



INDEPENDENT SAP TRENDS, ANALYSES, STRATEGIES AND IN-DEPTH REPORTS FROM BUSINESS AND IT



Business Integration Suite

Seeburger's executive team (fLTR): Martin Kuntz, Michael Kleeberg, Matthias Feßenbecker, Axel Otto and Axel Haas. Platforms are the new IT paradigm. Seeburger has developed the on-premises and cloud-based Business Integration Suite (BIS) for SAP customers. BIS is a proven platform for customers, SAP, partners and Seeburger.

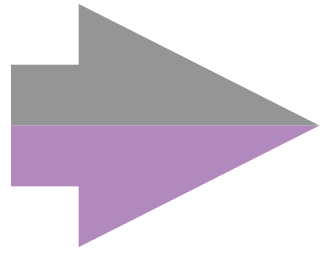
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Business Integration Suite



Digital transformation needs a foundation for applications like S/4, SuccessFactors, and Ariba, and for concepts like IoT, machine learning and EDI. What all of these and countless more applications and technologies have in common is their need for a reliable, open, agile and transparent platform, whether on-premises or in the cloud. For SAP customers, Seeburger has developed such a versatile platform.

German industrial companies are struggling to adapt to the digital platform economy. This is the result of a representative survey of 502 companies commissioned by Bitkom. “When we hear ‘digital platforms,’ we often only think of online retailers like Amazon or eBay, or service providers like Airbnb. However, especially for German industrial companies, digital platforms offer a tremendous opportunity to ensure continued business success in a digitized world,” explains Bitkom’s CEO Achim Berg, adding, “The surge in platform offers can be attributed to the rise of Industry 4.0 and the Internet of Things (IoT). Doing nothing means voluntarily relinquishing market shares. German industrial companies should try to stay ahead concerning platforms.” Behind top-level improvements in agility and revenue streams is the vital integration work that binds different technology initiatives together, making the collective output — or business outcomes — greater than the sum of its parts. Which is why companies so desperately need an integration platform.

SAP partner Seeburger has seized this opportunity and developed an open platform for digital transformation — the Business Integration Suite. “Digital transformation inevitably leads to a sharp increase in the number of platforms and systems in a company’s IT landscape,” said Michael Kleeberg, co-CEO of Seeburger. He described the current situation. “Because of their inflexibility and slowness, monolithic architectures and solutions will become insignificant or redundant as they are replaced by more flexible, more suitable solutions. More and more companies continue to opt for

cloud-ready or cloud-native approaches since such solutions offer enhanced flexibility and speed.”

Does that mean new concepts or business processes can be established faster? Do projects require 1,000 man-days of effort, as is often the case with monolithic landscapes? Or can digital capabilities facilitate rapid implementation? Kleeberg knows that customers need to adapt to fast-changing market requirements to remain successful, and he knows that this capability depends on the flexibility and speed of the underlying digital infrastructure.

“We think that manufacturers trying to keep customers locked in to their own closed-off ecosystems is counterproductive,” Kleeberg said. “One manufacturer is usually not able to provide the best possible solution covering all necessary departments, technologies and applications. Open architectures are in the best interest of customers. Our BIS platform offers a foundation to establish this flexibility and speed.”

Decision-makers in industrial companies are aware of the clear benefits of digital platforms — and yet they are hesitating, as Bitkom pointed out in its recent survey. Bitkom’s Achim Berg confirms, “Digital platforms open up tremendous possibilities.” However, only 16 percent of respondents indicated they had a team responsible for digital platforms. Achim Berg added, “Companies without anyone responsible for digital platforms will struggle with significant blind spots. No company can afford to simply ignore digital platforms.”

SAP has its own specific, less open platform idea: increased agility means

Axel Otto,
Chief Financial Officer

Axel Haas,
Co-CEO

Martin Kuntz,
Chief Cloud Officer

Matthias Feßenbecker,
Chief Technology Officer

Michael Kleeberg,
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less seamless integration with existing SAP products. Even though completely different technology-wise, SAP's and Seeburger's concepts are somewhat similar. "Our corporate technology platform connects Hana and its analytics functionality with the SAP Cloud Platform, enabling customers to make sound, reliable decisions," explained Jürgen Müller, Chief Technology Officer and member of SAP's executive board, at TechEd 2019 in Barcelona. "SAP ensures openness and flexibility through preconfigured integration, modular architectures and easy expansion in cloud, on-premises and hybrid models."

In the context of digital transformation, talking about platforms almost always refers to digital platforms. Matthias Feßenbecker, Chief Technology Officer of Seeburger, explained. "Technologically speaking, digital transformation means an explosion of data. Such a huge amount of data is a goldmine if companies know how to extract valuable information from it," Feßenbecker said. "To do that, companies need a lot of processing power. Traditional IT systems and databases were never meant to withstand such an onslaught of data. New solutions become necessary – new solutions like digital platforms, for example."

Digital collaboration in the form of digital ecosystems also need a technological foundation that wasn't available until now. "Digital platforms do not replace a company's ERP suite," explained Feßenbecker, adding, "Furthermore, digital platforms are mostly offered as cloud services – which makes sense, since they require a lot of resources and should therefore never be an afterthought."

SAP is also trying to follow this approach, but its strong focus on its own applications means its solutions are not nearly as open and agile as Seeburger's Business Integration Suite. Through combining various SAP technologies into a stack with a reference architecture, the SAP platform provides companies with much-needed services. The platform consists of database management, data governance, application development and integration, analytics, intelligent technologies and services.

In conversation with E-3 Magazine, Seeburger's co-CEO Michael Kleeberg explained the fundamental principles of BIS as follows, "A platform is supposed to provide a unified foundation for completing specific tasks. This means that a platform always has a specific predefined purpose depending on the tasks it is supposed to support. Platforms like R/3 and

S/4 first and foremost support business-related tasks and functionalities like FI, SD or MM. An integration platform like Seeburger BIS, however, enables and supports integration tasks between systems, applications and business processes. This integration is a core discipline of digitalization because important business processes have to be supported by IT or aren't even possible without IT support."

In the aforementioned survey, Bitkom also indicated that the importance of digital platforms will only increase in the future. Nine out of ten companies are convinced that in ten years, digital platforms will be very or somewhat important for the global and the German economy. "Companies recognize the growing importance of digital platforms and want their number in Germany and Europe to increase as well – but few also recognize the need to establish them in their own companies," said Achim Berg.

Not only are digital platforms like Seeburger BIS technological and organizational solutions, they also solve business challenges. Imagine, for example, an organization implements artificial intelligence (AI) capabilities to answer its customer queries more quickly. To complicate matters, a new customer-facing Internet of Things (IoT) initiative means that there's an exponential increase in data volume and velocity stemming from thousands of endpoints – the processing of which requires migration to a cloud storage and compute platform. Traditional tools are often not able to support this level of complexity. Companies need integration platforms. "For example, a decision-maker in finance will recognize the importance and value of platforms in times of increasing digitalization of business processes," said Axel Otto, Chief Financial Officer of Seeburger. "In the past, customers were only able to choose a monolithic ERP system. Now, platforms enable them to build their own system landscapes according to their specifications and requirements. This also affects our customers' investments and costs."

For the past few years, there has been a shift in the SAP community towards more 'democracy', meaning that many SAP customers are looking beyond SAP to fulfill their IT needs. Otto explained, "By using platforms, our customers can now effortlessly combine solutions of different providers. They are able to choose which solution best suits their needs, and they are able to separately manage the chosen solution. Consequently, this newfound freedom of choice enables customers to directly influence costs with their



Digital platforms open up tremendous possibilities. Many companies are very successful with platforms.

Achim Berg,
CEO, Bitkom.

decision. It is also possible to first evaluate what priority a topic has for the company."

With such a diverse ecosystem, the SAP community is struggling to define numerous buzzwords and product names. Seeburger's platform is called Business Integration Suite – but what's the difference between a platform and a suite? Martin Kuntz, Seeburger's Chief Cloud Officer (CCO), explained. "Business Integration Suite is an umbrella term for all our solution offerings. The BIS platform acts as technological foundation for completing specific tasks and projects. The value of our suite is determined by its content – whether that means preconfigured industry solutions, processes, mappings, or comprehensive cloud services and SAP add-ons."

Co-CEO Kleeberg added, "Following this approach, customers leveraging our Business Integration Suite can quickly and easily add more content to their solutions." Consequently, Seeburger's customers are able to complete various integration tasks on their platforms.

Skeptical SAP customers might say that they already have a suite – SAP Business Suite 7. Why would they need Business Integration Suite, then? "The term suite doesn't define the content," exp-

lained CTO Feßenbecker. “Seeburger Business Integration Suite offers solutions for business integration, meaning that it specifically pertains to the integration of business data and all necessary applications and business partners.”

In contrast, SAP Business Suite 7 offers ERP, CRM and SCM functionality but not the integration of the business data stored in these applications with business partners or non-SAP applications and cloud services – which has frequently been the subject of SAP customers’ criticism. Therefore, SAP’s and Seeburger’s suites complement rather than compete with each other. CCO Kuntz added, “One could even say that the integration of products of different service providers has never exactly been SAP’s focus.”

Specialized tools naturally are the best fit for specific tasks. Co-CEO Kleeberg said, “When tackling integration challenges, it is more in the customer’s best interest to leverage integration platforms instead of trying and failing to achieve the same functionality with tools that were never meant for these tasks. Of course you can boil an egg with a torch, but what good does that do?”

An ongoing discussion in the IT scene is the challenge of breadth and standardization (horizontal) versus depth and specialization (vertical). Seeburger’s Business Integration Suite is characterized by high flexibility and breadth. Does this come at the disadvantage of necessary process depth? “No, we do have the necessary process depth – in fact, this is an important differentiator for us in the market,” said Axel Haas, co-CEO of Seeburger. Kleeberg added, “We offer sustainable process depth thanks to our in-depth industry knowledge in retail, automotive, and more. We offer our customers ready-made solutions, i.e. content, for the process-specific integration challenges of their industries which can be used immediately and out of the box.”

In the German-speaking SAP community, there have been extensive discussions on whether the future will be in the cloud or remain on-premises. This naturally poses the question: is Seeburger’s Business Integration Suite an on-premises or a cloud solution? And what do Seeburger’s executive board members think SAP customers currently prefer? Co-CEO Michael Kleeberg replied, “Seeburger’s Business Integration Suite is both. Customers can purchase the software as a classic software license with a maintenance contract or as a software subscription for on-premises operations. Alternatively, BIS can also be booked as a cloud service.”

Customers can choose between iPaaS – Seeburger operates and maintains the software – or Full Managed Service – Seeburger takes care of all tasks including daily monitoring and change management.

“We service many SAP customers. Some larger companies prefer public cloud providers like AWS or Microsoft Azure. I’d say this is the new on-premises model. We also offer our full-service portfolio for this use case,” said Kleeberg. Axel Otto added, “In fact, our cloud offering has been doing quite well these past couple of years. In this segment, we have been growing more than 20 percent year over year.”

Finally, a question for all of Seeburger’s executive board members about the market: How have analysts and SAP customers typically reacted to the suite and platform offering of a mid-sized company like Seeburger compared to offers of major cloud companies like AWS, Google, Alibaba, and Microsoft, or software providers like SAP, Oracle and IBM?

“Major cloud companies and well-known software providers like SAP aren’t our competition but rather our partners,” explained co-CEO Axel Haas. “For example, AWS and others offer IaaS – Infrastructure as a Service. Should they require it, customers can operate the Seeburger BIS platform in such an IaaS cloud – even enjoying 24/7 management of BIS.” This makes sense for customers already operating their ERP landscape in such a public cloud.

Haas added, “We have partnerships with all the software providers that you mentioned because we complement each other perfectly well. This is especially true for SAP, as our decades-long partnership shows. SAP focuses on applications for digital transformation, we support customers in integration challenges.”

Seeburger co-CEO Kleeberg emphasized, “For specific integration tasks, Business Integration Suite offers more process depth than established generic offerings from major cloud companies. With BIS, customers can obtain preconfigured integration solutions, i.e. content, for their specific industry requirements.”

What do Seeburger customers usually say about the offering? “They appreciate our partnership and collaboration,” CTO Feßenbecker recalled from numerous BIS implementations. “This doesn’t only pertain to our mid-sized customers, but also and especially to our enterprise customers. We offer customers support they cannot get anywhere else. Which major



SAP ensures openness and flexibility through preconfigured integration in cloud, on-premises and hybrid models.

Jürgen Müller,
CTO – Chief Technology Officer, SAP.

cloud company offers customers the possibility to talk about requirements and challenges with executive board members and CEOs, for example?”

His management colleague Kuntz added, “We have about 1,000 employees – which benefits us more than some might think. We leverage agility whilest remaining intensely focused on the topic of integration. We are able to offer broad, comprehensive functionality with our BIS platform. SAP customers and analysts appreciate our expertise, as our position in the Gartner Magic Quadrant proves.”

Otto concluded, “Over the past few years, we have successfully positioned ourselves in the market. We have been operating for more than 30 years, and over 10,000 customers have put their trust in our solutions. At the end of 2019, we surpassed the 1,000-employee mark for the first time. Many of our customers have been with us for many years. We only offer solutions if we are absolutely sure that we can deliver the performance and scope as promised. This is one of our most important values and the reason why so many customers have put their trust in us.” Thank you to all members of Seeburger’s management for speaking with E-3 Magazine and sharing their insights on integration platforms.



Without a hybrid integration platform, digitalization projects are on unsteady foundation

Business Integration Suite: Ahead Of Its Time

Companies tackling digital transformation projects will have to establish a hybrid integration platform eventually. Business Integration Suite has an edge over competitors regarding integration success and digitalization efficiency.

By Martin Kuntz, Seeburger

Roughly five years ago, Gartner developed the hybrid integration platform (HIP) approach. What started as a simple idea now dominates the integration scene. As a sort of a reference model, Gartner's approach offers providers as well as customers some guidance in the nearly unmanageable confusion around integration requirements. The renowned research and advisory company expects that in two years' time, 65 percent of enterprises will have established some kind of hybrid integration platform (HIP).

Integration is closely connected with digitalization and digital transformation projects concerning the optimization of business processes for more speed, or concerning the implementation of completely new business models. One could even say that without comprehensive technological and organizational integration of systems, data and processes, and connected digitalization is impossible to achieve.

Hybrid integration platform

But what does hybrid mean in the context of a hybrid integration platform? In general, it is about covering a broad spectrum of integration requirements that could be completely different from one another. This includes cloud and API integration in real-time, business-to-business integration (B2B/EDI), IoT or Industry 4.0 integration, international e-invoicing, ERP and enterprise application integration, and secure managed file transfer (MFT). These integration patterns are also used for SCM topics like product data management, e-procurement, integration of production systems, e-commerce, inventory and logistics processes as well as more universal topics like HCM and CRM. Even in finance and banking, companies leverage – among more traditional integration technologies - lifecycle API management to optimize digital customer services.

Covering the aforementioned integration patterns is the most important building



Dr. Martin Kuntz,
CCO – Chief Cloud Officer, Seeburger.

block of hybrid integration platforms according to Gartner. However, Gartner also demands that a hybrid integration platform has more than one building block. This can make integration seem more complex than it has to be – and there's a simple reason for that. Gartner defines the term of hybrid integration platform somewhat loosely. Gartner applies the term to almost all integration-oriented applications, technologies, processes and capabilities that a company needs or might need in the future.

Framework and platform

Gartner uses both framework and integration platform to describe HIP. In brief, the difference between framework and integration platform can be defined as follows: Framework means absolutely everything in connection with integration. A hybrid integration platform, however, is kind of a middleware system, a universal solution providing functionality for the integration of processes, technologies and business applications.

Gartner demands that a hybrid integration platform has four main building blocks: aside from the aforementioned integration patterns, they are user groups, endpoints and deployment models. User groups for example means professional users or integration specialists – the people in a company operating or working with a hybrid integration platform. Endpoints means on-premises or cloud systems, mobile devices or IoT technologies. And, of course, the deployment model of the integration platform (or part of it) can be on-premises, in the cloud, hybrid or embedded (in the device or system).

Integration platform as middleware

Seeburger provides an integration platform (middleware) that follows Gartner's approach. A general overview with functionality building blocks can be seen in the image titled 'Seeburger's Business Integration Suite is at the heart of digital transformation.' For both mid-sized and enterprise companies, Seeburger offers individually tailored solutions (functionality wise). Gartner's approach to the term hybrid integration platform (HIP), is applicable to many different functionalities and definitions. It adapts seamlessly to a company's individual integration requirements.

Mid-sized companies especially need preconfigured solution building blocks for integration to quickly and efficiently satisfy their demand. Seeburger offers these building blocks with its Business Integration Suite (BIS) platform. Enterprise companies also often need an integration platform for organizational or governance purposes. If necessary, a hybrid integration platform can be developed based on multiple products.

With Business Integration Suite as a hybrid integration platform, Seeburger offers customers a complete package based on a one-platform strategy that co-

vers all essential integration requirements from a business and technology perspective in a single system. Please note: Seeburger’s Business Integration Suite was developed long before the HIP approach.

One Platform Strategy

Companies benefit from a single platform approach – rather than patchwork solutions – for multiple reasons. For example, they can achieve synergies because staff have to learn and perfect handling and management of only one system. Furthermore, the modular structure of the platform offers the possibility to scale and expand on demand, whether it becomes necessary because of economic growth or technological reasons. It is also easier to protect the investment of one platform. The platform also supports flexible operating models, such as on-premises or cloud deployments as well as hybrid operating models.

SAP customers will find they are already familiar with Seeburger’s modular structure, as they have been selecting which SAP Business Suite or S/4 Hana modules they require for years. Just as customers can use one complete SAP solution, they can leverage Seeburger’s Business Integration Platform. And just as they can choose to only use the finance or logistics modules from SAP, they can choose to only use one BIS module from many. One customer might only want to use BIS for B2B/EDI integration; another might start

out with Seeburger’s API/EAI integration and then choose to also leverage SAP ERP, e-invoicing or IoT integration as well as managed file transfer. For countless use cases, BIS offers predefined templates, preconfigured mappings or API libraries, e.g. for SAP or B2B/EDI integration, and integrating web services via REST APIs. This for example reduces the time it takes to integrate different business partners via EDI down to just a few hours.

Governance and operations

In enterprise companies, governance (controlling/monitoring) and operations play an important role when it comes to integration platforms. BIS has been comprehensively covering these special requirements for decades – which is one of the reasons that over 10,000 companies of all sizes worldwide have chosen BIS. Seeburger serves mid-sized companies with few integration requirements as well as global enterprises with highly complex operational requirements. Seeburger has successfully positioned itself as single-source integration provider. Business Integration Suite is its flagship product. The company also offers comprehensive integration consulting services, and is available to answer integration and technology questions customers have, like: How can I accelerate digitalization, business optimization and flexibility? What do I have to consider for integration projects? How can I establish sustainable API management and leverage it effectively? How can I ta-







ckle integration between SAP and non-SAP systems like Salesforce? How can I tackle SAP and SAP integration? What do I have to consider from a technological or organizational perspective when it comes to implementing an integration platform?


Focus on specific industries

Seeburger BIS also focuses on specific industries. Industry-specific versions of Business Integration Suite have predefined functionality and business content available. Industries include the automotive sector, CPG and retail, and energy and utilities.

The most recent BIS version is Major Release 6.7 and can be used as a hybrid integration platform for all integration scenarios. This will enable existing and new customers to choose from all integration patterns and to combine and mix them freely. API based integration and API Management is an important part of it and a unique ability to combine it with the other integration patterns is the key differentiator for Seeburger. With the release of BIS 6.7, Seeburger continues to deliver a single, agile and scalable business integration platform, with focus on enhancing the user experience and specific industries. Furthermore, customers can leverage the solution to implement new business cases, in connection with artificial intelligence (AI), big data, blockchain, real-time API integration and IoT use cases.

Solutions for different integration patterns

<p>MFT Solution</p> 	<p>API Solution</p> 	<p>B2B Solution</p> 	<p>IoT Solution</p> 	<p>E-Invoicing Solution</p> 	<p>ERP Integration</p> 
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Business Integration Suite (BIS)

<p>User groups</p> <ul style="list-style-type: none"> Professional users Integration specialists 	<p>Endpoints</p> <ul style="list-style-type: none"> On-premises Cloud Mobile Devices IoT 	<p>Deployment-Modelle</p> <ul style="list-style-type: none"> On-premises Cloud Hybrid Embedded
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Seeburger’s Business Integration Suite is at the heart of digital transformation.

Challenges of in-house operation

- Reducing operational risks while reducing costs
- High amount of effort for updates and consistent release management
- Capacity bottlenecks in IT and other departments
- Departments' need for more flexibility
- Increasing technological requirements
- Increasing security, scalability and availability requirements

Challenges of operating an integration platform.

are on-premises or in the cloud – to work together seamlessly and remain easily scalable. However, a successful long-term integration strategy has to consider more than just technology.

Gartner has been observing the market for years and found that a company's different departments are increasingly taking cloud-based integration processes into their own hands. This trend is accelerated by the growing number of available SaaS solutions that address a department's specific problems, their relatively intuitive handling, and easy access to development and organizational resources. However, this can only be true for simpler integration initiatives. If the technological complexity is higher, as is often the case with B2B integration scenarios, then the IT department and skilled experts are called upon. Companies usually only have limited IT budgets though, and skilled experts are becoming increasingly scarcer – which is why some businesses are rightfully worried about their livelihood.

Providers of hybrid integration platforms offer relief, since they do not only offer the right technology but also skilled personnel. For example, Seeburger provides companies with an iPaaS solution based on the tried-and-tested Seeburger Business Integration Suite (BIS) as well as qualified experts. The additional personnel can help companies navigate short-term staff shortages and highly complex integration tasks while advising and suggesting best practices for specific use cases. Upon request, Seeburger takes care of operating the cloud-based integration platform whilst companies still enjoy access to the platform in a monitoring capacity.

Seeburger offers its Business Integration Suite (BIS) based on a one platform strategy as a HIP-based solution platform with various operating models – making it the only company on the integration platform market to do so. Depending on their requirements for security, availability and flexibility, the needs and wishes of diffe-

Advantages in the cloud

- ✔ Clearly defined SLAs for topics like
 - Availability
 - System performance
 - Monitoring of operations
- ✔ Defined release management
- ✔ Certified security
- ✔ Generally lower TCO
- ✔ Project support (upon request)
- ✔ Operational risk is delegated to a certified integration expert

rent departments as well as their overall IT strategy, companies can choose between the following operating models for Seeburger's Business Integration Suite.

The right operating model for every requirement

On-premises – The company operates BIS themselves, with their own team, their own hardware, in their own datacenter or in a private infrastructure cloud, such as AWS, Azure or Google Cloud Platform (GCP). Upon request, the Seeburger service team offers remote support for operating the BIS platform, for monitoring or troubleshooting, through the Remote Management Service.

iPaaS – This is the preferred operating model of companies who, on the one hand, want to maintain control and develop processes, mappings and configurations themselves, but on the other hand, do not want to bog their team down with time-consuming technological tasks. These companies usually want high availability, with Business Integration Suite securely operated in the cloud.

Full service – This model is ideal for companies who want to operate their integration platform in the cloud without using any of their own corporate resources – typically small to mid-sized companies. Seeburger takes care of all integration tasks so that companies can focus on their core business.

Companies can choose a combination of all aforementioned possibilities. Seeburger offers a complete service for tasks in a private cloud or as public cloud service. In a hybrid model, Seeburger and customers decide on a case-by-case basis how an integration task should be handled based on security, data protection, efficiency and usefulness.

iPaaS customers can also decide who should be responsible for what. At the beginning of the partnership, iPaaS customers and Seeburger work out the details

together in a workshop, answering questions like who should fulfill which tasks and who should be notified in which situation through which information channel. Seeburger usually takes care of monitoring and troubleshooting.

With 30 years of experience in the area of integration and more than 15 years of cloud experience, Seeburger's cloud team supports iPaaS customers in creating a consistent structure when migrating their existing integration landscapes to an iPaaS platform. No company starts from scratch, after all; every single one has legacy systems, documents and data that have to be migrated. Seeburger supports companies with comprehensive training and a number of various preconfigured content (processes, mappings, cloud interfaces). Furthermore, customers benefit from a multitude of existing and immediately usable cloud services and SAP add-ons which facilitate a quick migration and implementation. Generally, iPaaS customers work with a provided staging client (a separate, pre-production environment) where they can implement changes and then transfer them to their productive client (which is similar to SAP's approach).

Seeburger offers its cloud services in six datacenters in Germany, the U.S. and China with maximum availability and the highest security and performance requirements (active/active architecture, release management, disaster recovery).

Why iPaaS?

Because integration can prove difficult and the rapid growth and acceptance of cloud services mean significant changes ahead.

Because with iPaaS, IT departments are still able to tackle integration themselves. However, regarding resources and time, this is becoming more and more expensive. It is often more reasonable and efficient to hire an external iPaaS provider to complete the task.

Depending on requirements, iPaaS can scale at will and supports real-time integration. The biggest benefit of iPaaS, however: By leveraging a consistent structure for integration, companies do not have to start from scratch anymore every time a new service needs to be integrated. Because the entire platform management has been combined in one tool, the necessary amount of time and effort for integrations as well as IT costs can be reduced.



No digital transformation without API management, no API management without API integration

API Management as Trendsetter

System integration plays an important role in any digitalization project. Many companies leverage web APIs – or APIs – to achieve it. Some even go as far as to transform all their interfaces into APIs.

By Matthias Feßenbecker and Axel Haas, Seeburger

API-based integration is becoming increasingly important. It is not surprising, therefore, that the number of APIs in companies is growing. It is crucial that companies know which APIs they have already implemented, make sure they are used more than once, and are able to monitor and control API data exchanges. In short, they need to leverage comprehensive API management. Full lifecycle application programming interface (API) management is about the planning, design, implementation, testing, publication, operation, consumption, maintenance, versioning and retirement of APIs. It involves use of a developers' portal to target, market to and govern communities of developers who embed the APIs, as well as runtime management, estimation of API value and analytics. It is impossible to provide the platform for any digital strategy, build ecosystems and run an effective API program, without full lifecycle API management, which is closely connected to API integration.

The following use case illustrates the importance of API management in the digitalization era. Logistics service providers are under immense pressure to deliver faster, better and more securely than ever before. This is only possible if the data necessary for controlling the flow of goods is available at the right place, at the right time and in the right format. This data could include the precise calculation of delivery dates based on up-to-date traffic information, tracking data of suppliers, availability of stock in the service provider's warehouse, prices of individual services and the customer's preferred date for delivery or collection of goods.

The necessary raw data is usually stored in different systems. However, users like customers, warehouse staff and drivers need the data in a consistent, clean and timely manner on their respective devices, whether they are using a portal website or an application for mobile devices. This only becomes possible if all people involved in the logistics process are connected in real-time. This connection happens through



Matthias Feßenbecker, CTO –
Chief Technology Officer, Seeburger.

suitable API interfaces (e.g. a tracking API, delivery API, availability API, price API) which users can access on their devices. Through API integration, the raw data from the different systems is converted into the data format the API interfaces uses.

Companies have to ensure security, availability and transparency of APIs through comprehensive API management. If they don't, their inaction could have serious consequences. For example, one user could access the personal data of another user through connected APIs. In the future, almost all logistics service providers will need to leverage such API-based services if they want to remain successful in the digital age and a fast-changing market.

Mobile and cloud solutions

Through the widespread use of mobile and cloud solutions, API interfaces have become more important than ever. Modern web APIs are based on HTTP protocols and are therefore Internet compatible, meaning they can be implemented through firewalls to easily and quickly establish a loose connection that can be just as easily severed



Axel Haas, Co-CEO –
Chief Executive Officer, Seeburger.

ed without disrupting any applications or processes if necessary. As data access from anywhere, anytime becomes more and more important in the age of digitalization, the openness and flexibility of APIs makes them indispensable.

SAP is also following a similar approach. Integration of applications and functionality in S/4 Hana now has to happen via APIs. The functional scope of these APIs is not yet comparable to typical integration interfaces like iDoc and BAPI, but SAP is adding new APIs with every release.

The primary objective of APIs is to enable real-time access to data and some system functionality. Such a scenario means there are at least two parties involved: the one storing the data and making it available (provider) and the one accessing and consuming the data (consumer). For real-time access, providers need to make their data available through API interfaces, and consumers have to be able to access API interfaces from their devices and process the available data – this is API integration.

API integration is necessary because not all standard systems have this API compati-

bility built-in. For example, in the aforementioned example of a logistics service provider, warehouse management doesn't possess an inherent API compatibility. The BIS API integration solution becomes necessary (see image on the next page). It is only reasonable that providing and consuming APIs has to be organized and controlled properly. This is true for both provider and consumer. Knowing which APIs are available, which of them are regularly accessed, when and how new consumers use a provider's APIs, how access to APIs can be monitored and controlled – this is API management.

API and hybrid integration

What can companies do to ensure both comprehensive API integration and API management? Seeburger answers that question with its Business Integration Suite (BIS). With BIS, Seeburger is following analyst Gartner's idea of a hybrid integration platform (HIP). Just as Gartner details in its approach, BIS is also capable of handling APIs and offers a complete solution for full lifecycle API management with its BIS API Integration and BIS API Management components.

BIS API Integration enables companies to open up data silos and make data available via APIs. Furthermore, BIS users can consume third-party APIs and integrate them into their own applications. BIS API Management provides transparency and control of API data transfers. Both API Integration and API Management can be used in combination or individually - if companies already leverage one or the other component from another provider.

With regards to comprehensiveness and innovation, Seeburger was recognized for

its ability to execute, in the Gartner 2019 Magic Quadrant for Full Life Cycle API Management.

This success is based on extensive integration experience in multiple use cases that Seeburger addresses such as B2B/EDI, MFT, IoT, e-invoicing, and ERP integration with SAP's product portfolio. This broad functional scope and the ability to combine modern API requirements with traditional integration methods are unique qualities of Seeburger's hybrid integration platform (HIP).

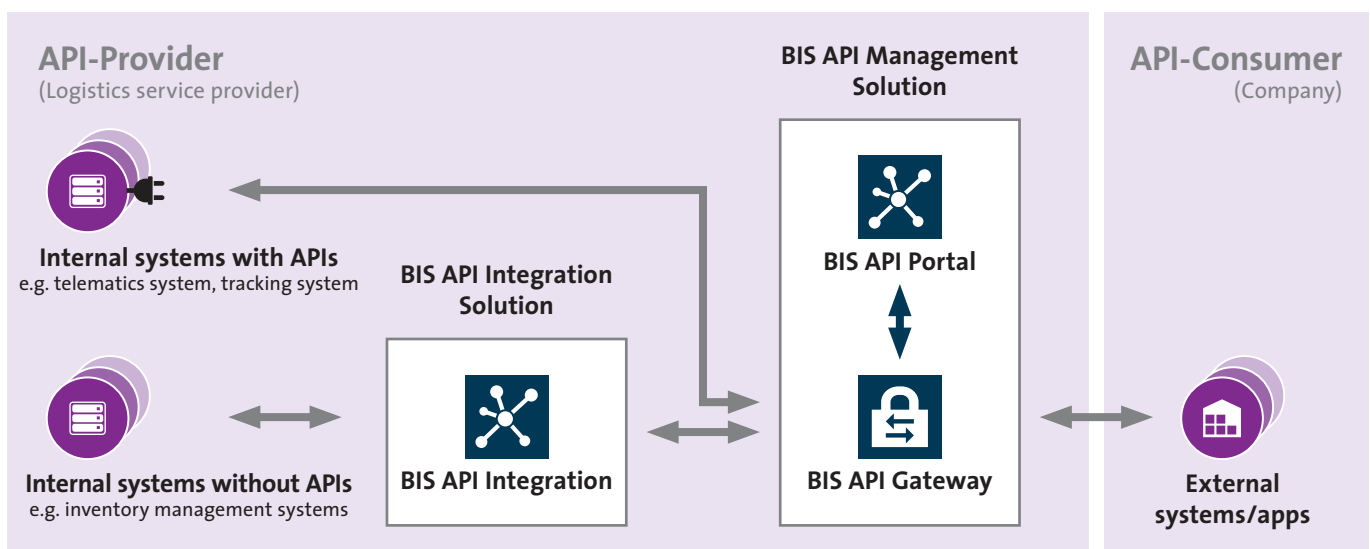
The BIS API Management solution consists of two main parts: BIS API Portal for managing APIs, and BIS API Gateway to monitor and control API data exchanges. BIS API Portal encompasses an API catalogue in which providers can document and consumers can access all relevant information about APIs. This information ranges from a short description and metadata, such as lifecycle status of APIs, to jointly leveraged resources like Swagger files (language-neutral and machine-readable description format for web interfaces).

API Portal and API Gateway

Consumers can use Swagger files to integrate APIs in their applications, and APIs listed in the catalogue can be tested as part of the functionality. Before an application can effectively leverage an API published in the catalogue, it has to be registered in the API Client Registry and receives a unique API key that makes it possible to attribute API access later on. When assigning API keys, workflow functions can be used, for example, to implement a dual control principle for key assignment. In short, the API Gateway ensures secure connection and integration in real time.

Transparency and control

BIS API Gateway is like a security guard. The entire API data transfer passes through the API Gateway. It can exist multiple times, making it highly scalable and highly available. The API Gateway documents which API consumer requests which API, if access has been granted or denied, and how long the response took (API monitoring). Consequently, the API Gateway provides transparency about API use. The information that the API Gateway collects about API use can also be used for billing. API monetization can be used for corporate performance or customer/supplier billing (if the data exchanged through APIs are the products). The API Gateway is also where rules, or API policies, are implemented and enforced (API policy enforcement). These rules include but are not limited to who has access to which API or how many API requests an API consumer can make (API traffic management). This functionality helps the API Gateway to protect data for unauthorized access as well as keep applications from becoming overloaded. In the long term, no company will be able to just ignore API-based initiatives. This makes it even more important to prepare accordingly. API management can help overcome obstacles and tackle the challenges that API use and digitalization can bring. Digital technologies offer enormous opportunities for new ways to generate value, and improve networking with partners, clients and target audiences. To be a successful digital business, real-time information is the key. With a broad range of API technologies and preconfigured building blocks, Seeburger supports your company's real-time integration scenarios.



Full lifecycle API management with Seeburger BIS at a typical logistics service provider.



Artdeco branding concepts with individual sales strategies based on Business Integration Suite

Benefitting From Digital Transformation

Internationally successful cosmetics firm Artdeco leverages innovative branding concepts as well as individual sales strategies. Digital transformation is crucial.

Brands like Artdeco, Make-up Factory, Anny, PLCC or Malu Wilz are well known in the cosmetics industry and have made a name for themselves worldwide. Furthermore, the Munich-based firm and its subsidiaries are market leaders in highly specialized cosmetics distribution in Germany. Innovative branding concepts as well as individual sales strategies are key to its success.

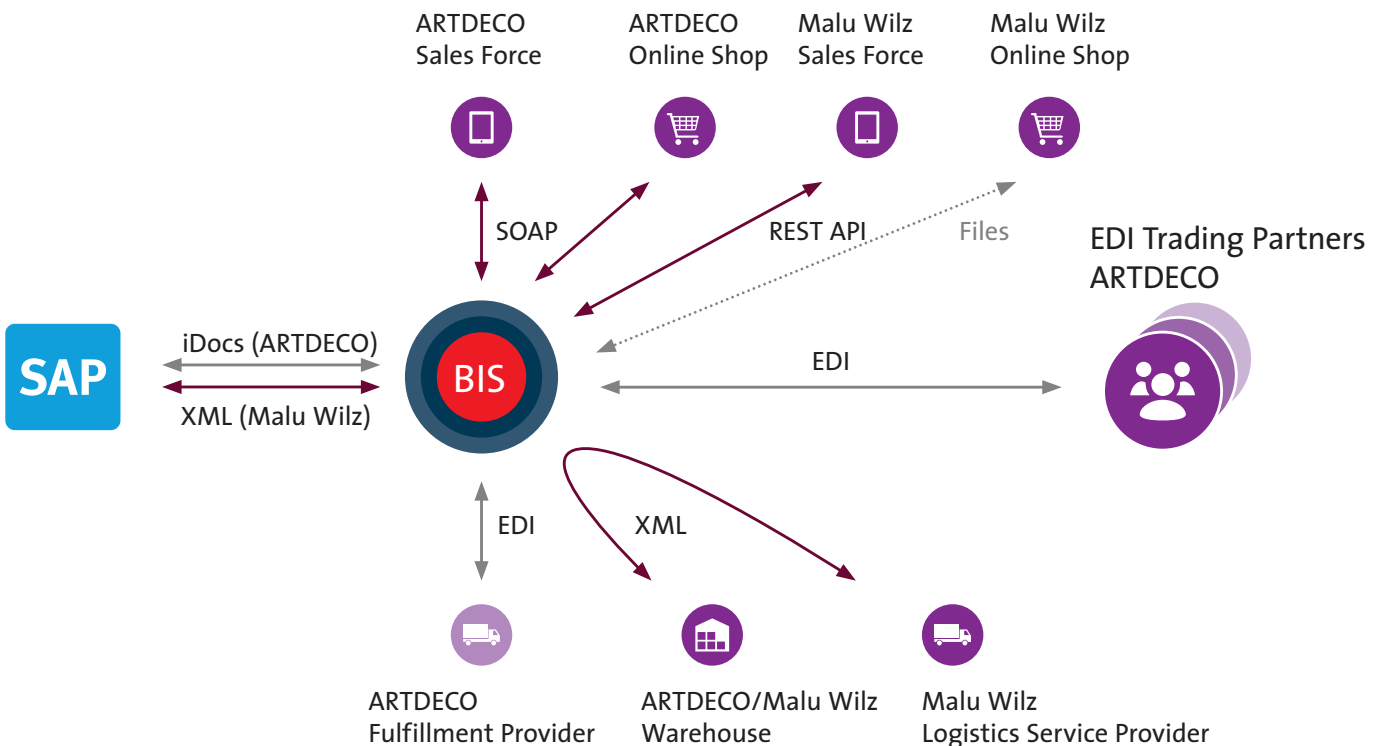
The firm operates in 78 countries around the globe. Its numerous products are categorized in different price segments and target groups (e.g. based on age) and are sold through a number of distribution channels (omnichannel). The firm serves specialized stores, studios, drug stores, warehouses, cosmetics and retail stores, duty-free shops as well as its online Artdeco shop and other online stores. Digital transformation is not just a buzzword for



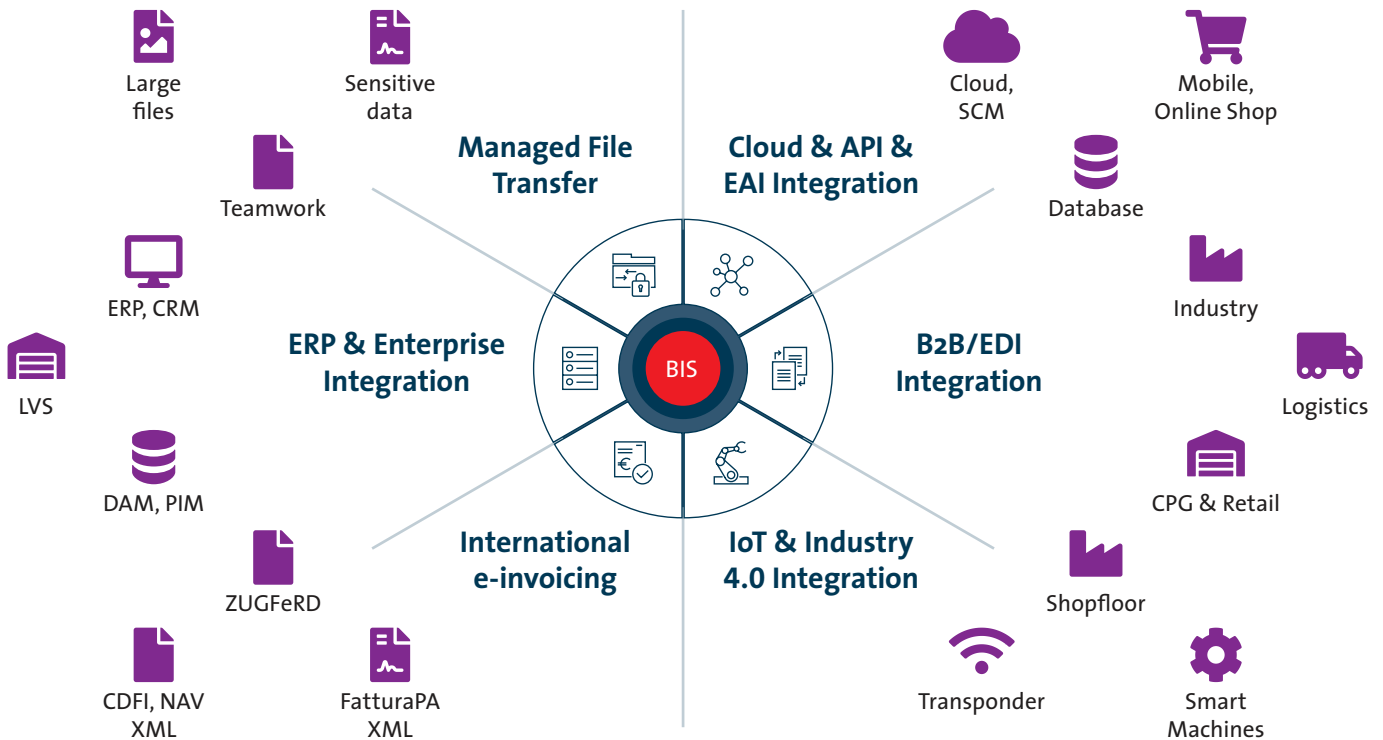
Gottwald Meister,
IT/EDI-Manager Artdeco Cosmetics.

the cosmetics firm – it’s a philosophy. Without digitalization, its various branding concepts and sales strategies worldwide would never have been as comprehensive or as successful.

Seeburger’s Business Integration Suite (BIS) is at the heart of all of the cosmetics firm’s digitalization activities and initiatives. “Almost all data and communication processes, both internal and external, are handled by integration platform BIS. It takes care of B2B as well as B2C integration, EDI communication, webservices with different systems, seamless information and data integration in SAP ERP systems including integrating PIM, API/EAI and connectors,” explains Gottwald Meister, IT/EDI Manager at Artdeco Cosmetics. The firm has been consistently building on past successes with Business Integration Suite. For example, Artdeco



Seeburger’s Business Integration Suite as central integration platform for global digital business operations and for different use cases at Artdeco Cosmetics.



Business Suite supports many different business scenarios.

already switched to EDI for all international orders in 2000 with Seeburger's support. From then on out, distribution channels with some retail companies and drug stores were digitized and numerous small perfumeries and cosmetics shops were integrated in Artdeco's business network.

For some time now, Artdeco's sales and distribution teams have been working with mobile devices including specialized order software to be able to e.g. post orders via SOAP webservice in SAP as iDocs in real time. This has been made possible by using Business Integration Suite as an integration platform.

B2B and B2C integration

Artdeco and Seeburger reached a crucial digitalization milestone roughly six years ago with the launch of its own multilingual online shops for both B2B and B2C transactions. BIS took care of integrating different SAP ERP systems. With this important step, Artdeco was able to expand its market reach (adding 40 countries) as well as deepen its customers' loyalty.

IT/EDI Manager Meister emphasizes, "Seeburger's Business Integration Suite acts as Artdeco's central integration platform for all digital distribution channels – a real omnichannel integration, so to speak." As an example of this comprehensive integration he cites order processing of B2B and B2C customers through

the shop, integrated in SAP through BIS. It includes creating inventory checks as well as taking care of delivery to end and retail customers through BIS' API/EAI solution component as well as AS2 Connect.

Furthermore, business processes of cosmetics brand Malu Wilz (luxury segment) have been handled internally and completely independently for years – from product data management and distribution to handpicked and authorized cosmetics stores through sales teams to the Malu Wilz B2B online shop and delivery from its own inventory. SAP integration is realized through a beneficial real-time application via XML files as BIS API/EAI solution.

Cost reduction potential

IT/EDI Manager Meister explains, "By leveraging Business Integration Suite, we have uncovered enormous cost reduction potential. Furthermore, we can flexibly and quickly implement new functionalities if need be."

Consequently, Artdeco not only benefits from digitalized order processing with all important business partners worldwide based on integration platform BIS (which also takes care of SAP integration of customer and order data which leads to advantageous monitoring and tracking of all products and revenue streams), but also from being able to calculate special B2B customer prices inclu-

ding discount calculations based on extracted SAP data. Furthermore, Artdeco is able to quickly and easily integrate mobile data devices in order processes in e.g. collaborations with business partners for ad-hoc orders. With Business Integration Suite, Artdeco also ensures that through integrating product information management (PIM) systems, products are marketed effectively and profitably in B2B and B2C online shops. What is more, through digitalization and faster, more efficient processes thanks to the BIS platform, Artdeco has freed up new capacities, which can be used for further optimization of logistics processes and consequently uncover even more cost reduction potential.

In conclusion, everyone benefits from this digital restructuring. Customers benefit from comprehensive product information with easy and cost-efficient order processes; the firm profits from more customer satisfaction and brand loyalty. What this example shows is that despite the challenges digitalization can bring, its success is vital for companies to not only survive but thrive in the digital era.

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BUSINESS INTEGRATION

