SEEBURGER
## BUSINESS INTEGRATION

5 PRINCIPLES
FOR YOUR EDI SUCCESS

> **❝5 principles that you must meet to master the digital revolution in the industry – electronic data interchange secures entrepreneurial competitiveness.❞**

The digital revolution is in full swing. New requirements that must be mastered appear almost daily. Meeting the challenges bit by bit by salami tactics will often mean risking negative consequences. Many decision-makers fear large changes, in particular when they require investments, and look at individual solutions instead. Since this problem also affects the electronic data interchange between companies, this brochure has been written for the strategic managements of all those companies that rely on smooth data exchange with their partners – from customers to suppliers or service providers.

A classical starting situation

Many companies have been around since the 1980s or before – and therefore originate in times when the current distribution of the Internet was still unimaginable. Initially, a few application systems such as a goods management system and a CRM system was all that was needed. Data were manually entered and managed by an employee. There were only few interfaces, and those were well-structured and easy to handle.

However, complexity is increasing strongly by connection of external applications and the rising number of own applications. While two applications only have one connection, three applications will have three connections, while four applications have six connections. Ten applications lead to 45 connections, and adding just another five applications will more than double the number of connections. More applications obviously make manual administration very complex.

Number of connections (y-axis: 1, 3, 6, 10, 15)

Number of applications (x-axis: 1, 2, 3, 4, 5, 6)
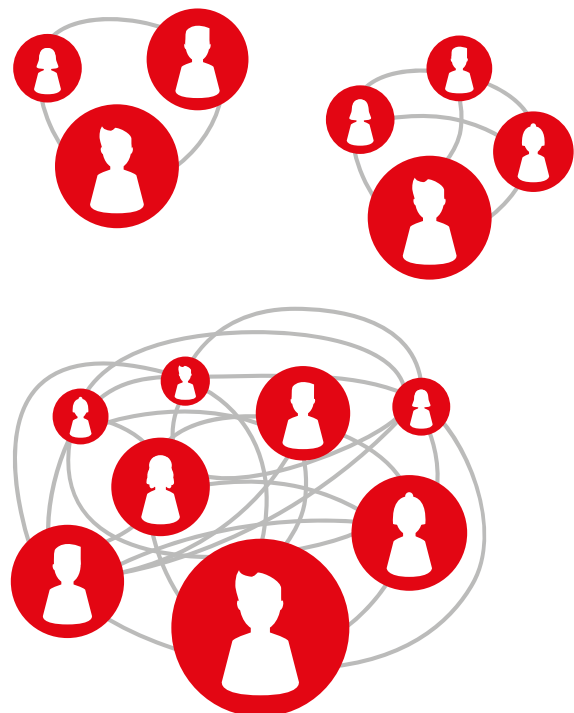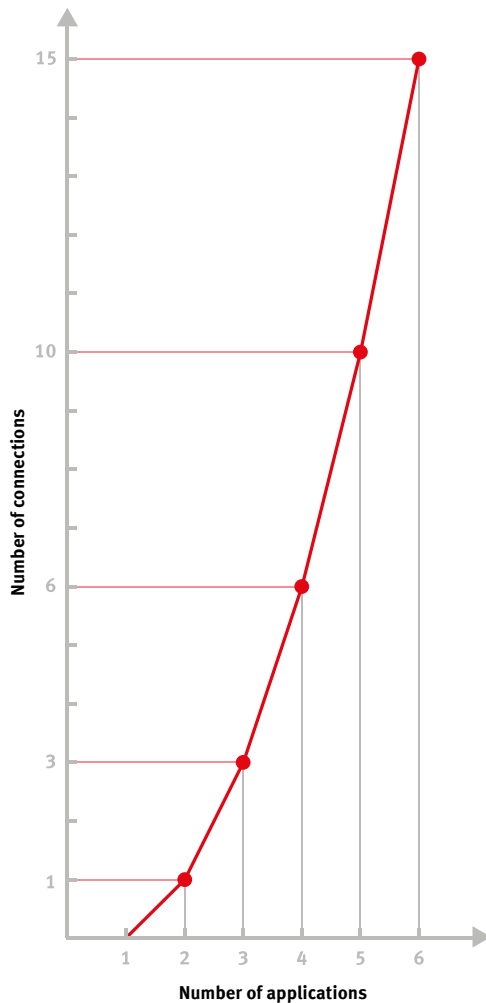
The figure illustrates the exponential growth of the number of connections, making it clear quickly which challenges arise from adding new interfaces. If a company is not ready for it, problems may result, the removal of which must be tackled with great personnel and financial effort.

Most companies have been able to successfully implement ERP systems for administration of the internal business processes. Applications such as SAP have become established by now. If companies have many other internal applications in addition to their ERP systems, their networks can be professionally managed with a data hub in the scope of enterprise application integration (EAI). EAI has thus managed to avoid the chaos caused by the many connections at rising numbers of applications.

Why has the same degree of networking not been achieved across company borders? It is something we should wonder, in particular in times of globalization. Opening of the markets brings a great many opportunities for using new business potentials, as well as new partners that pose further requirements due to different languages or currencies. This once again increases complexity of the data exchange.

The consequences of the information flood

This problem appears in the company in that managers must process a lot more information today than they used to. Due to the quick information flow, however, the time span for reactions is often shorter, since competitors are likely to receive important messages at the same time, no matter the channel. The pressure to act and decide has considerably increased as a consequence. This requires a different way of tackling problems.

Automation of data transfer can be very helpful here to standardize specific processes and solve them with state-of-the-art IT.

How you can react to the progressing networking

Forecasts lead us to expect that there will be approx. 6.5 networked devices per person in the world in 2020. We will be unable to avoid confronting this subject privately or in business. It can be expected that barely any industry will be able to bypass this challenge. Therefore,

awareness must be raised in time, and integration of the employees should be considered today already.

Increase in work and thus increased resource demand must be expected in particular for the IT departments, since the growing network requires professional management. In addition to continuous monitoring and administration of the data flow, targeted error recognition and direct removal of errors are also important areas of tasks that will continue to grow.

In this context, the provision of qualified staff who are available around the clock and every day of the week becomes a problem, since permanent and stable function of the electronic data interchange must be ensured in particular for time-critical production processes. Otherwise, just-in-time deliveries may lead to cost-intensive delays that must be avoided at all costs.

Therefore, companies should be aware of this challenge and take precautions by personnel increase or outsourcing to specialists.

To be or not to be... a global player

The importance of internationalization has already been mentioned. Automated translation processes and conversions of country-typical units, currencies and formats become more and more important due to the development towards global markets. Otherwise, there is a risk that such processes will turn into communication obstacles that cause delays and thus also lead to avoidable costs. This includes handling of foreign characters and alphabets. Your

Electronic Data Interchange (EDI) solution should therefore be able to meet these prerequisites. A global service network is indispensable for internationally acting companies as well, to ensure direct proximity to the served markets and customers.

Foresighted planning helps reduce costs

Companies should be able to forecast cost-intensive developments by foresighted planning. This way, they can develop strategies in time and take measures to ensure a cost-optimized procedure. Long-term plans are particularly important in this. Even high investment costs at first glance will turn out to be comparatively low as compared to the costs for limiting damage in the further course of time. There are also cases where investments are not necessary at all, i.e. when regularly procured services only incur a monthly fee that covers a complete service. This can be ensured, e.g., by using cloud services in electronic data transfer.

After presenting the future developments and challenges in electronic data interchange, we would now like to describe what this actually means.

What is electronic data interchange?

Companies exchange standardized messages electronically. Data exchange between the business partners takes place automatically. This process is called Electronic Data Interchange (EDI).

EDI enables companies to convert electronic documents (such as orders, delivery notes, invoices and item catalogues) from their own ERP systems into structured and standardized data and to send them out electronically within seconds. The most frequently used standard data format is the UN/EDIFACT message of the UNO (United Nations Electronic Data Interchange For Administration, Commerce and Transport).

For most companies, electronic data interchange often is the first step towards automated B2B-processes. In the medium term, companies should plan on further optimization steps. This can be done either towards the up- or downstream processes. Additional savings can be achieved by paper-less automation of all trading processes. Introduction of the electronic data interchange (EDI) can be successful for any company, provided that five important principles are observed:

1. Experience

The little details matter, and errors are fatal in automatic data interchange, in particular when relating to data security and reliability. Therefore, ensure that your employees or your external partners who are responsible for your EDI processes are specialists with many years of experience in complex interfaces. Only this can ensure safety for your sensitive data and that no messages are lost in the exchange. Experienced partners are also very likely to have an optimized EDI infrastructure that you can profit from.

2. Professionals

The persons responsible for your data interchange should deal with professional EDI solutions only. In this case, you can assume that their complex connections are not only an emergency solution created on the side, but that well thought-through and future-proof concepts are used. Speed and professionalism are indispensable to avoid costly interruptions of your business processes. Therefore, trust in a partner with experience who will be available to you around the clock and who can take care of all your worries and issues around EDI.

3. Platform

Instead of individual direct connections that will lead to a chaotic tangle of cross-connections over time, management of the partner connections via a single platform is a practical solution. It is a kind of data hub that at the same time converts data into the right format and takes care of encrypted – and therefore safe – distribution, including transparent monitoring. Central management via a central service creates transparency and safety while at the same time reducing your work load to enable you to focus your valuable resources on your own core business.

4. Security

Security is of the essence in data interchange. Trust in a partner who can prevent attacks reliably with the maximum possible safety standards to keep your data protected at all times. This affects both safe and encrypted transmission of your data and protection from data loss by highly professional computing centers with unlimited capacities that you can scale to your needs, as well as the highest safety standards. If you save in security, you may end up facing severe consequences such as a loss of reputation and high costs for damage limitation.

5. Reliability

Reliability is the basis for a trusting business relationship. That applies to people as well as processes. Trust in partners who ensure reliable processes even in exceptions and special cases. One simple example: Different countries have different customs. That is often also true regarding electronic data interchange, both for receipt of messages (special characters such as accents in submissions) and the communication path on which the data are transmitted to you. Your EDI system must be able to cover even new international requirements completely, reliably and consistently, without any unforeseen exceptions impairing or even interrupting data interchange. Otherwise, the newly acquired international customer will quickly get angry. If there is any impairment after all, it must be recognized and removed directly. 24 hours a day, seven days a week.

How does EDI work?

Imagine the following situation: You want to order a specific product from a business partner in China.

What did this look like in the past?

Once upon a time, you would draw up a purchase order in English and send that to a translation agency to have it translated. Time passed, and mistakes could occur due to human error or misunderstandings. You were unable to check the result because you did not speak Chinese. You were therefore forced to entirely rely on the translator. You received the translated letter after completion, put a stamp on it and sent it out. Mail to China takes a long time, and comes with the risk of losing the document. The letter would usually only arrive after several days or even weeks. You had to patiently wait for a response.

How can EDI help in such situations?

The business partners will have your letter on their computers within seconds, and in a format that they can read. What happens between sending and receipt clearly reflects the benefits of electronic data interchange. The message is converted (translated) into a pre-defined standard that is clearly understandable for all systems working to this standard by your internal EDI software or that of your EDI service provider. Imagine these standards as similar to the planned language Esperanto. While a consistent language could not be established in the real world, the approach was successful in electronic data interchange. The EDI system or your chosen EDI service provider will then forward the mes-sage to the system of your partner who – unless EDI is outsourced as a full service – will in turn need a translation software that knows the EDI standard and will convert the EDI document into a letter in a format that your partner can read. All of this only takes a few seconds.

The reasons why the switch from conventional correspondence to electronic data interchange is sensible are readily apparent. Not only the clear time savings are evident – and we all know that time equals money. Removing many manual work steps leads to personnel savings and reduces the error probability from human error. Another positive side-effect is the clear reduction of paper and any expenditure connected to printing costs and consumables. This protects not only your budget, but also the environment.

Why EDI?

Essentially, there are two reasons for using EDI. One, the voluntary decision to implement it due to the economic benefits described above.

On the other hand, EDI compliance is demanded by market-leading partners in many industries, making it a prerequisite to remain competitive in the first place, since important business partners insist on communication via EDI. In some industries, suppliers who do not meet this criterion are not even considered as potential partners. The growing degree of networking will probably cause this share to increase further.

For whom is EDI suitable?

That question has actually already been answered: EDI is suitable to simplify purchasing processes in any imaginable industry that inter-

acts with partners such as suppliers. Digital invoice processing with customers or suppliers can also be implemented easily using EDI.

Industry-specific benefits that result from EDI are explained on our website www.seeburger.com, where you can learn more if you need specific industry solutions.

What requirements do your site and infrastructure need to meet?

Thanks to flexible cloud solutions, the requirements to your internal site in terms of IT infrastructure border on being negligible. Professional service providers with state-of-the-art and highly secure computing centers can take care of your entire data interchange.

Therefore, you no longer need to ensure that your computing center is protected and secure against any and all risks. You can fully focus on your core business if you let specialists take care of this task. At the same time, expensive maintenance and servicing costs will no longer arise, since professional EDI solution providers will take care of this for you as well.

When is the right time?

The right time has probably already come. As we have mentioned, effort is increasing exponentially with rising complexity due to growing numbers of partners.

Who are the right people?

EDI is a highly complex subject field that should only be handled by trained experts who deal with this subject only. Specialists are expensive, though, and hardly any company can afford having an IT team on site on standby around the clock. Therefore, outsourcing of the service to a professional service provider may be a sensible and, most of all, affordable solution.

What makes a good partner?

Data security is a particularly sensitive subject that must be taken care of professionally to prevent negative consequences such as loss of trust due to security problems from the beginning. Either you have your own experts in-house or you can use the services of a professional partner who will provide this experience.

No matter which way you go: Always follow the five principles described for successful EDI and check carefully before the cooperation whether your partner meets these criteria.

How to implement EDI cost-efficiently?

Imagine the situation based on the following example: You are celebrating your birthday and decide to put together and cook the menu for 100 guests on your own.

You will be busy days before with purchases and errands, decoration and planning. You will spend a lot of time preparing in the kitchen, and on the day before the celebration, you will be very stressed in spite of your children's help, since the stove is just too small and you don't have enough pots to cook for such a large number of guests. If only you had hired a professional catering service! The benefits are clear. Professional cooks with a large kitchen would have had the perfect storage and working conditions. If they dropped a piece of meat on the floor, their cold storage would have enough capacity to compensate for the loss. Your fridge is bursting from the seams now, however, and if a dish fails you have to go and purchase more ingredients from the supermarket. You also do not have the experience and staff to conjure up sophisticated dishes that can be prettily prepared and served at the perfect temperature. Finally, the caterer would be able to implement effects of scale based on large purchasing quantities, so that the menu could be provided at a lower cost per person.

Caterers can easily share the benefits they enjoy from wholesale purchasing with their customers.

Applied to B2B matters, this benefit is reflected as follows: Like the caterer specializes in supplying large groups, an EDI service provider specializes in million-fold transmission of EDI messages. This is reflected, among others, in that all communication infrastructures necessary for electronic data interchange are multiply redundant. Such special redundancies can be implemented more cost-efficiently due to existing experience and the effects of scale from use for many customers. The resulting price benefits can be passed on to the customers, giving them better quality as well as better economic efficiency. In other words: A mediocre menu turns into a star menu, professionally served and perfectly prepared, at a lower per-capita price.

The subject of open operation versus cloud solution still raises questions in many companies. While the benefits of cloud solutions are known, there are also insecurities concerning its safety and a lack of trust in this medium. Too little contact with established cloud solutions often is at the root of this insecurity. Become familiar with the unknown and deal with the cloud subject to develop the benefits that can result from this for your company.

Frequent risks when operating your own on-premise system

Even if you have your own IT experts in-house to professionally take care of operating your own computing center, continuous provision of internal resources and trained specialists is expensive and risky. If an employee is lost temporarily, e.g. due to pregnancy, smooth know-how transfer will be required to continue to maintain operations at the same quality. This problem will worsen if an employee leaves entirely, since the internally developed knowledge may completely disappear from the company's environment. A great risk factor results if the internal IT department is too small to seamlessly replace the experience of individual employees.

This also applies to warranting trouble-shooting capacities around the clock. Ensuring both monitoring and direct reaction in case of faults this way is often only possible in very large companies.

Implementation of newer requirements means investing in new solutions. This is a problem when own resources are insufficient. New employees will have to be recruited temporarily for the required expansions, not only causing effort in personnel management, but also costing time and resources for familiarization and changed processes. This will often cause actually necessary investments in hardware and high availability not to be made in the first place for cost reasons, which may result in competitive disadvantages.

It can be expected that new suppliers or partners will have to be connected now and then. This requires not only competences but also must be done speedily to maintain the core business without problems. Many companies lack technical experience in such situations. This may cause far-reaching problems in particular in the international context, when the corresponding know-how is missing and the language barrier and lack of cultural understanding compound the problems.

Finally, the overall costs for an on-premise solution are quite high due to the required hardware, software, staff, training and support. Precise calculation will show that they exceed the costs of the reliably calculable cloud fees.

The benefits from using SEEBURGER Cloud Services:

☑ You will increase your business performance and efficiency by focusing on your own core expertise.

☑ We share our experience with you. More than 1,000 customers already use our cloud services. We exchange millions of B2B vouchers with thousands of B2B partners for them every day.

☑ Our core business is software developement, this enables us to react flexibly at need and solve any complex problems without delay.

☑ We will help you react to changes and new requirements from your environment and business partners flexibly and quickly.

☑ You will profit from local know-how through our SEEBURGER service teams in multiple sites around the world.

☑ With our „pay-per-use" model, you will only pay for what you are using: Costs will develop in parallel to the benefits received and therefore can be scaled at any time.

☑ You will profit from our highly available computing center infrastructure with disaster recovery and ISO 27001-certified 24/7 operation, which is part of our attractive „pay-per-use" fee.

☑ You will receive transparency in real time regarding all processed messages and profit from clear service levels with reports.

One solution, one connection, no chaos
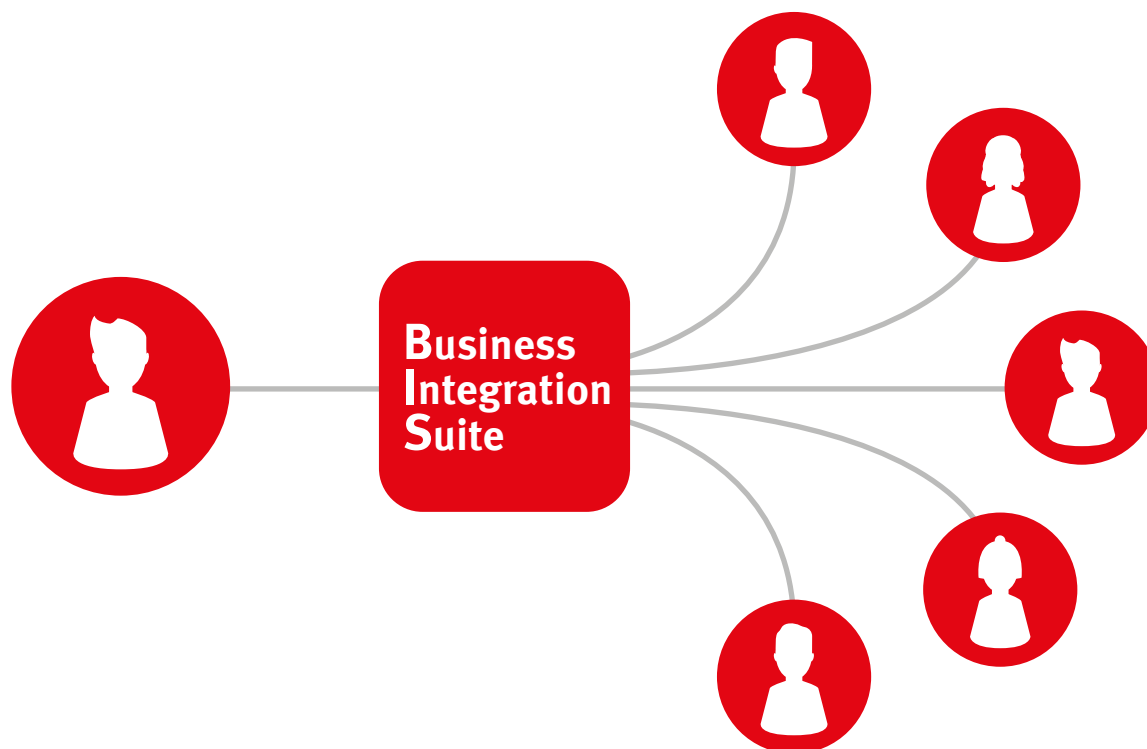
The chaos described initially that is caused by a rising number of corporate partners due to the exponential growth of the number of connections can be eliminated entirely by management of data traffic via a central platform. You can reduce the high number of interfaces with your partners to a single connection to your EDI service provider who will also take care of integrating new customers and suppliers for you. The best thing is that you will not even have to worry about administration of the connections anymore with SEEBURGER Cloud Services.

If you are not certain if EDI/B2B cloud services would be suitable for you as well, do not hesitate to contact us right away. Our team will gladly offer non-committal consulting.

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How did the story of success of SEEBURGER EDI solutions begin?

SEEBURGER made a name for itself in the software industry as early as in 1986, upon introducing the most successful EDI solution for the automotive industry. The EDI solution was optimized based on this and expanded for further industries.

Internationalization could be achieved in 1997 already. Since 1999, SEEBURGER has been the European market leader in the area of electronic data interchange. It has thus successfully positioned itself as a provider of solutions for B2B integration.