Migrating BPM Applications from Version 8.5.X to BAW 19.0.0.1.0

# 1.Definition:

Migrating refers to the process of moving applications and configuration information from an earlier version of a product to a later version of the product, or from one product to a different product. You can migrate your business data and applications from IBM Business Process Manager. This migration method requires downtime and involves a database upgrade.

# 2.Planning a Migration:

There is no fixed formula to estimate the time in advance because the amount of downtime depends on a number of factors, such as the number of process instances, tasks, users, groups, durable subscriptions, and tracking groups, the size of your data, and the execution context. Before you run migration, consider removing data that you no longer need to keep, such as completed process instances that are more than thirty days old and performance data that is more than thirty days old.

Nearly everything you build in 8.5.x will work in BAW 19.0.0.1.0.  What won't happen is that the 8.5.x style solution will not automatically convert to a BAW 19.0.0.1.0 style.  For example integration services won't convert to service flows and human services won't magically become Client Side Human Services.  IBM has gotten very good about there being very few "breaking" changes between versions.  The "big" issue is if you've not created automated tests for your solution, if you want to be "belt and suspenders" safe you really do need to test all of your solution on BAW 19.0.0.1.0 to ensure you don't hit a previously unreported regression.

# 3. Artifacts & Required actions to rebuild in a BAW 19.0.0.1.0 :

## 3.1 Business Process Definitions(BPD):

Convert business process definitions (BPDs) to processes so that you can work with them in the web Process Designer. BPDs are not available in a Web Process Designer. The desktop Process Designer and BPDs are deprecated. When you convert a BPD into a process, the

sub processes inside it are also converted, and tasks and their properties are maintained. References to linked processes and heritage human services are maintained. However, the referenced artifacts are not converted. To convert your user interfaces, you must separately convert your heritage human services and coaches. You can invoke heritage humans services from a process, so you can convert your BPDs and continue to use heritage human services and coaches until you are ready to convert your user interfaces to responsive user interfaces.

The converted process has the same activities, process flow, and properties as the BPD, with the following exceptions:

**Ad hoc start events**

These events are deprecated and are not supported in the Process Designer. These events are converted to a Start Message event with no UCA implementation. You need to change the event to an ad hoc activity and implement it as a sub process.

**Activity assignments**

The following assignment types (Assign To) are not supported in the Process Designer because they are deprecated in the desktop Process Designer.

* Last User in Lane
* Routing Policy
* List of Users
* Custom

These types are replaced with Lane assignments. To achieve the same effect as these assignment types, you need to implement the function manually by using a team filter or retrieval service. The other settings on the assignment are maintained where applicable, for example **User Distribution** and **Experts Team**.

**None tasks**

The None type is not supported in the Process Designer. None tasks are converted to empty Script tasks. All other settings are maintained, such as pre/post, skip condition, and loop behavior. The empty Script task is semantically equivalent to the None task.

### 3.1.1 Items that are not converted :

There is no equivalent artifact for these items in the Process Designer, and therefore they are ignored.

* Milestones
* Any icon settings on process nodes
* Simulation configuration
* KPI configuration
* Handling error events from previous releases.

### 3.1.2 Procedure to convert BPDs to Process:

**To convert a BPD to a process in the desktop Process Designer:**

* Open the process app or toolkit.
* In the library, select the BPD that you want to convert. To select multiple BPDs, hold the Ctrl key and click the BPDs that you want.
* Right-click, and select Convert to process.
* Expand Processes in the library. The converted processes now appear under Processes.

**To convert a BPD to a process in the Process Designer:**

* Open the process app or toolkit.
* Open the Process App Settings or Toolkit Settings editor.
* In the BPD Conversion tab, select the processes that you want to convert and click Convert.
* Expand Processes in the library to see the converted process.

**NOTE :** This conversion is one way. After the BPD is converted to a process, you cannot undo the operation, so take a snapshot before you convert the BPD. You can then compare the two by opening the snapshot in the desktop Process Designer and the process in the Process Designer.

## 3.2 Heritage Human Services:

Heritage Human Service can convert to 'client side human service' in process center

* Open the process app or toolkit.
* Open the Process App Settings or Toolkit Settings editor.
* In the UI Conversion tab, select the service that you want to convert and click Convert.
* Expand User Interface in the library to see the converted services.

## 3.3 Heritage Services(integration service, General System Service, Ajax Service, Decision Service) :

Services in previous releases were created with the desktop Process Designer. These heritage services can be converted into service flows that can be modeled in the web Process Designer.

**About this task**

Consider converting your heritage services for these reasons:

* Converting a service creates the equivalent service flow in the Service Flow editor. This editor can add other services, events, and gateways to your service flow. In other words, your original service becomes the starting point for a more sophisticated service flow. The Service Flow editor is only available in the web Process Designer.
* Conversion is simple, as shown in the following steps.

Some important points to consider when you convert your services:

* Conversion is one way. After a heritage service is converted, you cannot undo the operation, so make sure you take a snapshot before you convert the service.
* Through conversion, artifacts in the heritage service are replaced with their equivalent in the Service Flow editor. For example, a script node and an error end event in a general system service are converted into a script activity and an error end event in the resulting service flow.

**Note :** After conversion, test the service flow to ensure that all artifacts are present, the logic is correct, and the service flow works as expected. Depending on the complexity of the heritage service submitted for conversion and on the available support, you can expect one of the following outcomes:

* + If the heritage service includes only artifacts that have a direct equivalent in the Service Flow editor, the conversion completes successfully and the service flow preserves the logic of the initial heritage service.
  + If there are artifacts for which there is no equivalent in the Service Flow editor, the conversion replaces the unsupported artifacts with placeholder Service Task activities. Edit the service flow in the web Process Designer as needed to make sure it implements the logic of the initial service correctly.
  + If the logic of the heritage service is not supported by the service flow, unsupported artifacts might be lost during conversion. In some rare cases, conversion might not occur.
* Conversion of a heritage service is done at the process application or toolkit level. Artifacts in dependent toolkits are not converted automatically. You must open the dependent toolkit and convert the artifacts manually, or you can use the Toolkit Dependencies section in the Service Conversion page. A dependent toolkit with converted services can be easily added to your process application. In the Toolkits library navigation, find the toolkit and select the option to upgrade the dependency.

Services that are included in system toolkits have a dual nature, which allows them to behave as both their traditional flow types (Integration, General System, Decision) and as service flows. For example, you can open an integration service in the System Data toolkit either as its traditional integration flow in the desktop Process Designer or as a service flow in the web Process Designer.

Procedure

1. Open the process application or toolkit.
2. Open the Process App Settings or Toolkit Settings editor.
3. In the Service Conversion tab, select the services that you want to convert and clickConvert. To ensure that a snapshot is created before conversion, Create a snapshot before converting is selected by default in the Convert Heritage Services dialog. You are reminded that editing your converted service flow is done in the web Process Designer.
4. Click Finish. A message states the number of converted services, confirms that the per-conversion snapshot was created, and suggests you check your converted services in the Service Flow editor. If you see references in toolkit’s, convert the references, as discussed in [Conversion of deprecation's in imported process applications and](https://www.ibm.com/support/knowledgecenter/SSFTBX_8.5.7/com.ibm.wbpm.wle.editor.doc/topics/ccf_conversion.html?view=kc) toolkit’s.
5. After conversion, test the service flows, make all the necessary edits in the web Process Designer, and re-test to ensure that the service flows work correctly.
6. Click Services in the library to see your converted services.

## 3.4 Under Cover Agent:

UCAs are automatically migrated to BAW 19.0.0.1.0 no need to perform an additional actions.

## 3.5 Advance Integration Services:

Advance Integration Services are automatically migrated to the BAW 19.0.0.1.0. We can see the migrated AIS's under the Services tab.

## 3.6 Inbound Web Services:

The exposed Web services are migrated automatically to the BAW 19.0.0.1.0. No need to take an additional actions. We can see the migrated Inbound Web Services under the Services Tab.

## 3.7 Teams :

All the Teams created in the earlier versions are migrated automatically to BAW 19.0.0.1.0 and we can see all the migrated Teams under the Teams section.

## 3.8 Business Objects & Exposed Process Variables :

All the Business Objects and EPVs are migrated automatically to BAW 19.0.0.1.0, no need to recreate them.

## 3.9 Tracking Groups & Time Intervals:

Tracking groups are migrated automatically to BAW19.0.0.1.0 and we can see under performance section of the Web Process Designer.

Time Intervals are removed in the IBM BAW19.0.0.1.0 Web Process Designer.

## 3.10 Web Servers Added in Process App Settings:

Web Servers under the Process App settings are not migrated automatically. We have to again Re-Discover them.

**Procedure To Convert Web Server Configuration To External Implementation:**

* Go to the Process App settings and click on Servers tab. Here you can see all the Web servers , ECM servers etc..
* Select the particular Web Server to be rebuild. Now you can see all the properties associated with the web server. Click on the Discover button.
* Now you will be redirected to New External Service Wizard. Enter the name and other required details. Click on a Next button.
* Select the operations to be imported and click on the Next.
* Verify the business objects to be created and click on Next and then Finish.
* Now you can see an External Implementation created under the Services section of the Web Process Designer.

## 3.11 External ECM Servers Added in Process App Settings:

All the External ECM servers added in Process App Settings of earlier BPM versions are available in the Process App settings of BAW 19.0.0.1.0 but one modification is required. You have to add Authorization Service along with the existing properties in Process App settings of Web Process Designer.

**Procedure to add Authorization Service in the Process App Settings on Web Process Designer:**

* Go to the Process App settings in a Web Process Designer and click on the Server tab.
* Select the existing External ECM server. Under the properties you can see Authorization service click on the New button .
* Now you will be redirected to Service Flow wizard here enter the name for the service flow and click Finish.
* In the variable section you can the Input & Output variables created automatically. Attach one server Script to the service flow and make the authorized(Boolean) True as shown below
* tw.local.authorized=true;
* Save the service and close.

## 3.12 Environment Variables :

All the Envs are added automatically under the Environment Variables section of Process App settings. No need to perform additional actions.

## 3.13 External Implementation :

Whatever External Implementations we created under IBM BPM 8.5.x will be migrated to BAW 19.0.0.1.0. We need to convert them under process application settings.

**Procedure to add External Implementation in the Web Process Designer:**

* Go Services section and you can see two options i.e Java,REST and Web service and other is External Implementation .
* Give a name for your External Implementation and click finish.
* Create an operation and add the input and output variables for that operation
* You can add the url, Ajax service and the custom properties in the binding section for the operation

## 3.14 Event Subscription :

Whenever we migrate from 8.5.x or any versions to BAW19.0.0.1.0 Event subscriptions created in previous versions will be available in the IBM BAW19.0.0.1.0. we no need to recreate them again. BAW19.0.0.1.0

**Procedure to add Event Subscription in the Web Process Designer:**

* Select Events option in the library section, you can see Under Cover Agent and Event Subscription options.
* Select Event Subscription and give a name for it.
* You can see three sections namely, Common section,Details and Exposing
* In Common section you can see the name , type ,etc fields
* In Details section Give the ECM Server and select the type of class,Object type,Event type and you can attach a service

You can test the Subscription here.

* In the Exposed section , we can see the users to whom we can expose the Event subscription.

## 3.15 Service Level Agreement(SLA’s) :

Create service level agreements (SLAs) so that you can analyze the performance of your business processes over time.

**Procedure to add Service Level Agreement’s in the Web Process Designer:**

To create a SLA, you must be in the IBM Process Designer desktop editor, which is deprecated.

* Open the desktop Process Designer(deprecated).
* Open an appropriate process application or toolkit in the Designer view.
* Click the plus sign next to **Decisions** and select **Service Level Agreement** from the list.
* In the New Service Level Agreement window, type a descriptive name for the new SLA and click **Finish**.
* In the **Trigger section** of the window, the default trigger statement is displayed: **Whenever the condition is violated**.

We can set the conditions that may be violated in some cases.

* In the **Condition section** of the window, the default condition statement is displayed: **The Total Time (Clock) KPI** for**<select activities>** is **greater than 1 day.**

In this section we need to set the following:

1. **Scope** : Chose any of the choice based on the requirement I.e **Single value**, **Sum of values over time**, or **Average value over time**.

**2. KPI** : choose the key performance indicator (KPI) that you want to use.

3**. Activities** : Select the activities that needs the SLA. We can add multiple activities

4**. Condition :** Set the condition as per the requirement ie. choose **greater than**, **less than**, or **equal to**.

**5. Compared with :** choose **Threshold**, **% above threshold**, **% below threshold**, **Value above threshold**,**Value below threshold**, or **Value**.

Then, set more parameters as necessary.

* In the **Consequence section** of the window, select the check box next to the action that you want to take when the specified condition is violated.

a. To choose the **Send email** option, click **<enter email address>** and provide the address or addresses of the recipients of the notification. Separate addresses with a comma.

b. To choose the **Initiate process** option, click **<select process>** and select a BPD. IBM Business Automation Workflow displays the BPDs in the current process application and any BPDs that are referred to in toolkit’s.

* Click **Select** next to the **Expose to view** label and select the team whose members can view data for this SLA in the My SLA Overview dashboard in Process Portal.

## **3.16 IBM Case Management Integration Service :**

IBM Case management integration service created in version 8.5.x cannot be found in the version BAW 19.0.0.1.0 , it is not available in the version BAW 19.0.0.1.0.

## **3.17 Web Service :**

Any web service created in version 8.5.x will be automatically migrated to IBM BAW 19.0.0.1.0. No need to recreate the services in the version 8.6.

## 3.18 Files :

There are three types of files that can be added into the BPM Server

1.Web File

2.Server File

3.Design File

Whenever we migrate the IBM BPM from 8.5.x to BAW 19.0.0.1.0 those files will automatically added into the new Version. No need to recreate or add them.

## 3.19 Localization Resource :

When Localization Resource created in the IBM BPM 8.5.x version is migrated to BAW 19.0.0.1.0 version, there is no need to create the new resource. The older resource will be migrated to 8.6 version automatically.

**Procedure to add Localization Resource in the Web Process Designer:**

* Select the User Interface section in the library section and click on localization resource.
* Give a name for the localization resource.
* we can add the required languages under localization's section.
* We can also import other resources and export your localization resource.
* Add the keys and values for that keys.