



# PROCESS AUTOMATION USING CIRCULUS AP AUTOMATION AND AWS Textract

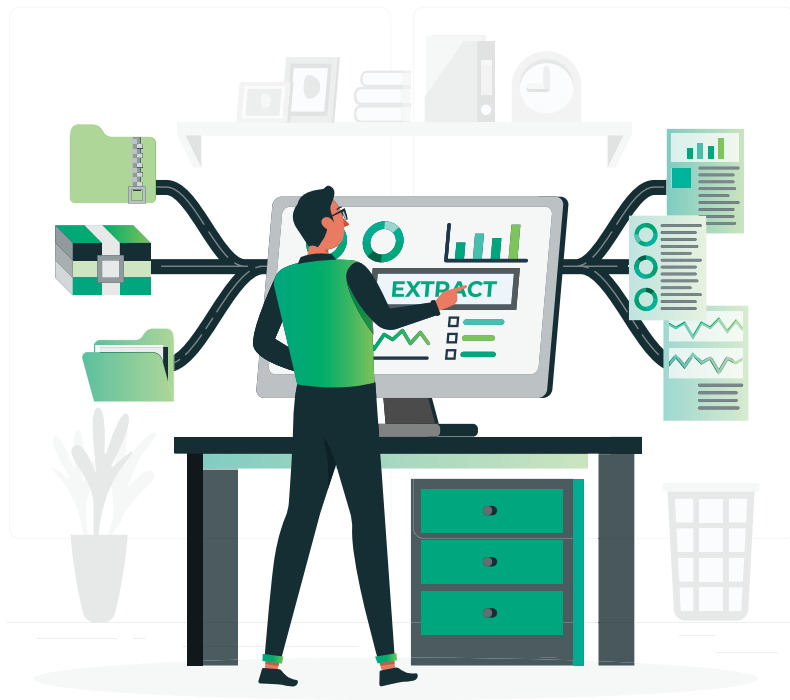
## OVERVIEW

Circulus is a product and part of XTGlobal Inc. XTGlobal helped the client (a Business Process Outsourcing service provider) advance to automated AP processes with Circulus AP Automation. The manual invoice-entry and PO-matching process was modernized, so that the invoice data could be extracted from images/pdf files to be loaded into the Circulus system through the implementation of Neural Net using AWS Textract Service.

## BACKGROUND

Businesses that deal with hundreds or even thousands of invoices per month are generally handled by the Accounts Payable team. Manually checking the invoices, comparing them against the Purchase Orders (PO), and entering the information into an ERP or accounting software is a tedious, error-prone task when done manually. Most businesses outsource this activity to a BPO company.

In this case, XTGlobal's client was using a BPO service that handled their invoice data extraction and PO matching. The main activities were entering data from the invoices, validating the invoice data, and then verifying it against the PO. The client receives thousands of invoices from suppliers/vendors after the delivery of products/services. The invoices received need to be verified against the Purchase Order (PO) line-by-line to make sure that the vendor invoiced as per the terms in the Purchase Order. The client had two data entry operators entering the invoice data manually and independently into the system to ensure accuracy.



## REQUIREMENTS OF THE CLIENT

As part of automating the invoice data entry and matching processes, XTGlobal identified the following requirements of the client:

- To map source invoice fields to standard invoice fields without losing the data in the invoice.
- To ensure that the extracted invoice data has a confidence level of 99% to be useful.
- To identify the number of layers and node configuration in each layer to filter the input data.
- To auto-identify the labels used for each invoice type for different attributes of the invoice like invoice number, date, due date, etc.

## APPROACH AND SOLUTIONS

XTGlobal implemented a Neural Net using AWS Textract Service to extract invoice data from images/pdf files and load the data into the Circulus system for the client's Accounts Payable team.

An AWS Textract Service was used to extract the basic text. The extracted text was fed through a 3-layer Neural Net- the first layer identifies the source labels and passes them to a second layer where the target invoice attribute is mapped. In the final layer, the source value is identified.

A confidence level is computed and stored for each invoice attribute value extracted. All attributes with confidence level less than 99% would be sent to

human operators for correction and the corrected value is identified in the source. The nodes are adjusted for future invoice data feeds.

## BENEFITS TO THE CLIENT

XTGlobal's solution ensured that the invoice data is made available to the AP team instantly as soon as the invoices are uploaded to the system. This saves valuable time, effort, and cost for the AP team that would otherwise have been spent in data extraction.

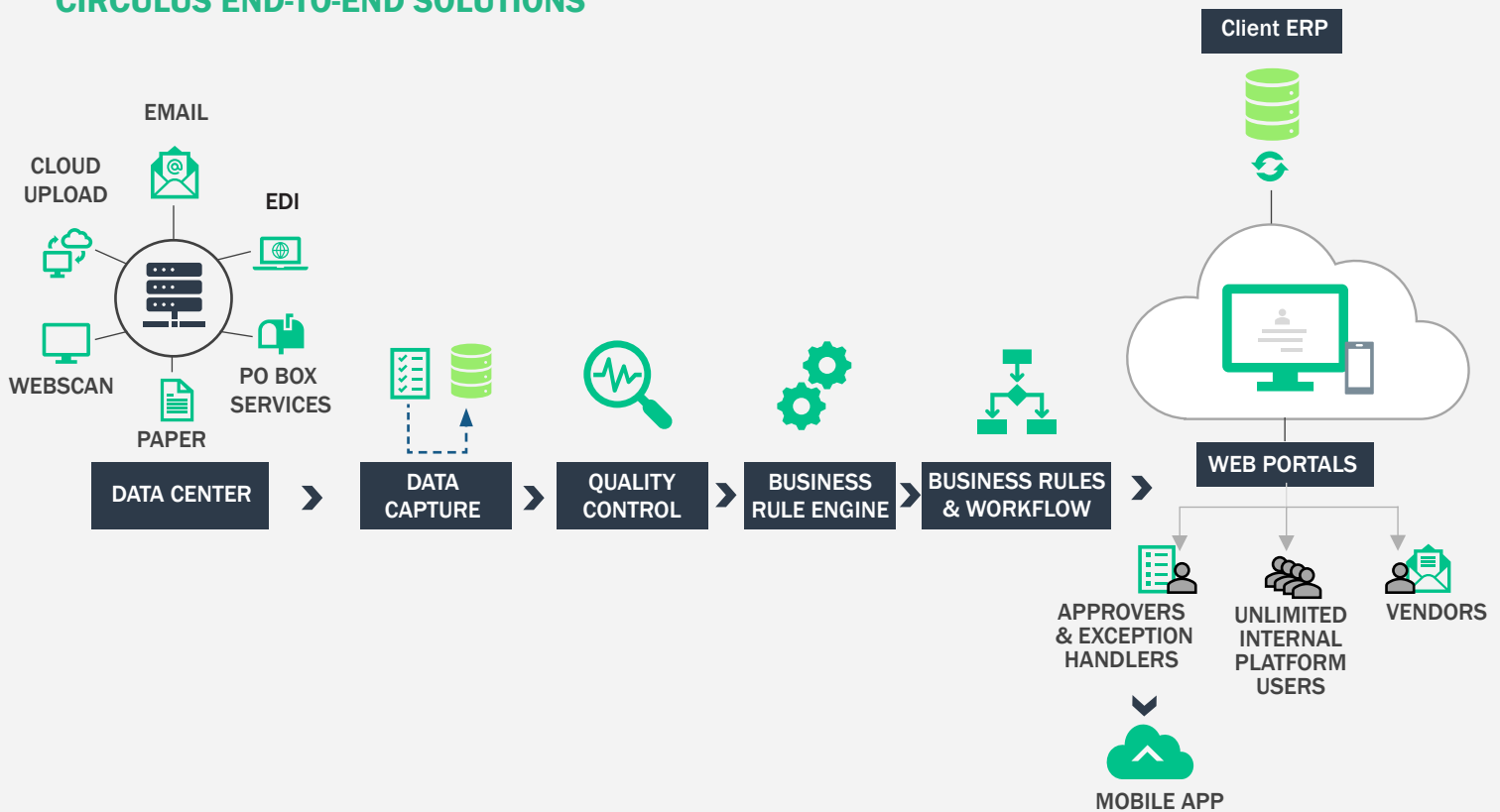
A target accuracy of 95% was achieved through the Neural Net that was deployed in the AWS Cloud.

## ABOUT XTGLOBAL AND CIRCULUS

XTGlobal is a proven IT consulting and software solutions provider adept at designing, developing, and executing enterprise-level cloud-based solutions. Our expertise in advanced software technologies and cloud computing helps companies add greater value to their products and services at reduced cost.

XTGlobal processes over 1 million invoices per month for customers across the globe through its Circulus AP Automation solution. Circulus enables Touchless PO Matching, Automated Document Routing, Automated Line-Item Coding, Role-Based Access, Business Rule Automation, and Multi-Entity Support to achieve over 99% data accuracy. Circulus integrates seamlessly and remotely with most ERPs and Accounting Software like QuickBooks.

## CIRCULUS END-TO-END SOLUTIONS



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