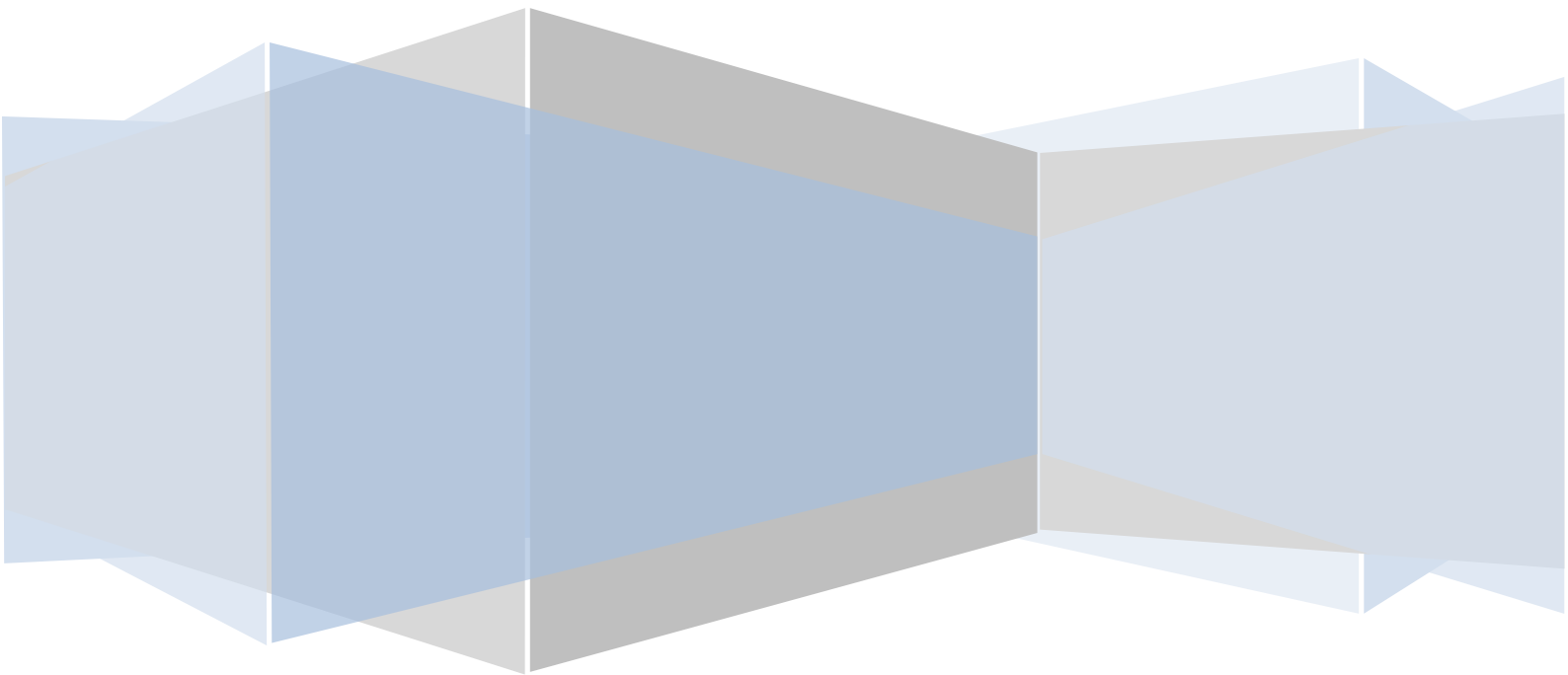


SSO Plugin

Upgrading SSO Plugin 3x to 4x - BMC AR System & Mid Tier

J System Solutions

<http://www.javasystemsolutions.com>



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Introduction

This document describes the steps to upgrade SSO Plugin from version 3x to 4x
If there are any questions, do not hesitate to contact JSS [support](#).

[Prerequisite] Generate a new license

Version 4.x introduced a new license type and therefore a new license will need to be generated for the environment.

The values needed to generate a license differ depending on the configuration of the AR Servers. The table below represents what value to use.

AR Server configuration	License value from ar.cfg/conf
Single instance	Server-Name
Server Group	Server-Connect-Name

Browse to the following URL, making sure the Product menu has SSO Plugin (4.0 and later) selected. Then add the values taken from the ar.cfg/conf files in the Servers box. Making sure each server reference is on a separate line. Then click the Generate button.

<http://www.javasystemsolutions.com/jss/licensing>

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[Licensing](#)
[ARSlist](#)

Product licensing

By generating a license, you are agreeing to our [license agreement](#).

Target platform

BMC AR System

Product

SSO Plugin (4.0 and later)

Servers

myARServer
AnotherARServer

[Prerequisite] Download SSO Plugin v4.x

To download the latest version 4, browse to the follow URL.

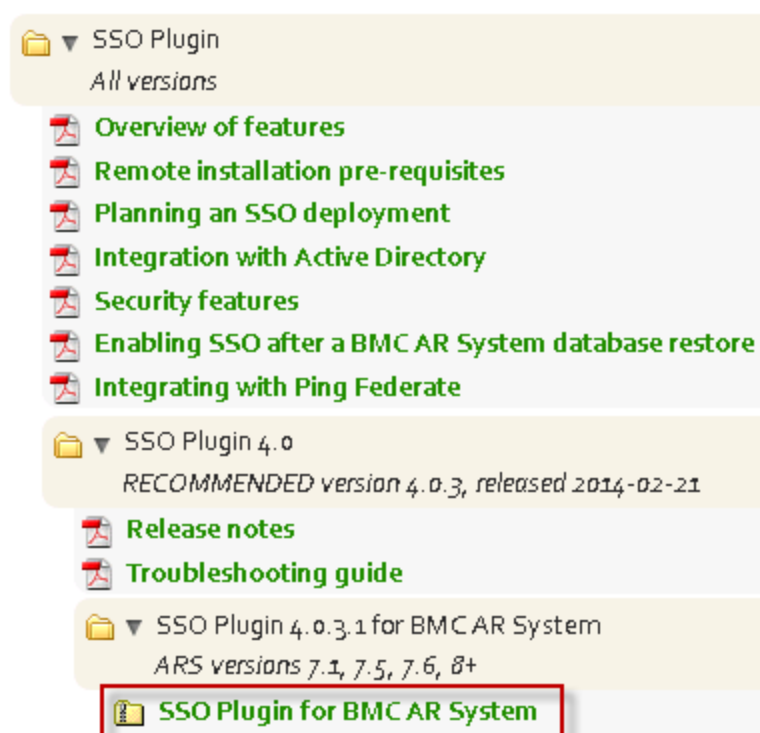
<http://www.javasystemsolutions.com/jss/downloads>

Click on SSO Plugin >> SSO Plugin 4.0 >> SSO Plugin 4.x for BMC AR System >> SSO Plugin for BMC AR System

And copy the zip file to all AR Servers and Mid Tiers.

Example below is for version 4.0.3.1

Browse JSS downloads:



[Prerequisite] Record / Screenshot existing settings

Browse to the SSO Plugin Mid Tier config page and either note down the settings and/or take screenshots. This will be used to verify the upgrade

Example screenshot:

BMC Remedy Mid Tier - SSO Plugin Java System Solutions

SSO Plugin configuration Set configuration | on this Mid Tier only

Mouse over the ? icons for more information about the related settings.

Status

Configuration

Test SSO

Debug info

Mid Tier main config

Mid Tier home

Manual login

SSO Admin Console

Java System Solutions

Logout

Authentication method

☐ Windows native NTLM/Kerberos for Active Directory

☒ Built-in NTLM/Kerberos for Active Directory

DC hostname: mydomaincontroller.domain.local

Realm/domain: domain.local

Computer account: JSS-SSO-SERVICE

Password: [REDACTED]

☐ Custom NTLM/Kerberos settings

☐ Windows authentication performed by ITS

☐ SA SiteMinder

☐ SSO Access Manager (ClearTrust)

☐ Generic REMOTE_USER, JAAS plugin or X509 client certificates

☐ Custom header/cookie values

☐ OpenID

☐ SAML v2

☐ LDAP

☐ Enable identity federation service

Username translation

Case sensitivity: Match case-insensitively

User domain: Strip domain

☐ Alias username by User form query

Automation

☐ Automatically SSO enable accounts

When user has no valid SSO enabled account

☒ Redirect to login page

☐ Create new non-ITSM account

☐ Redirect to ITSM registration

Raise ITSM incident: Never

☐ Pass to Mid Tier

Logging

Diagnostic log level: Debugging

[Application] Updating the AR System definition files

The SSO Plugin AR System forms that contain the configuration information has to be updated.

Login using the BMC Developer Studio and delete the SSO Administration Console (Display Only) form only.

▼ Forms

Primary Form: SSO Administration Console

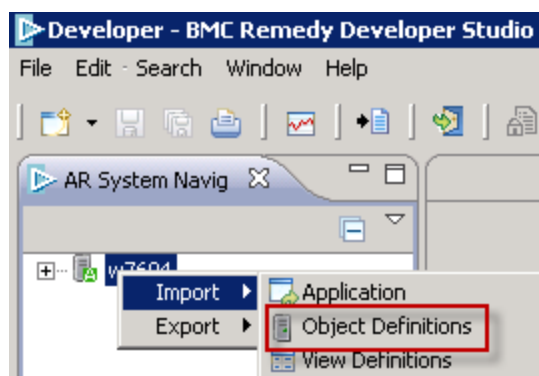
Primary View: Default Admin View ▼

Forms in Application

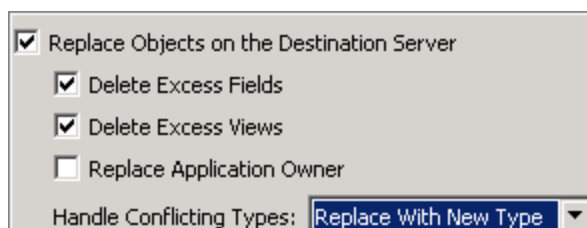
Name	Type	Modified	Customization Type
JSS:SSO:ARSCConfig	Regular	17/10/2014 14:36:19	Unmodified
JSS:SSO:Authentication	Regular	17/10/2014 14:36:14	Unmodified
JSS:SSO:AuthenticationArchive	Regular	17/10/2014 14:36:14	Unmodified
JSS:SSO:Log	Regular	17/10/2014 14:36:14	Unmodified
JSS:SSO:Logout	Regular	17/10/2014 14:36:16	Unmodified
JSS:SSO:Mapping	Regular	17/10/2014 14:36:15	Unmodified
JSS:SSO:MessageBox	Display-Only	17/10/2014 14:36:16	Unmodified
JSS:SSO:MidTierConfig	Regular	17/10/2014 14:36:16	Unmodified
SSO Administration Console	Display-Only	18/10/2014 11:06:17	Unmodified

Now import the def file called ssoadm40.def found in the installer folder of the downloaded zip.

Right click the AR Server Name in the AR System Navigation panel. Select Import >> Object Definitions



Making sure the following options are selected before clicking the Finish button.



[Application] Enable AR Plugin logging

Enabling AR plugin logging can be used to verify the upgrade to the AR Servers has been successful.

- Login to the application as an administrative user
- Open the AR System Administration Console
- Click System from the navigation pane
- Click General
- Click Server Information
- Click Log Files tab
- Click the Plug-in Server checkbox
- Make a note of the Plug-in log file name
- Select ALL from the Plug-in Log Level drop down
- Click Apply

Server Information

Log Files

Log Type	File	Form	Name	View
<input type="checkbox"/> API Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarapi.log	View
<input type="checkbox"/> Escalation Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarescl.log	View
<input type="checkbox"/> Filter Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarfilter.log	View
<input type="checkbox"/> SQL Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarsql.log	View
<input type="checkbox"/> Thread Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarthread.log	View
<input type="checkbox"/> User Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaaruser.log	View
<input type="checkbox"/> Alert Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaaralert.log	View
<input type="checkbox"/> Full Text Index Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarftindx.log	View
<input type="checkbox"/> Server Group Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarsvgrp.log	View
<input type="checkbox"/> ARFORK Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarfork.log	View
<input type="checkbox"/> ARSIGNALD Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaaralsignal.log	View
<input type="checkbox"/> DSO Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarlsdist.log	View
<input checked="" type="checkbox"/> Plug-In Log	<input checked="" type="radio"/> File	<input type="radio"/> Form	C:\Program Files\BMC Software\ARSystem\ARServer\Blaarplugin.log	View

Log Level: **All**

Log-File Creation: ☒ Create Backup ☐ Append To Existing

Client-Side Logging Group: **Administrator**

Maximum Log-File Size (byte): **0**

☐ Buffer Logged Lines ☐ Log Per Thread

OK Apply Close

[Application] Apply the new license

While still logged in to the application as an administrative user, follow these instructions:

- Login to the application as an administrative user
- Open the SSO Administration Console
- Replace the existing 3.x license with the 4.x license created in the previous step
- Click Save

[AR Server(s)] Shutdown the AR Server service

The SSO Plugin AREA plugin needs replacing and to do this the AR Server needs to be shutdown first. Doing so will depend on the operating system the AR Server is deployed on. On Microsoft Windows, this is a service and on *NIX systems there is a start and stop script.

[AR Server(s)] Extract the v4 AREA plugin

The next steps depend on the operating system the AR Server is deployed on.

Microsoft Windows

- Extract the win32.zip contents found in the SSO Plugin downloaded zip\installer\sso-libs\windows to the AR Server installation directory. JSS recommends creating a directory within the AR Server directory named SSOv4
- Verify the following files are extracted
 - arapi7604_build002.dll
 - arrpc7604_build002.dll
 - arutil7604_build002.dll
 - icudt32.dll
 - icuinbmc32.dll
 - icuucbmc32.dll
 - jss-sso.dll
 - msvc71.dll
 - msucr71.dll

UNIX/Linux

- Extract the jss-sso.so from the SSO Plugin downloaded zip\installer\sso-libs\PLATFORM\ to the AR Server\bin directory. This should overwrite the existing jss-sso.so
- Verify the jss-sso.so file is in the same directory as the filename arplugin

[AR Server(s)] Modify the ar.cfg/conf

The next steps depend on the operating system the AR Server is deployed on.

Microsoft Windows

- Make a backup of the current ar.cfg file
- Open the ar.cfg file in a text editor
- There are two references to the SSO Plugin files and path that will need updating. Make sure the modifications represent the new directory structure as recommended in the previous section. The example below assumes those recommendations were followed

ar.cfg setting	New ar.cfg setting
Plugin: "C:\Program Files\BMC Software\ARSystem\SSOv3.x\jss-sso.dll"	Plugin: "C:\Program Files\BMC Software\ARSystem\SSOv4.x\jss-sso.dll"
Plugin-Path: C:\Program Files\BMC Software\ARSystem\SSOv3.x	Plugin-Path: C:\Program Files\BMC Software\ARSystem\SSOv4.x

Note 1: If the BMC AREA Hub plugin is used then instead of Plugin:, there will be AREA-Hub-Plugin

Note 2: Plugin: or AREA-Hub-Plugin: need double quotes for directories but Plugin-Path does not work with double quotes.

The recommendation is just to modify the directory structures to reflect the new version

UNIX/Linux

If the recommendations were followed to place the jss-sso.so file in the same directory as the AR Server\bin then no modifications to the ar.conf file is necessary.

[AR Server(s)] Start the AR Server and verify the new arplugin log

Start the AR Server service and wait for new arplugin log file to appear. Once the AR Server has completed the startup routine, open the arplugin log file defined in the previous section.

Search for the following:

```
<JSS.AREA.SSO> <CONFIG> SSO Plugin Version      J System Solutions - Single Sign On  
Loaded. Version 4.x.x.xxxxxxx
```

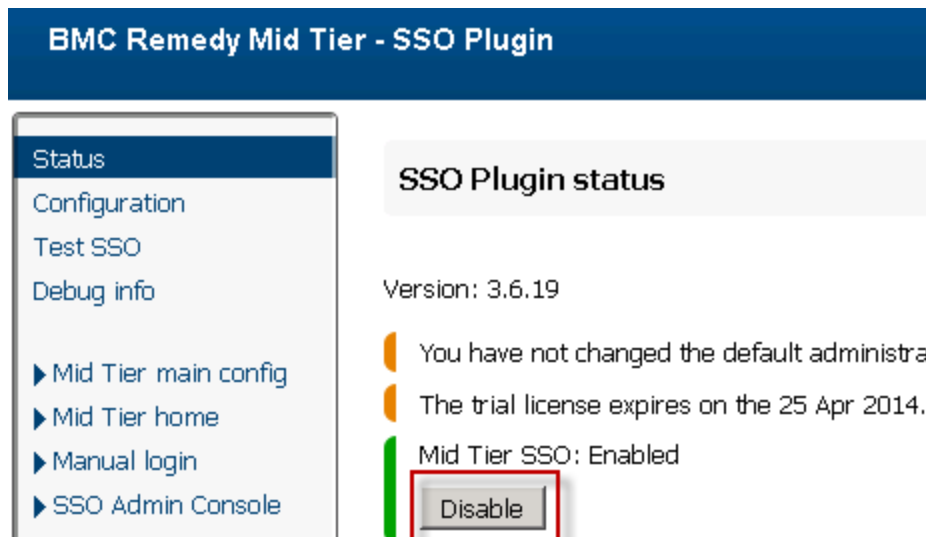
Verify that the Version number starts with 4. The x values represents any value. If the version presented is still 3.x then review the ar.cfg/conf for the correct path to the jss-sso.dll/so file. Restart and try again.

If there are any issues at this stage. Send the full arplugin log and ar.cfg/conf file to JSS Support.

[Mid Tier(s)] Disable the current SSO Plugin

Before the SSO Plugin Mid Tier files can be updated, it first has to be disabled on every Mid Tier individually. This resets the web.xml

- Using an internet browser, browse to the individual Mid Tier
 - /arsys/jss-sso/index.jsp
- Login on the left with the same password as the Mid Tier config page
/arsys/shared/config/config.jsp
 - Typically the default password is arsystem
- **Click the Disable button for the Mid Tier SSO**



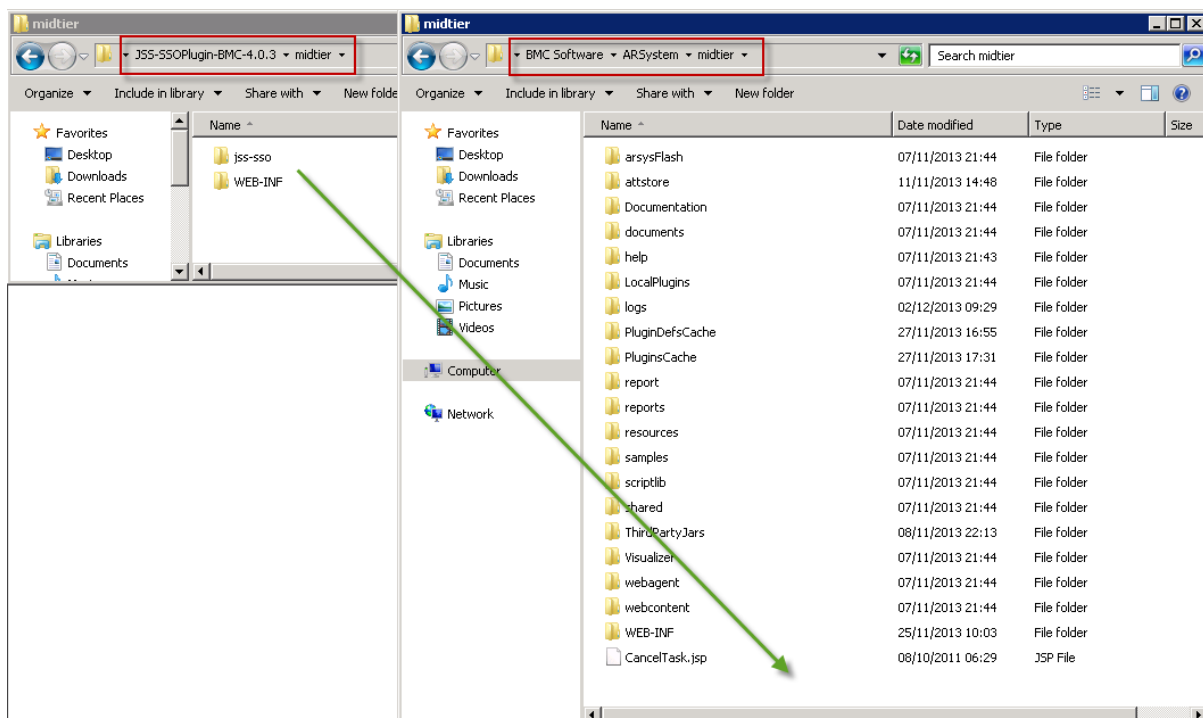
- Shutdown the Tomcat service. Depending on your operating system; on Windows this is a service. On *NIX systems there is a start / stop script in the Tomcat bin directory
- Delete the Tomcat logs situated in the Tomcat\Logs directory
- Delete the whole Catalina directory that is in the Tomcat\Work directory

[Mid Tier(s)] Copy the SSO Plugin Mid Tier files

It is very important that this section is followed accurately and verified. If only some of the files are copied or there is an error, SSO Plugin and Mid Tier will not function correctly.

The method of copying these files will differ depending on the operating system. **In all instances is it recommended to copy the directory rather than the individual files.**

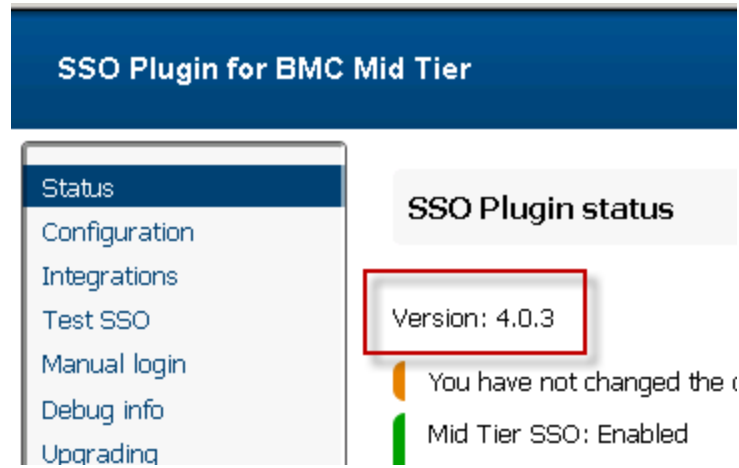
- Copy the two directories jss-ssso and WEB-INF, including contents from the SSO Plugin downloaded zip\midtier to the directory where the Mid Tier files reside.
- **The system will ask if you want to overwrite the files/directories. Please make sure you say yes. Do not rename the old .jar files This will stop SSO Plugin from working.**



- Start Tomcat

[Mid Tier(s)] Verify new version

To verify the new SSO Plugin Mid Tier version, browse to the SSO Plugin Mid Tier configuration page and verify the new version number is 4.x



[Mid Tier(s)] Verify the Integration settings

One difference between the version is the link to the authentication methods of integrations. With SSO Plugin 3.x the link on the left was called Configuration. With SSO Plugin 4.x this information is stored under a different link called Integrations.

Click the Integrations and verify the settings recorded in the previous sections. If they are different, then reapply the settings and click Set Configuration and restart Tomcat.

If there are any issues with any of the Mid Tier sections, please take screenshots and email them, along with the Tomcat logs, to support@javasystemsolutions.com

Appendix A: Acronyms, Abbreviations & Definitions

	Description
JSS	Company name Java System Solutions
SSO Plugin	Product name for Single Sign On (SSO)
Tomcat	Java web server produced by the Apache Foundation
BMC ARS	BMC Remedy Action Request System is the workflow engine produced by BMC
Mid Tier	HTTP middleware from BMC.