

# Content Understanding





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## Role

Solution Architect – App Innovation & Artificial Intelligence  
Customer Success Team

## Please reach out for

Envisioning new experiences  
Deep dive Azure architecture workshops  
Technology Roadmaps  
Azure Skilling and Certification

# The Agenda



Why

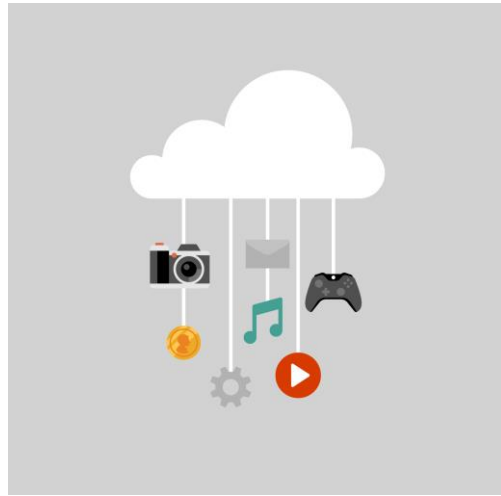


What

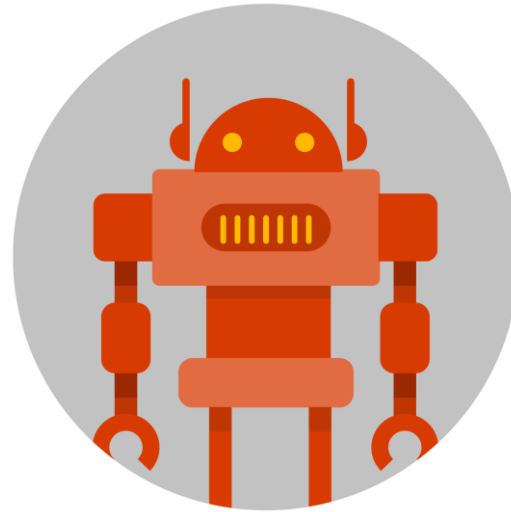


How

# Why content understanding?



Digital



Intelligence

# Imagine

Show change in price over time



*You could **query** your content (docs and data) instead of search through them.*

*Automate **assignment** of RFP sections to relevant SMEs for response.*

*Bots reviewing your SoWs & Contracts and **flagging issues**.*

*Customer email **review** automation so that you see important and urgent ones first.*

# The Challenge



**Understanding the latent value in all content**

Organizations are creating/exchanging more content/data than ever in various formats

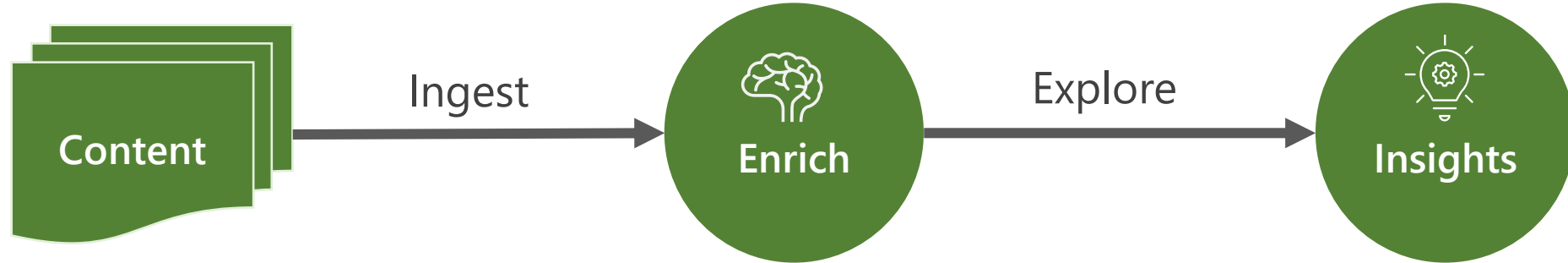
Exploring, understanding, and using unstructured information contained in such things as pdfs, images, and audio files in a timely way is a significant challenge for their organization

Organizations clearly need a means to discover and gain intelligence from all their data reliably and consistently

# What is Knowledge Mining?

Knowledge mining is an emerging category in *artificial intelligence (AI)*, using a combination of AI services to drive content understanding over vast amounts of *unstructured, semi-structured, and structured* information that allow businesses to deeply *understand* their information, *explore* it, *uncover* insights, and find *relationships* and *patterns* at scale.

# Knowledge Mining Approach



## Unstructured

- No designated structure
- For example – pdf, image

## Semi-Structured

- Uses tags or keys that organize and provide a hierarchy for the data

## Structured

- Data that adheres to schema
- Relational Data

## Prebuilt AI

- Vision
- Speech
- Language
- Sentiment
- Translation

## Custom Models

- Enterprise Entities
- Document Classification

## Structured Data

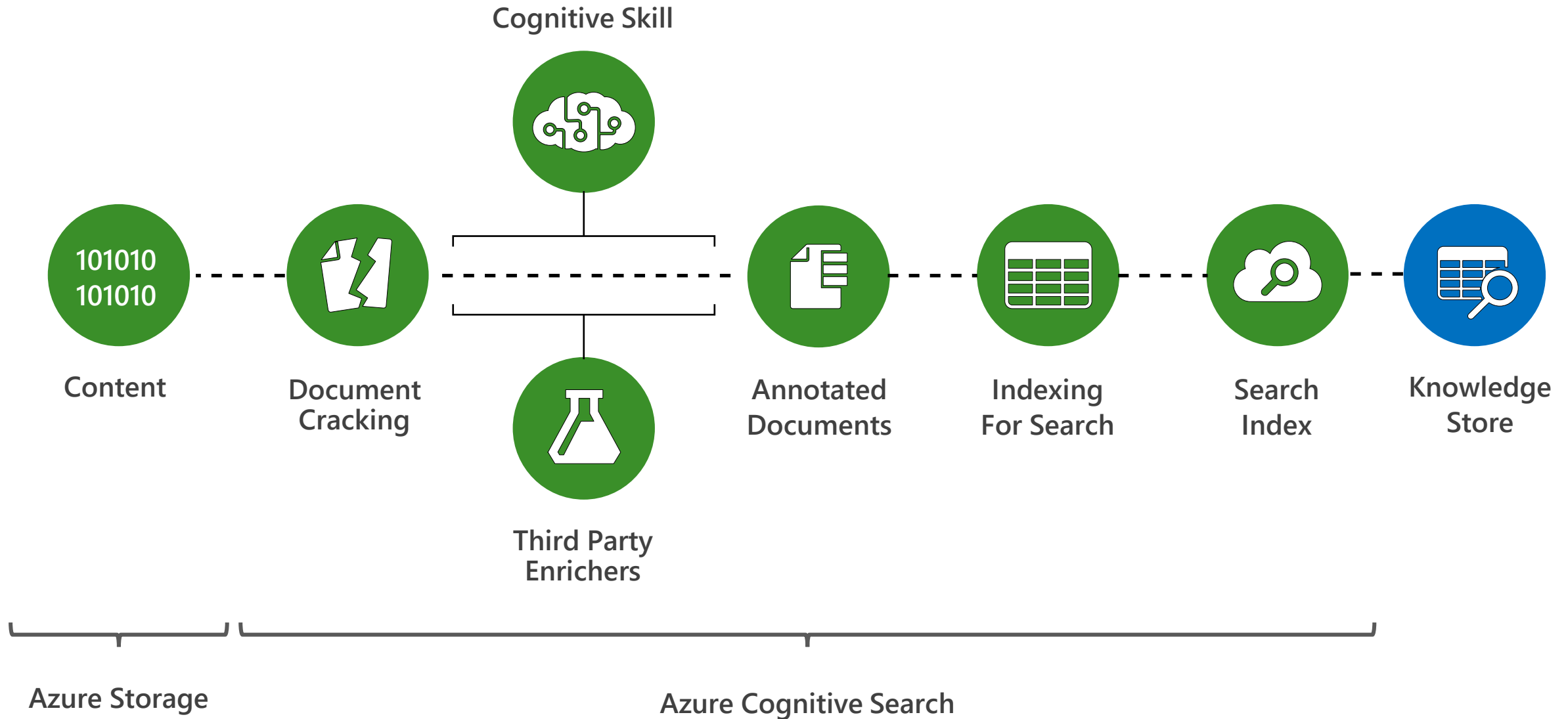
Query

Relate

Patterns



# Reference Architecture



# Cognitive Skills

## Built-in skills



Key Phrase extraction



Location entity extraction



Sentiment analysis



Organization entity extraction



Persons entity extraction



Language detection



Face detection



Celebrity recognition



Image tag extraction



Text Utilities



Landmark detection



Text recognition

## Custom skills



Your custom  
skill goes here!



Azure  
Databricks

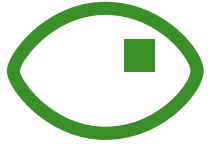


Azure Machine  
Learning



Machine Learning  
VMs

# Azure Cognitive Services



## Vision

**Video Indexer**  
**Computer Vision**  
Face  
**Custom Vision**  
**Form Recognizer**  
Ink Recognizer



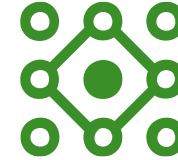
## Speech

Speaker Recognition  
Speech to Text  
Text to Speech



## Language

**Text Analytics**  
Bing Spell Check  
Translator Text  
**QnA Maker**  
**Language Understanding (LUIS)**



## Decision

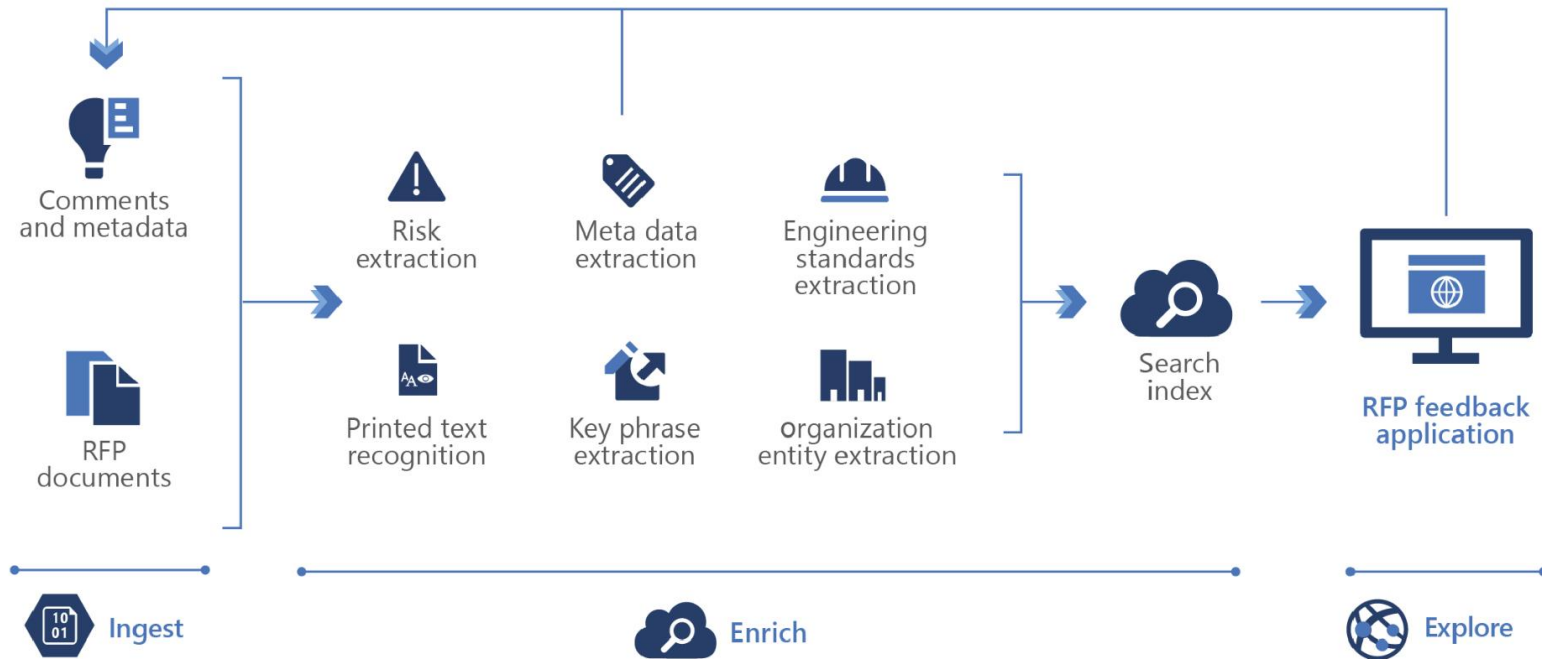
Anomaly Detector  
**Content Moderator**  
**Personaliser**



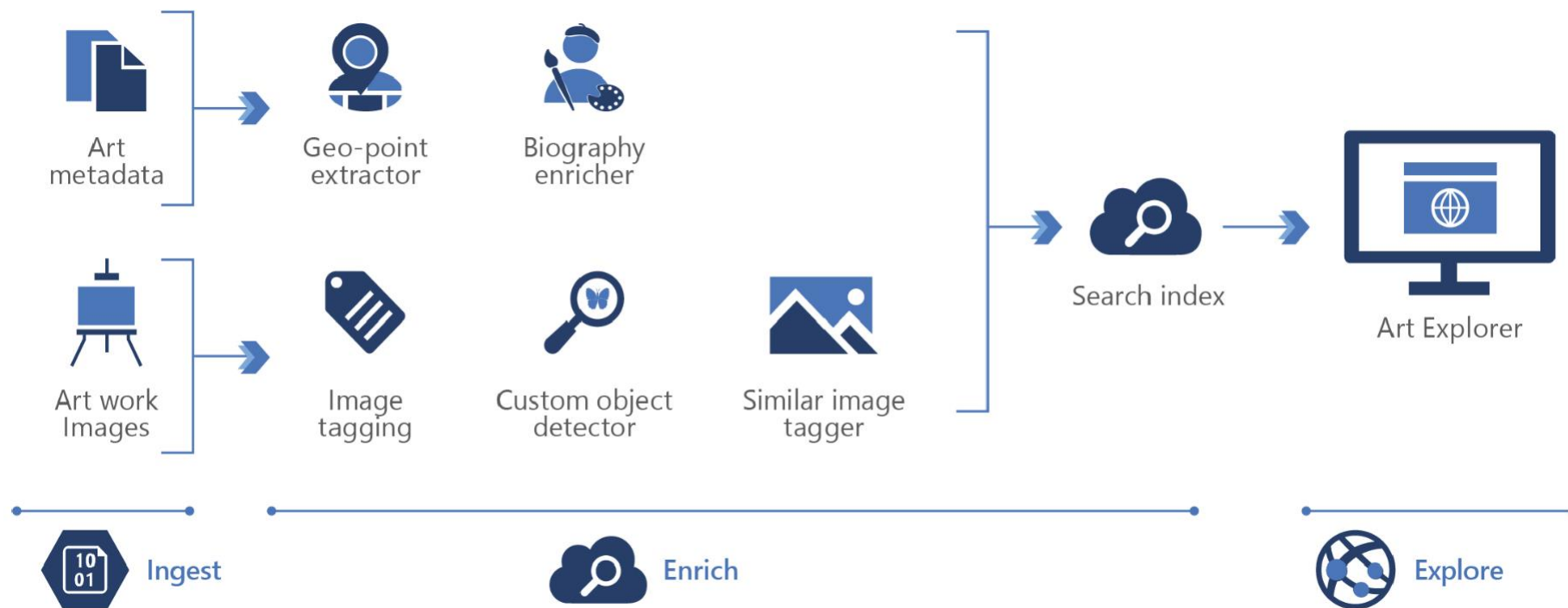
## Web Search

Bing Entity Search  
Bing Autosuggest  
Bing Web Search  
Bing Visual Search  
Bing Video Search  
Bing Custom Search  
Bing News Search  
Bing Image Search

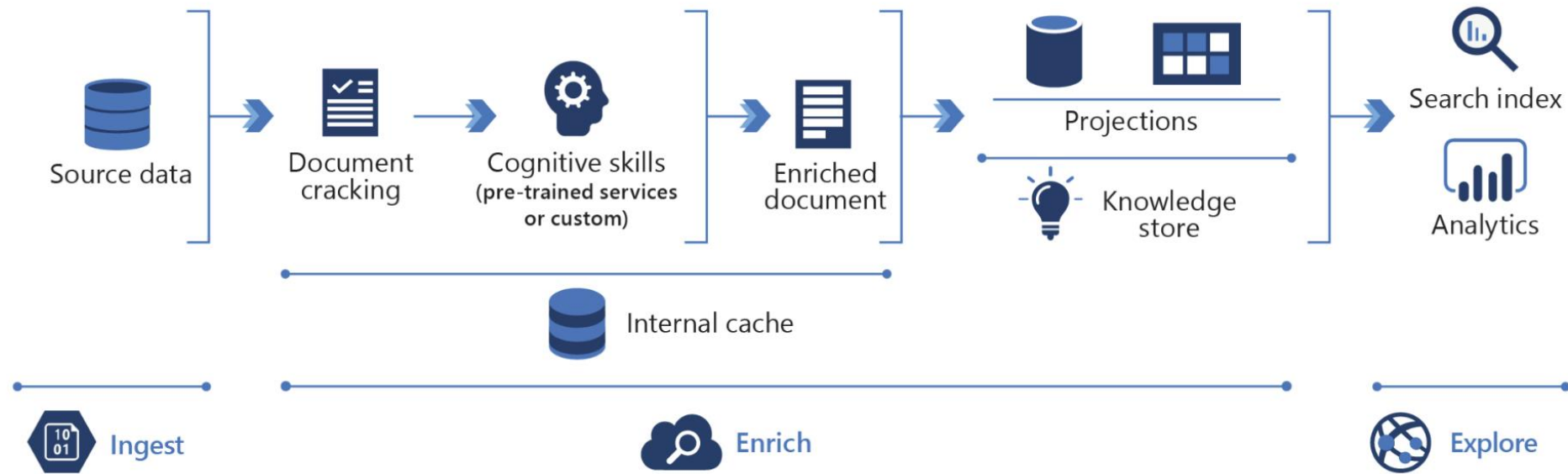
# Contract Management



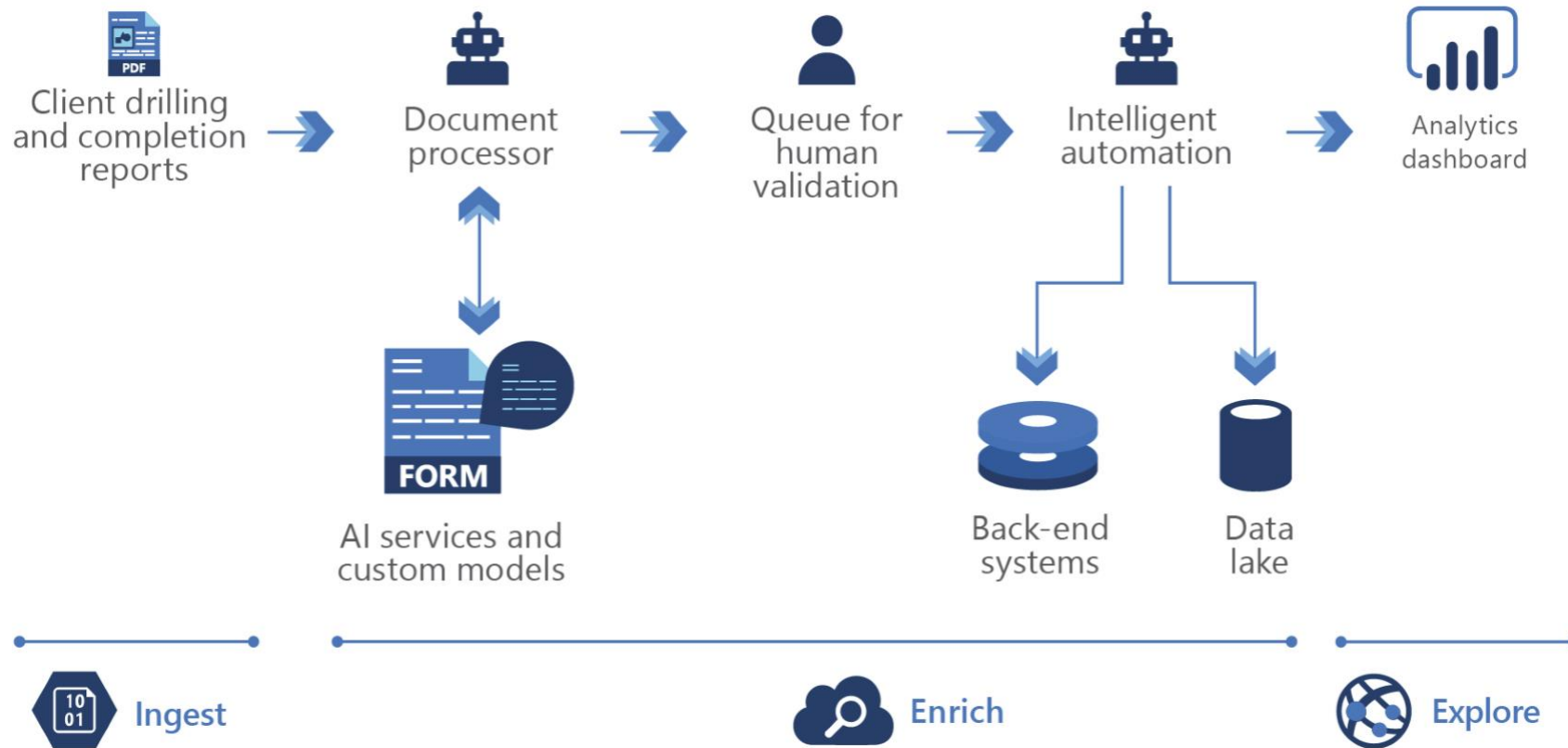
# Digital Asset Management



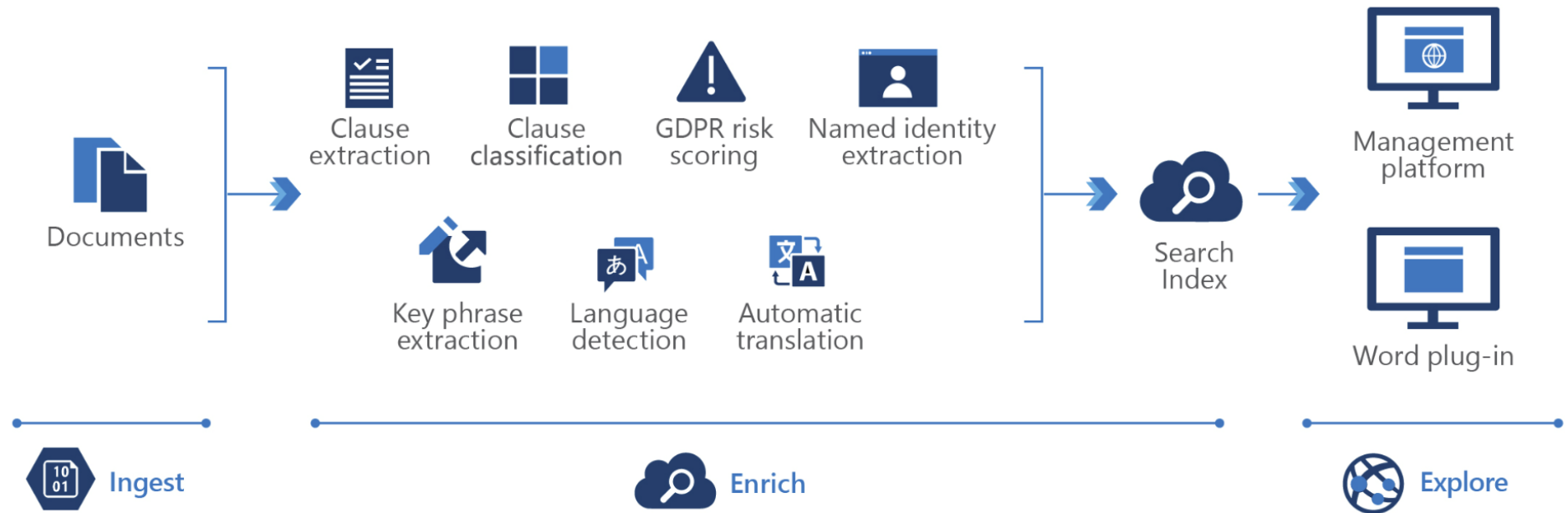
# Customer/Employee Feedback and Analytics



# Business Process Management

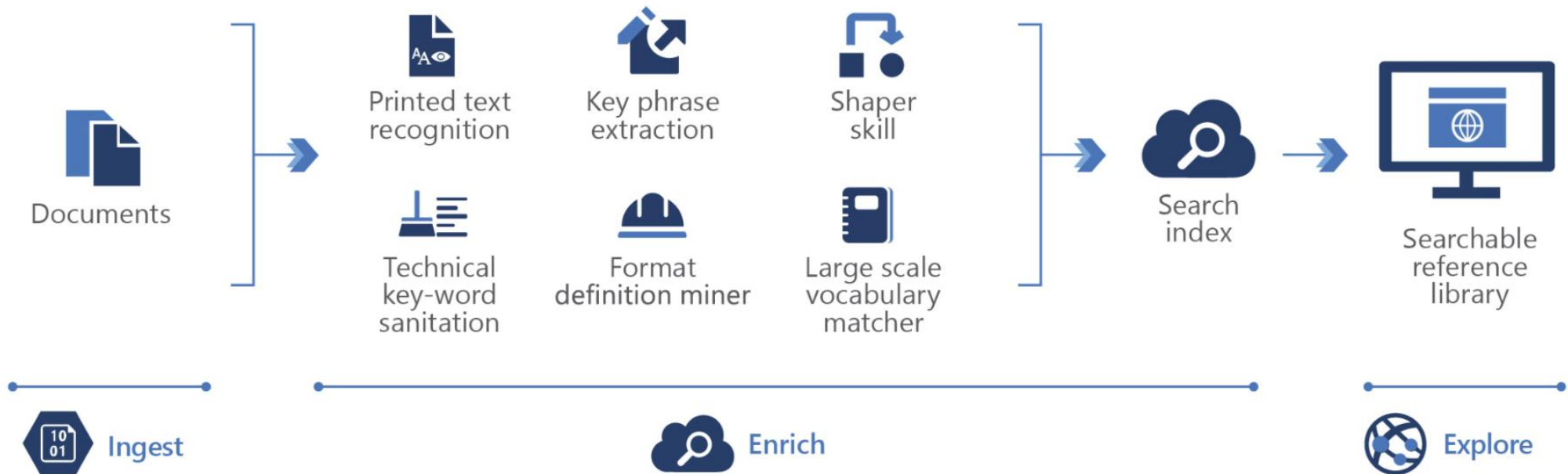


# Auditing, risk, and compliance management





# Content Research





thank you