

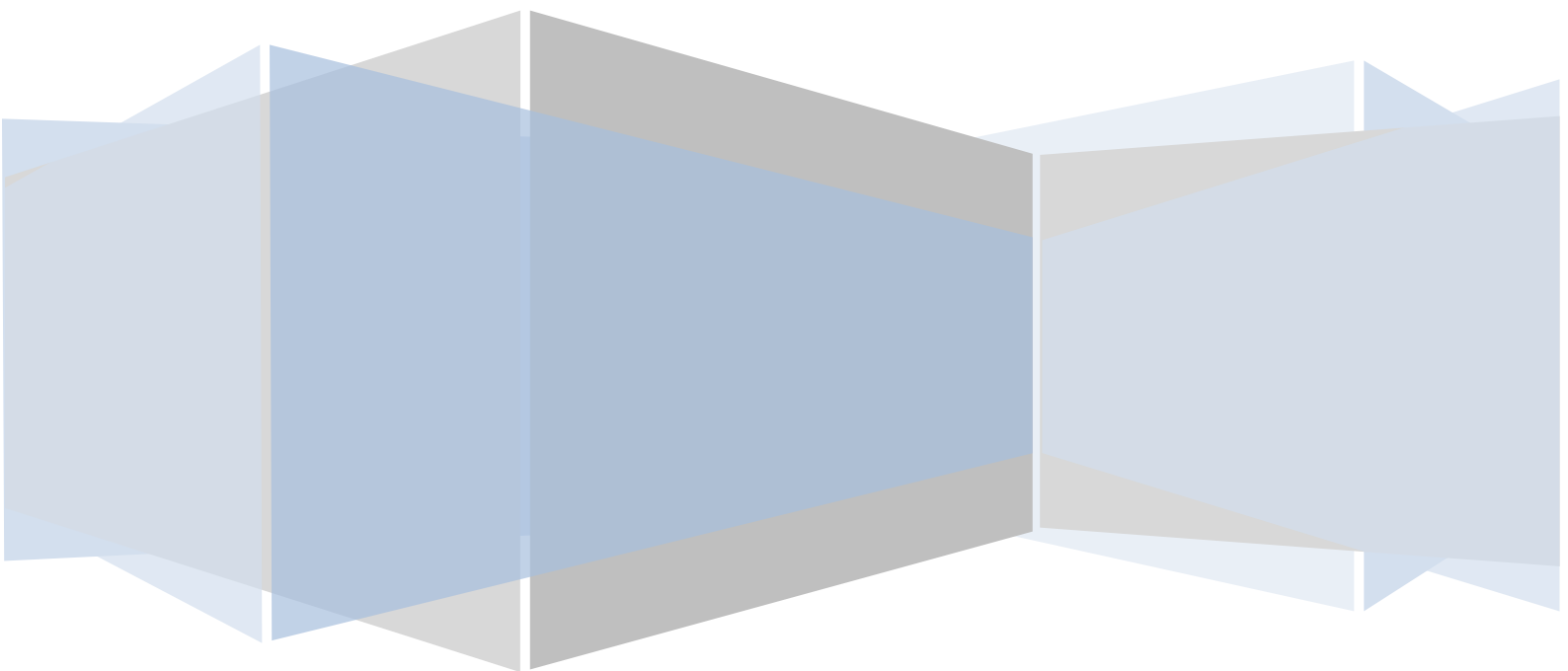
SSO Plugin

**Integrating Business Objects with BMC
ITSM and HP Service Manager**

J System Solutions

<http://www.javasystemsolutions.com>

Version 3.6



JSS SSO Plugin – Integrating Business Objects with BMC ITSM and HP Service Manager

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Introduction

This document covers an integration between SAP Business Objects XI (rebranded as Analytics by BMC) with BMC ITSM or HP Service Manager.

The JSS [support website](#) contains all the SSO Plugin documentation and videos covering installation and configuration.

If you wish to integrate SSO Plugin directly with Business Objects, with no dependency on the BMC or HP products, please consult the SSO Plugin Authentication Service installation document, which will refer back to this document but is the starting point for the no dependency integration.

Terminology

The SAP Business Objects XI application is distributed by a number of companies including BMC, rebranded as BMC Analytics.

The SSO Plugin Business Objects adapter is designed to integrate with BMC ITSM and HP Service Manager to allow users and groups to be automatically managed from the ITSM product.

Business Objects user administration

Business Objects maintains its own user database and role mapping. Neither BMC nor HP supply a tool to integrate the ITSM user repository with Business Objects. Therefore, the administrator is required to maintain two user databases, each with their own role/group mappings.

SSO Plugin integrates Business Objects with the BMC and HP products, and a BMC knowledge base article summarises the importance of this functionality:

BMC Knowledge base article KA291146 defines the problem

Problem: The BSM Analytics Reports don't contain any data after a successful install and post install. BMC Analytics for BSM (version 2.0.00),

Solution: The user id must exist in both Remedy AR System (CTM_PEOPLE_PERMISSION_GROUPS) and BSM for Analytics. If the AR System user ID does not exist in Analytics, you must create it in Analytics. The user ID must be able to see the data in the AR System.

SSO Plugin integration

SSO Plugin runs on the BMC Mid Tier or HP Web Tier (known as the ITSM product) providing corporate SSO, and also extends SSO to Business Objects through the JSS Identity Federation Service. This allows third party products to be SSO enabled with the ITSM product as a single repository of user and group data.

The integration leaves Business Objects configured to use SSO Plugin or the local user database, allowing the administrator to maintain additional accounts in Business Objects that are not present in the ITSM product.

The flow of data is as follows:

1. When a request hits Business Objects and no session exists, it is redirected to the ITSM product running SSO Plugin.
2. The user passes through the configured SSO implementation and when complete, the request is sent back to Business Objects with the ITSM product user and group information.

3. The SSO Plugin for Business Objects checks the Business Objects database for an account. One of the following actions is followed:
 - a. If an account doesn't exist **and** the ITSM user is in a valid group (see *group/role synchronisation* below), an account is created and placed in the matching roles.
 - b. If an account does exist then it the groups are synchronised with the ITSM groups.
 - c. If the Business Objects user has a valid group then login can proceed.
 - d. If the Business Objects user no longer has a valid group, the request is sent to the Business Objects login page where a user/administrator can login manually.

Group/role synchronisation

This feature brings the ITSM and Business Objects user repository together and is extremely powerful for ITSM administrators.

Groups are defined in ITSM that are mapped to Business Objects roles and every time a user logs into Business Objects via SSO Plugin, the Business Objects groups are synchronised with the ITSM groups.

For example, if user Bob in ITSM has no Business Objects groups, he has no SSO access to Business Objects.

If he is then placed in ITSM group Release Manager, when he access Business Objects via SSO, his Business Objects account is created (if it doesn't already exist) and he gains access to functionality within that Business Objects role.

If the ITSM administrator removes Bob from the Release Manager group, the next time he accesses Business Objects, SSO Plugin will remove him from that Business Objects group and he will no longer have access.

A user may be added to or removed from multiple Business Objects groups in ITSM and they will all be synchronised on the next Business Objects SSO login.

SSO Plugin will only manage the groups that are defined in the mapping, leaving the administrator free to place the user in BOXI groups that are not managed by SSO Plugin.

Default ITSM to BOXI group/role mapping

The product is shipped with a default mapping for BMC ITSM and HP Service Manager. The mappings are many to one, allowing you to map many ITSM groups to a Business Objects group.

The default mappings are shown below: on the left is a list of groups and on the right is the Business Objects group to which the groups are mapped.

Please note:

1. The user can be in **any** ITSM group in order to be mapped to the Business Objects group.
2. Any ITSM administrator user is mapped to the Business Objects Administrators group.

BMC ITSM	SAP Business Objects (BMC Analytics)
----------	--------------------------------------

Incident Config Asset Config Change Config Problem Config Release Config SLM Config SRM Administrator	Administrators
Release Manager	Release Manager
Business Manager Incident Master Problem Master Asset Master Change Master Release Master	Supervisor
Problem Manager	Problem Manager
Incident Master Asset Master Change Master Problem Master Release Master	Service Delivery Manager
Incident Master Problem Master	Service Desk Manager
SLM Master	Service Level Manager
Business Manager Work Order Master SRM Administrator	Service Request Manager

Business Manage	Service Support Manager
Incident Master	
Problem Master	
Asset Master	
Change Master	
Release Master	

HP Service Manager	SAP Business Objects
Administrators	Administrators
Change Management CI Contract Management Configuration Management Incident Management Problem Management Release Management Service Level Management	Supervisor
Problem Management	Problem Manager
Change Management Incident Management Problem Management Release Management	Service Delivery Manager
Incident Management Problem Management Service Level Management	Service Desk Manager
Service Level Management	Service Level Manager
Change Management Incident Management Problem Management Release Management	Service Level Management

Automated integration with ITSM

The user accounts in ITSM contain the user's first and last name plus an email address. When a user is created in Business Objects, the ITSM People data is used to populate these fields.

Configuring SSO Plugin

You must first set up SSO Plugin to enable the Identity Federation Service:

1. Login to the ITSM SSO Plugin setup page.
2. Tick 'Enable Identity Federation Service'.
3. Enter a unique key or press the button to create one. Take a note of the key.
4. Press 'Set configuration' and ensure the SSO Plugin still functions using the 'Test SSO' link.

Installing SSO Plugin for Business Objects

To enable SSO Plugin for Business Objects, the following steps must be followed to copy the plugin to Business Objects:

1. Locate the CMC Name. This is found in CMC -> Settings -> Cluster -> CMC Name and is often host.CentralManagementServer.
2. Stop the Tomcat instance running the Business Objects applications (ie InfoViewApp).
3. Locate the InfoViewApp web application directory, typically found in C:\Program Files\Business Objects\Tomcat55\webapps\InfoViewApp directory.
4. Locate the businessobjects directory in the SSO Plugin installation files. Copy the **contents** of this directory into the InfoViewApp directory identified above, replacing existing files.
5. The InfoViewApp web.xml file (in the WEB-INF directory) requires patching. We provide a tool on the JSS support website to do this for you (<http://www.javasystemsolutions.com/jss/service>) and recommend you use it, or you can do this manually by following these steps:
 - a. Open the web.xml.patch file from InfoViewApp directory, select all and copy to clipboard.
 - b. From the InfoViewApp directory, locate and open WEB-INF\web.xml.
 - c. Paste the block of text copied to clipboard after the SetEncodingFilter, ie.

```
<filter>
  <filter-name>SetEncodingFilter</filter-name>
  <filter-class>
    com.crystaldecisions.webapp.util.filter.ResponseEncodingFilter
  </filter-class>
</filter>
<!-- Patch for SSO Plugin -->
<filter>
  ...
```

- d. Referring to the patch pasted above, perform the following changes:
 - i. **identityFederationServiceURL:** This points to the identity federation service running on the SSO Plugin installation. The identity federation service URL is /jss-sso/identityfederationservice, relative to the ITSM installation. Therefore, if the ITSM is installed at:

<http://www.javasystemsolutions.com>

```
http://itsm:8080/arsys
```

then the **identityFederationServiceURL** is:

```
http://itsm:8080/arsys/jss-sso/identityfederationservice
```

- ii. **key:** This must be set to the federated identity key set in the ITSM SSO Plugin interface.
- iii. **connect_url:** The URL of the Business Objects remote administration application, which is `http://hostname:port/dswsbobje/services/session` or `http://hostname:port/dswsbobje/services/Session` - replace your hostname and port and note the word session or Session. You can discover the correct URL by entering it into a browser and adding `?wsdl`. One will work, the other will not.
- iv. **connect_cmsname:** The name located in step 1.
- v. **connect_username / connect_password:** The credentials of a CMC account with administrator privileges, so SSO Plugin can manage users/groups. Typically, the CMC Administrator login details.
- vi. **productGroupMapping:** The product to which the BOXI is integrating. Values are `arsystem` for BMC ITSM and `servicemanager` for HP Service Manager.
- vii. **set_license_to_named:** SSO Plugin will automatically assign a named or concurrent license to newly created users. When this value is true, the license will be named, and concurrent when false. If not supplied, the default is false (concurrent).

e. Locate the following section of the web.xml file:

```
<context-param>
  <param-name>trusted.auth.user.retrieval</param-name>
  <param-value></param-value>
</context-param>
```

and set the value to `USER_PRINCIPAL`, ie.

```
<param-value>USER_PRINCIPAL</param-value>
```

6. Locate the `dswsbobje` directory, typically found in `C:\Program Files\Business Objects\Tomcat55\webapps\`. Locate the `axis2.xml` in the `WEB-INF\conf` directory, open in a text editor and search for the following, changing true to false (highlighted in bold):

```
<parameter name="disableREST" locked="true">false</parameter>
```

7. Create a file in the installation directory (`C:\Program Files\Business Objects\BusinessObjects Enterprise 12.0\win32_x86`) called `TrustedPrincipal.conf` with the following content:

```
SharedSecret=somerandomvalue
```

8. Restart the Business Objects Tomcat instance.
9. Login to the CMC and go to the Authentication, Enterprise, and tick 'Trusted Authentication is enabled'. Enter the value set in (**somerandomvalue** in our example) key above into the 'Shared secret' field. Press update.
10. Ensure you have SSO access to BMC ITSM, and then navigate to:
<http://host/InfoViewApp/logon/logon.do>

You should now be logged in as the AR System user to which your SSO user is mapped. You must use the URL above for direct SSO access to Business Objects.

Bespoke group mapping

You can implement your own group mapping scheme if the out of the box implementation does not meet your requirements.

The custom mapping is defined in the following format:

BusinessObjectsGroup=ARSystemGroup1,ARSystemGroup2,..,ARSystemGroupN.

The mapping is placed as a parameter to the SSO Plugin filter added to the web.xml file and is defined as follows:

```
<init-param>
  <param-name>roleMap</param-name>
  <param-value>Administrators=Administrator, Supervisor=Business
    Manager; Incident Master</param-value>
</init-param>
```

The default mapping can be replaced or extended by the roleMap. The following shows how to replace the default mapping with the roleMap:

```
<init-param>
  <param-name>includeDefaultRoles</param-name>
  <param-value>>false</param-value>
</init-param>
```

Setting the value to true will add the roleMap to the default mapping.

Business Objects licensing

When users are created in Business Objects, they are set up with a named or concurrent license depending on the set_license_to_named value (true sets named, false sets concurrent) in the web.xml patch applied to Business Objects. If this setting is not present, concurrent is selected.

There is however an important issue to note with regards to concurrent licensing.

Business Objects will fail an SSO login if a user has a concurrent license and there are no spare concurrent licenses. The user will be sent to a login page with no informative error message. SSO Plugin does not monitor license usage and can not predict this event, nor could it do anything to resolve the problem.

SSO issues with Business Objects

The user profile within BOXI contains an aliases section at the bottom with secEnterprise and an enabled checkbox. If this checkbox is not checked, SSO will not work.