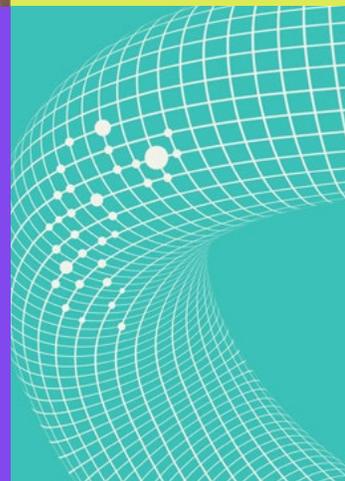


How to Transform Your Business with APIs, Integration & Microservices



**Unlock
innovation &
modernize your
organization**



Introduction

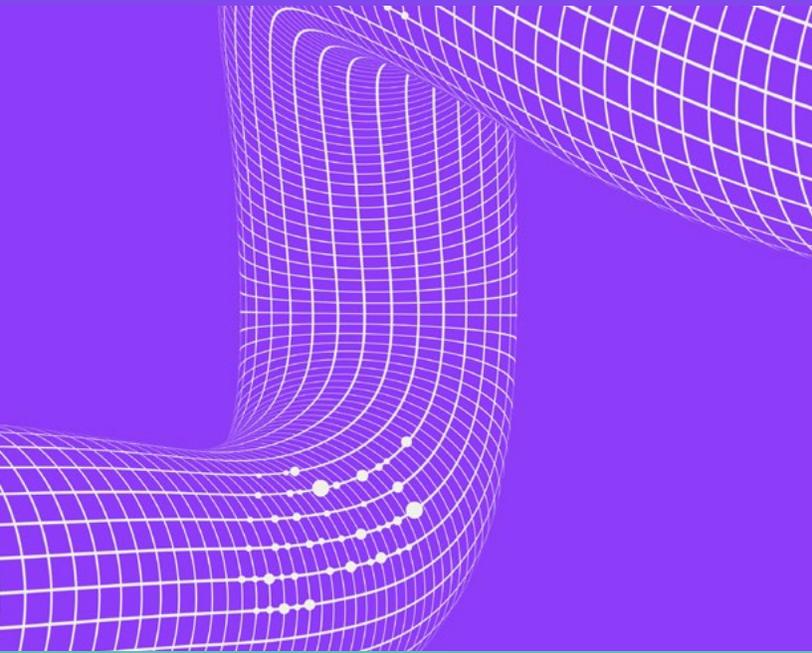
We live and work in a digital world. But simply providing digital experiences, whether they involve applications or devices, is rarely enough today. When your customers use your applications, they are connecting with your backend data and infrastructures, but they're also connecting with your brand and your people. They are interacting with your business and your brand, just as they would when they enter your office or a retail location.

This eBook examines how APIs and integration technologies can help your business unlock innovation and solve its most pressing transformation initiatives. APIs play an important role in creating the connections that employees, partners, and customers demand, but publishing APIs alone is not enough. Developing a strategy built on APIs and integration technology will help your organization's transformation and modernization efforts in three crucial ways:



Simplifying digital transformation:

APIs and integration will help your organization harness its existing applications, data, and services and transform them into a foundation for new capabilities. When your business thinks like an IT organization, it better understands how existing resources can support new digital products and help respond to new opportunities quickly and efficiently.



Unlock & accelerate innovation:

For too many organizations, building new digital products and services is an exercise in complexity. Simply acquiring the technology or tools to make new products possible is a time-consuming process. The world moves too quickly today for companies to rely on yesterday's methods. The businesses that are thriving in this fast-paced environment are building an IT foundation that reduces the complexity of building new innovative digital products and services. APIs and integration play an important role in that foundation.

Lower the costs & risk of modernization:

Your business is being asked to deliver products and services at a scale that simply didn't exist until recently. The cloud is now the delivery method of choice. The adoption of an API-driven, microservices-based architecture makes it possible to scale up without ripping and replacing existing or legacy integration investments. The data and applications you need are there; the right approach to integration eases the distribution.

Let's explore how Software AG is helping companies succeed with their digital initiatives in more detail and create the connections we rely on every day.



Simplifying Digital Transformation

When today's businesses deploy new software as part of their transformations, it's almost certainly in the cloud. Choosing from thousands of SaaS applications allows businesses to choose best-of-breed tools without the hassle of installation, infrastructure, patches, and updates.

How ubiquitous are SaaS apps? On average, employees use eight SaaS applications. Companies with 50 or fewer employees have about 40 applications in total, while those with 1,000 or more employees have more than 200.¹

But SaaS applications are almost always disconnected from each other, and they don't even reside on your organization's infrastructure. This is a recipe for the types of application and data silos that impair visibility and make it hard for employees to quickly find the information they need. Silos can also hamper your organization's ability to see ROI from your SaaS investments because you can't paint a complete picture of the business.

When you integrate your SaaS applications and data correctly, you can transform your cloud-based business applications into the connected tech stack you always wanted in the on-premise world. Creating complex integrations that require valuable IT resources is not the approach to take, however. SaaS applications come and go, and the number and types of integrations your business needs can change quickly. You can also use out-of-the-box integrations, assuming your vendors have the right connectors available for the right applications and data sources. The median number of integrations supported by the top 1,000 SaaS companies is 15.²

The highly personalized customer experiences today's consumers crave are built on the collection, analysis, and integration of any number of applications and data sources. An integration platform that makes it easy to add and remove data sources and that enables businesses to easily upgrade their customer experience delivers real business advantages over manual integration work.

Success Story: Adobe Experience Platform



Adobe Experience Platform (AEP) delivers data-driven experiences that increase customer loyalty and revenue. Creating a successful AEP experience requires businesses to move data that resides in silos throughout the organization in and out of the platform.

One way to integrate your various data sources with AEP is using your own internal IT resources. This might mean waiting for resources to become available, and once they do, they may lack experience with AEP. You can also turn to an integration specialist to make the connections, but you'll need to re-engage when new connections are needed and the integrator may not have AEP expertise either.

Software AG is the only integration vendor that is part of the Open Data Initiative (ODI) Partner Advisory Council. Its webMethods.io Integration platform offers a purpose-built integration solution for AEP developed in close collaboration with Adobe.

webMethods ingests data from applications like CRM, ERP, customer loyalty, and IoT via streaming or batch APIs, transforms the data, and prepares it for the Adobe Experience Platform. It then manages the data egress from AEP to other business applications, custom-built apps, or third-party tooling.

Businesses that use webMethods to integrate data sources for AEP avoid complex integrations thanks to out-of-the-box, pre-built connectors and recipes for template-driven integration. Software AG's solution also provides the scalability businesses need as data volumes continue to grow.

The close partnership between Adobe and Software AG means support for new releases, data sources, and data formats as the customer experience industry continues to evolve.



Simplifying Digital Transformation

Connecting with retail customers used to mean attracting foot traffic to a brick-and-mortar store. Today's retailers need to reach their customers on their own terms, wherever they are.

Instead of thinking in terms of "multichannel," it's time to think in terms of connected customer experiences. An always-on customer experience helps increase revenue by making products and services available 24 hours a day, on any device, in any area. Businesses are no longer constrained by geography, as local and regional brands can now serve customers anywhere.

Connected customer experiences play a vital role in attracting Millennials and Generation Z customers who expect your business to deliver a seamless digital experience. But the best reason to deliver a connected experience to your customers is that customers who use more than one channel are more valuable. Shoppers who regularly buy from a retailer both online and in store spend 15 percent more per purchase than those who shop on just one channel.³

Creating the connections that enable a multichannel sales strategy remains a challenge. Consumer research and check inventory online before purchasing in a store. They use stores to return online purchases. If your backend systems aren't communicating, your customers will feel disconnected.

Success Story: Kiabi



French retailer Kiabi struggled to meet the needs of Millennial consumers because its legacy systems left its channels and customers disconnected. The company needed to integrate its devices, applications, networks, content, channels, and interactions, as well as restructure its processes to connect its customers with its brand.

Kiabi used Software AG webMethods to become more service oriented and event driven. It also used Software AG's in-memory data solutions to increase the speed of its website in the face of rising data volumes.

Businesses that want to create connected customer experiences need to provide capabilities like personalization and real-time pricing. Customers can't buy what they can't find, and today's consumers have little tolerance for hunting down information on products and pricing.

Using Software AG webMethods Integration and API Management, Kiabi connects employees and customers with information like in-store inventory through mobile devices. It also connects partners like suppliers with the data they need to run an efficient supply chain. Setting up a new B2B relationship once took Kiabi as long as four months, but now it takes just days.





Accelerate Innovation

Today's consumers are connected to nearly all of the world's information, thanks to devices that fit in their pockets. If your customers aren't connecting with your business because they can't find the information they want on their terms—their device, their time—they can easily connect to the competition.

Connected customers bring value beyond sales and revenue. They exhibit loyalty that extends beyond transactional relationships. They help customers develop emotional connections and feel like they are part of a community that shares their interests and values. Nearly two-thirds of connected customers say that providing an excellent experience strengthens their loyalty.⁴

Making these connections possible on a technical level can prove challenging, however. They require businesses to combine transactional content like product descriptions, pricing, and ordering with informational content that can include video and interactive features.

These experiences need to be available across devices and tap into features like location awareness. For businesses built on legacy systems, this means integrating multiple sources of information in a seamless manner. Too often this proves to be a time-consuming, manual task that consumes valuable resources.

Success Story: Miami Heat



Professional sports provide an excellent window into the way brands can connect with their customers. Rabid fans interact with their teams in a number of ways: in arenas and stadiums, via television, through merchandise sales, and on mobile devices, to name a few.

Sports brands can surround and engage their customers like no other. Personalized fan experiences delivered via mobile devices can help connect teams and fans even when they're in the arena surrounded by the team's brand.

When the Miami Heat of the NBA wanted to create a better fan experience for its season ticket holders, it identified three goals:

- First, the Heat wanted to improve customer loyalty and satisfaction. That's no small task in a major U.S. market where competition for the fans' dollar is fierce. The Miami area has countless entertainment options and nearly year-round outdoor weather.
- Second, the Heat wanted to use personalized content and a cashless, ticketless experience to increase ticket sales.
- Finally, the Heat wanted to increase in-venue revenue with a frictionless experience that made it easy and enjoyable to order food, merchandise, and tickets right from the fans' seats.

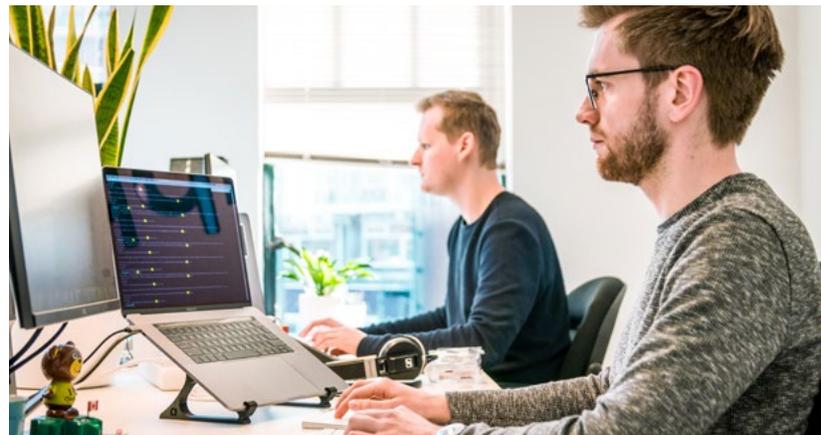
For the technology to power these experiences, the Heat turned to Software AG Cloud Integration Capabilities in combination with partner Raw Engineering. The Digital Fan Experience platform from Raw Engineering provided much of the functionality required to meet the team's goals, but connecting all of the data sources needed to make the Heat's dream a reality also required integrations. Software AG's cloud-based integration service, webMethods.io Integration, helped the Heat connect its data with its fans and meet its goals, including an increase in mobile ticket sales from 30 percent to 83 percent in a single season.

Accelerate Innovation

Digital connections create new opportunities. For your customers, digital products offer faster ways to shop, compare, research, and discover. For your business, digital products represent an opportunity to reach new markets and demographics. “Digital natives,” who never experienced a world without smartphones, often turn to digital first when they want to connect with friends, family, or businesses.

Businesses born in the digital era have some advantages over more established companies. They are built for digital connections and aren't burdened by legacy technology or processes. Their technology stack is often built in the cloud and leverages the types of connections older businesses struggle to create in their siloed environments.

Many older businesses have established customers and brand value working to their advantage. For these organizations, the challenge is to create the digital products today's customers want before losing market share to the upstarts. Creating new digital products doesn't mean tearing down established business plans. It means connecting your data and applications with your customers in ways that open new opportunities for upsell and cross-sell and establish new revenue streams.



Success Story: BTPN



BTPN is one of the leading banks in Indonesia, with a long history of serving as the primary facilitator of pension services. Distributing pension payments required Indonesians to visit a BTPN branch in person—no small feat in a country made up of 17,000 islands.

As Indonesia's economy developed quickly, the country found itself with a large population of Millennials and more mobile phones than people. Its socioeconomic diversity meant the population represented fishermen who worked off the coast of the archipelago and urban entrepreneurs living in some of the world's most modern cities. BTPN is one of the leading banks in Indonesia, with a long history of serving as the primary facilitator of pension services. Distributing pension payments required Indonesians to visit a BTPN branch in person—no small feat in a country made up of 17,000 islands.

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In 2011, BTPN started plotting the course for its digital transformation. The challenge: To connect this diverse and dispersed population. The solution: To dive headlong into mobile banking.

Working with Software AG webMethods Integration, BTPN began its digital transformation by building a microservices-based architecture to integrate its disparate backend systems while also scaling demand based on usage. It started with the systems used to process intra-bank transfers, which allowed BTPN to offer services like online bill pay. BTPN was now transforming itself into a transactional bank, growing its market share, and eventually connecting with its customers through a pair of mobile apps called Wow! and Jenius.

Wow! allows users to conduct online banking using a legacy cellphone. Jenius, which was introduced in 2016, targets digital-native Millennials with features that make it easy to split checks at restaurants, use a name as an account number, and make transfers via email and SMS. More than 85,000 Jenius accounts were opened in its first three months.

Software AG webMethods Integration is a proven, stable and easy-to-use platform that works behind the scenes to help BTPN ensure every system is connected, so the bank can deliver innovative new products faster.

Lower the Costs & Risks of Modernization

Features like one-click ordering and personalized recommendations make retail e-commerce a frictionless experience for many shoppers. B2B commerce, on the other hand, remains a completely different story.

Connecting suppliers and partners in a B2B environment often requires navigating a complex web of portals, exchanges, and electronic data interchange (EDI) technology. Complex specifications and customization are a routine part of B2B transactions. Bulk pricing, larger deal sizes, and a variety of shipping solutions add even more complexity.

Elsewhere in this eBook we discuss the importance of the digital experience to consumers. The same idea applies to B2B commerce. In order to deliver the best products and prices to your customers, you need to do business with the right suppliers. Establishing those relationships and getting the right product in front of your customers increasingly relies not only on making the right connections, but making the connections easier for all involved.

When it is easier to connect with suppliers and remove the complexity that haunts many B2B commerce relationships, you're setting your business up for success. Integration technologies and APIs can help simplify and automate these complex B2B connections and make your business more attractive to current and future partners.

If your business chooses an integration platform that can support multiple data formats and makes it easy to work with organizations of any size, regardless of their IT resources, your opportunities are limitless.

Success Story: Global Logistics Provider



Today's modern supply chains are full of complexity, and international logistics providers are accustomed to the nuance of connecting businesses and customers across the globe.

When one global logistics provider was looking for an integration platform to deliver end-to-end visibility into its customer connections, from manifest to invoice, it needed a platform that could support:

- Custom data formats
- Different connectivity options
- Customers and partners of any size with a range of IT resources at their disposal
- Operations in different time zones.

This complexity among the company's partners was leading to complexity in its application portfolio. Maintaining all of these connections required the company to support applications with limited capabilities built on different technologies. Supporting different data formats, for example, required the company to run multiple applications in the same domain because each application supported a different format.

The company's goal was to deploy a single hybrid integration platform to replace its existing work order system. This single platform needed to support all of the data formats the company used when connecting to customers, including APIs, JSON, XML, SOAP, CSV, flat files, and EDI.

By choosing the right platform, the logistics provider could speed up its customer onboarding process while reducing technology and support costs. Using Software AG's cloud-based webMethods iPaaS, this global logistics provider now has the capability to visualize its customer connections from start to finish.

Software AG helps this provider manage everything from partner onboarding to API security and distribution with easy-to-use tools and a cloud-based infrastructure that reduces costs without sacrificing connectivity to customers.



Lower the Costs & Risks of Modernization

Our ability to research nearly anything from the palm of our hand and make purchases in seconds using electric devices obscures the fact that many businesses still rely heavily on manual processes.

Manual processes persist for a number of reasons. Mergers and acquisitions, changes in leadership and priorities, and a reluctance to move away from legacy processes have always been partly to blame.

Common high-volume, high-velocity tasks like transaction processing and inventory updates are unlikely to be manual at many digital businesses. But when businesses are running legacy systems that aren't connected, a manual business process often fills the gap. You know the saying, "A chain is only as strong as its weakest link." Manual processes are your weak link.

Manual processes slow down your organization at a point in our technology-driven culture where speed is critical. More than ineffective, manual processes are prone to errors, which means they increase risk for the organization.

Automating your manual business processes reduces that risk, improves visibility, increases speed, and helps save money. None of this is possible without connections. When you connect your data and applications, you strengthen your chain by integrating information that formerly resided in silos.

Organizations are using a number of strategies to reduce manual processes today. They often start by breaking up large monolithic legacy applications using microservices and APIs to expose the data they contain. The next step is to make that data more consumable and put it in the hands of the people and processes that need it.

Success Story: UK Army



The UK Army is creating a major multi-vendor open consortium to improve its understanding of the readiness of its troops and equipment before any deployment. Like many organizations with a long history, the British Army works with a number of overlapping legacy technologies, with information siloed in many different systems and databases contracted to system integrators. This situation often leads to long delays in gaining access to data and making changes to the application functionality.

The Army is transforming its systems by decomposing large, monolithic applications to loosely coupled services designed to be externalized. Among the requirements for this project is an API management platform to enable governance, monitoring, security, and support for the APIs, as well as a technical solution capable of integrating with large Defence applications to expose reference data and services.

Software AG's webMethods Integration and API Management platforms are helping the Army securely connect applications and data and enable integration with legacy systems. They are part of the Army's API-first strategy, which will increase interoperability by providing access to previously unavailable data and services, and increase organizational agility and return on investment.

How does API management help the Army understand the readiness of its troops? It enables the quicker release of much needed capabilities, reduces siloed systems, and makes it possible to expose services to personal devices. The ability to integrate to wider Defence systems with a solution that can be re-used across multiple suppliers provides data that helps inform the Army's decision making.

To learn more, visit: https://www.softwareag.com/en_corporate/platform/integration-apis.html