



Dynamics 365 F&O (AX) & Shopware as a future-proof digital solution

The off-the-shelf native Dynamics 365 connector for your ERP, is fully integrated with our iPAAS solution and delivers you a futureproof solution to manage your EDI & software integrations



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Why

Since digitalization is changing the world exponentially, many organizations struggle with the challenges of integrating 'the increasing number of' applications.

Digitalization

The overload of data from 'ERP's, warehouse-, POS-, chatbot, ticket-, marketing & e-commerce applications' which need to be connected, makes it hard to organize and seamlessly integrate all software solutions. Purchases are made through multiple digital channels and influence inventory, production, balance- and operations. We store finance, accounts, human resources, manufacturing and customer data from every 'touch point' in to many software solutions; so data silo's are created.

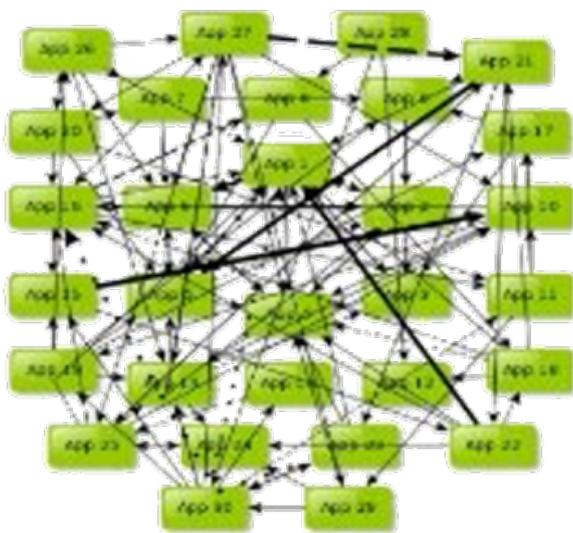
Exporting and transferring data manually is time-consuming. Creating connections by several partners, with custom code, creates a 'spaghetti' connected IT-Landscape, which is hard to maintain and where your interchangeability of software products is 'poor'. To have all your data available for analysis of the ultimate customer journey experience & to make sure you are ready for future AI and Machine Learning solutions, you really need an integration strategy.

Native Dynamics connector

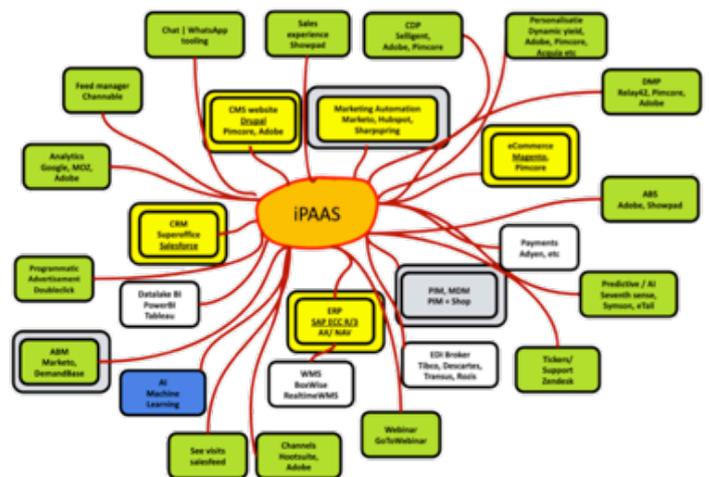
Integrating your ERP with e-commerce solutions and synchronizing all data streams is a solution that addresses all the mentioned issues. The e-commerce applications will then be able to run on correct data, the customer will receive the correct information and the ERP will still be your central place of logic, where updates from inventory, logistics & financials are organised.

The AX/ 365 FO Connector is a solution that will provide a real-time connection between your e-commerce and your Microsoft Dynamics AX 2009 & 2012 | Dynamics 365 Finance & Operations. The webshop data viewed by customers on your website is up to date and accurate. The data is being stored and collected in real-time with the ERP.

The whitepaper is designed to give you an actionable and practical overview of how the Dynamics AX | 365 FO connector can add value for your organization and how our integration interface can really help you organization your integrations.



SPAGHETTI & MESSY WITHOUT iPAAS



FUTUREPROOF iPAAS

About the connector

Microsoft Dynamics

The ERP (AX/SAP) Connector is a universal communication interface that synchronizes and updates any information between both systems in real time. No matter which sales- or communication channel an update is coming from, the connector will immediately adopt the information throughout all touchpoints.

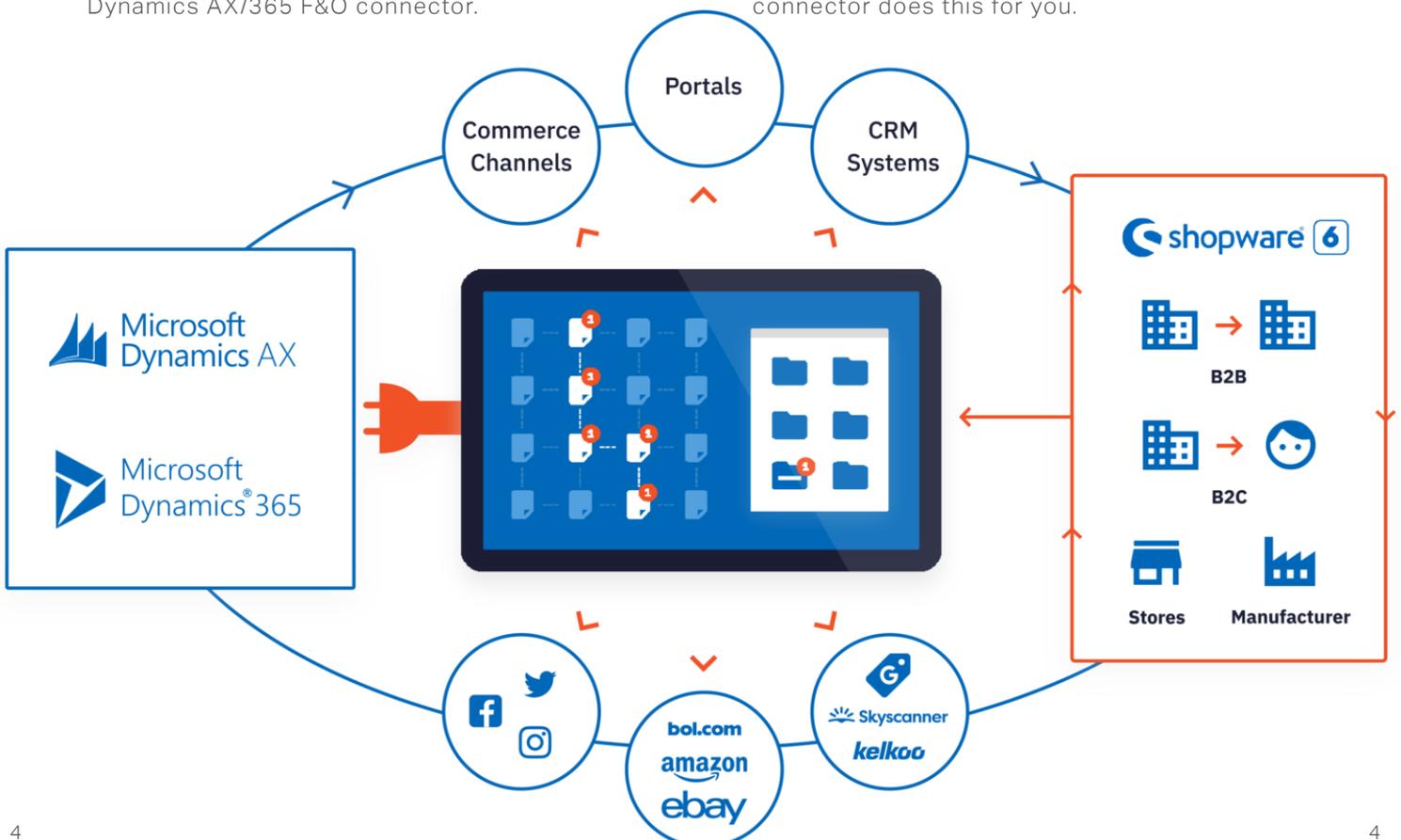
Through integrating the ERP with the webshop, companies can use the strength and functionalities of both systems while enhancing efficiency.

As a webshop owner, you have to deal with a lot of data. Not only your customer data is extremely valuable, but also your stock data, price data and simply every piece of data you collect. This data is most likely stored in your Dynamics AX/365 F&O connector.

But how do you make the best out of this data in order to optimize your webshop to the fullest? Or: how do you connect your data in your ERP system with your webshop?

With the help of the AX Connector, you can show for example your real-time amount of stock of a certain product in your webshop. But also, when you update the prices in your ERP system for a specific customer this will also be updated in your webshop interface automatically.

Because of the AX Connector, you will work faster, more accurate and your data will be always up-to-date. This is because the connector prevents that you need to update your data twice. Normally you have to change your data in your ERP and in your webshop, but the connector does this for you.



IT Landscape

Native Dynamics connector

The software is been delivered as a 2009 XPO, a 2012 model or deployable package and can be installed by us, your IT department or your Microsoft partner into your application. The software will connect most of the data automatically and will deliver some specific screens to be able to select which customers are allowed to have a eCommerce account and to configure the general settings and do some specific data mappings.

Shopware Modules

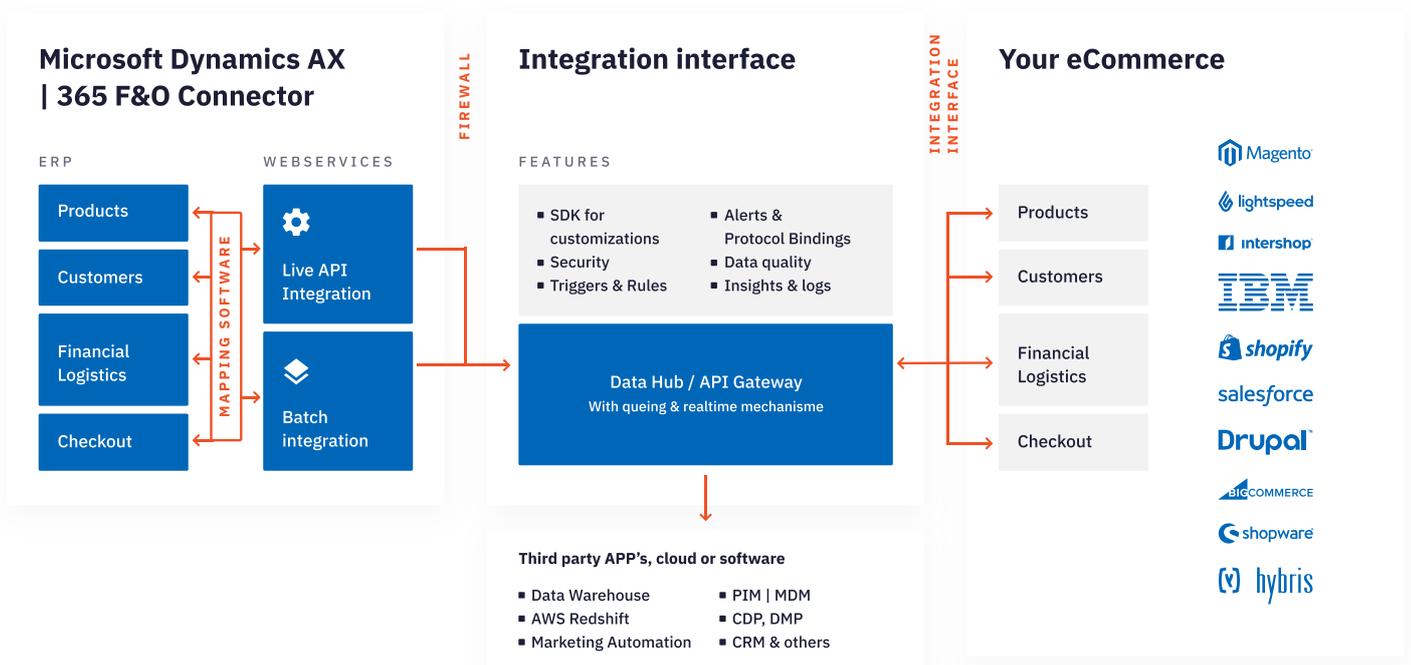
For Shopware we offer some specific modules, which can be installed in Shopware and which make sure that real-time data from the webservices are being handled in Shopware.

Integration Interface

The integration interface allows you to adjust the data for better data quality, to combine the data to other data sources or to send the data to third party software applications such as your PIM, CRM, data warehouse or Marketing Automation platform. Our integration interface has a template to connect all the data in a correct manner to Shopware.

Available for

The Dynamics 365 FO (AX) Shopware connector is available for:
 Microsoft Dynamics AX 2009
 Microsoft Dynamics AX 2012
 Microsoft Dynamics 365 Finance & Operations



Architectural run-down

Integrated e-commerce suite

Our fully two-way integration connects the following data entities (see below). These are configured through the delivery interface which allows you to configure and map these objects to the correct ERP. The connector contains more the 22 well documented interfaces required for a successful B2B and B2C e-commerce platform. But above all, the connector also delivers an e-commerce cockpit within the AX environment. The connector also delivers an e-commerce cockpit where the incoming and outgoing messages can be monitored.

2-way synchronization

In the balancing act of giving ecommerce the data it needs, while also reducing the impact this may have on your ERP performance, is where we define what data comes over from a live lookup, versus from a batch lookup.

Realtime calls are

- being made for customer specific prices, stock, handling & transport costs, but also for data such as order discounts, tier prices, VAT, delivery times and routes and customer specific payment methods.

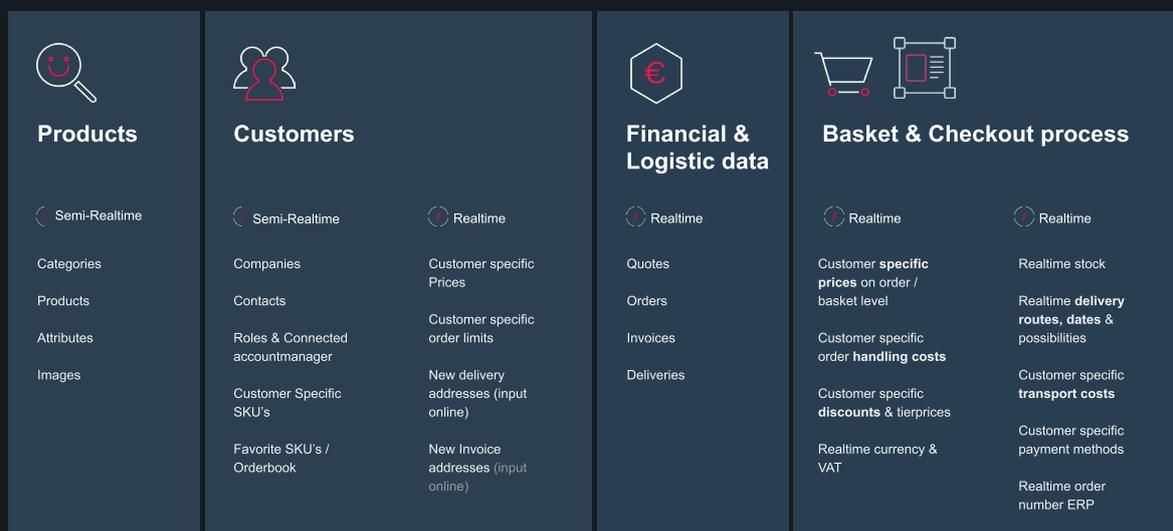
We also setup real-time calls for

- deliveries, quotes, orders and invoices. This make sure your ERP is leading as a data source and it's always shows the correct information without having any data issues

In batch mode

- we set schedules task, which can look for changes, since the last scheduled lookup, this would be for data that doesn't change that frequently, like product and customer information.

Integration "Overview mapping logic"



2-Way integration



Function overview

Product at a glance

- A powerful real-time connection between your microsoft dynamics 365 or AX system and an e-commerce platform (e.g Shopware)
- Off the shelf Shopware webshop support available
- Always up-to-date and 100% accurate data
- Business processes in your ERP will be communicated to your webshop, such as discounts and prices are automatically updated in your webshop interface.
- Implementation requires 3 to 10 days
- Enterprise level performance and data control

Works in every scenario

By installing a small module in your (Shopware) webshop and a transport in Dynamics AX, your webshop and ERP system will be able to communicate and operate as a whole in real time. The Dynamics AX/365 Connector is designed to take advantage of the strengths from both systems. While a frontend webshop, such as Shopware, takes responsibility for the user interface experience, marketing, campaigns, and CRO. The Dynamics AX ERP systems takes care of the product information this includes: product information, prices, stock levels, customer data, orders, quotes and more. Thanks to the Dynamics AX/365 connector your webshop will manage your data from one central place.

Features

Supports B2B, D2C and B2C

All features are developed to support Business to Business, Direct to Consumer and Business to Consumer e-commerce

Customer management

Import customers and manage them from within your front end

Contact management

Create new contact from within your front end

Delivery dates

Retrieve available dates for delivery of the products

Price and Stock information

Retrieve customer specific price and stock information taking into account all ERP registered agreements

Order simulation

Simulate the placement of an order during checkout to validate, price, stock and delivery data

Order handling

Manage and create new orders including overviews

Payment Service Provider handling

Handle payments of the products

Quote handling

Manage quotes from within your front end

Invoice handling

Manage invoices from within your front end

Product Management

Import all product data including attributes, categories and personal favorite lists

Feature webservice

Feature service	AX 2012	AX 2009	Communication protocol
Push			
PushAttributes	✓	✓	File based
PushCategories	✓	✓	File based
PushCustomers	✓	✓	File based
PushMyProducts	✓	✓	File based
PushProducts	✓	✓	File based

Feature service	AX 2012	AX 2009	Communication protocol
Real time			
SetContact	✓	✓	SOAP 1.2*
SetCustomers	✓	✓	SOAP 1.2*
GetCustomersAddresses	✓	✓	SOAP 1.2*
SetCustomersAddresses	✓	✓	SOAP 1.2*
GetDelivery	✓	✓	SOAP 1.2*
GetDeliveryOverview	✓	✓	SOAP 1.2*
GetDeliveryDays	✓	✓	SOAP 1.2*
GetInvoice	✓	✓	SOAP 1.2*
GetInvoiceOverview	✓	✓	SOAP 1.2*
GetOrder	✓	✓	SOAP 1.2*
SetOrder	✓	✓	SOAP 1.2*
GetOrderOverview	✓	✓	SOAP 1.2*
SetOrderPayment	✓	✓	SOAP 1.2*
GetOrderSimulation	✓	✓	SOAP 1.2
GetPriceAndStock	✓	✓	SOAP 1.2
GetQuote	✓	✓	SOAP 1.2
GetQuoteOverview	✓	✓	SOAP 1.2

* REST is available on request

Monitoring cockpit

General

The Microsoft Dynamics 365 FO (AX) cockpit 'tab general' shows the centrale cockpit with all the webservice calls. You will see the realtime requests which are taking place in the last seconds, but also the scheduled tasks if they are triggered by the 'schedule'.

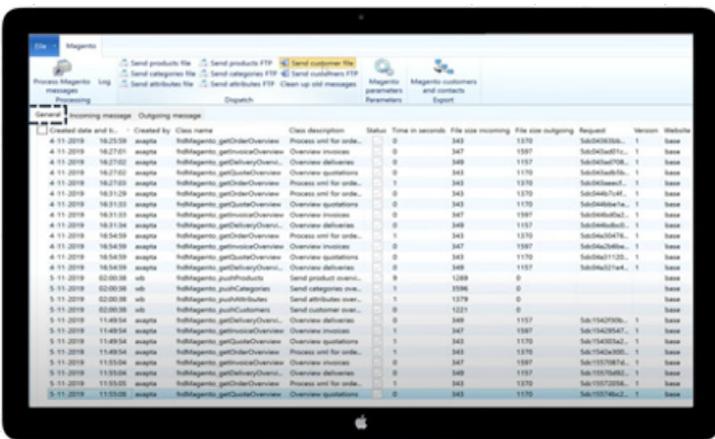
Incoming messages

When clicking on a specific webservice, you can go to the tab "incoming message". You then see the details of the incoming webservices call, which the e-commerce software solution Shopware send to the connector. These are all the realtime 2-way calls as you can see in the overview. For example the ecommerce software did send a webservice message, which requested the price for a specific customer for the products which were shown in the category.

In this tab you see the JSON/XML incoming request to Dynamics. This will help you to understand the integration and really helps the Microsoft consultants to understand what is done (or should be done, in case of custom wishes).

Outgoing message

When clicking on the tab "outgoing message" you can see what kind of data the Dynamics connector is sending to Shopware. The software responded with an realtime webservice call where data is shown as customer specific price, including the tiers, the gross sales -& price unit and realtime stock information.



Implemented MVP in 3 days

Introduction

Implementation of the Connector software is easy and is done in a couple of hours, but also other things should be done; like configuration of the web services, configuring the VPN / firewall & installing Shopware. We have 2 routes for the implementation process, setting up the connector in combination with Shopware.

Needed teams

We help our digital (Shopware) partners setting up the ERP connection. The team of your agency will be increased by a couple of experts to ensure that the connector is properly configured. Our 3 persons expert team exists of a Shopware developer, a business analyst/consultant and a Dynamics technical consultant will join the Agency experts and meet your team on your headquarters (or remote), so we are able to install the software to your test environment.

Your team exists of the e-commerce manager, your Dynamics specialist and a specialist of your IT-firewall/ VPN.

Route A "Workshop + final quote"

We start each project with a workshop where we will discuss all the business process in relation to the Shopware features. In each process our consultant will look into your Microsoft Dynamics application to see if there are customisations being made and if this will impact the plug & Play solution. If custom work is needed, this will be placed as a task in the backlog. After the workshop we have all the information to:

- A. Configure the options of the connector
- B. To make a good estimation of the backlog, where tasks are placed to do the changes which are needed (with custom wishes or custom work on the Dynamic side of the connector)

Route B "Setting up a POC or MVP and work in agile modus"

In a 3 days 'hackathon on your location';

Day 1 :

We will install the connector to Dynamics 'test version', install Shopware and configure the VPN/Firewall so Shopware can connect to the data of the connector. On a normal day, Shopware is running with 80%/90% of the data of the connector at the end of day

Day 2:

When we had some problems in day 1, we will solve these problems. We will go through all the business processes and try to configure as many setting of the configuration as possible.

Day 3:

In the morning we have time to finish the configurations. In the afternoon we will ask the following question: "Why can we not go live with the current version?". We will note down all the issues in a backlog and prioritize these. These issues can be caused by special wishes or by data which is not available in the connector due to custom work in Dynamics 365 FO/AX.

At the end of the 3 days of your hackathon you will have a Proof of concept, a MVP where Shopware is running as your e-commerce on top of Dynamics. It will be up and running for 90% till 99% of the data and processes. We will also present an estimation for the backlog, which is created in the 3 days of hackathon.

GO LIVE in sprints

In sprints we will take care of the tasks from the backlog; this can be 'adding the design of Shopware or when custom wishes for Dynamics are needed, we or your Dynamics partner can take care of these!

3 Companies who tackled their business challenges using an ERP Connector



Of course, every business is different and the needs and challenges vary from company to company. Hereunder we present three companies that integrated their ERP and e-commerce system by using an ERP connector and how this helped them to increase efficiency and smoothen business processes.

Connector

- ✓ Powerful real-time 2-way synchronization
- ✓ Customization of Dynamics code is possible
- ✓ Always up-to-date and 100% accurate data
- ✓ A page loading time of fewer than 1.2 seconds
- ✓ Online in 3 to 10 days
- ✓ 3rd party connections, PIM, Martech and other software solutions

Making all inventory data accessible for a large network of partners for IGEPA

Based on the versatile possibilities of the Shopware platform, Igepa has created an online platform with a range of bespoke functionalities: All the Igepa business processes are handled in a digital way; B2B customers can find their (customer specific) products (after login) and order online. Based on their wishes the portal is providing the information they need, so they can be helped for their returns, re-ordering products, creating quote requests or for downloading a copy of their invoice. Integrating the Dynamics 365 Finance and Operations system with the e-commerce platform Shopware enabled Igepa to make their inventory, customer data, pricing and PIM data accessible in real time for their entire network of partners. Thereby, there are fewer phone calls, less waste of time and a lower error margin. This solution has improved the shopping and search experience for both business and private customers.



Alflora - A connection between Dynamics 365 FO and Shopware for helping our cash and carry stores to be successful

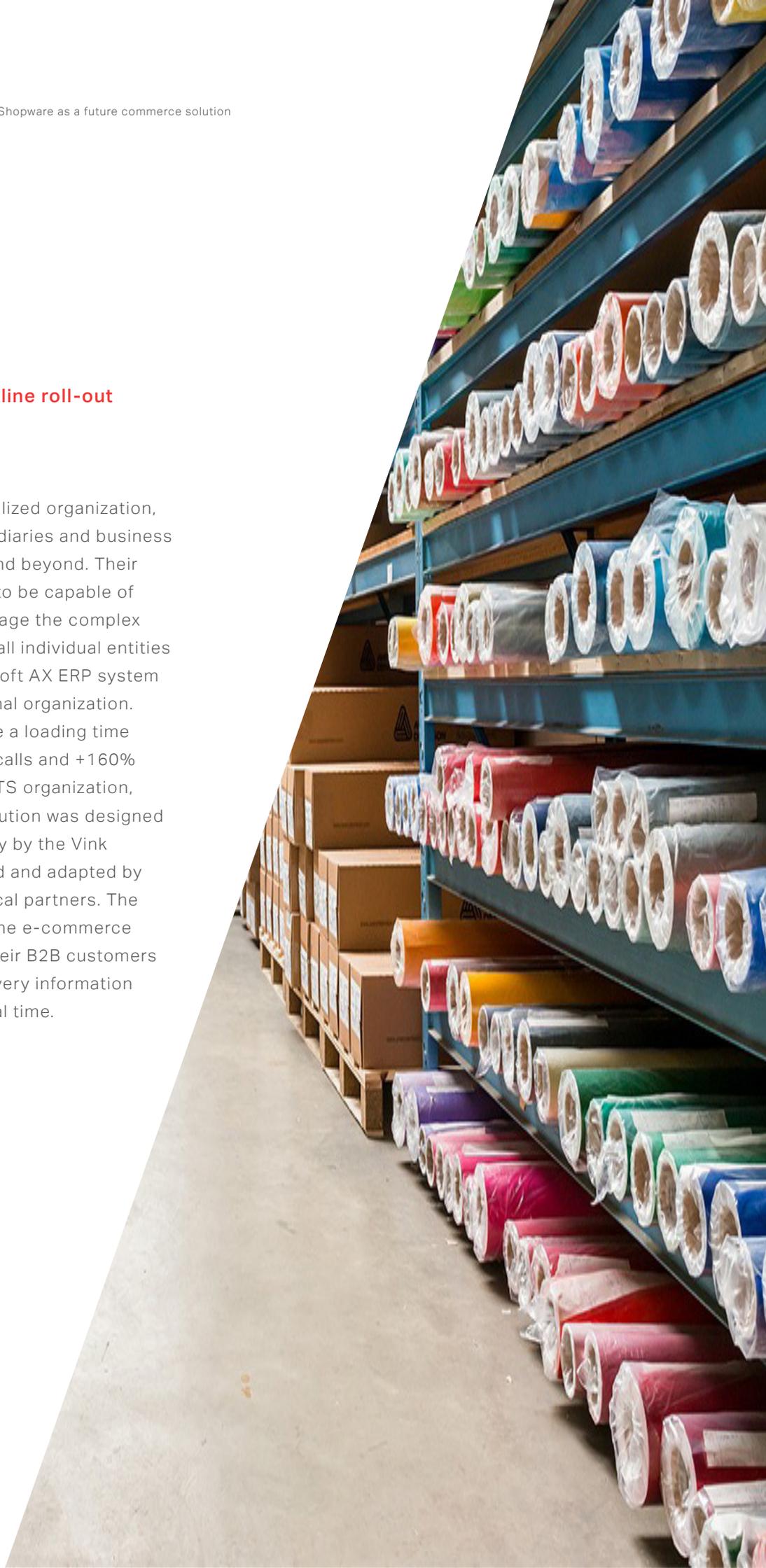
Alflora is a leading international wholesaler in floristry and interior items. They are operation a multichannel business model. The online B2B shop is connected to multiple 'cash and carry warehouses/shops' which are backed by a headless fully responsive platform Shopware fit to tackle high traffic and more then hundreds of orders every day.

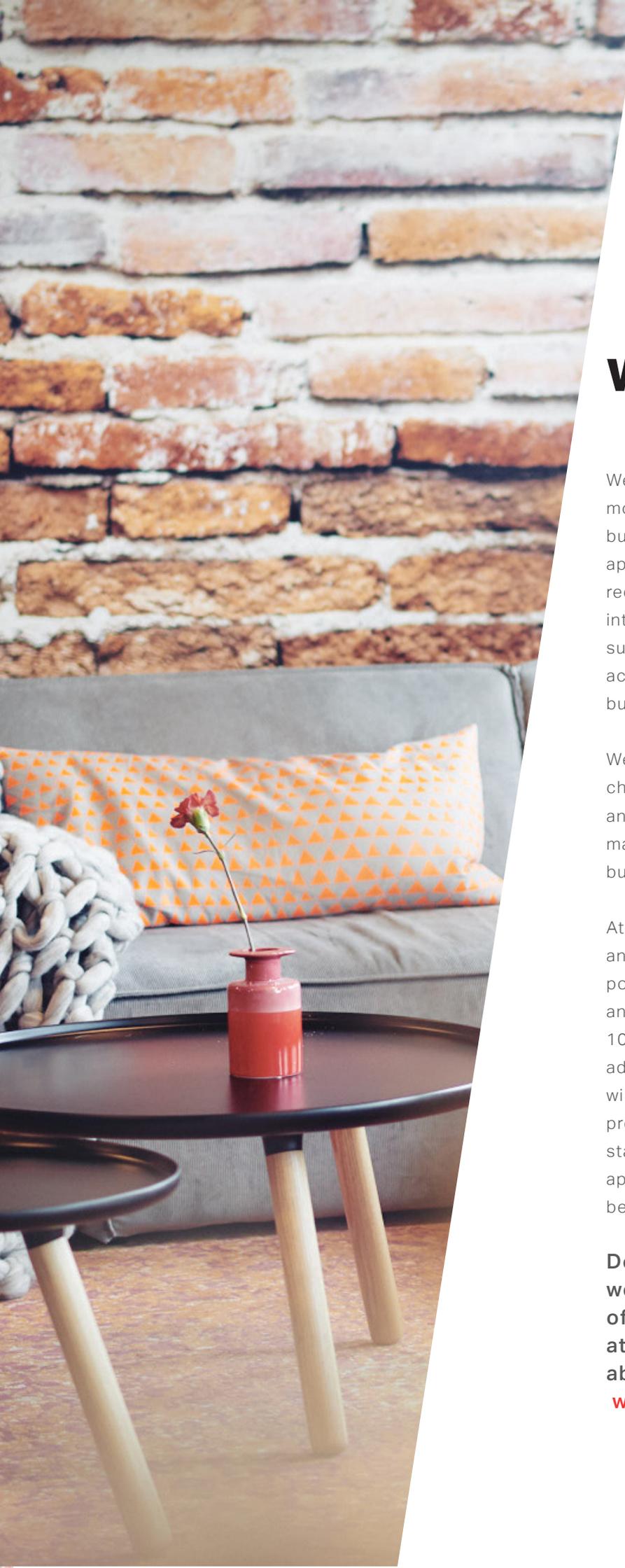
Fullfilment, logistics and pricing are done by Microsoft Dynamics 365 Finance and Operations.

You can contact us for a very wide range of basic materials, processing and decorative items that you need to be creative and run your business. Twice a year we launch a trendy collection with which you as a craftsman or professional woman can surprise your customers and make the difference.

Vink VTS - A pan-European online roll-out of a B2B webshop

Vink Holdings is a highly decentralized organization, with scores of independent subsidiaries and business units operating through Europe and beyond. Their new B2B online platform needed to be capable of multi-domain and multistore, manage the complex and diverse pricing structures of all individual entities and be integrated with the Microsoft AX ERP system that runs for the entire international organization. With the ERP connector they have a loading time of less than 2 sec, -75% internal calls and +160% webshop orders. To fit the Vink VTS organization, the new Shopware Commerce solution was designed to be run from a central repository by the Vink VTS corporate team but also used and adapted by local subsidiaries working with local partners. The integration of Microsoft AX with the e-commerce platforms enables Vink to offer their B2B customers correct pricing, product, and delivery information which is accurately updated in real time.





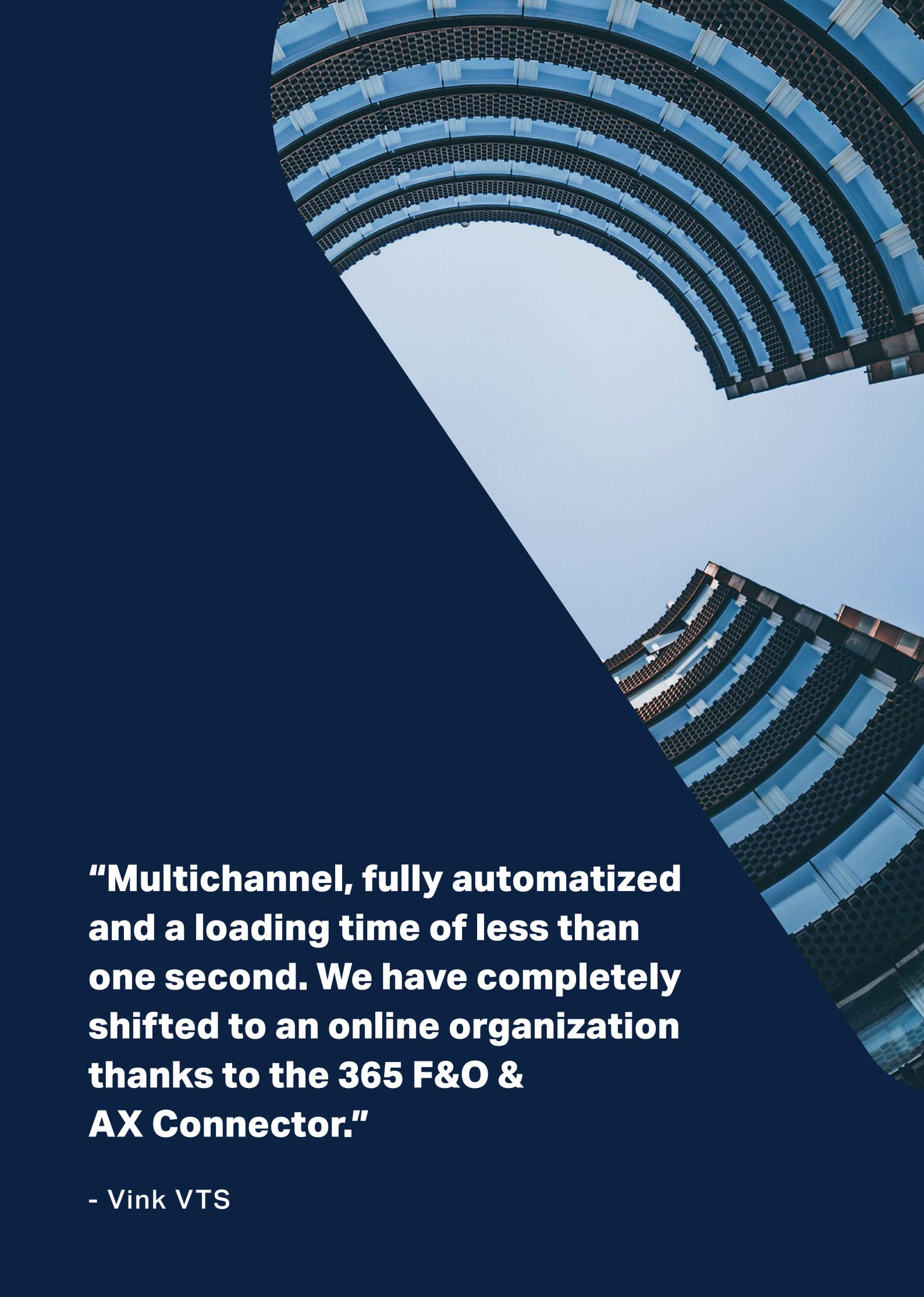
Why Magement

We are Magement, a fast, multi-point, and modern integration platform as a service, built to elastically address both real-time application and batch-oriented data integration requirements. With our data-driven and interactive approach, we help our clients to succeed in their digital transformation and achieve growth with a smart and future-proof business model.

We work within the worlds of intelligent multi-channel commerce platforms, knowledge and dealer portals to product information management systems, digital marketing and last but not least staffing.

At Magement we already have all the experience and knowledge to guarantee a complete and powerful connection between your ERP system and Shopware webshop within a maximum 10 days. This can provide a real competitive advantage for your company. Your time to market will abbreviate substantially. With our rapid and professional service, we offer reliability and stability to our customers. This end-to-end approach makes our clients stay ahead and go beyond in the world of e-commerce.

Do you have further questions or would you like to get in touch with one of our experts? You can give us a call at: +31 (0)50 211 53 71 or learn more about the AX/365 F&O Connector at: www.Magement.com



“Multichannel, fully automatized and a loading time of less than one second. We have completely shifted to an online organization thanks to the 365 F&O & AX Connector.”

- Vink VTS



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