Unlocking Application Value with a Hybrid Integration Platform

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In enterprise IT, integration has always been a heavy lift.

Written by: Jason Bloomberg

Enterprise applications of the 1960s through the 1980s were monolithic, closed affairs. The creators of these behemoths had no thought whatsoever for connecting one to another.

Architectures were product-specific. User interfaces were proprietary. And the easiest way to move data from one system to another was to print it in one place and manually retype the information at the other.

By the 1990s, organizations were struggling with a rats' nest profusion of point-to-point integrations, confusing the operators who had to keep everything running and

confounding developers who dreaded making any kind of change, for fear of breaking the entire tangle.

Something had to give. By the late 1990s, an entirely new category of enterprise infrastructure software came on the scene: middleware. Middleware addressed the rats' nest problem of point-to-point integrations by providing a hub and spoke architecture.

And then along came the cloud. And DevOps. And eventually, modern cloud-native computing. The middleware-centric approaches to integration that sufficed for over a decade suddenly become appallingly obsolete.

The archaic hub-and-spoke way of thinking, however, still pervades the modern enterprise integration shop, slowing down organizations and limiting their agility and hence their competitiveness.

It's time for a change. Enterprises require integration that supports an application landscape that responds quickly to changes in customer needs, competitive environments, as well as technology capabilities. It's time for a hybrid integration platform.

Rethinking the Integration Heavy Lift

Because integration has always been a difficult challenge, people would always approach it as a 'one and done' effort. Clearly, if integration is so difficult, you want to pick your integration battles, take any extra time necessary to get them right, and then leave them alone for as long as possible.

At best, therefore, integration efforts would target high-priority, low-flexibility problems that would benefit most from rigid, time-consuming efforts.

However, for those integration needs that might involve lower priority requirements or situations that would benefit from high levels of flexibility, traditional middleware-based integration simply wasn't up to the task.

The modern hybrid integration platform (HIP) of today takes an entirely different approach from this older infrastructure software.

First, a HIP should be cloud-native. Cloud-native infrastructure leverages microservices and containers in addition to traditional virtualization and even serverless functions to provide for inherently dynamic, massively scalable application environments.

At the core of most of today's cloud-native environments is Kubernetes, the leading open source container orchestration platform – but cloud-native means more than simply running on Kubernetes.

It's more of a modern architectural paradigm for enterprise computing that takes a configuration-driven approach to all aspects of the infrastructure, including integration.

A cloud-native HIP will thus support dynamic endpoints, which might be ephemeral containers, serverless functions, or more traditional application endpoints.

Democratizing Integration with a Modern HIP

The HIP should also empower a range of different individuals with varying technical skills to set up and configure integrations.

Today, we call tools that provide such empowerment low-code, meaning that much of the work of integration can take place in visual, 'drag and drop' user interfaces that don't require hand-coding.

True, in some situations hand-coding is necessary – but modern HIPs minimize the number and types of situations that require these more advanced skills.

Third, a HIP should handle the full lifecycle of its integrations. Unlike traditional middleware which consisted entirely of runtime technology, a HIP should include substantial design and development capabilities – low-code, of course – as well as operational functionality that supports the ops team as they manage integrations in production.

This ops piece in particular is especially important, as modern HIPs support dynamic integration capabilities – in other words, support for changing integrations as the endpoints change.

Managing such integrations, therefore, requires a greater operational focus than the static integrations of the middleware era.

Unlocking New Value with a HIP

By leveraging a HIP like Digibee's to rethink enterprise integration, new possibilities for business value arise. The HIP's flexibility supports integration among dynamic endpoints of various types. Endpoints may be ephemeral containers that scale up and down quickly depending upon end-user demands.

It's also possible to integrate with serverless functions or other cloud-based endpoints, providing even greater flexibility to the organization.

Digibee also provides all of the core benefits of a low-code platform. It democratizes the creation and integration of applications, fostering greater collaboration between IT and line-of-business users.

As a result, the HIP frees up much of the time of scant senior developer resources, empowering more junior people to participate in application creation and integration.

Meanwhile, professional developers can focus on eliminating the organization's application backlog, while line-of-business personnel become more self-sufficient. Perhaps the greatest net value-add that the Digibee HIP brings to the enterprise, however, is the ability to integrate with applications of different levels of importance, urgency, and mission criticality.

In the middleware days, architects had to carefully select the applications that would benefit from integration. With a modern HIP, in contrast, it's possible to integrate the full spectrum of applications in the organization, from the most mission-critical, enterprise-class applications to low-profile departmental applications – and everything in between.

The Intellyx Take

The HIP story is one of democratization. Far more people in the organization can create and leverage integrations, while those integrations can be more diverse and dynamic than ever before.

This rethink of integration doesn't take place in a vacuum. It is an integral part of the overall shift to modern enterprise computing that includes cloud-native infrastructure,

low-code technologies, and dynamic software lifecycle approaches like DevOps that empower organizations to build and support flexible and dynamic application assets.

Such assets should never stand in isolation. In this modern world of computing, everything connects to everything else. Integration is the means of making such connections, and with a modern HIP, such connections provide more value than ever before.

Jason Bloomberg is the President of Intellyx.