IBM Analytics Solution Brief

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Highlights

- Understand, categorize and analyze content in a broad range of complex and variable documents
- Reduce costs by automating processes that typically require expensive manual intervention
- Improve customer satisfaction by accelerating transactions and responding faster to requests
- Minimize risks by reducing data-entry errors and identifying sensitive data that should be redacted
- Generate new insights from previously untapped data through advanced analytics

IBM Datacap Insight Edition

Capture and automatically extract valuable information from complex, variable documents to help accelerate transactions and reduce costs

Organizations today collect, process and store a tremendous volume and variety of data. Unstructured data—ranging from typed correspondence to email messages and photographs—represents approximately 90 percent of that information. Whether organizations are evaluating loan applications, processing insurance claims or managing shipment invoices, human intervention is often needed to review and make sense of that unstructured data. Unfortunately, this type of handling is usually too slow and costly.

Traditional document capture systems excel at capturing and extracting information from known, predictable document types, such as forms. However, a lot of high-value information comes from documents with unknown or variable formats. Automating the capture of information from those documents is difficult. As a result, organizations often resort to costly, time-consuming human review and manual classification.

To improve the efficiency and reduce the cost of capturing information from complex, variable documents, organizations need cognitive solutions—solutions that can understand, reason and learn. Cognitive solutions can do more than improve workflows; they can build knowledge, understand natural language, provide confidence-weighted responses and more. They can quickly find the proverbial needle in a haystack, identifying new patterns and generating new insights.

IBM is leading many of the advances in cognitive computing with solutions such as IBM® Datacap Insight Edition. Datacap Insight Edition uses advanced cognitive computing capabilities to go beyond the limits of traditional capture solutions. It applies advanced imaging, rules, natural language processing and machine learning technologies



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like those used by IBM WatsonTM to automatically find, extract and classify important information from complex and variable documents. It analyzes the content to understand both the information and context and then helps determine the appropriate action. Benefits can include faster transactions, better responsiveness to customers and improved decision-making.

Understand documents

Datacap Insight Edition helps streamline the ingestion of content by understanding unstructured or highly variable documents. It analyzes the format and structure to try to recognize the document type. Using visual clues such as sections, tables, fonts, lines, borders and other elements, Datacap Insight Edition can distinguish an invoice from a letter, and a contract from an expense claim.

Datacap Insight Edition then goes beyond that high-level identification, analyzing the document to understand the information as well as the context of that information—tasks that would require manual intervention with traditional capture systems. It employs reasoning, logic and context-sensitive analysis to classify and categorize information, and then extract data and meaning. For example, Datacap Insight Edition might recognize that a document is a letter from an insurance customer and then extract claim- or policy-related information.

The analytics capabilities of Datacap Insight Edition help automate workflows and reduce the need for human intervention even when organizations are capturing information from complex and variable document types. Datacap Insight Edition is designed to correctly recognize document types based on structure and content, and to extract the appropriate information from documents even if each one is formatted differently. For example, a bank can automate a loan application process that includes ingesting pay stubs and letters of employment from multiple employers. By automating processes with Datacap Insight Edition, organizations can enable fast, accurate straight-through processing of more documents and make business decisions rapidly and with a high degree of confidence.

Cognitive capture can address industry-specific needs

- Financial services: Retail banks, commercial banks and lending organizations can use cognitive capture to quickly and accurately process a wide array of documents, such as trade settlements, account closing letters and change notifications, so they can improve decision-making and deliver prompt service to customers.
- Healthcare: Cognitive capture enables healthcare
 providers to capture content from multiple sources so
 they can process patient onboarding and discharge. They
 can capture content from caregiver notes and images to
 populate electronic health records and facilitate efficient
 care collaboration.
- Insurance: Cognitive capture helps accelerate claims, underwriting and key decision-making processes by enabling insurance companies to analyze content from many sources in many formats, ranging from correspondence to images and audio files.
- Government: Agencies can use cognitive capture to efficiently ingest a large volume and variety of forms as well as unstructured supporting information. As a result, they can improve responsiveness to citizens, accelerate tax processing, enhance the accuracy of census-taking and more.

· Cross-industry examples:

- Human resources: Administrators can use cognitive capture to efficiently process numerous documents for hiring, employee benefits enrollment and employee services.
- Finance: Finance teams can improve the speed and accuracy of verifying classifying accounts payables and invoice management forms.
- Transportation: Cognitive capture helps transportation groups rapidly and correctly extract data from shipping documents to authorize shipments based on the destination, recipient and contents.

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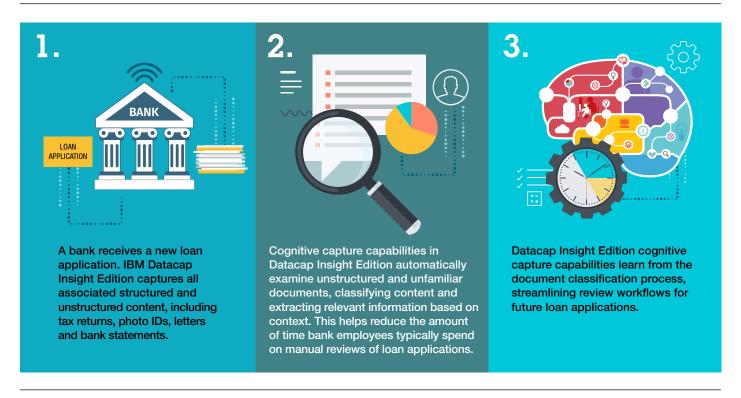


Figure 1. Datacap Insight Edition cognitive capture capabilities can help streamline a wide range of workflows, such as loan processing.

Analytics capabilities also help reduce risks. Organizations can be subject to fines and lawsuits if they fail to adequately secure documents that contain sensitive or personal information, such as government ID numbers and credit card numbers. Datacap Insight Edition can automatically identify such information and helps streamline the redaction process when it is required. Critical information extracted by Datacap Insight Edition can be used simultaneously with other Datacap capabilities such as signature validation, which can help ensure authenticity for anti-fraud or authorization purposes.

Organizations can also use the analytics capabilities in Datacap Insight Edition to generate new business insights from documents stored in repositories. For example, organizations can derive new value from data buried in millions of transaction documents. New insights can then be fed back into the solution to facilitate learning and accelerate future analyses (Figure 1).

Act and deliver

After identifying document types, analyzing information and extracting information, Datacap Insight Edition helps organizations take action. It applies rules processing to decide what must be done with a particular document and captured information.

Organizations might establish rules to determine whether a document should be stored in a content repository, passed to a case management system to initiate or add to a case, or sent to another line-of-business system that launches another workflow. For example, a letter with a product complaint can be routed to a customer service team that will investigate the issue and provide a timely response. Organizations can also employ rules that send unstructured data extracted from documents to historical and predictive analytics solutions. Applying these rules automatically helps accelerate business processes while avoiding much of the time and costs of human intervention.

Drive better business results

With Datacap Insight Edition, organizations gain the power of cognitive computing to solve the toughest document capture challenges. Datacap Insight Edition uses understanding, reasoning and learning throughout the capture process to provide a new approach to comprehending information.

By automating capture and extraction processes, even for complex and variable document types, Datacap Insight Edition helps organizations accelerate transactions and respond faster to customer inquiries while eliminating the time and added costs of human intervention. Capturing and analyzing the full breadth of information—including unstructured data—enables organizations to generate new insights that can improve decision-making and drive better results.

For more information

For more information about IBM Datacap Insight Edition, contact your IBM representative or IBM Business Partner, or visit: ibm.com/datacap

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¹IDC, "Big Data, Bad Data, Good Data: The Link Between Information Governance and Big Data Outcomes," January 2015, ibm.com/common/ssi/ cgi-bin/ssialias?infotype=SA&subtype=WH&htmlfid=WVL12376USEN



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