

**IBM Urbancode Deploy Plugin Design:**

**IBM Sterling B2B Integrator**

Version: 1.0

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Document Control

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| Title | IBM Urbancode Deploy Plugin Design - IBM Sterling B2B Integrator |

Contact(s) for inquiries and proposed changes

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Revision history

| Version | Date | Revised by | Description |
| --- | --- | --- | --- |
| 0.1 | 22/04/2015 | Arthur Proestakis | Initial Version |
| 0.2 | 1/5/2015 | Fan Hu | improvement |
| 0.3 | 10/5/2015 | Fan Hu | improvement |
| 0.4 | 15/5/2015 | Fan Hu | improvement |
| 1.0 | 1/6/2015 | Fan Hu | improvement |

Reviewers

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Approvals

| Date | Organisation | Name | Evidence |
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Related Documents

| Ref | Document Title | Version | Document |
| --- | --- | --- | --- |
| 1 | IBM\_ELS\_to\_SBR\_eBMS\_v3\_TA423\_Installation\_and\_Configuration\_Guide\_Sterling\_(Core\_SRP\_BBRP) | 3 |  |
| 2 | ecomm deployment overview | N/A |  |
| 3 | ATO Urbncode Deploy Commerce – workshop slide deck | N/A |  |

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1. Introduction

TODO:

Sterling B2B Integrator (B2BI)

1. Solution Requirements

## Requirements

| ID | Description | Source |
| --- | --- | --- |
| R1 | Restart Sterling to refresh system before code drop | Ref 2 |
| R2 | Deploy Property Files (setupfile.cmd process) | Ref 2 |
| R3 | Stop Sterling | Ref 2 |
| R4 | Deploy 3rd party JARs | Ref 2 |
| R5 | Start Sterling | Ref 2 |
| R6 | Install BPMLS | Ref 2 |
| R7 | Install XMLS | Ref 2 |
| R8 | Install MAPS | Ref 2 |
| R9 | Update Virus Scan files | Ref 2 |

Table 2 Requirements

## Out of Scope

Version 1 of the B2BI UCD Plugin will only target Windows platforms; the plugin can be extended in subsequent releases for Linux platforms.

## Requirement Elaboration

### R1 – Check Service Status

Check whether the service is up, by accessing the <https://localhost:30000> URL to tell.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| Check Service Status | Check whether the service is up, by accessing the <https://localhost:30000> URL to tell. | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
|  |  |  |

### R2 – Deploy Property Files

According to [Ref 1] section 2.2.4 step 4, this requirement involves the customisation and deployment of B2BI property files and the execution of the appropriate B2BI command to apply the configuration changes to the B2BI installation.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| Install Property File | Copy property files into the B2BI install\properties folder (using OOTB plugin step) | No |
| Apply Environment Properties | Apply environment specific values to the property files (using OOTB plugin step) | No |
| Apply Configuration | Apply the configuration changes to the B2BI installation | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
| R2-1 | Page 22 of Ref1 lists some “checking” operations (see excerpt below). More information is required on the meaning and purpose of these checks. |  |

### R3 – Stop Sterling

According to [Ref 1] section 2.2.4 step 2, this requirement involves the shutting down of B2BI.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| Stop B2BI | Refer to section 2.3.1.1 | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
|  | None |  |

### R4 – Deploy Third Party JARs

According to [Ref 1] section 2.2.4 step 5, this requirement involves ensuring B2BI is not running, then running a python script to install third party JARs to the relevant location in the B2BI installation.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| install or uninstall third-party Jars | Deploys a set of third party JAR files to the relevant location in the B2BI installation. | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
| R4-1 | An ATO python script is used to implement this requirement. Without access to the script it is unknown whether any actions other than calling the B2BI install3rdParty command are called. |  |
| R4-2 | The verification of success is difficult, since we don’t know what are the keywords of failure | Need to the confirmation from Sterling SME to get the full list of the keywords of failure, or get another simple way to verify the result. |
| R4-3 | Where is the location of the new jar file? Do we need to copy them firstly? |  |

### R5 – Start Sterling

According to [Ref 1] section 2.2.4 step 6, this requirement involves the starting B2BI as an administrator.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| Start B2BI | Start the appropriate B2BI processes | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
|  | None |  |

### R6 – Install BPMLs

According to [Ref 1] section 2.2.4 step 6, this requirement involves ensuring B2BI is running then executing a python script in order to install the BPML files.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| Add work flow | Add a work flow file (.xml file) | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
| R6-1 | The import file type is .xml, not .bpml. You need to convert the .bmpl files into .xml before you call this action |  |

### R7 – Install XMLs

According to [Ref 1] section 2.2.4 step 12, this requirement involves modifying passwords in XML files, disabling adapters, ensuring B2BI is running then executing a python script in order to install the BPML files.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
|  |  |  |
| Assemble Import Batch File | Assemble Batch File used to import | Yes |
| Import Batch File | Import the batch file including xmls | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
|  |  |  |

### R8 – Install MAPs

According to [Ref 1] section 2.2.4 step 13, this requirement involves executing a python script in order to install the MAP files.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
|  |  |  |
| Install MAP File | Deploy a Map File | Yes |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
|  |  |  |

### R9 – Update Virus Scan Files

It’s unnecessary. Out-of-box UCD plugin can be reused to do it.

### R10 – Restart Windows server

Restart windows server. Quit after the command submitted immediately.

The restart only includes the execution the restart in Windows OS. You need to use another generic process to wait the restart.

#### Actions

The actions needed by this requirement include:

|  |  |  |
| --- | --- | --- |
| Action | Description | B2BI Specific |
| Restart | Restart the physical server | No |

#### Issues

|  |  |  |
| --- | --- | --- |
| # | Description | Resolution |
|  |  |  |

1. Plugin Design

## Overview

The IBM Sterling B2B Integrator (B2BI) plugin includes steps to deploy B2BI resources to the B2BI system. The plug-in also includes steps to start and stop the B2BI system.

IBM Sterling B2B Integrator enables the security-rich integration of complex B2B processes with diverse partner communities. It provides a single, flexible B2B gateway that enables companies to meet a wide range of B2B integration needs. IBM Sterling B2B Integrator can improve business processes beyond enterprise boundaries and increase visibility into and across supply and demand chains.

More information can be found here:

https://www-304.ibm.com/support/knowledgecenter/SS3JSW\_5.2.0/welcome/product\_landing.html

This plug-in includes these steps:

* Start B2BI
* Stop B2BI
* Check B2BI Status
* Apply Configuration
* Install JARs
* Install BPML File
* Install XML File
* Install MAP File
* Disable Adapter

## Compatibility

This plug-in requires IBM UrbanCode Deploy version 6.0 or later.

This plug-in works with versions of IBM Sterling B2B Integrator 5.2.0 or later.

This version of the plug-in only runs on the Windows operating system.

## Installation

No special steps are required for installation. See [Installing plug-ins in UrbanCode Deploy](http://developer.ibm.com/urbancode/docs/installing-plugins-ucd/).

## Header

|  |  |
| --- | --- |
| Element | Value |
| identifier.version | 1.0 |
| identifier.description | The IBM Sterling B2B Integrator (B2BI) plugin includes steps to deploy B2BI resources to the B2BI system. The plug-in also includes steps to start and stop the B2BI system. |
| identifier.tag | IBM/Sterling B2B Integrator |

## Step: Start B2BI

### Description

Starts all B2B services, including all ASI services plus all adapter container(s) and the webDAV server.

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| sterlingHome | Sterling Install dir | Sterling Install dir |  | String |  | Y |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

< sterlingHome>\install\bin\startWindowsService.cmd

### Command arguments

NO

### Post-Processing

Use the exit code of startWindowsService.cmd to determine the result.

### Notes

### References

<http://www-01.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.stds800_as2.doc/AS2_Starting_AS2_Edition_in_Windows.html>

<http://www-01.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.upgrade_win_non_clus_523.doc/SI_StartSI_Window_NC.html>

<https://www-304.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.bin_directory.doc/SI_binDir_files.html>

<http://www-01.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.upgrade_win_clus_523.doc/SI_Start_WindowClust.html>

## Step: Stop B2BI

### Description

Stops all B2BI services, including all ASI services plus all adapter container(s) and the webDAV server.

### Input Properties

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | Label | | Description | | Default-Value | | Type | | List Values | | Required | |
| sterlingHome | | Sterling Install dir | | Sterling Install dir | |  | | String | |  | | Y |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

|  |  |
| --- | --- |
| <sterlingHome>\install\bin\stopWindowsService.cmd |  |

### Command arguments

No

### Post-Processing

Ignore the command exit code, and force the result to be success. It’s because the command always return exit code >0

### Notes

### References

<https://www-304.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.bin_directory.doc/SI_binDir_files.html>

## Step: Apply Configuration (property files deployment )

### Description

Apply configuration files using setupfiles.cmd

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| package\_src\_dir | Package source directory | The location of package files to be deployed |  | String |  | Y |
| sterling\_dir | sterling directory | The location of installed sterling |  | String |  | Y |
| env\_type | Environment Type | Environment Type |  | Select | CORE/BBRP/SRP | Y |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

${sterlingHome}/install/bin/setupfiles.cmd

### Command arguments

NO

### Post-Processing

If the return code of setupfiles.cmd is >0 or there is “Error” in the command response, then the result is failure. Or it’s successful.

### Notes

### References

## Step: install or uninstall third-party Jars

### Description

Install or uninstall a third party JAR deployment

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| sterlingHome | sterling directory | The location of installed sterling |  | String |  | Y |
| filelist | A list of files of jar files | A list of files of jar files (for example: c:/tmp/apach\*.jar) |  | String |  | Y |
| vendorName | Vendor name | Vendor name |  | String |  | Y |
| vendorVersion | Vendor version | Vendor version |  | String |  | Y |
| targetJVMOptions | Target JVM Options | Target JVM Options |  | SelectBox | EVERY | NOWHERE | DC  L | OPS | APP | AGENT | ACTIVEMQ | N |
| uninstall | -uninstall option | -uninstall option (YES/NO) |  | String |  | Y |
| nodeploy | -nodeploy option | -nodeploy option (YES/NO) |  | String |  | Y |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

${sterlingHome}/install/bin/install3rdparty.cmd ${ vendorName} ${ vendorVersion} –j ${ filelist} [-targetJVM EVERY | NOWHERE | DC

L | OPS | APP | AGENT | ACTIVEMQ] [-uninstall] [-nodeploy]

### Command arguments

All property

### Post-Processing

If the return code of setupfiles.cmd is >0 or there is “Error” in the command response, then the result is failure. Or it’s successful.

### Notes

### References

## Step: Add workflow

### Description

Add workflow to install BPMLS

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| sterlingHome | sterling directory | The location of installed sterling |  | String |  | Y |
| options |  | options as a string |  | String |  | N |
| xmlFile | workflow xml file to add | workflow xml file to add |  | String |  | Y |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

${sterlingHome}/install/bin/addworkflow.cmd ${options} -f ${xmlFile}

### Command arguments

All properties

### Post-Processing

If the return code of setupfiles.cmd is >0 or there is “Error” in the command response, then the result is failure. Or it’s successful.

### Notes

Ensure Test Mode in deploy.properties.UATI file in automation/etc is set to FALSE. This is a pre-requitsite

### References

## Step: Assemble Import Batch File

### Description

Assemble a import batch for the batch file import. It will add one line for one xml file in XML folder, and append it to a importBatchFile, which will be created if not existing.

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| importBatchFile | Batch File to be appended | Batch File to be import |  | String |  | Y |
| xmlFolder | XML folder | folder of xml to be imported |  | String |  | Y |
| tagName | tag name | tag name |  | String |  | Y |
| numberOfThreads | number Of Threads | number Of Threads | 1 | String |  | N |
| password | password | password | password | String |  | N |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

### Command arguments

### Post-Processing

If the return code of setupfiles.cmd is >0 or there is “Error” in the command response, then the result is failure. Or it’s successful.

### Notes

### References

## Step: Import Batch File

### Description

Assemble a import batch for the batch file import. It will add one line for one xml file in XML folder, and append it to a importBatchFile, which will be created if not existing.

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| sterlingHome | **Sterling Home dir** | **Sterling Home directory** | **C:\IBM\SI** | **String** |  | **Y** |
| importBatchFile | Batch File to be import | Batch File to be import |  | String |  | N |
| reportFileName | report File Name | report File Name |  | String |  | Y |

Standard property:

Working Directory must be <sterlingHome>/install/tp\_import

### Command

<sterlingHome>/install/tp\_import/import.cmd –batch ${importBatchFile} –report ${reportFileName}

### Command arguments

All properties

### Post-Processing

If the return code of setupfiles.cmd is >0 or there is “Failed” in the command response, then the result is failure. Or it’s successful.

### Notes

### References

## Step: Import MAPs

### Description

Import MAPS directory, from the designated directory. All MAPs in the folder will be imported. If there is any “Error” in the response, it will be deemed as failure, or it will be success.

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| sterlingHome | **Sterling Home dir** | **Sterling Home directory** | **C:\IBM\SI** | **String** |  | **Y** |
| asset\_dir | MAP directory | MAP directory |  | **String** |  | Y |

Standard property:

Working Directory must be <sterlingHome>/install/bin

### Command

<sterlingHome>\install\bin\importMAPs.cmd <asset\_dir>

### Command arguments

all properties

### Post-Processing

If the return code of setupfiles.cmd is >0 or there is “Error” in the command response, then the result is failure. Or it’s successful.

### Notes

Ensure Test Mode in deploy.properties.UATI file in automation/etc is set to FALSE. This is a pre-requitsite

### References

## Step: Check Service Status

### Description

Check whether the Sterling B2Bi service is on. If on, return success, or return failure

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |
| testing\_url | Testing URL | The url used to testing dashboard of B2Bi Sterling | https://localhost:30000 | String |  | Y |

### Command

### Command arguments

N/A

### Post-Processing

Return whether the testing url can be access

### Notes

### References

## Step: Restart Windows server

### Description

Restart windows server. Quit after the command submitted immediately

### Input Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Label | Description | Default-Value | Type | List Values | Required |

### Command

Shutdown –r

### Command arguments

N/A

### Post-Processing

Use the exit code of shutdown command to determine the result.

### Notes

### References

1. References

**Resource Management**

<https://www-304.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.resource_mgmt.doc/SI_ResourceManagemnt.html>

**B2BI Commands**

<https://www-304.ibm.com/support/knowledgecenter/SS3JSW_5.2.0/com.ibm.help.bin_directory.doc/SI_binDir_files.html>

**UCD Plugin Development**

<http://www-01.ibm.com/support/knowledgecenter/SS4GSP_6.0.0/com.ibm.udeploy.reference.doc/topics/reference_plugins_create.html>