032] INFO - Found new form in file : Group
 [Wed Feb 13 04:33:33.160] INFO - Auto generating mapping information
 [Wed Feb 13 04:33:33.162] INFO - Attempting import from source form Group to destination form Group
 on server itsm801-sql-win2012
 [Wed Feb 13 04:33:33.466] INFO - Import Completed in 0.44 seconds. 10 records were imported to
 Group. From File C:\Datalink\ConfigData\GS\EffectTechQSSEDataLink_Groups.arx

- **AR Components**

The AR components that have been installed and the quantity of each component are listed near the end of the ginstall.log file. The correct numbers of installed components are as follows for a system that has the entire ITSM suite of applications. The numbers will be less if one or more ITSM applications are not installed.

Number of entries retrieved from Group form: 10
 Number of entries retrieved from Roles form: 12
 Number of imported forms: 215
 Number of imported active links: 2011
 Number of imported filters: 3801
 Number of imported menus: 471
 Number of imported escalations: 14
 Number of imported activeLink guides: 185
 Number of imported filter guides: 366
 Number of imported applications: 2
 Number of entries retrieved from Distributed Mapping form: 65

Deployable Applications

Use BMC Remedy AR System Developer Studio to check the state of the following deployable applications:

- Effective Enterprise Datalink
- Effective SLM Datalink

If the state is in Maintenance, change it to Production and save the deployable application, and restart AR Server.

ar.cfg file (on Windows) or ar.conf file (on Unix)

Check the ar.cfg (Windows) or ar.conf (Unix) for the following entries:

```
Private-RPC-Socket: 390688 2 5          # Effect-Tech TransportUtility
Server-Plugin-Alias: ET.TRPT.UTILITY ET.TRPT.UTILITY [AR servername]:[9688 or Transport
plugin port #]
```

armonitor.cfg file (on Windows) or armonitor.conf file (on Unix)

- On Windows, check the file armonitor.cfg for the entry:


```
"[Java-install directory]\jre7\bin\java" -Xmx512m -classpath "[Transport-install
directory]\Lib\pluginsvr\transport; [Transport-install
directory]\Lib\pluginsvr\transport\arpluginsvr7604_build002.jar"
com.bmc.arsys.pluginsvr.ARPluginServerMain --unicode -x [AR servername] -i
"[AR-install directory]\BMC Software\ARSystem" -m
```
- On Unix, check the file armonitor.conf for the entry:


```
[Java-install directory]/jre/bin/java -Xmx512m -classpath [Transport-install
directory]/Lib/pluginsvr/transport:[Transport-install
```

```
directory)\Lib\pluginsvr\transport\arpluginsvr7604_build002.jar
com.bmc.arsys.pluginsvr.ARPluginServerMain --unicode -x [AR servername] -i
[AR-install directory] -m
```

pluginsvr_config.xml file

Check the file pluginsvr_config.xml (under the directory [Transport-install directory]\Lib\pluginsvr\transport) for the following section:

```
<pluginsvr_config>
  <port>[Transport plugin server port #]</port>
  <regPortMapper>false</regPortMapper>
  <encryptionPolicy>2</encryptionPolicy>
  <publicKeyAlg>4</publicKeyAlg>
  <publicKeyExpiry>86400</publicKeyExpiry>
  <dataEncryptionAlg>1</dataEncryptionAlg>
  <dataKeyExpiry>2700</dataKeyExpiry>
  <numCoreThreads>[Transport plugin server number of core threads]</numCoreThreads>
  <numSelectorThreads>2</numSelectorThreads>
  <workQueueMonitorLogInterval>0</workQueueMonitorLogInterval>
  <workQueueTaskThreshold>5</workQueueTaskThreshold>

  <plugins>

  <plugin>
    <name>ET.TRPT.UTILITY</name>
    <type>FilterAPI</type>
    <code>JAVA</code>
    <filename>[Transport-install directory]\Lib\ETTransportUtility.jar</filename>
    <classname>com.effect_tech.arsys.plugins.EFTTransportUtility.EFTTransportUtilityPlugin
    </classname>
    <pathelement type="location">[Transport-install
directory]\Lib\lib\arapiext7604_build002.jar</pathelement>
    <pathelement type="location">[Transport-install directory]\Lib\EFTCryptoLib.jar</pathelement>
    <userDefined>
      <installDir>[Transport-install directory]\Lib</installDir>
      <privateRPCQueue>[Transport plugin private RPC]</privateRPCQueue>
    </userDefined>
  </plugin>
</plugins>
</pluginsvr_config>
```

Uninstalling the Effective Transport application

To uninstall an earlier version of the Effective Transport application, you need to delete the product definition files and configuration data files, as well as the datalink forms and workflow in the AR System.

To uninstall the Effective Transport application:

1. Log in to the BMC Remedy AR System Developer as a user with BMC AR System Administrator permissions.
2. Use the BMC Remedy AR System Developer Studio to first delete the Effective Enterprise Datalink application and Effective SLM Datalink application and then all AR objects with the prefix 'EffectTech' (forms, active links, filters, escalations, guides, menus, distributed mappings, etc.).
3. Delete the data from the following forms:
 - a. Roles where Application has prefix "Effective"
 - b. Group where Group Name has prefix of "ET"

- c. Report where Report Name has prefix "EffectTech"
 - d. LIC:SYS-License Permission Map where Permission Group has prefix "ET"
 - e. Data Visualization Module where Module Name has prefix "EffectTech"
 - f. AR System Resource Definitions where Name has prefix "EffectTech"
 - g. SRS:CFGAdvancedInterface where CustomFormTemplate_Name has prefix "EffectTech"
 - h. SRS:ServiceRequestImages where Image Name has prefix "ET"
4. Remove the references on FilterAPI and datalink files.
- a. Stop the AR System server.
 - b. Delete the following lines from ar.cfg (on Windows) or ar.conf (on Unix):

```
Private-RPC-Socket: [390688 or Transport plugin private RPC] [2 or minimum thread specified during Transport installation [5 or maximum thread specified during installation]
# Effect-Tech TransportUtility

Server-Plugin-Alias: ET.TRPT.UTILITY ET.TRPT.UTILITY [AR servername];[9688 or Transport plugin port #]
```
 - c. Delete the following lines from armonitor.cfg (on Windows) or armonitor.conf (on Unix):
 - On Windows:

```
"[Java-install directory]\jre7\bin\java" -Xmx512m -classpath "[Transport-install directory]\Lib\pluginsvr\transport; [Transport-install directory]\Lib\pluginsvr\transport\arpluginsvr7604_build002.jar" com.bmc.arsys.pluginsvr.ARPluginServerMain --unicode -x [AR servername] -i "[AR-install directory]\BMC Software\ARSystem" -m
```
 - On Unix:

```
[Java-install directory]/jre/bin/java -Xmx512m -classpath [Transport-install directory]/Lib/pluginsvr/transport:[Transport-install directory]/Lib/pluginsvr/transport/arpluginsvr7604_build002.jar com.bmc.arsys.pluginsvr.ARPluginServerMain --unicode -x [AR servername] -i [AR-install directory] -m
```
 - d. Delete the Effective Transport install folders and files (by default, C:\Datalink and C:\Datalink_BACKUP on Windows or /Datalink and /Datalink_BACKUP on Unix)
 - e. Restart the AR System server.

Troubleshooting the Effective Transport installation

This section lists common scenarios that you might encounter after installation of the Effective Transport 5.0 application.

Reinstalling the Effective Transport application

If you plan to re-install the Effective Transport v5.0 software into a different directory, you will need to examine the datalink Configuration profiles (after installation) to make sure the directories for the data files (CSV files), mapping files (ARM files) and log files are correct.

Reviewing & editing configuration entries

Configuration profiles contain connection and folder information used by the Effective Transport datalinks to onboard data. Before you begin loading data, be sure to review the values in the Configuration profiles and correct any values, as necessary.

- If you installed the Effective Transport application in a folder other than the default (C:\Datalink), you must modify the Configuration profiles to reflect the correct paths to the data, mapping, and log files. See the *Effective Transport Data Management Suite for BMC Remedy User's Guide* for instructions on how to update the Configuration profiles.
- Ensure that the User, Password, and Port values are set properly before you begin the data import and transport processes. Note that the User defined in the Configuration profiles must possess adequate ITSM permission and roles to load data.

Effective Transport Plugin errors

This section lists Effective Transport Plugin errors that you might encounter.

Plugin Not Found Error

If you see the following message in the Result field on the Onboarding Console or Customer Data Load Console, you may need to modify the ar.cfg (on Windows) /ar.conf (on Unix) and/or pluginsvr_config.xml files to point to the Effective Transport Plugin.

ERROR: Failed FilterAPI call – Message returned was: (8755) : The specified plug-in does not exist.

1. Check the ar.cfg or ar.conf file for the following entry:

```
Server-Plugin-Alias: ET.TRPT.UTILITY ET.TRPT.UTILITY [AR servername]:[9688 or  
Transport plugin port #]
```

2. Check the pluginsvr_config.xml file (located in [Transport-install directory]\Lib\pluginsvr\transport\ for the following section under the <plugins> tags:

```
<plugin>  
  <name>ET.TRPT.UTILITY</name>  
  <type>FilterAPI</type>  
  <code>JAVA</code>  
  <filename>[Transport-install directory]\Lib\ETTtransportUtility.jar</filename>  
  <classname>com.effect_tech.arsys.plugins.EFTTtransportUtility.EFTTtransportUtility  
  Plugin</classname>
```

```

    <pathelement type="location">[Transport-install
    directory]\Lib\lib\arapiext7604_build002.jar</pathelement>
    <pathelement type="location">[Transport-install
    directory]\Lib\EFTCryptoLib.jar</pathelement>
    <userDefined>
        <installDir>[Transport-install directory]\Lib</installDir>
        <privateRPCQueue>[Transport plugin private RPC]</privateRPCQueue>
    </userDefined>
</plugin>

```

3. Change the files, as needed, to match the sections listed above.
4. Restart the AR System service.

Plugin Error – Cannot establish a network connection

If you see the following message in the Result field on the Onboarding Console or Customer Data Load Console, you may need to modify the armonitor.cfg/armonitor.conf and ar.cfg/af.conf files to establish a network connection:

ERROR: Failed FilterAPI call – Message returned was: (8760) : Cannot establish a network connection to the AR System Plug-In server

1. Check the armonitor.cfg (on Windows) or armonitor.conf (on Unix) file for the following entry:

```

"[Java-install directory]\jre7\bin\java" -Xmx512m -classpath "[Transport-install
directory]\Lib\pluginsvr\transport; [Transport-install
directory]\Lib\pluginsvr\transport\arpluginsvr7604_build002.jar"
com.bmc.arsys.pluginsvr.ARPluginServerMain --unicode -x [AR servername] -i "
[AR-install directory]\BMC Software\ARSystem" -m

```

2. Check the ar.cfg or ar.conf file for the following entry, and make sure [AR servername] is correct.

```

Server-Plugin-Alias: ET.TRPT.UTILITY ET.TRPT.UTILITY [AR servername]:[9688 or
Transport plugin port #]

```

NOTE: The [AR servername] must match the server name used to start the Effective Transport Java plugin on armonitor.cfg/armonitor.conf.

Debugging the Effective Transport Plugin

If you encounter errors that you cannot decipher when you import, transport, or promote data on the Transport Onboarding Console, look at the Effective Transport plugin server log file to determine the source of the errors. The arjavaplugin log file is located in the installation folder for the Effective Transport Java plugin server (by default, C:\Datalink\Lib\pluginsvr\transport\). By default, the Effective Transport Plugin is set to use the plugin name ET.TRPT.UTILITY and the logging level value is set to "info."

Licensing errors

This section lists licensing issues that you might encounter.

Missing License

If you are missing a license for the Effective Transport application, you may see the following message in the Result field on the Onboarding Console or

Customer Data Load feature when you attempt to import, transport, or promote data.

Your license is in restricted mode.

Please contact Effective Technologies to obtain a license.

Contact Effect-Tech Customer Support at information@effect-tech.com to obtain a new license.

Invalid License

If your license for the Effective Transport application is no longer valid, you may see the following message in the Result field on the Onboarding Console or Customer Data Load feature when you attempt to import, transport, or promote data.

Your license has expired.

Please contact Effective Technologies to obtain a license.

Contact Effect-Tech Customer Support at information@effect-tech.com to obtain a new license.

Invalid MAC Address

If your license for the Effective Transport application is not working, check to see if the MAC address used for the license is the correct one. If the MAC address is incorrect, contact support to request for a new license with the correct MAC address.

To check the MAC address used in the license, use an AR user who has AR Administrator or ET Admin User permission to log into AR server. Perform a search on the form Effective License Registration. Compare the value on the MAC address field with the MAC address on your AR server. This value is case-sensitive and should match the value that shows up when performing ipconfig or ifconfig.

Appendix A:

ARDBC LDAP Plug-in Configuration Worksheet

If you will be using the LDAP datalink component of the Effective Transport application, Effective Tech recommends that you complete this worksheet before you begin configuration of the ARDBC LDAP Plug-in.

Host Name: _____

Enter one or more host names of the LDAP directory service from which you want to transfer employee information. You can specify a space-separated list of hostnames up to 255 characters long. If you are using Secure Socket Layer (SSL), this host name should match the name for which the server's certificate was issued.

Port Number: _____

Enter the port number for the directory service. The default port number is 389. If you are using an SSL connection, use 636.

Bind User: _____

Enter the distinguished name of the user account that the ARDBC LDAP plug-in will use when logging in to the directory service. This name was designated by the administrator who set up the LDAP service. Some LDAP servers will allow you to make an anonymous connection. If you plan to use an anonymous connection, leave the Bind User and Bind Password fields blank. Otherwise, use a standard distinguished name such as `cn=manager, dc=remedy, dc=com`.

Bind Password: _____

Enter the password for this user account. If you leave the Bind Name and Password fields blank, you will be connected anonymously.

Using Secure Socket Layer: _____

Enter "Yes" if the LDAP server uses Secure Socket Layer (SSL). If SSL is used, you will also need to specify the Certificate Database field. Since SSL requires additional setup in this form and outside the AR System, you might first want to experiment without SSL and add this option later.

Certificate Database: _____

You need to specify the Certificate Database if the LDAP server uses SSL. Enter the path to the directory that contains the certificate database file. The function assumes that the database file is named `cert7.db`, but do not include the filename in the path. You also need to have the file `key3.db` present in the same directory.

You must obtain a certificate database file since the AR System uses the Mozilla LDAP SDK which requires this file for connection over SSL. The certificate database file `cert7.db` is used by the client (that is, the LDAP plug-in) to determine if the certificate sent by the LDAP server can be trusted.

LDAP Date-Time Format: _____

Select the format to be used to represent date and time to LDAP servers: Generalized Time Format, AD Generalized Time Format, or UTC Time Format.

Failover Timeout: _____

Specify the number of seconds within which the directory service must respond to the plug-in server before an error is returned. The minimum value is 0. In this case, the connection must be made immediately. The Failover Timeout cannot be set higher than the value of the `Server-Plugin-Default-Timeout` parameter.

NOTE: The `Server-Plugin-Default-Timeout` parameter can be added to the `ar.cfg/ar.conf` file.

Directory Page Size: _____

Enter the number of entries to be returned in a single page from the external directory service to the client when processing a search request. Setting the Directory Page Size to 1000 can help improve your system's performance while you are designing and creating vendor forms.

Base DN For Discovery: _____

Enter a Base DN to be used instead of the root DN as the basis for obtaining the list of vendor tables. Specifying a value in the Base DN for Discovery field can help improve your system's performance while you are designing and creating vendor forms.

ARDBC Plug-in Cache Information

Enable: _____

Enter yes to enable ARDBC Plug-in caching. Enabling the ARDBC cache can help improve your system's performance at run-time.

Time to Live: _____

Specify the length of time (in seconds) to keep data in the ARDBC Plug-in cache.

Maximum Size: _____

Specify the maximum size of the ARDBC Plug-in cache.