



2022 AUTOMATION TRENDS for CargoWise Freight Forwarders

A WHITE PAPER IN PARTNERSHIP WITH:





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INTRODUCTION

CargoWise has risen to a position of dominance in the transport management system market. In 2020, it gained the top 25 freight forwarders as customers, as well as continued partnerships with 17,000 logistics providers. As a result of the pandemic, more enterprise and midmarket freight forwarders transitioned to remote work environments and partnered with CargoWise in global or branch-specific rollouts. While the freight forwarding industry has historically relied on paper documents, this pandemic-accelerated adoption of technology is pushing logistics providers to remove legacy systems and

integrate digital solutions that streamline operational processes and lower labor costs.

To gain further efficiencies with CargoWise, freight forwarders are leveraging automation opportunities. AI-powered automation provider Expedock estimates that freight forwarders on CargoWise who haven't tapped into automation are missing out on 40%-80% in labor savings. This white paper will discuss and provide use cases for the top three automation initiatives that freight forwarders have been utilizing and gaining benefits from in 2021.





TREND NO. 1 — AUTOMATE TRANSFORMATION OF DOCUMENTS INTO A TRANSPORT MANAGEMENT SYSTEM WITH ARTIFICIAL INTELLIGENCE

Low vendor switching costs increase email and paper based interactions

The nature of freight forwarding requires forwarders to coordinate with at least three vendors for ocean and air freight, whether those vendors are drayage providers, airlines or steamship lines. Because the cost of switching between vendors is so low, relative to the high price sensitivity of the freight market, freight forwarders often switch vendors.

As a result of the low switching costs, freight forwarders do not invest in integrations between vendors and their CargoWise systems. These integrations can cost from \$10,000 to \$20,000 and can take up to three months to accomplish.

Because integrating with vendors usually does not make sense for both the freight forwarders and their vendors across the supply chain, data between businesses is shared in the format of images (PDFs/scanned photos) or Excel files.

This has created a data entry problem: Operations or accounting staff can spend two to four hours of their day entering and auditing data into CargoWise. Instead of focusing on higher-level logistical issues and delivering the containers to the customers, operations are bogged down with the need to ensure data entry within the system to promote seamless workflows.

There have been many attempts to solve this data entry problem.

Failure of OCR in transforming documents into data

The first attempt was the introduction of optical character recognition (OCR) solutions to the workspace. Instead of typing the data after reading the document, staff would declare a template for a document type in order to grab the data from the image.

The problem with OCR solutions is their low accuracy over the past five years: It mistakes commas for periods or zeroes for the letter O. It was time-consuming and tedious for the operators to manually correct OCR mistakes. Moreover, freight forwarders found their team members often missed OCR-related mistakes.

Beyond this, OCR solutions are usually template-based, meaning a vendor or IT service provider has to set up a new template, which usually involves a week or two turnaround. Given that most freight forwarders change vendors all the time, the permutations for how many templates you could have for a single business year could be up to 5,000. The overhead to support a template-based approach simply did not make financial sense.



How AI is solving the problem of OCR

In the past two years, AI was able to address the problem of templates by learning and classifying each freight document on its own, whether a bill of lading or commercial invoice. Additionally, AI can read headers on documents such as "Bill of Lading Number" and make an inference based on previous

samples or even the color of the document where the bill of lading number is placed. The technology is then able to populate CargoWise with the right bill of lading number in the appropriate field.

The problem with AI software-as-a-service vendors

The market for AI solutions soon became crowded with players hoping to sell a solution to freight forwarders.

The problem with buying AI software-as-a-service solutions is that the staff continues to spend its time on data entry, training the AI for the software you are buying. This simply changed the activity from manual input to AI training and quality assurance. The labor cost savings proposed by such companies are usually not realized.

The lack of savings alongside the costs to train the vendor's software is exacerbated by the fact that most of these SaaS solutions fail when they are needed most — when exceptions happen. When a data point is off, the system stops working.

When an accrual does not match CargoWise, the system can no longer proceed to the next step on your behalf and can often cause delays averaging 48 hours.

AI accuracy for most vendors ranges from 40%-80%, although there is high variance from these vendors and corrections constantly need to be made by operators and accounting staff who could have fixed the simple issue themselves.

In summary, SaaS solutions that sell AI models for document understanding have 1) high variance in accuracy; 2) poor flexibility when exceptions occur; and 3) unrealized cost savings because labor is still heavily involved.

Keeping a human in the loop solves the problem

Technology companies often offload the training of their AI models to vendors. Most notably, Big Tech companies like Uber and Google utilize the service of a company called [Scale.ai](#) to train their AI models to recognize a car or stoplight in the real world.

In the global freight industry, forwarders like Ascent Global Logistics and JUSDA, the supply chain management team for Foxconn Technology group, have now turned to a company called [Expedock](#) to train their AI models and automate their workflows after capturing data.

Instead of its staff training the AI for the vendor, Expedock lends its AI model to the company and trains the AI. Afterward, Expedock employs freight operators who serve as humans in the loop and ensure a consistent delivery of 99.97% accuracy. This exceeds the high variance of 40%-80% for software-only solutions.

Human-in-the-loop solutions like Expedock enable 1) consistent accuracy of 99.7%; 2) labor savings of 30%-80% because staff can be reallocated to higher-value tasks; and 3) high flexibility when exceptions occur.





With Expedock, the staff at Ascent Global Logistics no longer had to think about data entry of commercial invoices or bills of lading when creating or amending a shipment. They simply forward the document packet to [Expedock](#) over email, and the shipment is created or amended within CargoWise. You can watch a video outlining how shipments can be created or amended with human-in-the-loop solutions [here](#).

Ascent Global Logistics did not need a five-year rollout with [Expedock](#); rather, it took two hours to set up the integration between Ascent's CargoWise TMS and [Expedock](#). Within two weeks of the rollout, their team was able to transition to customer service tasks.

MHM, a freight forwarder in Singapore and customer of Expedock, reported a 30% increase in revenue because of Expedock's full-service solution, which allowed staff to focus on upselling and increasing volume from shippers.

After partnering with [Expedock](#), JUSDA was able to scale operations and take on more customers without increasing headcount. Additionally, it no longer had to spend capital on recruitment or training to grow its business aggressively.

Criteria	AI/ OCR Software	Human in the Loop Solution
Accuracy	20-80%	99.97% Accuracy
Variance	High Variance	Consistent Delivery
Cost Savings	10-20% no staff reallocated	30-80% labor savings
Employee Salary	\$1500 per head	\$0
Requires Staff to Scale	Yes	No
Requires Training of Staff (existing and New)	Yes	No
Training Cost of New Staff	\$1000 per head	\$0
Set-up Cost	\$5000 one time fee	\$0
Document Template Setup	Required	Unnecessary
Requires Process Change	Work around their system	Embeds into your workflow
Exception Resolution Dashboard	No	Yes
Extraction, Entry, Audit/Reconciliation, Quality Assurance, Discrepancy Flagging and Reporting	Your company staff uses software to execute	Human in the Loop Solution automates on your behalf



TREND NO. 2 — CLASSIFY AND UPLOAD DOCUMENTS AS E-DOCUMENTS INTO CARGOWISE

Processing documents does not stop at entering the data. Transport management systems like CargoWise also require the digital copy of the document to be classified and uploaded into the system. While auditing is performed by the Federal Maritime

Commission to ensure shipper and carrier compliance, digitally auditing invoices also benefits the accuracy of payments, as well as provides insight into your shipping patterns.

It can take half an hour to upload documents for 1 shipment

Because CargoWise was created in the early 2000s and usually operated on top of remote servers, it can take up to five minutes to upload an e-document into CargoWise. On average, a shipment can have seven to 12 related documents. That's half an hour for a full-time employee per shipment when the documents are received separately. If you're processing 300 shipments a month, that's 150 hours completely wasted in your organization. Automating e-document classification and uploading saves unnecessary admin work for your staff to focus instead on customer service and increasing volume from shippers.

One major trend for process management improvement in 2021 — that should be executed by freight forwarders in 2022 — is to automate the classification of documents into a certain document type and then enable the same system to upload the document as an e-document into CargoWise.

AI is able to classify that a document is a specific freight document type, whether commercial invoices, bills of lading, accounts payable invoices or shipping instructions.

E-doc automation improves customer experience and collections

Instead of shippers chasing down digital copies during the billing process, automating this part of the workflow ensures that your billing team is always armed with the right set of documents to collect on time.





Determining which e-doc automation vendor is better for your operation

Companies like BravoTran and [Expedock](#) offer e-document classification and uploading into CargoWise. While BravoTran specializes in this service, Expedock bundles this service with a larger automation initiative of automating shipment creation or accounts payable invoice auditing.

Therefore, if your team is looking for a specialized solution for e-doc uploading as a stand-alone service, BravoTran may be

the better option as this is its core product.

If your team is looking for a full-suite automation service, [Expedock](#) will generate more cost savings as e-doc uploading is usually bundled within its core products. The company believes that forwarders would generate greater savings by automating a more comprehensive part of the work rather than focusing on one specific area.

TREND NO. 3 — THE AUTOMATION OF FREIGHT INVOICE AUDITING AND POSTING

A freight forwarder can receive five to 10 accounts payable invoices per shipment that it processes for a shipper. Not only does this create a higher volume of data entry work, but the accounting and operations team are usually bogged down with reconciliation work from these invoices.

Accounting teams report taking seven to 12 minutes to process an invoice end-to-end when exceptions do not happen. When discrepancies arise, the exception management handling can take two to five back-and-forth emails, delaying the payment process even further.

If an accounting team receives 1,000 invoices in a month, there is no way for them at the moment to prioritize which invoice to resolve first aside from a first-in, first-out methodology.

The ideal solution for processing invoices is for accounting and operations teams to only focus on exceptions. When the invoice matches an accrual on CargoWise and the amounts are below a certain threshold, posting on CargoWise should be automated to enable on-time payment.

[Expedock](#) is able to handle most billing exceptions with its customers. For example, when a shipment has no accrual upon edit, Expedock can enter the invoice data while capturing a window of time in which there was no accrual. This is reported to management so that they can fix the underlying operational processes or reprimand the operations team for not entering accruals in the first place. In this case, Expedock is flexible enough to ensure on-time operational processing but smart enough to guide process improvements in the organization.

Delays in the order-to-cash process result in forwarders invoicing shippers without truly understanding their margins as they are basing their billing on the accrual rather than the true cost. This is most frequently seen in international freight where forwarders often have to bill the shipper within a few days of delivering the goods. This means that forwarders frequently end up losing out on margin or even losing money on a container in order to retain a top account.



Monthly invoices and statements of accounts

A statement of accounts is an invoice that serves as a superset of all invoices for a defined period. When a statement of accounts is received from a vendor, CargoWise forces the accounting and operations teams to create an unallocated transaction on the payables module instead of entering the invoice directly to a shipment. This is most especially true when an invoice number is shared among many shipments.

[Expedock](#) is the first and only AI company that identifies, extracts and sends invoice data from statements of accounts into the CargoWise Payable Module. It launched this service in Q3 of 2021, and it is one of the most exciting technologies for accounting and operations teams in 2022.

A statement of accounts can be very difficult for accounting teams to process, as it's often a three-page statement listing 45 invoices and can take half a working day to process. With Expedock, the AI is able to reconcile all 45 invoices in 30 seconds. If no discrepancies are found, all the invoices can be entered and posted immediately. What matters here is that instead of going through the entire statement, Expedock surfaces the two or three invoices under the statement that have a discrepancy instead.

You can watch how a statement of account is automated on CargoWise's Payable module [here](#).

Case Studies

In Q3 of 2021, one [Expedock](#) customer reported being three weeks behind in entering and reconciling invoices, because of remote work and a decrease in personnel due to illness and maternity leaves. In other words, the company was billing customers without truly understanding its margins.

JUSDA, another Expedock customer, reports being charged \$100,000 a week in demurrage fees because JUSDA was not able to process its bills to drayage companies on time, delaying

containers being picked up in the Port of Houston. With Expedock, the company is now able to pay all its truckers on time due to expedited billing processing and is glad to report that it is no longer hemorrhaging demurrage fees unnecessarily.



CONCLUSION

COVID-19 increased competition and market volatility, as well as tightened capacity and exacerbated the growth of e-commerce, placing exorbitant pressure on international trade and freight forwarders. In terms of technology adoption and the digitization of shipping documents, the freight forwarding industry is behind, but post-COVID bottlenecks and trends like remote work are forcing the industry to catch up, especially those small to midsize forwarders who need to gain a competitive edge.

While recent technologies like OCR haven't made sufficient productivity gains, trending AI services like Expedock are not only able to transform paper documents into e-documents, but to quickly classify and upload them into CargoWise. The automation of invoices and statement of accounts, including their entry, reconciliation and posting, ensures on-time payment to vendors

while also bringing accurate visibility to margins when billing shippers. On top of this, automation ensures your team is working on high-level accounting work rather than spending half the day manually reviewing paperwork.

The right automation partner will drive efficiency and profitability, reduce labor costs and keep up with today's global shipper.

To learn more about Expedock's automation solutions, click [here](#).

