How We Helped the Client to Complete a Complex Integration with Zoho ERP

magecom

ABOUT THE CLIENT:

Door Entry Direct is the UK's leading manufacturer and distributor of door entry intercom systems.

WEBSITE:

doorentrydirect.com

REGION:

United Kingdom

CLIENT IN FIGURES:

41 *Brands represented*

840+ *Customer reviews on Trustpilot*

2003 *— Date of establishment*

PROJECT DESCRIPTION

Challenges

Business is always about pleasure, freedom, and enough time, and our client is no exception. A good technical background allows the business owner to focus on more high-level and strategic business tasks instead of a time-consuming routine.

When our sales managers reached out to the client's team, it turned out that they were dissatisfied with the current vendor, so we decided to show them how we work and made a demo of our services. **After the client made sure that we were on the same page, they decided to change a partner in our favor.**

One of the most important aspects of this project was that the client's ERP system was created in the late 90s and maintained by their in-house developer, which was quite risky from the business perspective.

Since this system was originally developed and maintained internally, the business owner decided to reduce the business risks and switch to some solution maintained externally that could cover the main existing business processes (accounting, inventory & order management, invoicing, sales, customer service).

Existing Technical Setup

The client initially had Magento as the frontend part so that all store data (users, products, orders) was sent to Magento via an internal proprietary ERP system. As the custom system used outdated technologies and could not work directly with Magento or modern databases, it required a proxy database connection (middleware) to combine both worlds.
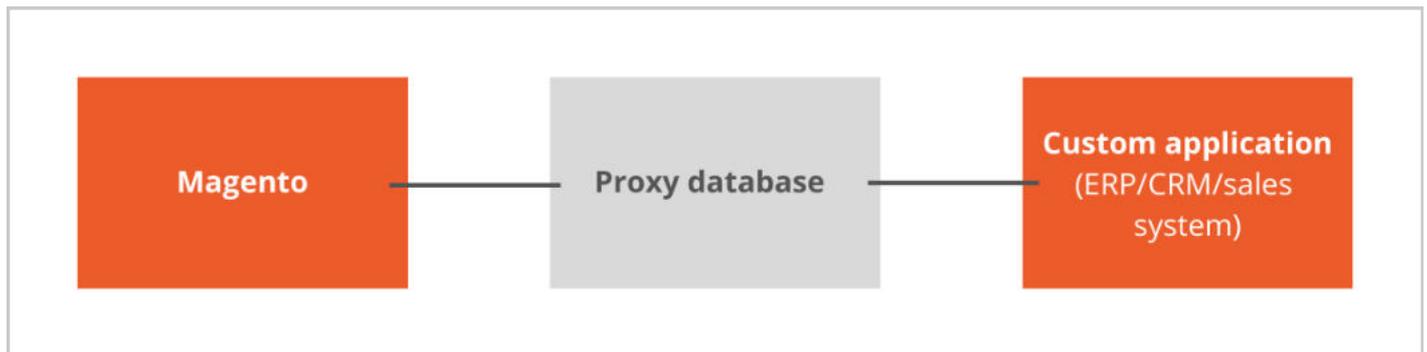
The custom ERP system was a kind of a single monolith tailored for the client's business needs, which served as CRM, ERP systems, accounting software, order management systems, etc.

As a result of considering solutions maintained externally, the client eventually chose **Zoho ERP*** as it has many modules covering most of these needs and interacting with each other as a single business ecosystem.

💡 *Zoho ERP is the solution for small and medium businesses who are seeking to create efficiency, automate processes, gain insights and more. Understand your customers and clients using key business data. Handle sales orders, quotes, invoices and payments in one solution.*

Since moving from the system supported for 30 years was a significant shift in the client's business, the client wanted the old system and the new one to function in parallel for a while to make sure that everything works smoothly.

As a result, one of our projects tasks was making both the new and the old systems direct the data flows so that the data is not duplicated and reaches the right destinations.

DISCOVERY

Gap analysis

> 💡 **Gap analysis** *involves the comparison of actual performance with potential or desired performance.*

We started the project by collecting all the background information, including a review of the existing architecture and main pain points. As a result, we discovered it's worth troubleshooting current integration issues between Magento and the custom ERP system with synchronizing products, orders, and customers.

We structured current issues with Magento integration for the client in a single document, along with a detailed plan and next steps.

The next step of a gap analysis was holding the discussion of long-term plans with the client. The client wanted to close the financial year in the parallel system so that he could be sure that the financial data is in a safe place. Here's the visualization of what the client desired to have:
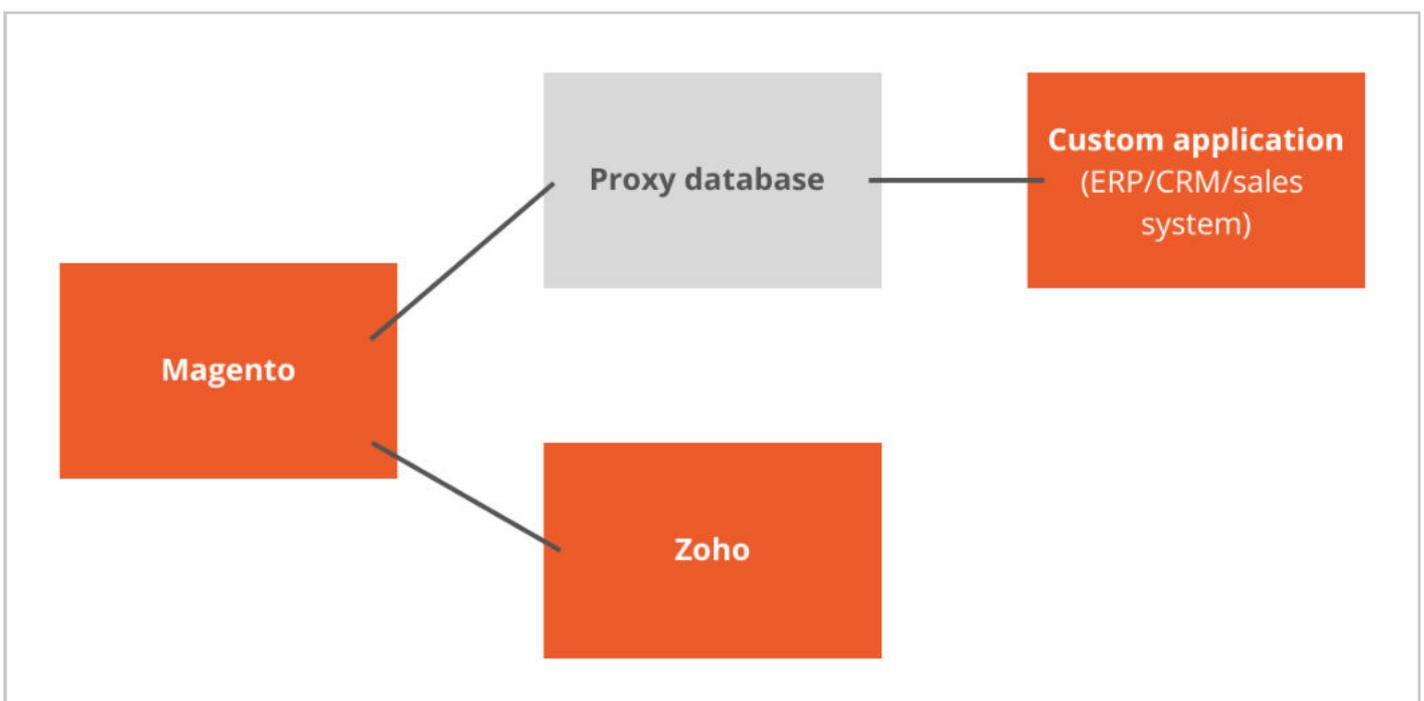
After that, the client wanted to completely switch from the new financial year to Zoho and close the old financial year in the old system:
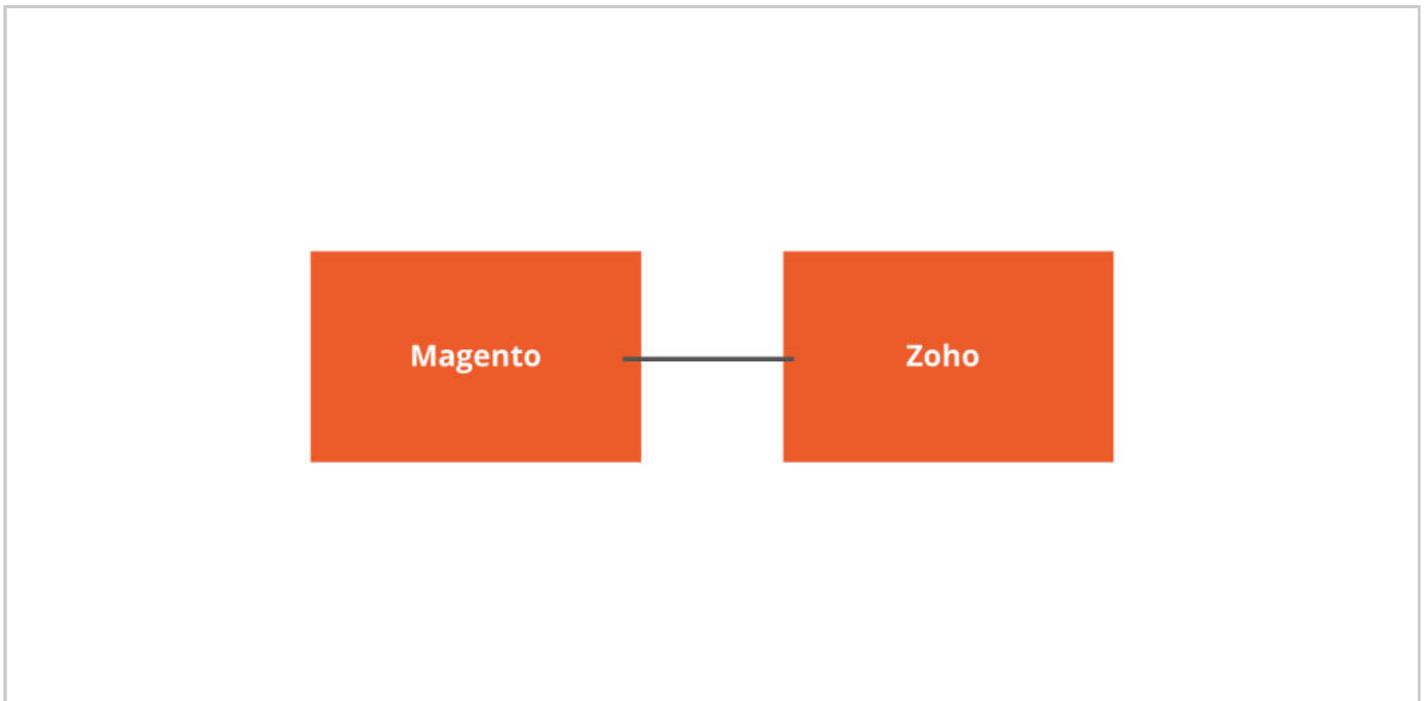
In order to get closer to the desired visualization as efficiently as possible, we additionally analyzed all business processes, departments, and their interaction system. It usually helps to delve better into the specifics of the business and finally come up with the appropriate solution.

For instance, we conducted a full overview of existing sales processes operating in the custom ERP system and Magento + custom ERP system via API.

We also compiled a list of the main roles and entities in the client's business, including products, orders, customers, **quotations***, invoices, attributes, prices, etc.

💡 ***Quotation** is a document that a seller provides to a buyer to offer goods or services at a stated price, under specified conditions.*

Entity	Role/Department	Created in	Read by	Updated by	Deleted by	Comments
Web Order	Online customers	Magento	Magento	✘	✘	
	Internal Sales	✘	Custom ERP	Custom ERP	✘	Updated by Custom ERP when INSERTed into FSOPQUOTE & FITEMS
Order	Marketing	✘	✘	✘	✘	
	Internal Sales	Custom ERP	Custom ERP	Custom ERP	✘	Web Orders become Custom ERP orders. Only the Internal Sales update/create orders. Anyone in the company can view orders
Quotation	Marketing	✘	✘	✘	✘	
	Internal Sales	Custom ERP	Custom ERP	✘	✘	Only the Internal Sales create quotations. Anyone in the company can view quotations. Quotations cannot be updated (they can be duplicated), except to make them into an Order.
Despatch	Internal Sales	Custom ERP	Custom ERP	Custom ERP	✘	When an order is booked out the despatch details are appied by the Salesperson. Stores (warehouse) pick, pack & despatch goods according to the delivery note
	Online customers	✘	✘	✘	✘	
Invoice	Internal Sales	Custom ERP	Custom ERP	Custom ERP	✘	Custom ERP handles Invoices automatically. Thre is no need for Magento to be involved.
	Online customers	~~Magento~~	Magento (maybe)	✘	✘	It would be ideal for the Invoice information in Custom ERP to be visible in Magento, but it may be easier to display Custom ERP data. As and when Zoho takes over invoicing from Custom ERP, it will become the source of truth. UNtil then Custom ERP will feed Zoho with invoice data.

Current Entities Overview ▾ Entity relationship (TBD) ▾ List of Roles (TBD) ▾ [Mapping] Company
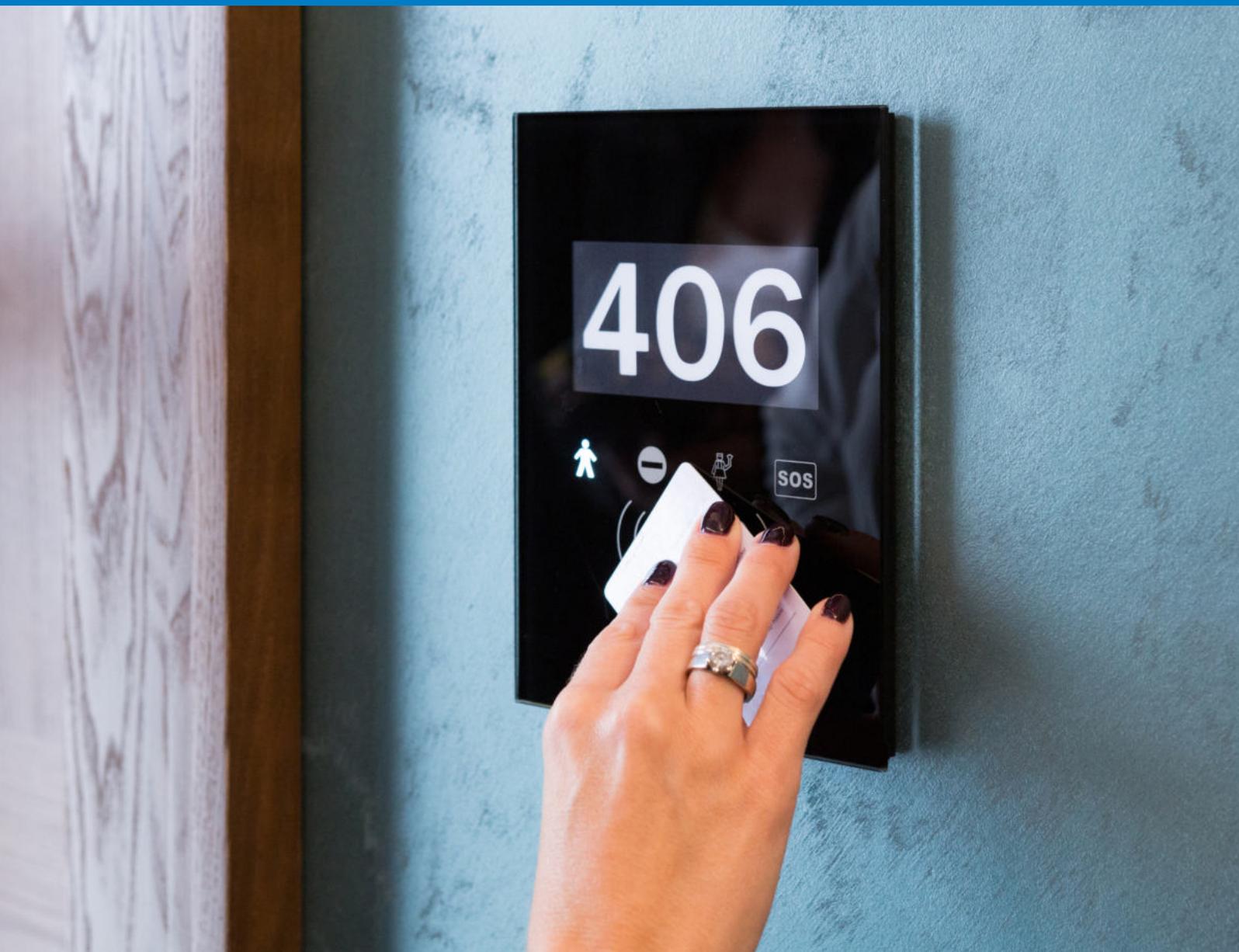
SOLUTION

The analysis and artifacts collected at the previous stages gave us the opportunity to put the whole situation in perspective and choose our custom solution based on the **MACH-architecture*** approach that was already on our internal R&D activity list.

> 💡 ***MACH architecture*** *is a modern infrastructure for building e-commerce platforms; the acronym stands for Microservices-based, API-first, Cloud-native, and Headless.*

In a nutshell, it consists of a central part, which is the Data Flow Application (DFA) that can be treated as an **Enterprise Service Bus*** or the 'brain of this application,' that can connect multiple systems (ERP, CRM, PIM, MDM, and others) together through a smart routing module with a set of Adapters (which serve to convert different data formats into a unified language).

> 💡 ***Enterprise Service Bus (ESB)*** *is fundamentally an architecture. It is a set of rules and principles for integrating numerous applications together over a bus-like infrastructure.*

Since we needed to make the old and new systems work in parallel, our solution's beauty is that it can treat Zoho and the old system as separate and independent blocks of the infrastructure. It allows flexible setting of dataflows of each system so that we could follow our plan by gradually launching the dataflow of each of the systems, enabling new entities from Zoho, and making them work in parallel with custom ERP.

Based on our solution, the infrastructure diagram looks like this:
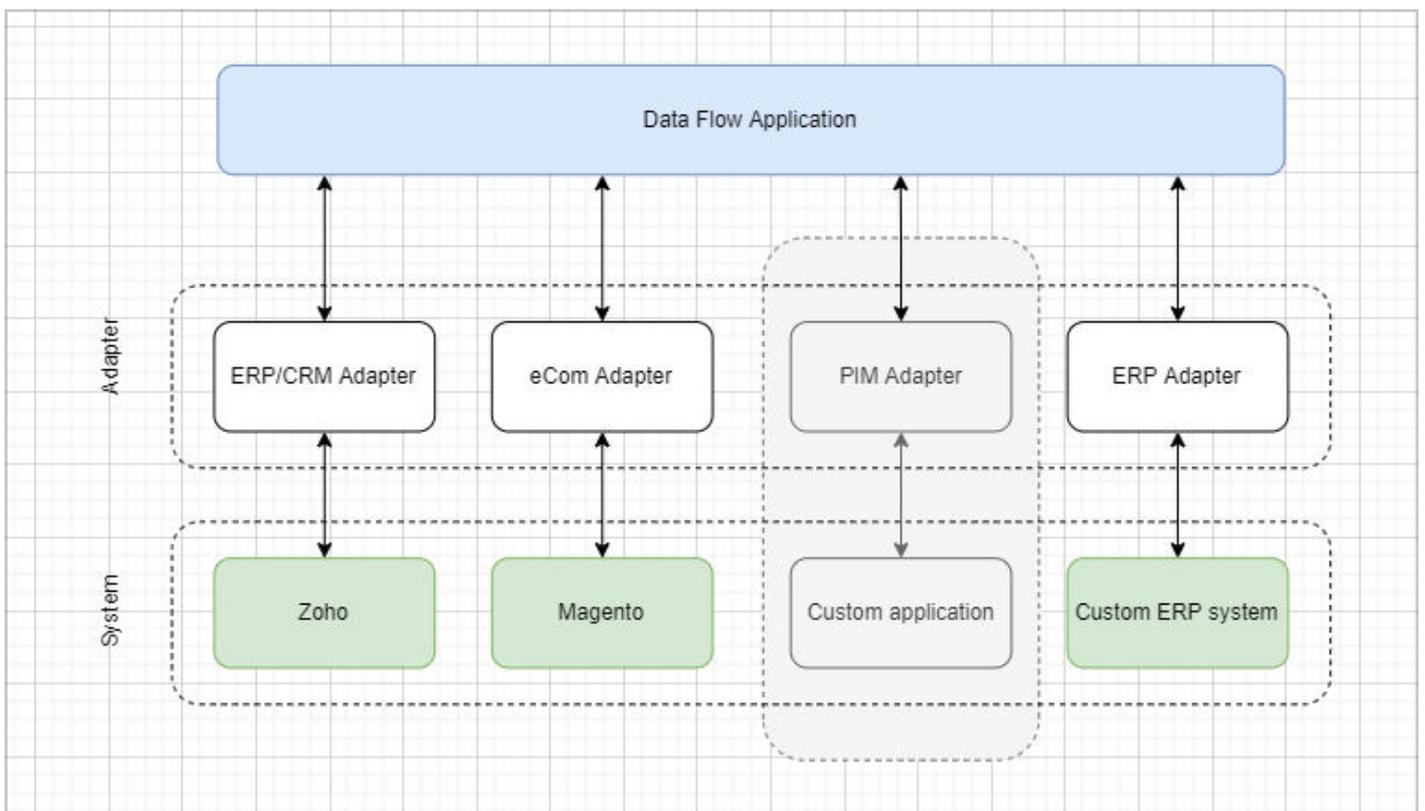
IMPLEMENTATION

Maintenance of the existing system

Since, at the start of the project, the client already had a number of integration issues between Magento and the custom ERP system, we fixed them first. We started working on the integration by moving the existing one to a new track. Roughly speaking, before Magento was hardcoded in the custom ERP system directly, and once we introduced middleware, it solved existing integration problems. As a result of the first integration stage, the business system became more stable and reliable.

Zoho x Custom ERP system x Magento Integration

Next, we took the client data structure as a basis and created the Adapters according to the business entities. Following this logic, we implemented the Zoho ERP system step by step starting with customer data (company, contacts, and addresses) because it's directly related to the clients sales funnel and marketing automations. After the sales funnel and marketing workflows were created and applied, we finally moved to quotations, orders, invoices, and marketing automations. As a result, we helped the client set up and improve existing business processes and also built new ones from scratch. Along the way, we solved the client's business tasks, including those related to increasing their sales, such as transferring the email newsletters to a new toolkit.
The client initially used **Dotdigital***, which we offered to disconnect, so that they didn't not need to pay for the unnecessary system, as Zoho allows managing email marketing. As a result, we helped optimize costs related to Dotdigital usage and also came up with an email marketing strategy.

💡 ***Dotdigital** is a customer engagement platform that helps digital marketers and developers deliver communications across the customer journey.*

Finally, we made sure that the Zoho ERP system integration worked as expected and smoothly, as well as all the necessary business processes and customizations were established.

CONTACT US

Choose the most convenient way of communication for you — write an email or contact us in one of the messengers.

We'll discuss your project — provide individual calculations and offer our suggestions on how to upgrade your business.

LET'S HAVE A CHAT:

✉ **Email:**
info@magecom.net

📞 **Phone:**
+44 7491 43 5563

📍 **Office:**
United Kingdom
102 Wornington Road, London W10 5QP

🛡 **Messenger:**
Skype
Fasebook messenger
WhatsApp
Telegram