# Documentation

## IBM Workload Scheduler integration
## with SAP Integrated Business Planning

| Written by : | Date : |
|---|---|
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| Uniforce | |

# Table of Contents

# CHANGE HISTORY

| Version | Date of change | Change detail |
| --- | --- | --- |
| 1.0 | August 18 2018 | Initial version by M. Sanders |
| 1.1 | June 5 2019 | TLS Protocol Hardening |
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# 1. INTRODUCTION AND ARCHITECTURE

SAP Integrated Business Planning (IBP) is a next-generation planning application, powered by SAP HANA that helps companies engage stakeholders across the organization in a truly integrated planning process that aligns their business to profitable solution. SAP IBP delivers a new paradigm of user experience and efficiency, leveraging real-time dashboards, advanced predictive analytics, interactive simulation, embedded social collaboration and Microsoft Excel-enabled planning tables. By leveraging the IBM Workload Scheduler plug-in for SAP Integrated Business Planning, you will be able to schedule these mission critical jobs from a single interface.
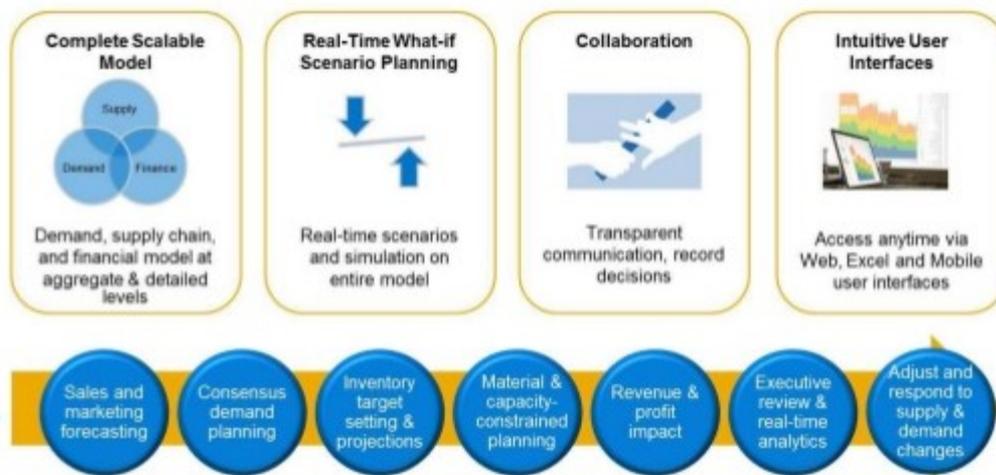
## 2. INSTALLING AND CONFIGURING THE PLUG-IN FOR SAP INTEGRATED BUSINESS PLANNING

The following prerequisites must be met in order to use the IBM Workload Scheduler plug-in for SAP Integrated Business Planning.

- IBM Workload Scheduler 9.1 or later
- IBM Dynamic Workload Console 9.1 or later
- SAP Integrated Business Planning 1705 or higher

To install and configure the IBM Workload Scheduler plug-in for Integrated Business Planning, perform the following steps:

- Copy *com.ibm.scheduling.agent.sapibp_<version>.jar* to the *<TWA_HOME>/TWS/applicationJobPlugIn* folder on either the Master Domain Manager or a Dynamic Domain Manager

- Copy *com.ibm.scheduling.agent.sapibp_<version>.jar* to the *<TWA_HOME>/TWS/JavaExt/eclipse/plugins* folder on the Dynamic Agent that will run the SAP Integrated Business Planning jobs

- Modify *config.ini* located in *<TWA_HOME>/TWS/JavaExt/eclipse/configuration* on the Dynamic Agent that will run the SAP Integrated Business Planning jobs. At the end of the line that starts with "osgi.bundles=", add the following: *",com.ibm.scheduling.agent.sapibp@4:start"*

- Restart the WebSphere Application Server of either the Master Domain Manager or the Dynamic Domain Manager.

- Restart the Dynamic Agent

- Restart the Dynamic Workload Console

Note : Please refer to SAP note **2503171** for details how to setup communication between SAP Integrated Business Planning and IBM Workload Scheduler.

## 3. DEFINING A SAP INTEGRATED BUSINESS PLANNING JOB

From the Dynamic Workload Console, you can define a SAP Integrated Business Planning job as follows:

- In the Dynamic Workload Console navigation tree, expand *Administration* and select *Manage Workload Definitions*.

- Specify the name of the engine. Subsequently, the Workload Designer is displayed.

- In the Working List panel, select *New -> Job Definition -> Cloud -> SAP Integrated Business Planning*

- On the *SAP Integrated Business Planning* panel, fill in the job details

    - **Hostname** : Hostname of the SAP Integrated Business Planning tenant. Example: *myXXXXXX-api.scmibp.ondemand.com*

    - **Username** : The communication user that was defined as part of the communication agreement. (Please refer to SAP note 2503171).

    - **Password** : The password of the communication user.

    - To validate the connection, click *Test Connection*.

    - **Job Template** : Fill in the SAP Integrated Business Planning job template.

    - **Job Name** : Fill in the SAP Integrated Business Planning job name.

    - **Job User** : Fill in the SAP Integrated Business Planning job user.

    - **Polling period** (*) : The monitoring frequency determines how often the job is monitored. The default value is 10 seconds.

    - **Timeout** (*): The monitoring time determines for how long the job is monitored. If the job hasn't finished by the end of the timeout interval, the job is marked as ABEND. The default value is 7200 seconds.

(*) These parameters can also be supplied in a common properties file *SAPIBPJobExecutor.properties* located in *<TWA_HOME>/TWS/JavaExt/cfg* on the Dynamic Agent that will run the SAP Integrated Business Planning jobs. Values from the job definition (if provided) override the values in the properties file.

Additionally, the following properties are available in the properties file:

- proxyServerType : HTTPS or SOCKS
- proxyServer : Hostname or IP address of the proxy server
- proxyServerPort : Port of the proxy server

**SAP INTEGRATED BUSINESS PLANNING (9.4.0.02) - DELTA#DEMO_IBP**

Select an Action ▼

| General | Affinity | Recovery Options | **SAP Integrated Business Planning** |

## Server Information

| | |
|---|---|
| Hostname | 025-api.scmibp.ondemand.com |
| Username | TESTUNIFORCE |
| Password | •••••••••••••••••••••• |

Test Connection

## Job Details

| | |
|---|---|
| * Job Template | ZAALD4PCDPIPNRKOEGRAA |
| * Job Name | DEMO_IBP |
| * Job User | SANDERSM |
| Polling period | 10 |
| Timeout | 7200 |

Select ...

Alternatively, the *composer* command line can be used to define the job.

Example:

```
DELTA#DEMO_IBP
 TASK
    <?xml version="1.0" encoding="UTF-8"?>
<jsdl:jobDefinition xmlns:jsdl="http://www.ibm.com/xmlns/prod/scheduling/1.0/jsdl"
xmlns:jsdlsapibp="http://www.ibm.com/xmlns/prod/scheduling/1.0/jsdlsapibp" name="SAPIBP">
 <jsdl:application name="sapibp">
  <jsdlsapibp:sapibp>
   <jsdlsapibp:SAPIBPParameters>
    <jsdlsapibp:SAPIBPParms>
     <jsdlsapibp:serverInformation>
      <jsdlsapibp:hostname>myXXXXX-api.scmibp.ondemand.com</jsdlsapibp:hostname>
      <jsdlsapibp:username>TESTUNIFORCE</jsdlsapibp:username>
      <jsdlsapibp:password>{aes}Tdk0fx6C78p3FBoL</jsdlsapibp:password>
     </jsdlsapibp:serverInformation>
     <jsdlsapibp:jobDetails>
      <jsdlsapibp:jobTemplate>ZAALD4PCDPIPNRKOEGRAAXE4DFI</jsdlsapibp:jobTemplate>
      <jsdlsapibp:jobName>DEMO_IBP</jsdlsapibp:jobName>
      <jsdlsapibp:jobUser>SANDERSM</jsdlsapibp:jobUser>
      <jsdlsapibp:pollingPeriod>10</jsdlsapibp:pollingPeriod>
      <jsdlsapibp:pollingTimeout>7200</jsdlsapibp:pollingTimeout>
     </jsdlsapibp:jobDetails>
    </jsdlsapibp:SAPIBPParms>
   </jsdlsapibp:SAPIBPParameters>
  </jsdlsapibp:sapibp>
 </jsdl:application>
</jsdl:jobDefinition>
 RECOVERY STOP
```

## 4. MONITORING A SAP INTEGRATED BUSINESS PLANNING JOB

Like regular jobs, you can monitor SAP Integrated Business Planning jobs by using either the Dynamic Workload Console or the *conman* command line.

**Plan Name:** Current Plan

@#JOBS.@DEMO@IBP@

| Job Log... | Dependencies... | Release Dependencies | Rerun... | What-if | Job Stream View | More Actions ∨ |

| Status | ^ Internal Status | ^ Job | ^ Job Type | ^ Workstation (Job) | ^ Job Stream | ^ Workstation (Job Stream) |
| --- | --- | --- | --- | --- | --- | --- |
| ✔ Successful | SUCC | DEMO_IBP | SAP Integrated Business Planning | DELTA | JOBS | DELTA |

## 5. TLS PROTOCOL HARDENING

As of SAP Integrated Business Planning 1905, TLS 1.0 and TLS 1.1 are no longer supported. In order to activate TLS 1.2 on the Dynamic Agent where the SAP Integrated Business Planning jobs will be executed, please modify JobManager.ini as follows

***JVMOptions = -Dsun.net.inetaddr.ttl=30 -Dcom.ibm.jsse2.overrideDefaultTLS=true***

Restart the Dynamic Agent after the modification.