



SUCCESS STORY - TECHNOLOGY

DIGITAL PRINTING INNOVATOR REIMAGINES ITS TECHNOLOGY INFRASTRUCTURE

Apexon accelerates transition to cloud-based, subscription business model



SUMMARY

Our client, a division of giant European conglomerate, is an innovator in digital printing technology and workflow for large-scale, commercial applications. The company designs, develops and delivers web-fed digital color presses with built-in software-based workflow for high volume printing and packaging of labels, documents, newspapers and more. The company also OEM's a variety of printing innovations for publishing and platemaking.

The company's flagship product, once a model of technical innovation, had started to create some challenges with customers. Its one-size fits all, on-premises deployment model conflicted with the increasing demand for more flexible, subscription-based solutions that could be easily updated and configured to meet unique customer needs.

The client engaged Apexon in late 2019 to help modernize its software approach and the underlying technology infrastructure and architecture that supported it. The scope of the project encompassed the technical, business and user experience aspects of the solution including analytics to better understand and inform customer usage.



FOUNDED 1988



A LEADER IN DIGITAL PRINTING WORKFLOW



OVER 500 EMPLOYEES IN THE US AND EUROPE

KEY OUTCOMES



OFFSHORE DELIVERY MODEL DELIVERS 3X THE OUTPUT AT THE SAME BUDGET



MODERNIZED BUSINESS MODEL



INCREASED CUSTOMER SATISFACTION, LOYALTY

OUR METHODOLOGY

REVEAL HOW WE DO IT

Apexon works with companies across the digital lifecycle.

GO DIGITAL

Accelerating the delivery of new digital initiatives with confidence

LAUNCH & EXPERIMENT:

Enable digital adoption in a quick and agile manner

Apexon helped modernize client's software approach and the underlying technology infrastructure and architecture that supported it

BE DIGITAL

Creating the infrastructure and foundation to scale digital initiatives

AUTOMATE & ACCELERATE:

Build digital infrastructure and foundation for enterprises to scale

Apexon designed a new dynamic workflow deployed on Amazon Web Services (AWS) cloud architecture to create a scalable and modular architecture that was future-proof

EVOLVE DIGITAL

Leveraging data and analytics to continuously improve digital delivery processes

INTELLIGENT & AUTONOMOUS:

Leverage data engineering to make strategic decisions and get digital right every time

Apexon also helped with the data analytics supported by machine learning to provide the client with a better understanding of customer usage and created new up-sell and cross-sell opportunities

THE CHALLENGE

OUTDATED TECHNICAL INFRASTRUCTURE AND BUSINESS MODEL

The client's printing machines were built for large, industrial scale applications – newspapers, labeling, documentation – and typically occupied an entire room or shop floor. But client's innovation was much more than the machinery. The company was an early leader in software-powered workflow printing that enabled users to incorporate complex configuration to customize large print runs. No other company could offer the same depth of functionality.

Its landmark product had been developed in the early 2000's at a time when enterprise software was deployed exclusively on-premise. As such, every time there was a software update or new feature release, it had to be shipped out to each customer and installed on-premise. Over the years, this has become more and more of an obstacle, creating a number of technical, business and user experience (UX) challenges for its customers.



TECHNICAL

- Outdated technology infrastructure and architecture created scalability issues.
- On-premise installation created challenging release and maintenance processes.
- There was lots of customer pushback. Some refused to install updates.
- The client had no visibility into customer installation or usage.



BUSINESS

- Client was unable to meet growing customer demand for more flexible product delivery.
- The lack of a subscription-based consumption model created dissatisfaction. Customers had to take all the updates or none. They could not pick just the ones they needed to install. There was no flexibility.
- The lack of analytics created blind spots regarding customer usage and product development.
- The client was unable to expand its offerings and create new revenue streams.



UX

- The product had a complicated user interface that was originally developed on web forms.
- There were no dynamic workflows. The linear process created unnecessary complexity and extended cycle time.
- Poor role-based capabilities and views added further complexity.
- The delivery model made it difficult to expand and improve the feature base.

It was clear to the client that they needed to re-think their approach. There was an urgent need to modernize on a cloud-based infrastructure to address the full breadth of technical, business and UX challenges. The client had originally planned a multi-year product roadmap, but it realized that approach would not meet its challenges quickly enough.

THE SOLUTION

A FUTURE-PROOF, CLOUD-BASED SUBSCRIPTION BUSINESS MODEL

Apexon's engagement is focused on addressing each of the technical, business and UX challenges described above.



Technical Solution

Apexon designed a new dynamic workflow deployed on Amazon Web Services (AWS) cloud architecture. It includes a modernized UI using micro-services for maximum development flexibility, CI/CD pipeline, scripted environments, and cloud-native implementation.

When fully completed, the architecture will also support both mobile and voice interfaces. Integration management will also be incorporated – including the client's SAP, B2B Webshop, CRM and CDP systems.

The goal is to create a scalable and modular architecture that is future proof.



UX Solution

An intuitive modern design with configurable UI/UX and workflows enable each customer to address its specific needs. Users can also drag and drop tasks to build dynamic workflows.

Other capabilities being developed to elevate the UX include single sign-on, license management, libraries and usage management, asset management, user dashboards, approval workflows, and priority management.



Business Solution

The cloud-based architecture and microservices enable the client to offer its customers a more flexible subscription-based consumption model with flexible deployment options. Users deployed the functionality they needed, when they needed, via the cloud. The solution will also include subscription payment options when completed.

Analytics supported by machine learning provide client with a better understanding of customer usage and create new up-sell and cross-sell opportunities.



AWS Cloud

Apexon developed a micro-services architecture based on .NET Core Web APIs to support web applications hosted on Amazon ECS cluster. The architecture leverages a number of AWS tools and services for optimal scaling, inter-service communication, serverless compute, authentication and authorization, infrastructure security, app logging and monitoring, and external configuration.

AWS SERVICES USED



Route 53



Cloudfront



S3



API Gateway



Cognito



Lambda



ECS Fargate



Step Function



DynamoDB



Event Bridge



Network Load Balancer



Application Load Balancer



Secrets Manager



Parameter Store



KMS



Open Search



Cloudwatch



X-ray



ECR



Web Application Firewall



IAM



Config



CloudTrail



GuardDuty



Security Hub

OUTCOMES

The client's new cloud and micro-service driven architecture has enabled it to modernize its business model and position itself for the future.



Dynamic workflows, easy feature enhancements



Customer analytics



Intuitive UX



Scalability to ensure faster time to market



Offshore resources delivering 3x the output at the same budget

CONTACT

GIVE US YOUR TOUGHEST DIGITAL CHALLENGES



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We'll make sure it gets to the right person

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