Integrations Made Easy

How to Connect Third-Party Applications to BMC Helix Business Workflows
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Introduction

BMC Helix Workflows delivers a variety of business benefits by streamlining and automating processes with cognitive service management. From increasing speed and agility to improving accuracy and customer satisfaction to optimizing costs, BMC Helix Business Workflows can have a dramatic impact on teams like Human Resources and throughout the enterprise.

One of the key capabilities that enables BMC Helix Business Workflows to achieve these outcomes is its easy integration with third-party applications. Today’s complex, multi-cloud environments demand that systems work together to work most efficiently, and BMC Helix Business Workflows is no exception. In this paper, we’ll examine why these integrations are so important and how they work within the BMC Helix Business Workflows system.
The Benefits of an Integrated System

The cognitive capabilities of BMC Helix Business Workflows form the foundation for managing, automating, and scaling service delivery to drive peak efficiency. Formless case creation makes it easy to create a case using natural language, for instance, while automatically applying templates and categorizing cases eliminates manual work. But to fully realize the benefits of this functionality, the system must be able to work with other elements of your IT infrastructure.

Third-party applications, such as a human capital management (HCM) or enterprise resource planning (ERP) system, both provide additional information to BMC Helix Business Workflows and trigger processes in the system.

HR Example using HCM

- An employee submits a request to check on their remaining time-off balance. The HCM system provides this information to BMC Helix Business Workflows to seamlessly respond to the query.
- A business manager needs some financial budget numbers. BMC Helix Business Workflows dynamically pulls the data from the ERP system so it’s ready and waiting in the case for the agent.
- A new hire needs to sign some paperwork as part of the onboarding procedure. By connecting to an e-sign provider, it’s easy to complete the process in one interface.

In each of these instances, the integration between BMC Helix Business Workflows and a third-party application enables HR to deliver faster, more accurate, and higher quality services to their employees. It saves IT time and costs by empowering HR to provide services on its own. It smooths and simplifies common processes, like onboarding and administration activities. And at the highest level, smart integrations with BMC Helix Business Workflows improve not only the way services are delivered and scaled across the enterprise but also the way services are consumed by employees, clients, and beyond.
At its core, cognitive service management allows teams throughout the organization to operate more efficiently. Greater efficiency translates to myriad other benefits, like productivity, speed, and cost-effectiveness, and stems from pervasive, cutting-edge automation.

BMC Helix Business Workflows automates processes in two ways:

1. **Using cognitive capabilities.** For example, auto-classifying inbound emails and creating cases of the corresponding type. This removes a large amount of manual work from agents and allows them to focus on tasks that add more business value.

2. **Automating the explicit execution of processes.** For example, integrating with an HCM system so that an employee can easily request that their address be updated after they move to a new location. This is where the integration story comes in.

Let’s look at the second instance in more detail to understand how integrations work within BMC Helix Business Workflows.
The Basics: Cases, Tasks, and Dynamic Case Fields

Every work request, or case, within BMC Helix Business Workflows is categorized as a certain type with parameters defined by a case template. In the example above, for instance, the case type would be defined by a Change Employee Address case template.

The case template defines an ordered sequence of tasks that an agent must accomplish to successfully resolve and close the case. The task sequence is defined by the task flow (created with the Task Flow Designer) and task execution can be conditional, sequential or parallel; a parallel task may be used, for instance, when different groups like Legal, Finance, or Facilities are working on a task at the same time. They can also be assigned to either individuals or groups.

While some tasks need human attention and must be at least partially manual, BMC Helix Business Workflows enables many tasks to be completely automated. Task automation, in fact, is the “nuts and bolts” of the overarching automation benefits delivered by the platform. Automated processes run off a series of automated tasks defined by the case template, just like their traditional manual counterparts.

Figure 1 shows a task template for an automated task; in this case, retrieving an employee’s vacation balance from Workday. You can see under the Task Description that the task executes by pulling information from Workday. Once that information is pulled, it would be entered into a dynamic case field, which are sections within the case template where related data points are stored.
Dynamic case fields play a large role in the execution of automated tasks. Data can be entered into them by the requestor, an agent, or automatically by the system. For example, to make a time-off decision you often need to know what the time-off balance of an employee is. As part of the case template for that request, an automated task pulls the information automatically from a 3rd party system like an HCM. The automated task updates a dynamic field and when an agent looks at the case, the corresponding field already has a value – which means the agent already has the information he or she needs to complete the case.

Let’s look at an example of how BMC Helix Business Workflows uses dynamic case fields and automated tasks to resolve cases more quickly and efficiently. In this instance, an employee has submitted a ticket to update his or her legal name.

The screenshot in Figure 2 illustrates dynamic case data fields as well as tasks and their execution order. In the center of the screen, you can find the dynamic fields (e.g. New Name, Reason for Change, etc.) At the bottom, you can see the task sequence. The second task is an automated task: to update the name in the HCM system. You can also see that the first task, to review the documentation for the name change, is in Assigned state, so it’s the next task to be worked on. The other tasks are in Staged status, which means they are not scheduled for execution yet. This makes sense as the name in the HCM system should only be updated after the supporting documentation was reviewed and confirmed.
Integrating Third-party Applications with Automated Tasks

BMC Helix Business Workflows is a state of the art service management solution that is built on our powerful BMC Helix Platform.

BMC Helix Business Workflows takes advantage of all of BMC Helix Platform’s capabilities and showcases how customers can build their own applications using BMC Helix Platform.

With BMC Helix Platform, customers can create modern apps on an open, extensible, enterprise-ready platform.

They are able to develop powerful, reusable connectors with integration service so apps can communicate with the required third-party services and core systems.

Also create, share, and amplify developer innovations quickly through reusable components—connectors, APIs, and libraries.

Automated tasks are important to understand because they play a critical role in integrating third-party applications with BMC Helix Business Workflows. By leveraging a process that uses either a Web Request action or a Connector action, automated tasks make it easy for companies to connect BMC Helix Business Workflows to other elements of their infrastructure.

Are automated tasks the only way to integrate BMC Helix Business Workflows with other applications?

While using automated tasks to leverage Web Request and Connector actions is the simplest way to connect BMC Business Workflows to third-party apps, you can also use the BMC Helix Integration Service and define the flows of data between applications. For more information on this process, please visit bmc.com/businessworkflows.

This approach leverages the ability to make REST API calls that are flexible and allow customers either to directly call into their applications or use
an enterprise integration platform to manage their APIs across applications. This is all done in a codeless way by configuring BMC Helix Business Workflows and using BMC Helix Innovation Studio Process Designer.

While not required, using enterprise integration platforms like Jitterbit, Workato and more to connect Business for this process has multiple benefits. First, it allows organizations to take advantage of their existing investment without requiring much additional effort or cost; simply add BMC Helix Business Workflows as a consuming application. The enterprise integration platform acts as a central place where the interoperability of enterprise applications can be defined and managed, point-to-point integrations can be avoided, and applications can be decoupled – a significant advantage if older or homegrown applications need to be phased out.

Integrating a third-party application using out-of-the-box functionality from BMC Helix Business Workflows requires just three steps:

1. Determine the REST API and required request/response structures to be used
   a. Option 1: The REST API provided by the 3rd party application for a specific function
   b. Option 2: Defining an operation and generating the corresponding REST API in an enterprise integration platform

2. Configure a Web Connection and API in BMC Helix Business Workflows

3. Design the automation process in Process Designer inside of Innovation Studio
Let’s Examine the Technical Processes Behind Each of These Steps

**Step 1.** During the first step, information like the host name, the path for operations, and the structure of request bodies and responses is gathered. If an enterprise integration platform is being used, this might include defining a flow or sequence of API calls and transformations as prep-work. This is an extra step but comes with the interoperability and decoupling advantage.

**Step 2.** In the second step, the information is used to configure the Web Connection and API. This is usually straightforward and done via copy & paste of the information from step 1.

![Diagram](image)

**Figure 3** shows the result of defining a Web API for an operation that calls Workday to get the PTO balance. In this example, calling Workday is modeled as an operation in Jitterbit and exposed as a POST request with a certain path (right hand side of the screen). The request body and the response have been added as document definition before defining this Web API. Both were created using copy & paste from Jitterbit.
**Step 3.** In the third step, the execution process is defined using Process Designer in Innovation Studio. When creating an automated task for the integration, BMC Helix Business Workflows automatically creates an empty process and allows the business analyst to navigate to process designer with a single button click. Dynamic case fields are available automatically without any additional configuration and you can begin creating the process immediately in three steps:

1. Creating the request body: The structure of the request body is already defined by the Web API. Use the **Create Document** action to map dynamic case data fields to request body fields.

2. Calling the Web API: Add the **Web Request** action. Select the Web API Connection, the Web API and the Request in three drop-down lists.

3. (Optional) Updating the dynamic case fields: This is only required when data is received back from the Web API; in this example, the PTO balance is returned. Use the Update Task Data action to map the API response back to the dynamic case data fields.

While the details are technical, the process is quite simple. BMC Helix Business Workflows automates most of the tasks, subject matter experts just need to configure the integration APIs and map the data structures according to business requirements and use cases.

![Figure 4: An integration process in Process Designer](image-url)
The Big Picture: Easy Integrations Means Greater Automation

While it’s helpful to understand how BMC Helix Business Workflows integrates with third-party applications, the why is even more important. Seamless integrations form the backbone of automation, relieving agents of manual tasks so they can focus on adding business value. For HR, that means fewer hours spent tracking down remaining PTO days and entering new addresses and more time devoted to increasing employee engagement, boosting productivity, and supporting digital transformation in the enterprise.

The easy integration capabilities of BMC Helix Business Workflows are just one way that BMC Helix ensures your organization maximizes its investments and meets its business objectives.

For more information about BMC Helix Business Workflows, visit bmc.com/businessworkflows

About BMC
BMC delivers software, services, and expertise to help more than 10,000 customers, including 92% of the Forbes Global 100, meet escalating digital demands and maximize IT innovation. From mainframe to mobile to multi-cloud and beyond, our solutions empower enterprises of every size and industry to run and reinvent their businesses with efficiency, security, and momentum for the future.

BMC – Run and Reinvent

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