EPG® Ehrhardt Partner Group
Smarter Connected Logistics™

WHITE PAPER

THREE STEPS TO GREATER SHIPPING EFFICIENCY

Using the right solution to leverage all potential – the route to the right shipping system

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THE SHIPPING SOLUTION FROM EXPERTS

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FOREWORD

Shipping solutions can greatly simplify everyday shipping logistics operations. They ensure the smooth running of many processes – from address validation through track-and-trace to returns management – thus contributing to recipient satisfaction* and, at the same time, helping the sender to optimise their processes and increase efficiency.

If companies are to fully leverage all available potential, the shipping system must be able to satisfy growing market requirements – not only today but in the future as well. Key aspects in this respect are multi-carrier shipping and rate shopping.

In our white paper, we aim to provide guidance to e-commerce traders and logistics service providers and help them to find a future-proof shipping software that meets their needs. Given the large number of solutions available on the market and the correspondingly large number of different functions, it is not easy to keep a clear view of them all.

Please use our checklists to review your current software and create the conditions for your efficient and flexible shipping logistics.

Best regards
Your EPG team

THE CHALLENGE OF SHIPPING LOGISTICS:

FLEXIBILITY AND EFFICIENCY ARE THE KEY

In recent years, consumers' expectations have grown enormously when it comes to shipping services. They expect smooth delivery and return processes and want different shipping options to choose from. In Europe, 93 percent of online buyers say that the available shipping options influence which trader they choose. The logistics service provider is also factor. 41 percent of buyers would not use an online shop if they did not approve of the delivery company.[1] It is therefore essential that e-commerce traders offer a choice of parcel services and shipping options during the checkout process. This ensures a better shopping experience and increases customer satisfaction.

However, increasing the range of available options also multiplies the challenges. CEP service providers, forwarding agents, special delivery services – the carrier market is diverse and it is not easy for either e-commerce traders or logistics service providers to choose the right option. In addition, each carrier has its own requirements when it comes to the documentation and information it needs for shipping. Prices vary as well. The more service providers are used, the more complex it is to manage them. It is thus all the more important to use tools which make it possible to automate processes. The same applies to the transmission of delivery data, a task which usually takes a lot of time in day-to-day shipping operations if data have to be input manually into the service provider's portal.

This is precisely where state-of-the-art shipping platforms can help. Thanks to automation, they make all shipping processes simpler, more efficient and more reliable – from label printing and goods delivery to the handling of returns. Interfaces facilitate the integration of internal ERP, WMS and shop systems so that data can be exchanged.

Shipping systems are an everyday feature of operations for e-commerce traders and fulfilment service providers but many of them no longer meet current market needs. For example, older systems lack important functions such as track-and-trace or the automated selection of the least expensive carrier. It often only becomes apparent with time that the performance of the software is no longer adequate or the provider's support is not as good as it could be. Organisational changes frequently reveal system limitations, for example, when shipping is to be handled from a warehouse in another country but it is not possible to integrate a local carrier into the system.

[1] DHL Online Shopper Survey 2022: https://www.dpdhl.com/de/presse/pressemitteilungen/2022/kunden-sind-bereit-mehr-fuer-umweltfreundliche-versandloesungen-zu-zahlen.html.

MULTI-CARRIER SYSTEMS:

CENTRAL MANAGEMENT OF MULTIPLE SHIPPING PROVIDERS

Shipping software helps companies to manage and optimise a large number of shipping processes from processing and printing shipping labels, the transfer of data to carriers and loading control to track-and-trace and the handling of returns. Multi-carrier systems are capable of integrating a large number of CEP services, forwarding agents and postal services. They enable companies to manage their shipping logistics centrally and use several service providers – simply and automatically. This has many advantages for both the companies and their end customers.

HIGH FLEXIBILITY

Shippers are not tied to one parcel service but can use the carrier whose mode of shipping and returns options are best suited to the individual delivery. It is also possible to add new carriers and clients to the system at any time without any major effort.

MINIMISE FAILURE RATE

If a parcel service experiences failures or disruption, this can soon result in delivery problems which in turn leads to customer dissatisfaction. Companies can greatly reduce the risk of failure if their shipping strategy is based on using more than one shipping service provider.

GREATER CUSTOMER SATISFACTION

It is important to consumers that they can choose flexibly from a range of shipping options. For example, if they need an order delivered particularly quickly, an express specialist would be the first choice. In all other cases, the lowest shipping costs are important. That is why a choice of shipping options increases customer satisfaction.

LOWER IT ADMINISTRATION COSTS

Using a multi-carrier platform means it is no longer necessary to go to the trouble of implementing individual system interfaces for each parcel service. There is also no need to adapt labels, EDI or routing data. As a result, fewer IT resources are required and support, maintenance and update costs are minimised.

LOWER SHIPPING COSTS

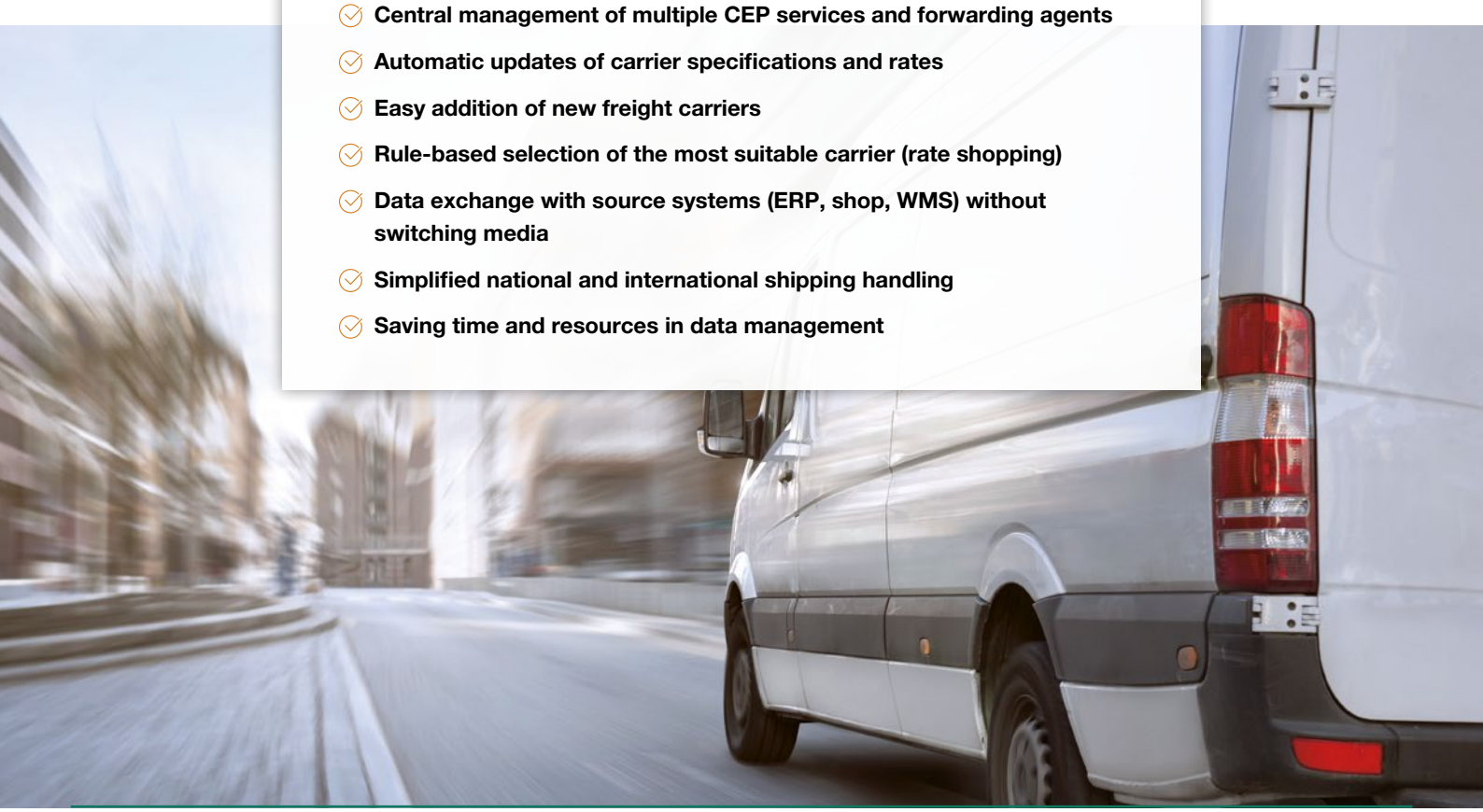
The individual parcel services charge different prices depending on product, parcel dimensions, weight categories and other services. A low-price shipping option can be selected manually or by way of defined shipping rules. An e-shopping function makes it possible to compare the different carriers' rates automatically and select the least expensive option. In a multi-carrier system, the least expensive service provider is chosen automatically and in real time for each shipping scenario, thus reducing shipping costs. Rate shopping additionally considers other factors such as the transit time or cut-off times.

HIGHER DELIVERY RATE

A high delivery rate is a key criterion in shipping efficiency and customer satisfaction. The aim is for goods to be delivered to the customer at the first attempt. In order to achieve this, parcel services must be integrated with a range of other services such as same-day delivery, express shipping, delivery at the customer's preferred time or delivery to the customer's workplace.

MULTI-CARRIER SYSTEMS OFFER:

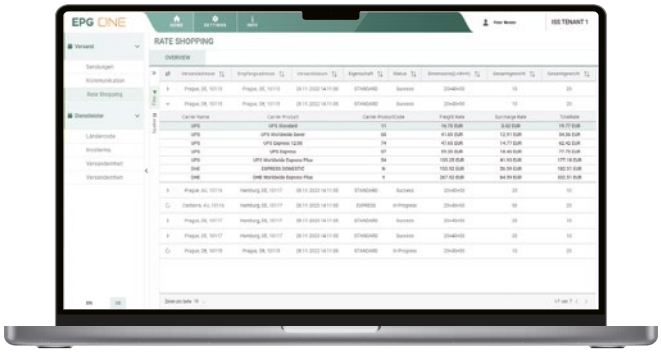
- **Maximum efficiency of the shipping processes**
- **Central management of multiple CEP services and forwarding agents**
- **Automatic updates of carrier specifications and rates**
- **Easy addition of new freight carriers**
- **Rule-based selection of the most suitable carrier (rate shopping)**
- **Data exchange with source systems (ERP, shop, WMS) without switching media**
- **Simplified national and international shipping handling**
- **Saving time and resources in data management**



RATE SHOPPING: AUTOMATED SELECTION OF THE OPTIMAL CARRIER

One of the central functions of a multi-carrier system is the automated selection of the most suitable carrier for a delivery from among a large number of carriers. Selection is based on contractually agreed carriage costs. However, the least expensive provider is not always the most suitable. In some situations, the speed of delivery may be more important than cost. In other cases, additional services such as the ability to handle hazardous goods may be the deciding factor.

That is why innovative multi-carrier systems are based on shipping rules which take account of various factors as well as cost when choosing the carrier for a given situation. Various rules can be defined depending on the complexity of the system. Simpler variants use just some delivery-related data such as weight or the recipient's postcode to choose the carrier. More complex systems also include specialised services such as the transport of hazardous goods or refrigerated transport. The rating engines in advanced systems are capable of predicting transport data and selecting the ideal combination of carrier, rate and service. This form of carrier selection is referred to as rate shopping, a term which is familiar from hotel or car rental comparison platforms. The mechanism is currently gaining traction in the shipping logistics sector.



APPLICATIONS:

WHEN IT MAKES SENSE TO DEPLOY A NEW SHIPPING SOLUTION

IMPROVED PERFORMANCE FOR ONLINE RETAIL

A high-performance shipping system is especially relevant for e-commerce traders which regularly ship large quantities of parcels from their own warehouses. System performance is therefore critical to the success of these enterprises. One example is flaconi, one of Germany's leading online shops for beauty and self-care products, which generates more than 6.6 million parcel labels each year using EPG's ISS shipping solution. At peak times like Christmas, as many as 4,000 parcels leave the company's logistics centre in Berlin's Marzahn district every hour – and that number is increasing.

MAXIMUM FLEXIBILITY FOR FULFILMENT SERVICE PROVIDERS

Logistics service providers which handle shipping processes for a range of customers need to be able to adapt quickly to the needs of new clients and to serve various sectors. For them, a high degree of flexibility is therefore the main factor when selecting a shipping system. It should be easy to replace or add carriers and to amend shipping options quickly. Moreover, it should be possible to use the system across different locations and to extend it easily. Automatic updates should ensure that carriers' specifications are always current. Depending on their knowledge, users should be able to use the system's software to add carriers and clients themselves. Alternatively, they can outsource this task to their service provider.

STEP 1 –

CLARIFY REQUIREMENTS AND SYSTEM TYPE

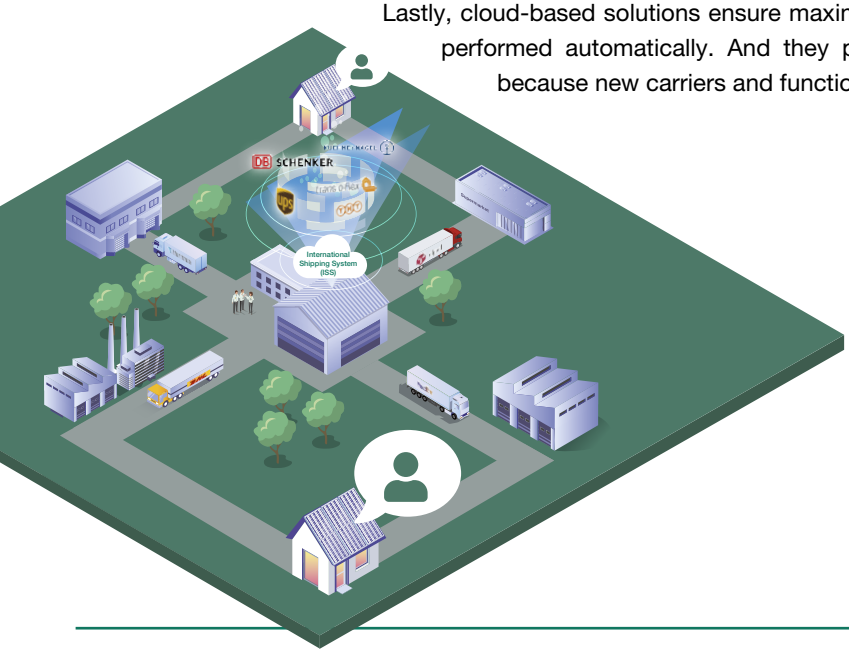
Shipping systems often include many different functions. While it might seem that more is better, you should not be misled by this. What is crucial is that the system can meet your company's specific needs. That is why, before you look at individual shipping solutions in any detail, you should first analyse your exact situation, including the existing IT infrastructure. What type of environment must the system be integrated into? With which other systems must data be exchanged? You should also define the functional scope you want, set the budget and identify the expertise that is available within your company. These are the factors that determine which shipping system is most suitable for your company. The most important question to clarify is how the software will be made available. Should it be installed and hosted on the company's own servers (on premise) or should it be accessed as a web-based cloud solution?

ON-PREMISE SOLUTION

In the case of an on-premise solution, companies purchase the shipping system and are responsible for the hosting themselves. This option may make sense if a company already has a good IT infrastructure and an experienced IT team because, in this case, the software has to be installed on a company server and managed by the company's own employees. However, the costs of licences, new server hardware and updates are usually high while administration, maintenance and data security involve a large amount of work.

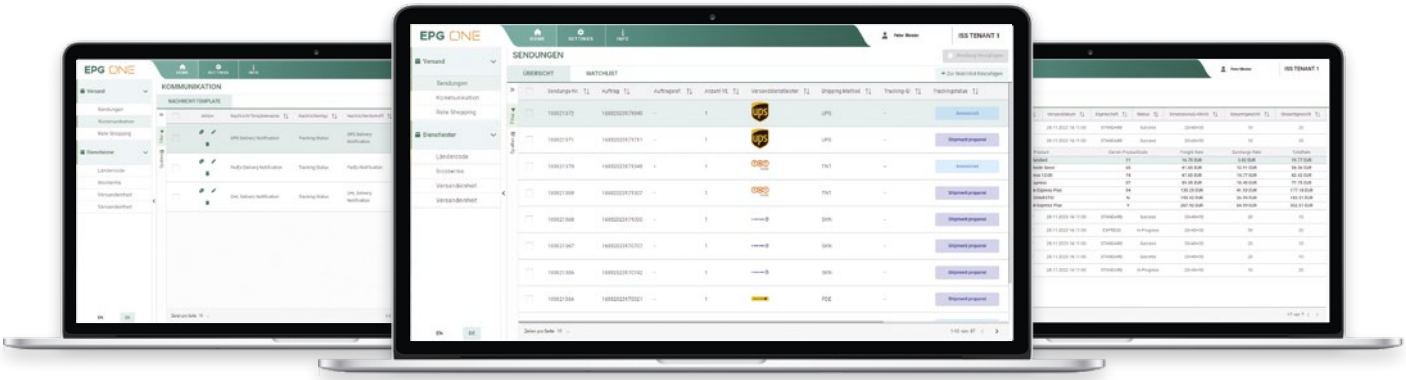
CLOUD-BASED SOFTWARE

If a company wants to minimise the effort associated with software installation and updates, the second option is better. Cloud-based software enables companies to get started straight away without investing in hardware. The software is hosted in the cloud and accessed via the internet. Maintenance work and software updates (labels, EDI, FTP/SFTP links to carriers, routing data) are performed regularly and automatically. This reduces the amount of work to be done by the company's own IT department and provides the certainty that the solution always satisfies carrier requirements. The scalability of this option is a major advantage. Additional server capacities can be made available at short notice and automatically. Lastly, cloud-based solutions ensure maximum data security because backups are performed automatically. And they provide companies with great flexibility because new carriers and functions can be integrated rapidly.



ADVANTAGES AND DISADVANTAGES AT A GLANCE

	Cloud-based solution	On-premise solution
Advantages	■ **Cost reduction:** Low hardware and personnel costs ■ **Access:** System can be used at any location ■ **Security:** Key components are designed redundantly; provider has high security standards ■ **No IT expertise necessary:** Operation, maintenance and updating by a cloud service provider ■ **Scalability:** Upgradable at any time; only the services actually needed will be paid for	■ **Access:** System can also be used without internet access
Disadvantages	■ **Access:** Functioning internet access required ■ **Control:** Data processing by a cloud service provider	■ **Procurement costs:** Costs of software licences and own servers ■ **Running costs:** Maintenance, updates and support are charged separately ■ **Individual responsibility:** The company is responsible for data protection and technical maintenance



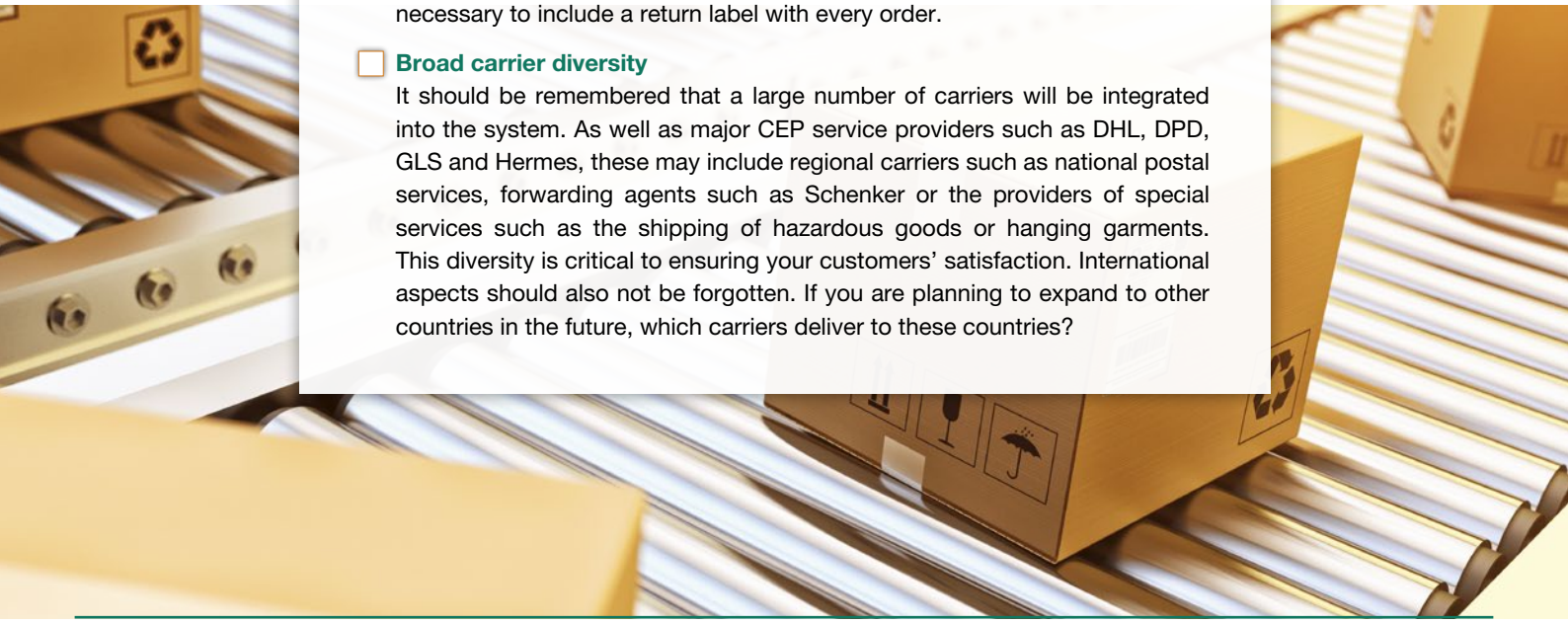
STEP 2 –
DEFINE FUNCTIONAL SCOPE

There are now a large number of shipping systems on the market, with the boom in online trading especially resulting in a large increase. However, the solutions differ widely in terms of their performance and target group. Some are suitable for small companies while others are designed for medium-sized to large enterprises. A number of solutions provide only basic shipping functions whereas others incorporate all distribution processes. That is why you should take a detailed look at your individual requirements before choosing a system. What functions do you need? How do you expect your shipping logistics to develop in the next few years? This information should be summarised in a specification to serve as the basis for drawing up a short list of four to five tools from the many that are available.

CHECKLIST

You can use the following list to define the functional scope of your new shipping solution. As far as possible, the solution should include these functions to ensure the efficiency of your shipping processes.

- ☐ **Rapid label printing**
  For many companies, label printing is the most important function when it comes to choosing a shipping system. You should ensure that you can not only print single labels individually but also in large numbers automatically. It should also be possible to print additional information such as logos or bar codes as well as loading lists and other shipping documents automatically via the interface. Moreover, it should be possible to integrate automatic labelling units for large parcel volumes if this is necessary.
- ☐ **Simple handling of returns**
  Both the shipper and the delivery recipient should be able to easily print return labels. In many systems, this is possible via an online portal which relieves the pressure on customer service and protects the environment because it is not necessary to include a return label with every order.
- ☐ **Broad carrier diversity**
  It should be remembered that a large number of carriers will be integrated into the system. As well as major CEP service providers such as DHL, DPD, GLS and Hermes, these may include regional carriers such as national postal services, forwarding agents such as Schenker or the providers of special services such as the shipping of hazardous goods or hanging garments. This diversity is critical to ensuring your customers' satisfaction. International aspects should also not be forgotten. If you are planning to expand to other countries in the future, which carriers deliver to these countries?



- [ ] **Link to carrier via EDI or web service**
  Delivery data should be communicated automatically to the respective carrier.

  Vice versa, it should be possible for parcel status data to be entered automatically into the source system. In general, shipping service providers can be integrated in two ways – via EDI or web service. Both have their advantages and disadvantages. Some carriers provide high-performance web services while others prefer data transfer via EDI or a less efficient web service. It is important that the shipping solution has the right software architecture to satisfy performance requirements.

- [ ] **Track-and-trace and reporting**
  Track-and-trace is now a standard feature of shipping logistics. The parcel recipient is automatically notified about the delivery status and can also access real-time information at any time. This results in fewer calls to customer service and marketing and increases customer satisfaction. The shipper is able to analyse the tracking data and use the findings to optimise its own processes. For this purpose, the shipping system should ideally include an analysis dashboard for visualising various KPIs.

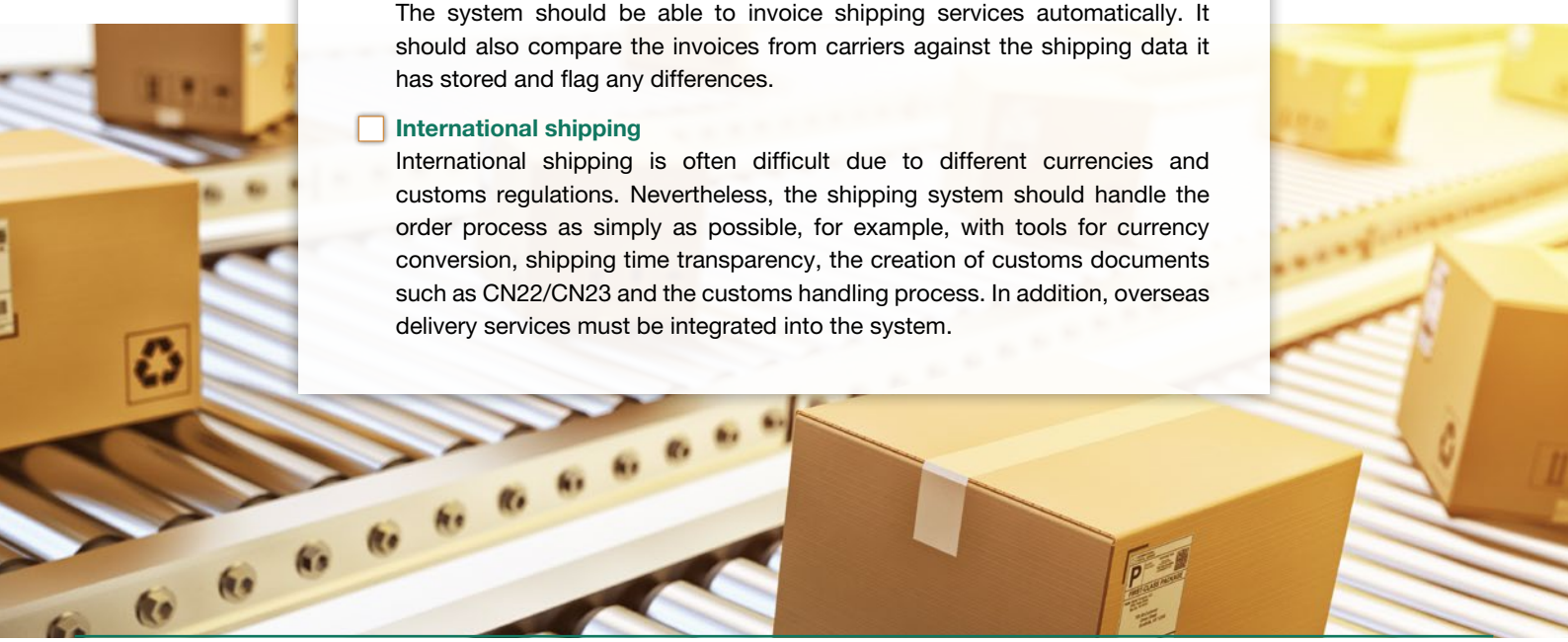
- [ ] **Address validation**
  When shipping orders are input into the shipping software, this should check the addresses automatically, if possible down to the house number. A plausibility check is also particularly important. Based on the information about the mode of shipping, delivery time and destination, can the shipment be simulated using the selected product and service from the carrier?

- [ ] **Access via a web platform**
  For many companies, the ability to access the shipping system from anywhere in the world is an important selection criterion. Traders in particular often want to be able to generate labels for shipping from their branches as well as from the central warehouse where the goods management system has been implemented. This can be achieved easily if access is possible via web browser.

- [ ] **Freight cost optimisation / rate shopping**
  When selecting a suitable carrier, it is not only the freight cost which plays a role. For this reason, the shipping system should also be able to consider other factors such as transit time or cut-off times when comparing various service providers.

- [ ] **Automated billing and invoice checking**
  The system should be able to invoice shipping services automatically. It should also compare the invoices from carriers against the shipping data it has stored and flag any differences.

- [ ] **International shipping**
  International shipping is often difficult due to different currencies and customs regulations. Nevertheless, the shipping system should handle the order process as simply as possible, for example, with tools for currency conversion, shipping time transparency, the creation of customs documents such as CN22/CN23 and the customs handling process. In addition, overseas delivery services must be integrated into the system.



STEP 3 –

REVIEW SYSTEM PROPERTIES AND SOFT FACTORS

It is not only the functional scope that is crucial to identifying the right shipping system. Technical aspects such as performance must also be considered. In addition, soft factors such as support and additional services also play a major role for many companies and may be more important to them than the functional scope.

CHECKLIST

You and your IT team should answer the following questions before taking a decision.

- [ ] **Is the shipping solution compatible with our source systems?**
  In order to fully leverage the functions of a shipping system, it must be able to exchange data with source systems such as goods management, stock management and shop systems. As a rule, this is achieved via APIs. When choosing a system, you should establish whether interface documentation exists and whether the system provider can also provide support for interface connection.
- [ ] **Is the system easy to use?**
  The solutions with the best technical specifications do not always have the most attractive user interface. However, a high degree of user friendliness is a key factor in ensuring that employees can work efficiently with the new solution. For this reason, you should not only request demonstrations of the short-listed systems but also test them yourself.
- [ ] **Is the performance adequate?**
  The shipping software architecture should be constructed in such a way as to ensure extremely fast response times, whether you need to print 100 or more than 100,000 labels per day. A high-performance system will select the most suitable carrier within milliseconds and generate a label that satisfies all requirements.
- [ ] **Is the system compatible with the available printers?**
  Not every label printer can work with all data formats. You should check which formats the shipping system supports and whether these are compatible with the printers you use. As the most popular formats, ZPL and PDF should definitely be supported.

- [ ] **Does the system provider have an international presence?**
It is an advantage if a system provider has its own locations and human resources in various countries. As a result, it is able to support the international roll-out of the shipping system and provide go-live support in the appropriate languages.

- [ ] **What support does the system provider offer?**
You should check whether the system provider can offer support wherever you have your own locations. Are the support times compatible with your business hours? Are the response times defined in service agreements? Is support provided in the languages required? Can you choose from a range of service packages? Automatic updates should be standard to ensure that the current requirements of CEP service providers and forwarding agents are satisfied.

- [ ] **How are data protected?**
Cloud data storage is no more risky than on-premise storage. Most SaaS providers deploy state-of-the-art technologies to protect their customers' data. However, you should still check carefully that all security and compliance requirements are satisfied. Which security certificates does the provider have? A SOC 2 Type 2 audit report, for example, also documents the effectiveness of the measures that have been implemented. How long are data retained? Are they encrypted? Does the provider operate the server itself and can therefore intervene actively in the event of any problems?

- [ ] **Are GDPR requirements satisfied?**
You should check that the system provider complies with all the data protection requirements of the GDPR (EU General Data Protection Regulation).

- [ ] **How is availability ensured?**
To ensure the stable operation of the shipping system at all times, key technical components should be designed redundantly. This means that the system will remain available in the event of problems or malfunctions such as a server failure. One way of achieving this is to mirror the system on different servers and/or at different locations.

- [ ] **Does the provider have extensive logistics expertise?**
Does the system manufacturer also provide advice on logistics operations or other software solutions such as goods management or picking systems? If this is the case, you can be certain of both solid industry expertise and optimal system interaction. You can also count on support from an expert when it comes to strategic issues such as optimising your shipping processes or developing internationalisation strategies.

THE SHIPPING SOLUTION
FROM EXPERTS

A large number of criteria must be considered in order to identify the right shipping solution. EPG's logistics consultants and IT experts will be pleased to support you in this process. We can also offer you our proprietary multi-carrier system – the International Shipping System (ISS). This solution is operated in our private cloud, enabling you to benefit from maximum availability, a safe and high-performance system and full flexibility.

We look forward to showing you how the solution can be customised to your individual needs. Take the first step towards optimising your shipping processes and contact us for a free system demonstration.

INTERNATIONAL SHIPPING SYSTEM (ISS)

- Fully managed services as an all-inclusive package for large-volume senders
- Significant reduction in operating costs thanks to private cloud solution
- Compatible with any source system (ERP, WMS, OMS, TMS, shop system, etc.) thanks to open web API
- Flexible selection of CEP services and forwarding agents
- More than 250 carriers with over 2,500 service codes – always up-to-date
- 24/7 support
- International project resources on all continents