Persistent

Whitepaper

Speed up Software Innovation and Accelerate Revenue with Custom Connectors

Businesses today expect software services and applications to easily integrate. Software providers can speed up this integration with partner-based custom connectors, and thereby retain focus on core product innovation and new revenue opportunities.

Enterprise applications cannot operate in isolation and must interoperate with each other for businesses to gain value, such as seamless user experiences, connected business workflows, or automated insights. If the customer relationship management (CRM) system can't interact with sales enablement tools or marketing platforms, the organization won't achieve the speed and complete value from the underlying data.

Integrating myriad software applications is not a trivial and self-sustaining activity for most organizations. IT departments simply don't have the required resources or expertise. So, they rely on software providers to offer applications that readily interoperate with a wide array of solutions in standardized ways.

As a result, software providers must deliver software interoperability in the form of data connectors to acquire and retain strong market share.

Yet it's not easy for software providers to build and support connectors. The process is complex, time-consuming, expensive, and draws on resources that could otherwise be put to work improving application features and functionality. It can take several weeks to a few months to develop a single connector from scratch. Also, the process of testing, maintaining and updating them over time is even more complex to manage, especially considering the multidimensional matrix of scenarios that must be identified, prepared, validated and maintained.

There's a better way: By partnering to outsource the development and sustenance of data connectors, software providers can gain significant advantages over attempting to do it in-house.

Focus

on their core product objectives and niche expertise

Avoid

becoming bogged down and distracted by the minutiae of addressing peripheral requirements

Increase

the flexibility and versatility of their business by drawing on the expertise, specialized skills, scalability, elasticity, alliances, and resources of their partners

Save

time by not having to manage the skills, dependencies, and risks involved in connector engineering

The Rising Demand for Connectors

Often, connectors emerge as a last-mile problem for software providers due to their peripheral nature. However, once the application is shortlisted by the customer, it's often difficult for software providers to sustain the traction without connectors because prospective customers require them as a prerequisite to evaluate the software. Also, customers on the cusp of purchase often demand the availability of connectors as a must-have in their software evaluation process. In either scenario, the development of connectors becomes a priority.

Robert Metcalfe, who developed Ethernet technology as an engineer at Xerox, originally developed what has become known as Metcalfe's law:

A network's value is proportional to the square of the number of nodes in the network.

While it relates to networks, Metcalfe's law nevertheless provides a good analogy to explain why connectors are so important to enterprise software. The more applications and data resources to which a piece of software connects, the more valuable the software becomes and the greater the software provider's competitive advantage.

> **Persistent helped us increase the total addressable market with connector factory framework with more than 1,000 connectors.**
>
> **Andy Beier**
> VP Integration Cloud, Domo

Advantages to pro-active creation and maintenance of data connectors for software providers

Faster rollout to customers, and more seamless adoption	Higher customer retention	Deals close faster

Another familiar maxim is the Pareto principle, also known as the 80-20 rule. It states that 80% of consequences come from 20% of causes. Applied to enterprise applications, 80% of data integration needs can be fulfilled with 20% of prebuilt connectors. As such, a software provider should identify the 20% of overall nodes — endpoint systems, applications, data silos, etc. — that are the most critical to industry adoption, market reach, and end-customer success. Then, it becomes prudent to retain a partner to build, support and maintain these sets of connectors. That same development partner can be tapped to deliver additional connectors on demand for greater elasticity.

Connectivity Headaches

Despite the value that connectors deliver, many software providers are not well-positioned to develop and maintain them. As noted, developing and maintaining connectors is expensive and time-consuming. If they are built hastily without appropriate expertise and skills, they will turn out to be substandard, delaying product releases and angering customers. If the application is launched without them, the product will be far less valuable to customers until connectivity to the software within their IT ecosystem is implemented.

Additionally, it may be difficult, sometimes impossible, for software providers to gain access to third-party software. Independent parties, such as software development partners, work with hundreds of third-party software providers; these relationships and vendor-specific knowledge mean they have access to resources that software providers often do not. And these partnerships and expertise ease the connector development, testing and maintenance process.

Another challenge is around skill sets. Software developers are in high demand, and most of them prefer to innovate and create core products. They'd rather not get bogged down in the grunt work of building and maintaining connectors, which are often considered peripheral activities, even though they are vital to the success of an enterprise software product.

Maintenance and ongoing sustainability are equally complex. As the software endpoints are updated, so too must the connectors be. This means keeping up with all the updates to which their software integrates. It involves creating and sustaining an interoperability matrix that identifies the numerous different configurations in which the connector is likely to operate.

What's more, vendors may need to support connectors to multiple versions of other vendors' on-premises software because customers are unlikely to all be working from the same release. Software-as-a-service (SaaS) applications usually have regular updates throughout the year that are pushed out to all customers, which eases maintenance, but it still means that all the available connectors must regularly go through the validation process.

And then there is support. When end customer deployments encounter issues with the integration, responding to them accurately, comprehensively, and quickly requires extensive knowledge of a diverse array of third-party software — skills that are hard to find and retain.

The Business Value of Streamlining Connector Development

By outsourcing the development and maintenance of connectors, software providers can bring all their resources to bear on innovation and developing new revenue-generating products.

The right partner has extensive, detailed institutional knowledge of endpoint application system configurations, APIs, versions, error codes, etc.

Plus, they'll have expertise in developing and maintaining connectors — including data models, business objects, object life cycle, security models, connection, and performance management.

The Connector Factory

Persistent is a global solutions company that delivers digital business acceleration, enterprise modernization, and digital product engineering for businesses across all industries and geographies. The Persistent Connector Factory provides an outsourced service to software providers for developing, maintaining, and supporting product integrations to a wide array of software applications. As a result, software providers can redirect internal resources to developing new core features and functionality — and customers are happier, because they can achieve the interoperability they need faster, which will continue to work even as products are updated.

Persistent Connector Factory helps deliver standardized data integrations in assembly model, by leveraging suitable design patterns, repeatable operations and functions, test automation, build workflows, interoperability lab setup, etc. Also, Persistent's strong relationships with more than 250 software providers and extensive library of connectors enable the customization, extension and integration of high-quality connectors quickly and cost-efficiently.

Among the many benefits of working with Persistent:

Business Benefits

\ Best practices from developing and sustaining data connectors for major data platforms and application software providers

\ Comprehensive connector validation lab with automated test suites and test data preparation

\ Connectivity demo app and spec sheets

\ Updates to all installed connectors

\ 24 x 7 email support

Engineering Benefits

\ Connector design patterns and code with a performance guarantee

\ Deployment scripts and technical documentation for all connectors

\ Defect tracking, resolution and traceability

\ Upstream and downstream maintenance

> **Persistent has helped us provide customers with more insight and confidence in our technology ecosystem by validating industry-leading software provider tolls against our Snowflake Cloud Data platform. This program helps ensure the highest standard for all software provider integrations and gives customers what they need to make informed decisions. Persistent is a trusted partner that has demonstrated deep knowledge of the software provider connector ecosystem.**
>
> **Harsha Kapre**
> Director of Product Management, Snowflake

A strong partner will also possess:

\ Experience, methodology and assets to deliver the required data connectivity frameworks

\ Decent library of connectivity accelerators they have invested and built, which enables healthy reference and reuse

\ Relationship with and access to development

licenses of significant third-party products relevant to data integration, which removes a significant barrier to connector development and maintenance

\ Experience, methodology and assets to setup a validation lab that provisions connectivity scenarios, checks data and runs the necessary set of tests

This combination of knowledge, experience and assets means that a partner can deliver connectors that are more comprehensive and better quality faster. Their firsthand experience and cross-vendor expertise eliminate the need to absorb details of other software providers' software before building the connector from scratch. And faster connector development means Software providers can speed overall development and deliver a product with all the pre-built integrations customers require, increasing satisfaction and loyalty.

Another benefit is maintenance. The right outsourced service will have a technology perspective as well as a project management framework in place to manage this. They will have relationships with most software providers and continually monitor for new releases

and their impact on connectors. Partners can also take over the role of providing support for connector assets, given that they already possess extensive knowledge of APIs and ISV software products.

These advantages only scratch the surface. By outsourcing connector development, maintenance, and support, software providers can quickly go to market with pre-built integrations to hundreds of other vendors' products. Sales can fast-track product evaluations that require third-party integrations without having to make an enormous investment. And once a prospect has signed a contract, having connectors ready to go will accelerate onboarding to increase satisfaction and customers' time to value.

Given their deep and broad knowledge of software product integration, connector firms can help software providers better manage outcomes for customer satisfaction. The entire connector lifecycle becomes more efficient when the partner has a standardized, repeatable approach for efficient connector development, packaging, deployment, and diagnostics.

Outsourcing the Connector Lifecycle

Better for software providers, better for customers

Software is an incredibly competitive industry, and software providers need every advantage they can muster. Providing software with pre-built integrations that are maintained over time gives them a compelling value proposition that can help edge out other vendors to win new business. And with valuable connectivity in place, customer retention improves because IT departments don't have to worry about integrating a new product with other in-house software.

Outsourcing the entire connector lifecycle and support to the right partner can be the difference between delivering a well-connected software product on time and delivering it late or without pre-built integrations. At the end of the day, Software providers can improve their own business value by improving that of their customers.

Advance quickly with Persistent's proven connectors and industry-leading team of digital engineers.

Learn More

About Persistent

With over 23,000 employees located in 21 countries, Persistent Systems (BSE & NSE: PERSISTENT) is a global services and solutions company delivering Digital Engineering and Enterprise Modernization. As a participant of the United Nations Global Compact, Persistent is committed to aligning strategies and operations with universal principles on human rights, labor, environment, and anti-corruption, as well as take actions that advance societal goals. With 268% growth since 2020, Persistent is the fastest-growing Indian IT Services brand according to Brand Finance.

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