

Cloud Pak for Business Automation:

Tech Jam 19 July 2021 – Sales Track – Part 1

Tech Jam 15 Sept 2021 – Sales Track – Part 1

CP4BA Capabilities Deep Dive

Case Studies

Use Cases

Demo

—



Ann Thye
DBA Exec, AP
kuahat@sg.ibm.com



Top Strategic Technology Trend For 2020

Gartner®

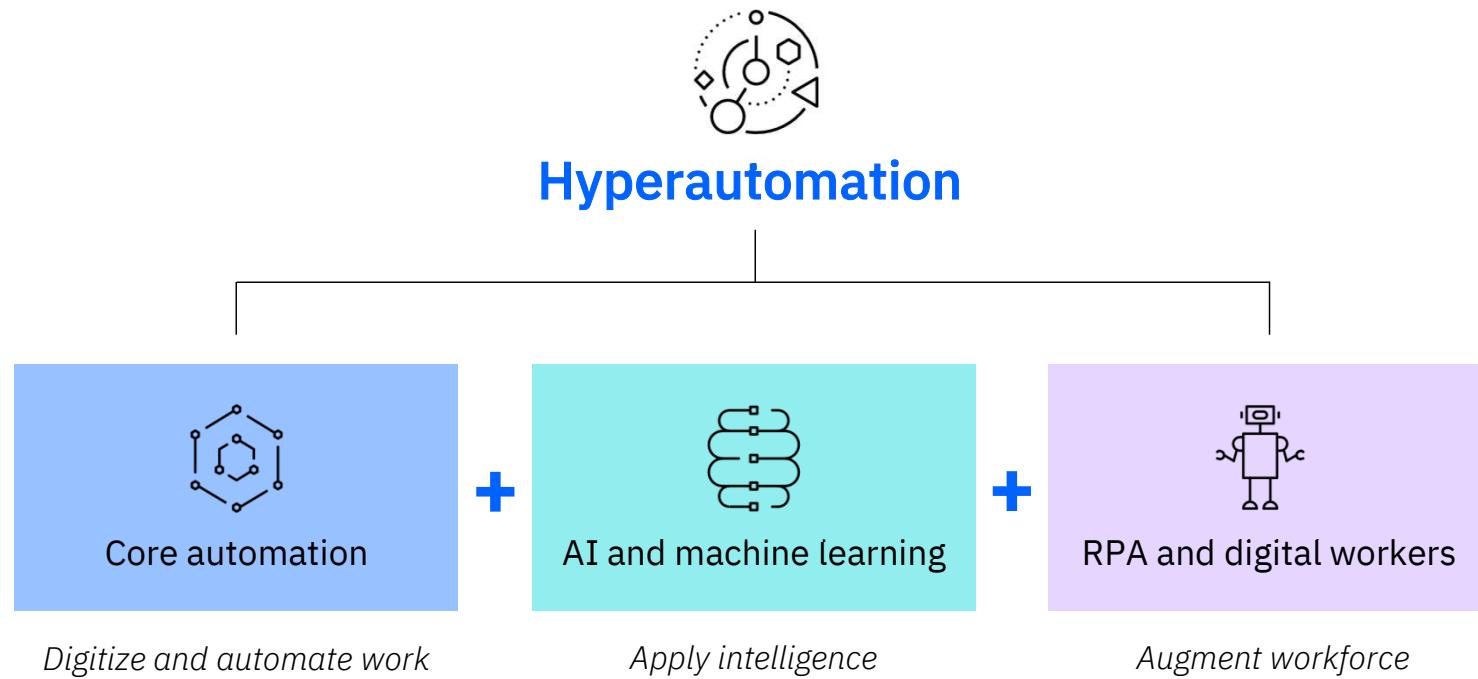
IBM Automation / © 2020 IBM Corporation

“Hyperautomation deals with the application of advanced technologies, including artificial intelligence (AI) and machine learning (ML), to increasingly **automate processes and augment humans.**”

“**RPA and Intelligent Business Process Management Suites** are key components of hyperautomation.”

Gartner
2019, [Gartner Top 10 Strategic Technology Trends for 2020](#)
Published October 21, 2019

IBM Hyperautomation



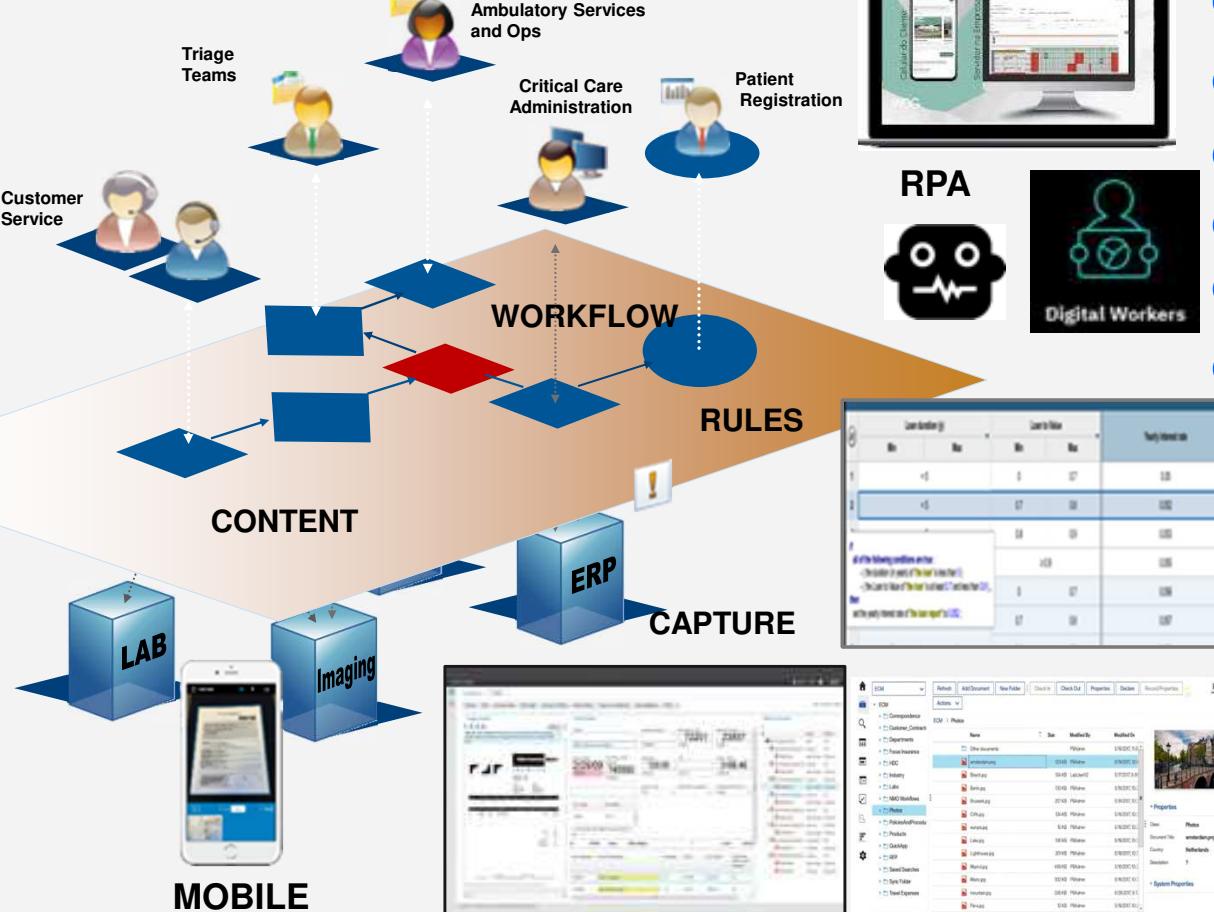
Capture & Content & Workflow & Rules & Robots & Digital Worker Management Bring Order from Chaos

BPM & CASE



AUTOMATION INSIGHTS

With Workflow – Integration Centric, Document-Centric, Human-Centric, Case-centric, RPA and Cognitive-Centric BPM



1. Automate workflow & decision making
2. Reduce errors and improve consistency
3. Standardize resolution across geographies
4. Leverage existing systems and data
5. Monitor for business events and initiate actions
6. Real-time visibility and process control

Customer Benefits:

- Huge Reduction in Manual Work, Errors
- Faster, More Consistent Issue Resolution
- Easier to Manage the Business

Item	Value	Value	Value
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Name	Size	Modified By	Modified On
1	100	Admin	2023-10-01
2	200	John	2023-10-02
3	300	Jane	2023-10-03
4	400	Mike	2023-10-04
5	500	Sarah	2023-10-05
6	600	David	2023-10-06
7	700	Emily	2023-10-07
8	800	Alice	2023-10-08
9	900	Bob	2023-10-09
10	1000	Charlie	2023-10-10

We offer multiple ways to deploy the Automation Platform



On-Premises

Individual Modules

License individual
modules separately

Traditional
on-prem install



On-Premises



Any Cloud



SaaS

DBA on Cloud
CP4BA SaaS

Cloud Pak for Business Automation CP4BA

**One license gives entitlement to both certified
containers and traditional on-prem install**

Fully supported on Red Hat OpenShift Container
Platform

OpenShift Container Platform included

Move to containers at your own pace

Fully Managed
Software-as-a Service
Runs on IBM Cloud

What is the IBM Cloud Pak for Business Automation?

Comprehensive platform

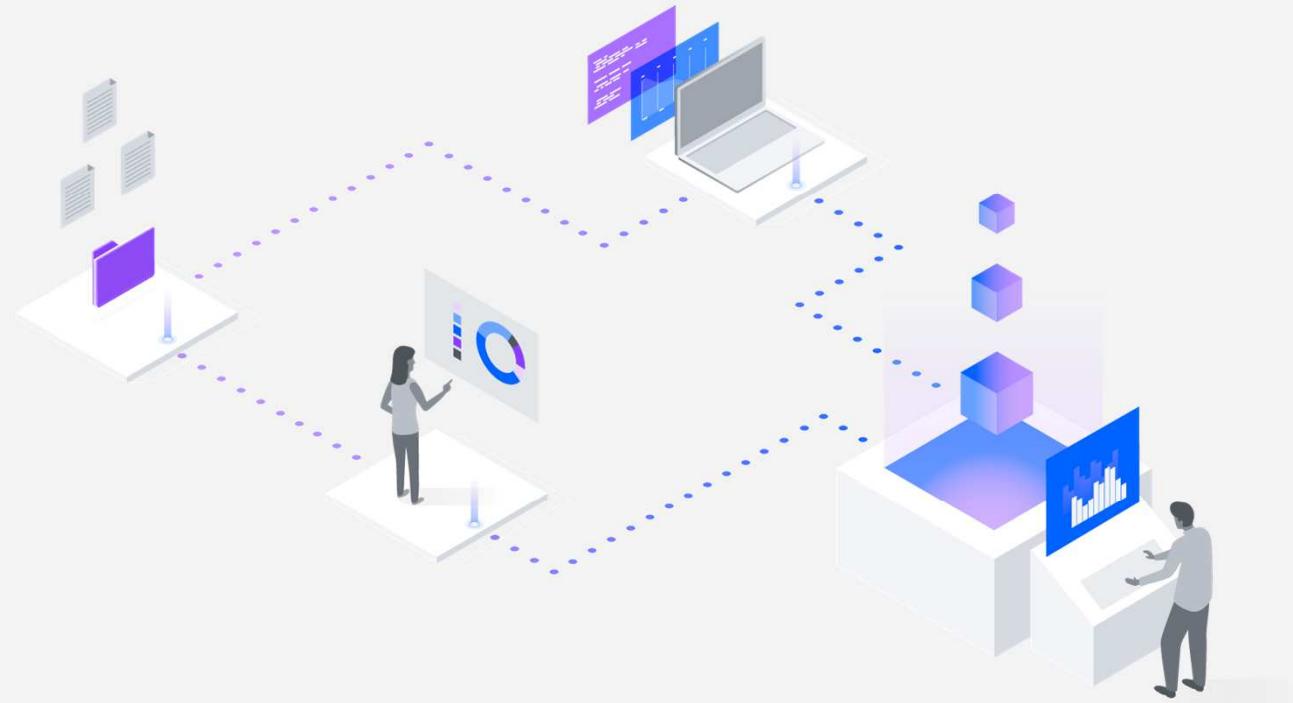
Complete offering for automating business operations

Integrated capabilities

Pre-integrated automation technologies and low-code tools

Flexible deployment

Design, build and run automation solutions on any cloud or within your data center



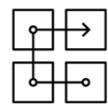
IBM Cloud Pak for Business Automation: Core automation



Document processing

Capture, classify, and extract data from content

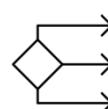
- Speed extraction of data
- Reduce data entry errors
- Gain insights from unstructured documents



Workflow

Design and manage start-to-finish workflows

- Choreograph human and automated activities
- Improve consistency across business operations
- Increase straight-through processing



Decision management

Automate decisions with business rules

- Rapidly adapt to business change
- Increase consistency and auditability of decisions
- Integrate with predictive analytics



Content services

Share, manage and collaborate on content

- Instant access to content
- Connect content to digital business applications
- Assure governance and compliance

Cloud Pak for Automation:

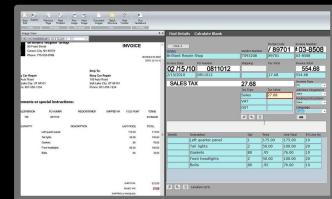
Key capabilities



Capture

Capture, classify, and extract data from content

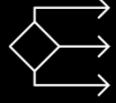
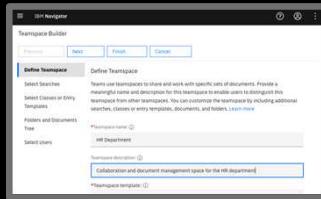
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Content

Share, manage, and collaborate on content

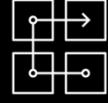
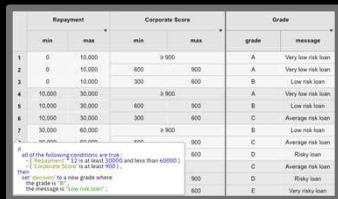
- Instant access to content
- Connect content to digital business applications
- Assure governance and compliance



Decisions

Automate decisions with business rules

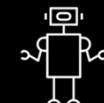
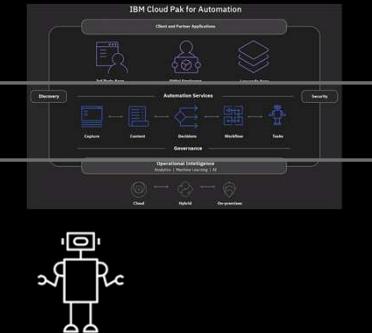
- Rapidly adapt to business change
- Increase consistency and auditability of decisions
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Workflow

Design and manage start-to-finish workflows

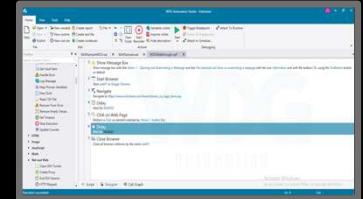
- Choreograph human and automated activities
- Improve consistency across business operations
- Increase straight-through processing



Tasks

Use bots to automate routine human tasks

- Automate repetitive activities
- Eliminate copy-and-paste and data-entry errors
- Free employees for higher-value work



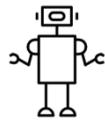
IBM Cloud Pak for Business Automation: Automation accelerators



Process mining and modeling

Understand and analyze
your processes

- Understand existing process and task flows
- Analyze impact on key performance indicators (KPIs)
- Simulate future processes using “what-if” analysis



RPA and digital labor

Use bots to automate
routine human tasks

- Automate repetitive activities
- Eliminate copy-and-paste and data-entry errors
- Free employees for higher-value work



Operational intelligence

Gain insights with
built-in AI

- Capture data generated by operational systems
- Apply AI and machine learning to provide insights
- Make adjustments to improve business operations

Deploy on any cloud or on-premises

Cloud Pak for Business Automation

- Single license for all automation capabilities provides entitlement to container-based and traditional on-premises install
- Fully supported on Red Hat® OpenShift® Container Platform (included)
- Move to containers at your own pace



Any cloud



Hybrid



On-premises

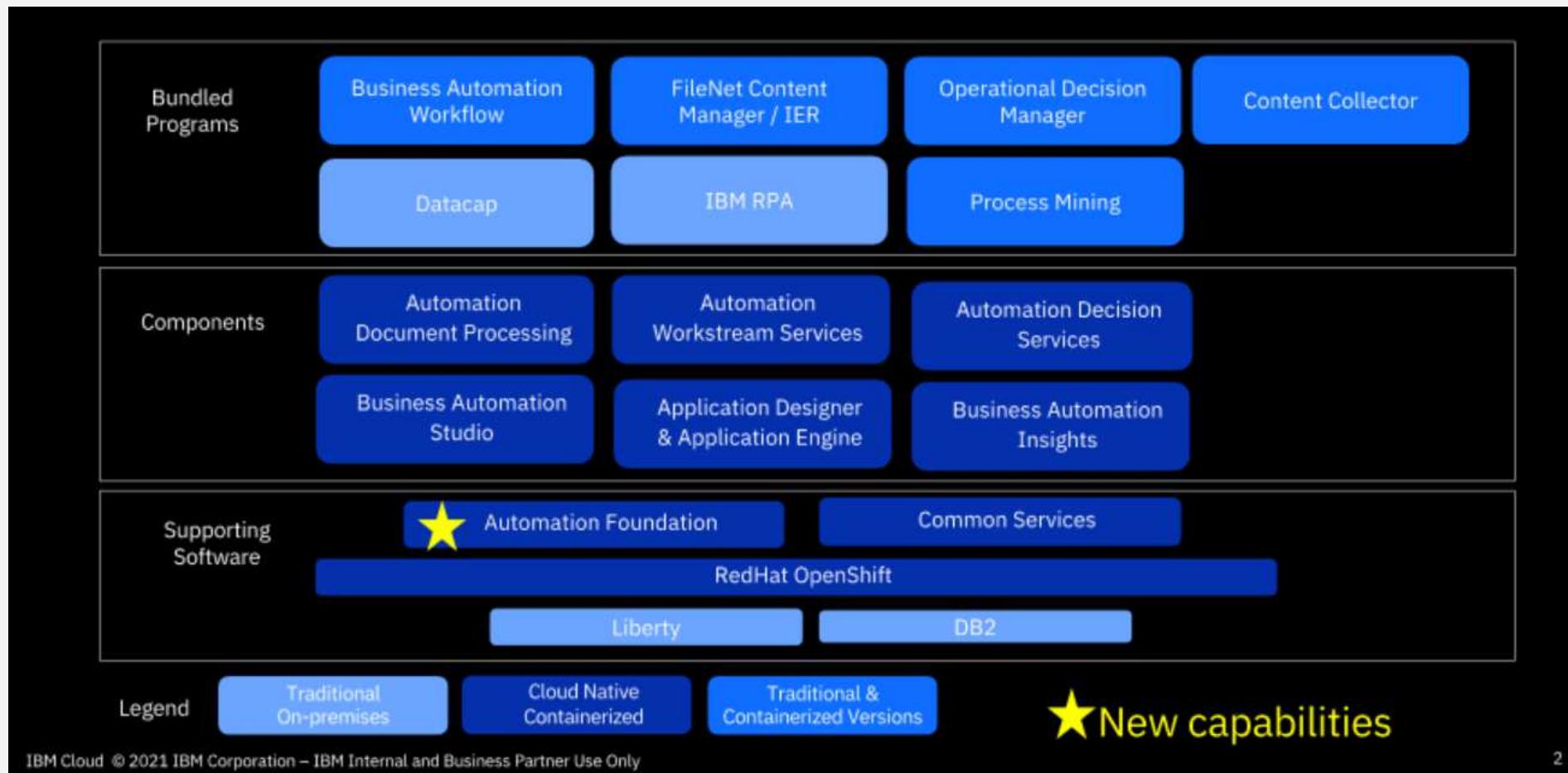
Digital Business Automation on Cloud

- Single subscription for all automation capabilities
- Fully managed Software-as-a-Service
- Runs on IBM Cloud

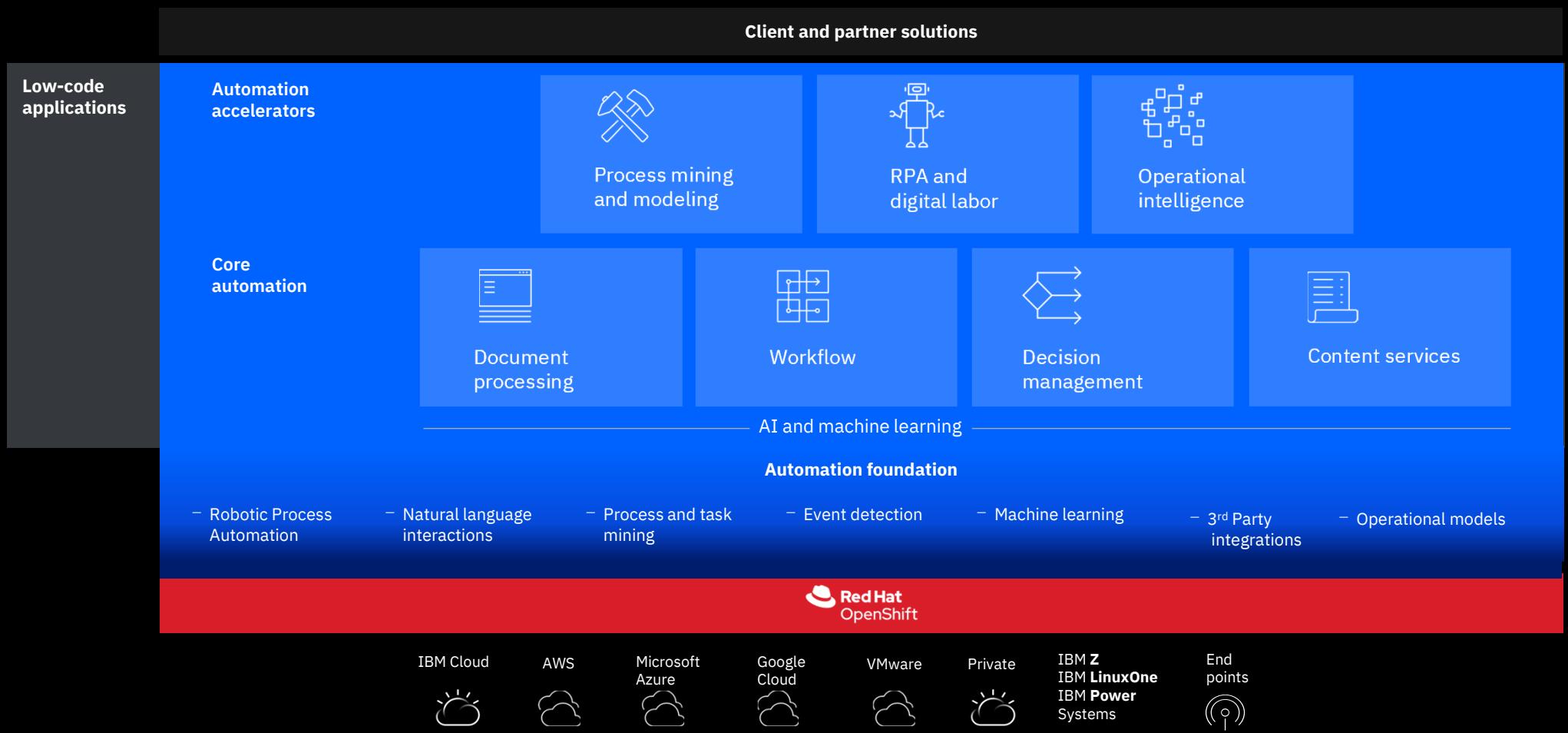


SaaS

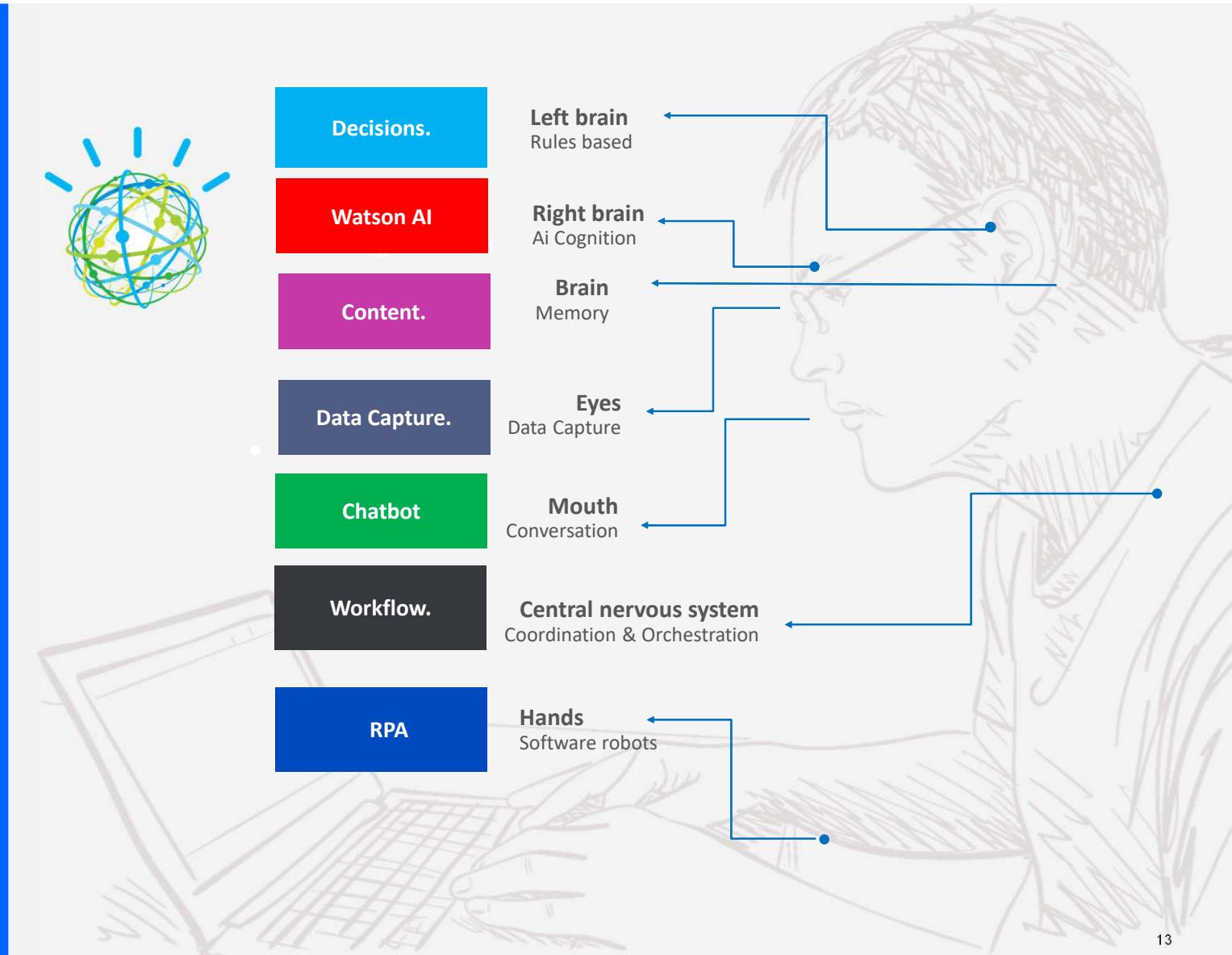
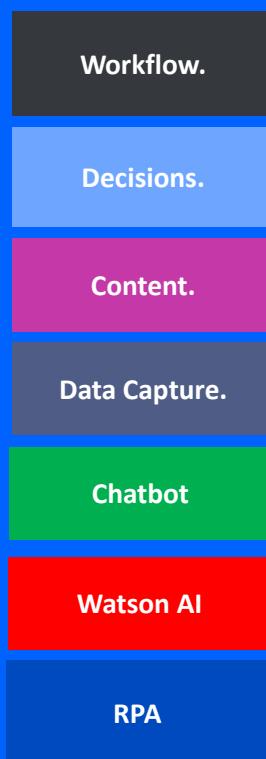
Cloud Pak for Automation V21.0.1



IBM Cloud Pak for Business Automation



IBM mission is to extend humans with digital labor to enable businesses to scale



THE FORRESTER WAVE™

Software For Digital Process Automation For Deep Deployments

Q2 2019



INTERACTIVE

Magic Quadrant for Intelligent Business Process Management Suites

30 January 2019 G00345694

Analyst(s): Rob Durie (/analyst/47387) Derek Miers (/analyst/74496) Jason Wong (/analyst/48330) Marc Kerremans (/analyst/49006) Kimihiko Iijima (/analyst/12250) Paul Vincent (/analyst/55026)

[View All Magic Quadrants](#)

This **Magic Quadrant** is related to [Peer Insights for Intelligent Business Process Management Suites](#)

RECOMMENDED BY THE AUTHORS

[MAGIC QUADRANT](#) [HISTORY](#) [CUSTOMIZE](#) [USER REVIEWS](#)

2019 Magic Quadrant

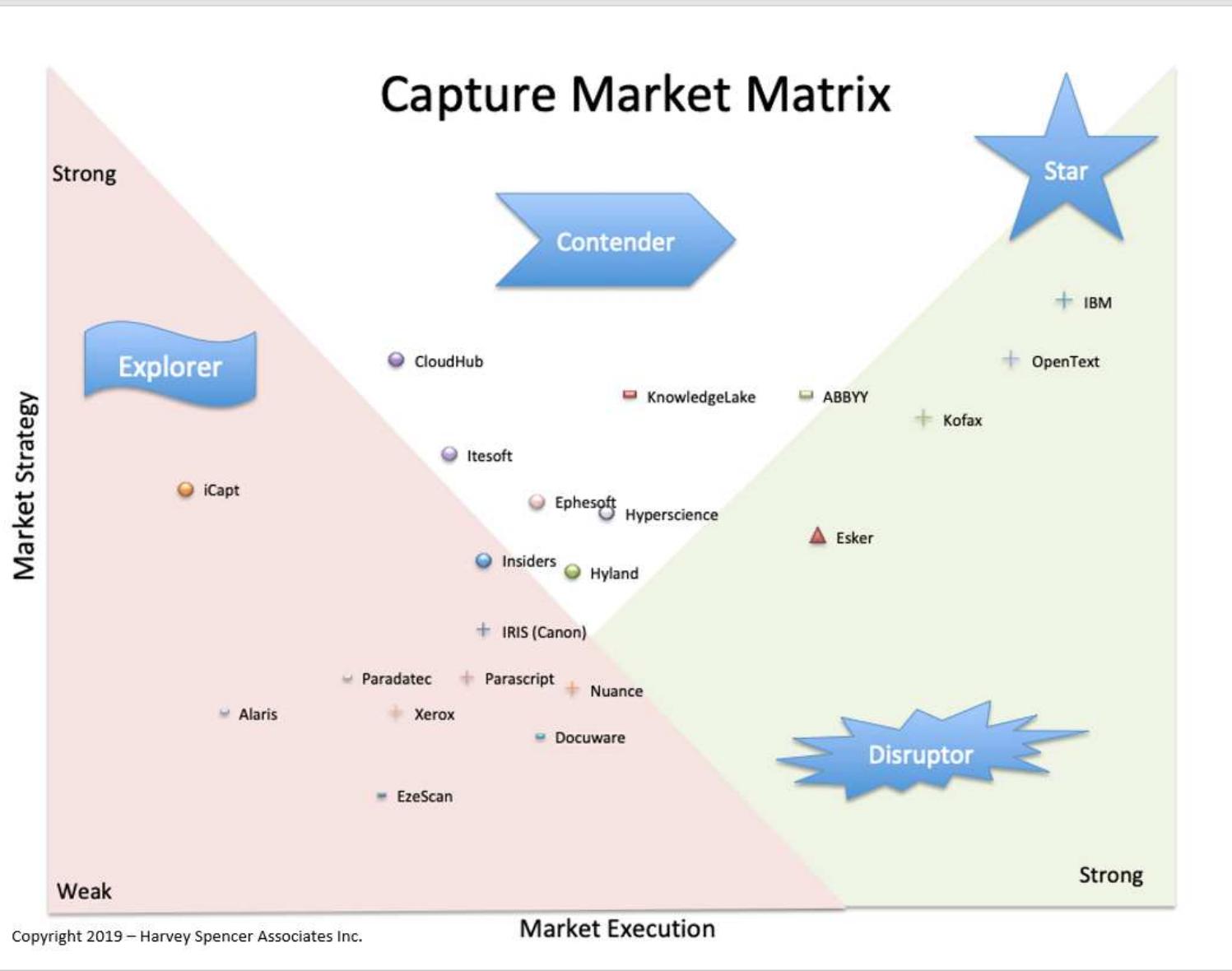
Market Overview

Vendors in the IBPMs market have originated from several different sources, including "infrastructure stack" vendors that have added relevant BPM functionality (often by acquisition). Document- and content-centric vendors have also moved into the market, by extending content workflows to include system integration and human workflows into processes. New developments include vendors that have focused on developing solutions from business-oriented modeling techniques. Others have focused on the integration of Internet of Things (IoT) technology (sensors, smart machines, robots and so on) combined with advanced analytics (CEP, streaming analytics, AI and predictive analytics). The solutions that balance ease of use and time to solution alongside greater intelligence capabilities are seeing the most success. Strong partner networks for business transformation capabilities, in addition to traditional implementation services, are also essential.

The IBPMs Market is an Evolution of the

As of Dec 2018 © Gartner, Inc.

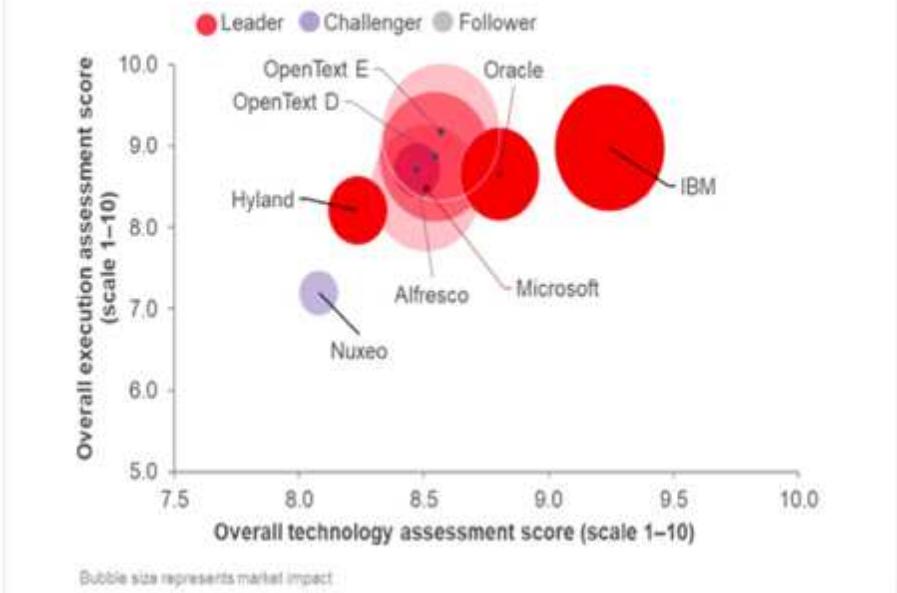
Capture Market Matrix



THE FORRESTER WAVE™
Digital Decisioning Platforms
Q4 2020



Figure 2: Expanded view of Ovum Decision Matrix: Content Services, 2019–20



IBM leads the market in Automation with AI



IBM ranking: Leader

Intelligent Business Process Management Suites
Gartner Magic Quadrant for iBPMS, 2019

IBM ranking: Leader

Content Services Platforms
Gartner Magic Quadrant for iBPMS, 2019



IBM ranking: Leader

Digital Process Automation
The Forrester Wave: Software for Digital Process Automation for Deep Deployment, Q2 2019

IBM ranking: Strong performer

RPA Services

The Forrester Wave: Robotic Process Automation Services, Q4 2019



IBM ranking: Leader

Intelligent Automation Services
IDC MarketScape Worldwide Intelligent Automation Services Vendor Assessment 2019



IBM ranking: Leader

Business Process Solutions
PEAK Matrix™ Assessment 2020

IBM ranking: Leader

Application Automation Service
PEAK Matrix™ Assessment 2019

IBM ranking: Leader

IT Infrastructure Services Automation
PEAK Matrix™ Assessment 2018



IBM ranking: Leader

Content Services
Ovum Decision Matrix: Content Services, 2019–20



IBM ranking: Leader

Capture
HSA Capture Market Matrix, 2019

What are the Analysts Saying about IBM DBA?



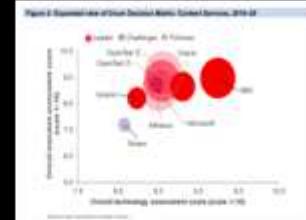
Leader in DPA Wave Receiving Top Overall Scores.
(Incl. for All Content Related Capability)



Gartner 2018 Critical Capabilities for Content Services

- An unbiased evaluation of the CSP vendors and highlights IBM's competitive strengths
- A full reprint is available for distribution to your clients

<http://www.gartner.com/reprints/?id=1-10EO3NXW&ct=190820&st=sb>



Undisputed leader in Ovum Content Services Decision Matrix.

IBM Automation offers proven solutions

"The results that we've seen have been pretty positive. We're aiming, by the end of the year, to record about USD 10 million in savings just by automating the processes that we've identified so far."

- VP, Digital Workplace Strategy, Large Financial Services firm

"It's very business friendly and rock solid. We manage business rules within this product, and the benefit is that businesses can manage these rules themselves."

- Architect, Energy/Utilities company

"Turnaround time: It's easy to take a requirement, put it in the code, and deploy it ..."

- Tech Lead, Financial Services firm

"Helped us take a 45-Day application process and reduce it to two days."

- Supervisor, Information Security Risk, Energy/Utilities company



Market Segment	Analyst Rankings
Workflow (BPM/Case)	Leader
Content Services	Leader
Data Capture	Leader
Decisions	Leader
Services	Leader



IBM Business Automation in AP Market

More than 100+ AP Banks
on ECM and Workflow,
Capture

Moving more towards
multi-finance , leasing
companies

More than 100+ AP
Insurance customers
ranging from Life, Non-
Life and Reinsurance
and Brokers

More than 100 Key
Citizen Eligibility and
Data Privacy for Govt
Project Showcase

More than 200 + Back
Office Supply Chain,
Finance, Legal
Retail, Manufacturing,
Logistics

- Account Opening
- Loan Processing
- Collection / Cash Mgmt
- Trade Finance / Mortgage
- Cash Remittance

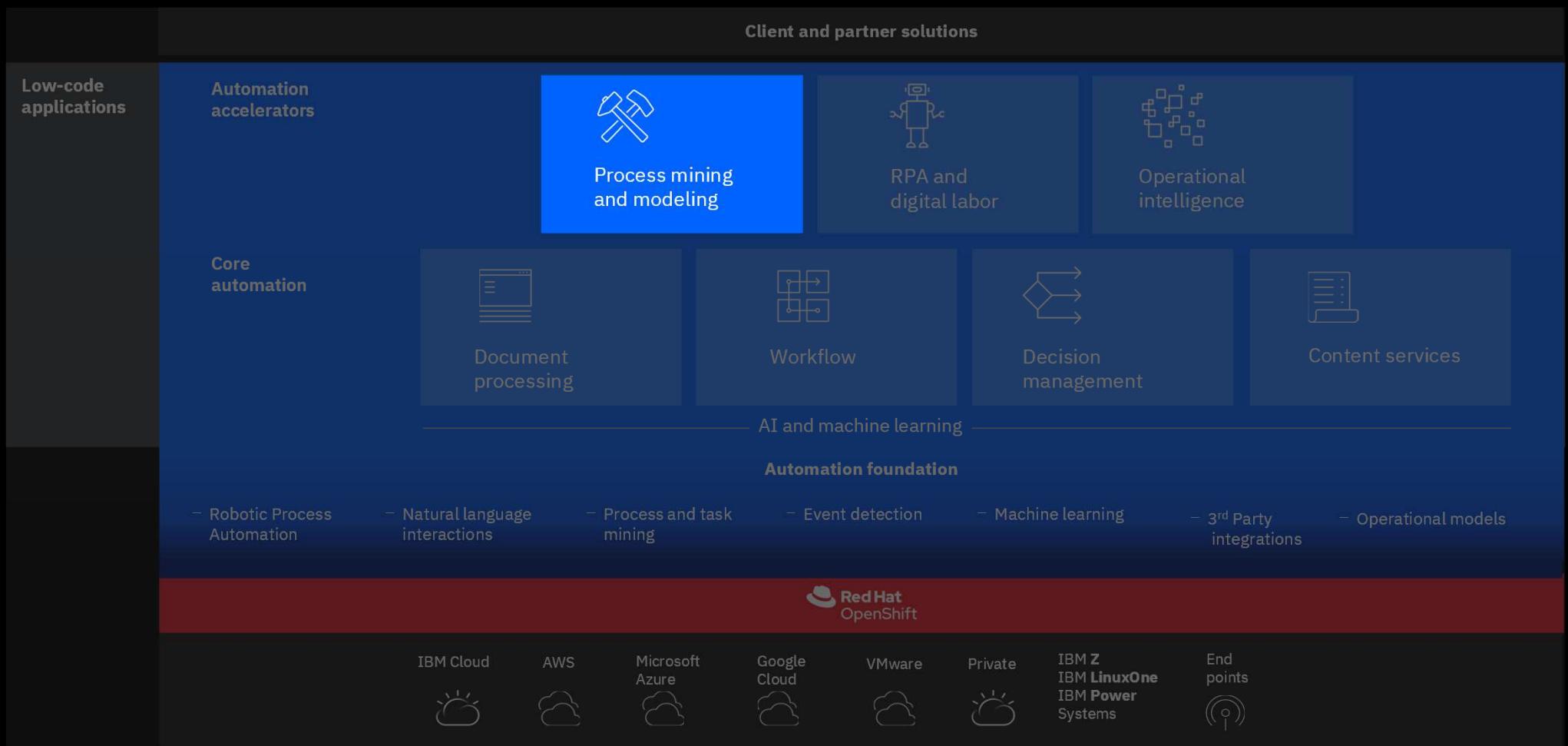
- Underwriting
- Claims / Fraud
- Finance Reconciliation

- Customer Service
- Compliance Management
- Secure Record Keeping
- Benefit Entitlement

- Order Mgmt / Billing
- Paperless Office
- Finance Reconciliation

Cloud Pak for Business Automation: Integrated automation capabilities

IBM Cloud Pak for Business Automation





Process mining

Process mining refers to the analysis and optimization of business processes based on event log data. Data mining algorithms are applied to identify trends, patterns and details.

Why IBM?

- Through partnership with myInvenio, IBM offers best-in-class process and task mining
- IBM process mining is part of a complete platform that enables organizations to understand and automate the most type of work



Discovery

- Use event logs to automatically discover process flows
- Use tasking mining to identify desktop activity steps
- Discover rules from business data



Analytics

- Use intuitive flow diagrams and interactive dashboards for analysis
- Review frequency, duration, cost conformance, costs, rework and automation levels



Simulation

- Use derived process model to configure target process simulations
- Simulate new automations using historical data
- Analyze behavior of future process



Process mining

Easily discover processes through data extraction

- Import event logs from transactional systems
- Apply data mining algorithms to event logs
- Automatically generate process models

The screenshot shows a process mining tool interface with four numbered steps:

- Upload your Data Source**: Raw or compressed (zip, gz) CSV or XES files, up to 5 MB. A preview of the uploaded data will be displayed below.
Select Data Source file Upload Get from Simulation
350,091 rows in 2 of 2 data sources Append to existing
- Upload the Reference Model (if available)**: XPDL2.1 compliant file (XPDL). To visualize differences and variations from the data derived model.
Select Reference Model file Upload Get from BPA
- Map relevant data columns**: First select the column, then assign the corresponding heading. You can select up to 90 custom fields. Use the red clear button to undo.
Process ID Activity Start time End time Resource Role Custom Fields 27/90 Clear all
Req_Line_ID Order_Line_ID Goods_ID Invoice_ID Activity DateTime Resource Role Requisition_Vendor Order_Vendor Invoice_Vendor
4500153589_10 Order Changed: Delivery Date 2017-01-31 15:14:06 DST25 Procurement VND05992
4500153746_40 Order Changed: Delivery Date 2017-02-23 12:10:16 USR0222 Secretary VND07399
4500153756_10 Order Changed: Delivery Date 2017-01-23 11:08:15 USR01049 Procurement VND04634
4500153838_10 Order Changed: Delivery Date 2017-01-23 13:36:12 USR01452 Procurement VND06319
4500153849_10 Order Changed: Delivery Date 2017-01-23 14:37:57 DST25 Procurement VND05291
4500153851_20 Order Changed: Delivery Date 2017-01-23 14:22:49 USR01202 Procurement VND06453
4500153851_10 Order Changed: Delivery Date 2017-01-23 14:22:49 USR01202 Procurement VND06453
4500153862_10 Order Changed: Delivery Date 2017-01-23 14:38:16 DST25 Procurement VND05291
- Visualize Your Process!**

Generate the process model by uploading event data and mapping data fields



Process mining

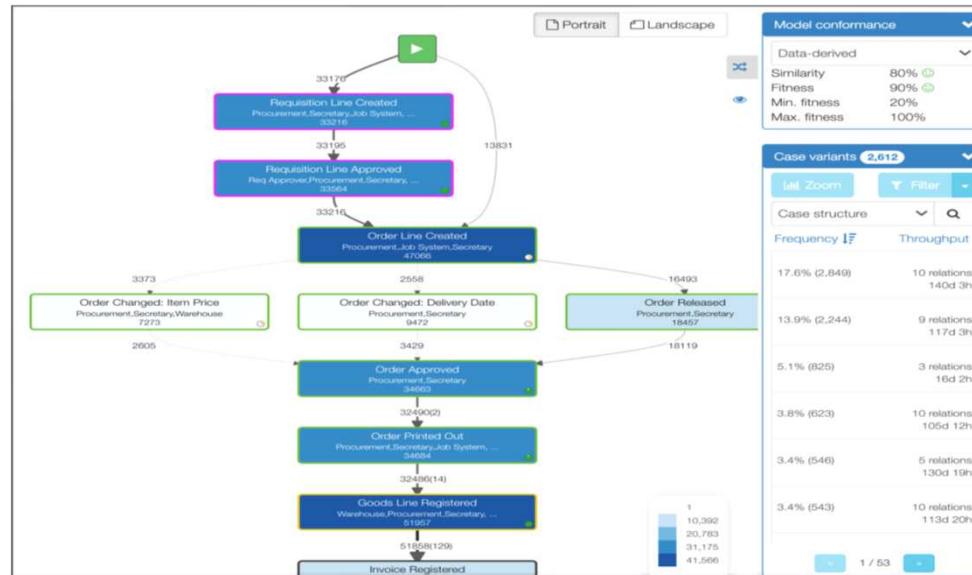
Analyze and simulate processes

Analyze current processes

- Apply drill-down, slice-and-dice and aggregation data analysis patterns to discovered processes
- Use expression editors to define and evaluate company-specific metrics and KPIs
- Compare two or more process variants to obtain actionable insights

Simulate future processes

- Monitor performance and key performance indicators (KPIs)
- Visually compare as-is and to-be scenarios



Process mining provides highly detailed, in-depth process analysis and suggestions for areas of improvement



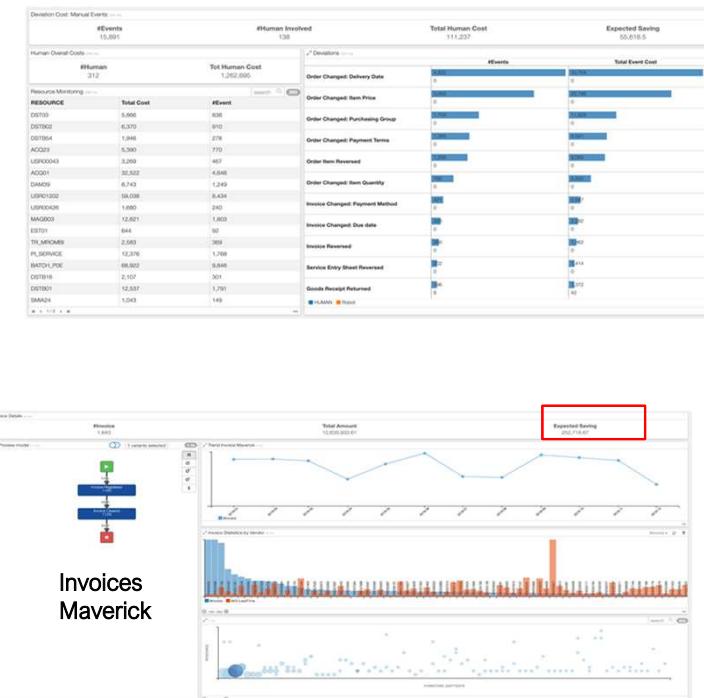
FIGURE 3

An Automotive Company's Procure to Pay Value Chain



Source: myInvenio P2P Automotive Total Potential Savings using myInvenio

Deviation Cost Monitoring





Modeling

Modeling is a way to graphically represent a company's business automation.

It is used to document, analyze and improve how a company operates.

Why IBM?

- Cloud-based modeling enables business people across departments to collaborate through an intuitive web interface
- Single repository for all process models



Collaborate

- All users see changes in real time
- Users can follow and comment on any specific process detail
- Versioning is done automatically
- Previous versions saved for easy review or retrieval



Document

- Easily add details and metadata to any step of a process
- Link back to applicable corporate policies and regulations
- Up-to-date repository stores all models and metadata in one place



Analyze and improve

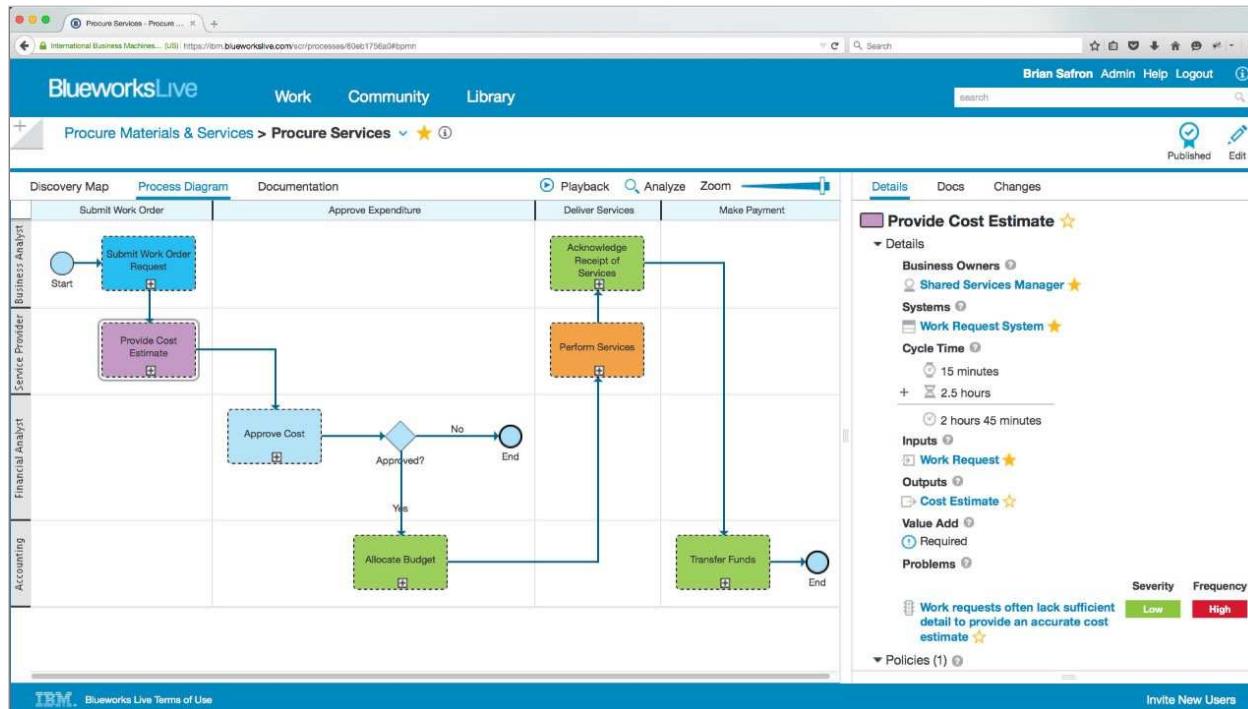
- Heat maps show problem areas and outliers
- Risks, costs, cycle times and other areas of focus are tracked for analysis
- Process playbacks step through and analyze multiple process paths



Process modeling

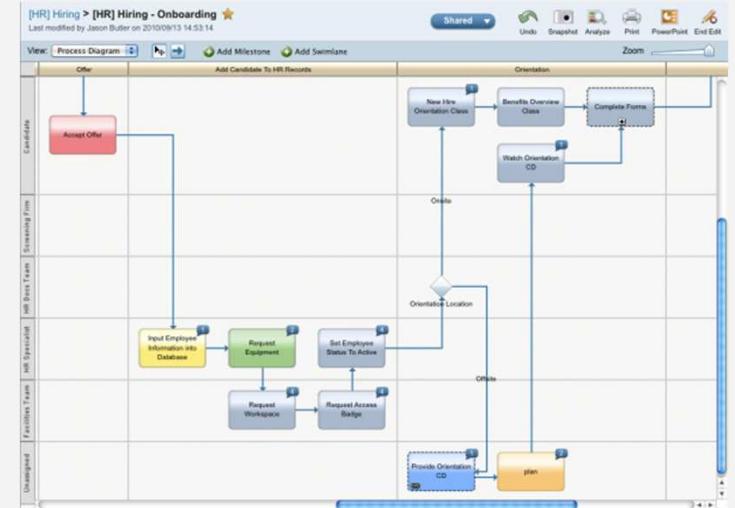
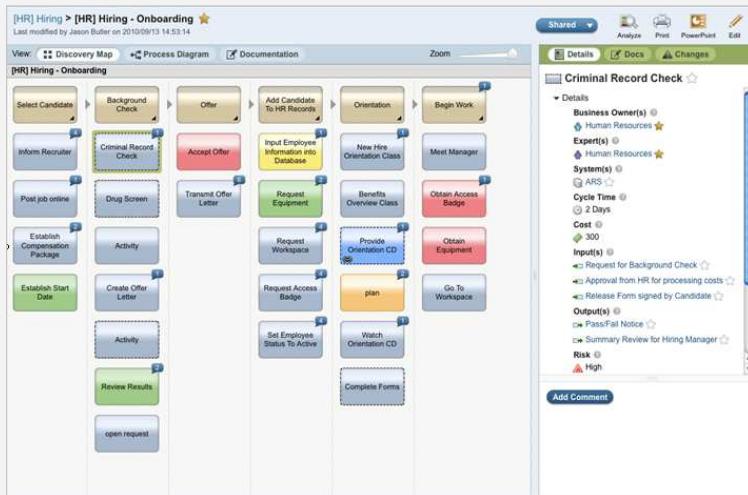
Intuitive process modeling

- Work collaboratively across teams and departments to model business processes
- Process and decision diagrams are generated automatically
- See all changes in real time
- Central, shared repository is always up to date
- Runs in the cloud and accessed through a web browser—just log in and go



Document and analyze an extensive set of process details with out-of-the-box and customizable properties

Process Discovery, Modelling, Optimisation and Documentation



Private Cloud

Two Year Agreement		
Set up fee waived for 24 month or longer commitment		
Editors	Contributors	Viewers
40	350	1000
60	350	500
60	250	1000
80	350	0
80	250	500
80	150	1000
100	250	0
100	150	500
100	50	1000
120	150	0
120	50	500

This screenshot shows the BluworksLive interface, which is a platform for managing business processes. It features a dashboard with sections for 'Featured (10 Processes)' (Accounting Services, Claims Payment, Develop business strategy, Hiring - Onboarding) and 'Template Library (99 Processes)' (Accounting Services, APQC Classification, Benefits Administration, Build investor relationships, Claims Payment, Create and manage org., Define the business con..., Deliver and support inf...). A prominent yellow callout box highlights the 'Develop business strategy' process, noting it is a 1.2 Develop business strategy (10015) process from the Cross Industry Process Classification Framework provided by APQC, IROC, IBM, and BM. The box also states that APQC and BM grant permission for publication, distribution, and use, provided that proper copyright notice is displayed. The footer includes links to 'IBM Terms of Use', 'Create New Users', and 'Currently Online'.

Presbyterian Healthcare Services

Laying down a foundation for innovation

Situation

To remain at the cutting edge of innovation, Presbyterian Rust Medical Center needed to improve the way it captured, analyzed and documented its day-to-day processes.

Key Business Outcomes

- ✓ Improved employees **productivity** by approximately **12 times**
- ✓ Enabled employees to become productive and begin creating process flows after **just six hours of training**
- ✓ Allow the hospital to quickly identify gaps and conflicts in its processes



Using IBM Blaworks Live, employees are about 12 times more productive. The key word here is empowerment. Employees are now empowered to create the processes that they need.

Doug Johnson,
director of innovation,
Presbyterian Westside Healthcare System

More quotes on IBM Blueworks Live: Facilitate the engagement of different roles in process improvement efforts



 **PRESBYTERIAN**

"Using IBM Blueworks Live, employees are about 12 times more productive. The key word here is empowerment. Employees are now empowered to create the processes that they need."

– Director of Innovation

"Helped us on our way to transforming our sales process from reactive to proactive providing us with the standardization, visibility and agility that we need to be competitive."

– Business Services

"We were looking for something that was easy to use, rapid to implement and would provide immediate tangible benefits within a couple of days if not weeks."

– Director of IT Governance

"Everyone is engaged in the process and people are participating; it's really worked out very well... Blueworks Live is as easy as it looks."

– Director of Operations

"I'd almost say that IBM Blueworks Live has democratized process work."

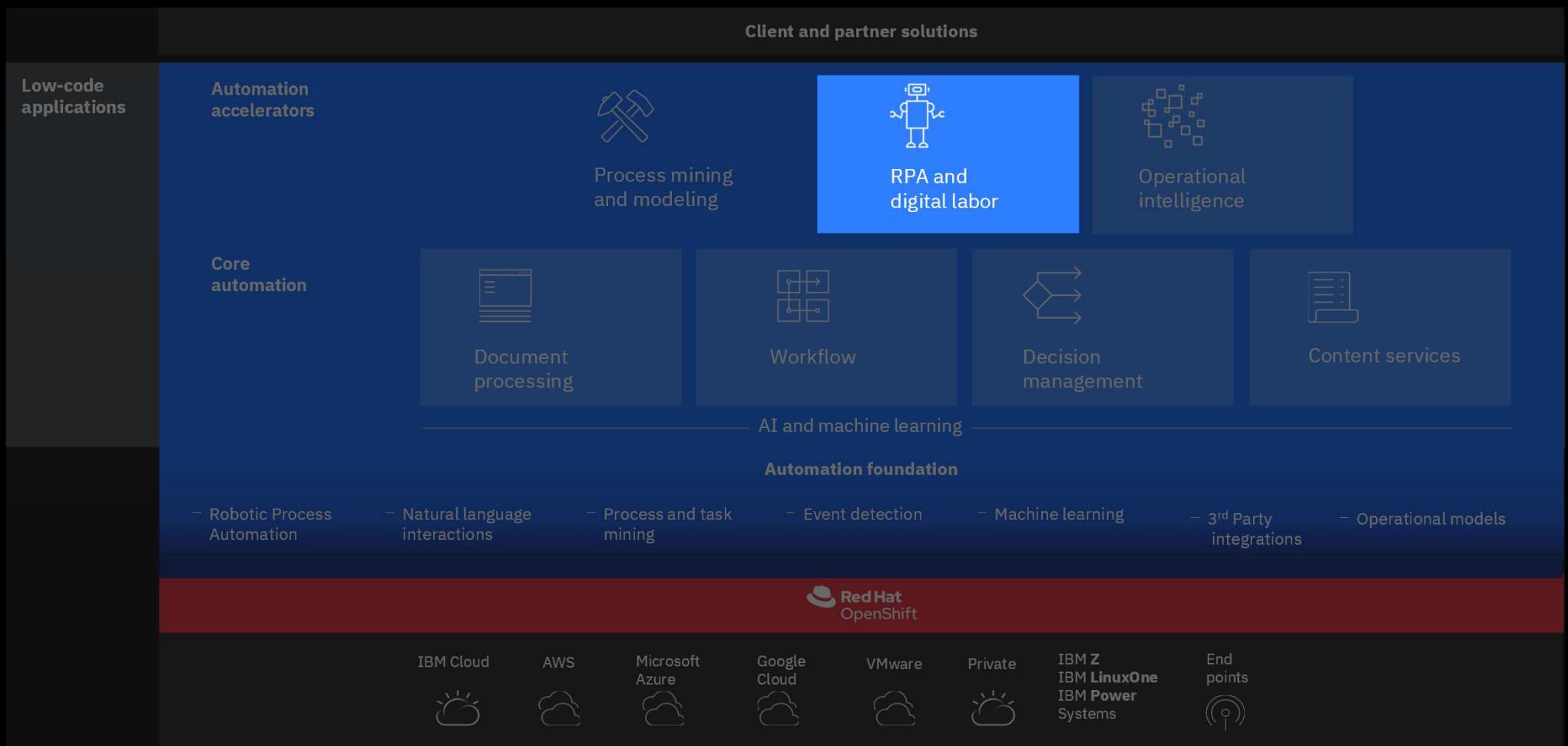
– Hospital Administrator

"We now have tools to map out, study and improve all of our processes. They are user friendly and logical. I'm excited that we've embraced the BPM technology and culture that supports the way we want to manage our business."

– Business Analyst



IBM Cloud Pak for Business Automation





Robotic Process Automation

Robotic Process Automation (RPA) refers to the use of “bots” to automate repetitive activities. RPA bots mimic the actions of humans interacting with software applications.

Why IBM?

- IBM RPA is part of a complete platform that enables organizations to automate the most type of work
- Reduce cost of ownership by running multiple bots on a single virtual host
- Create intelligent virtual agent chatbots using built-in RPA commands



Bot creation

- Simple screen recorder
- Easy-to-configure commands accessible to business users
- Integrated chatbot commands



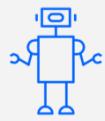
Centralized management

- Cloud native software as a service
- Workload management with concurrent bot execution on a single host
- Enterprise-grade security for managing bot credentials



Governance and lifecycle management

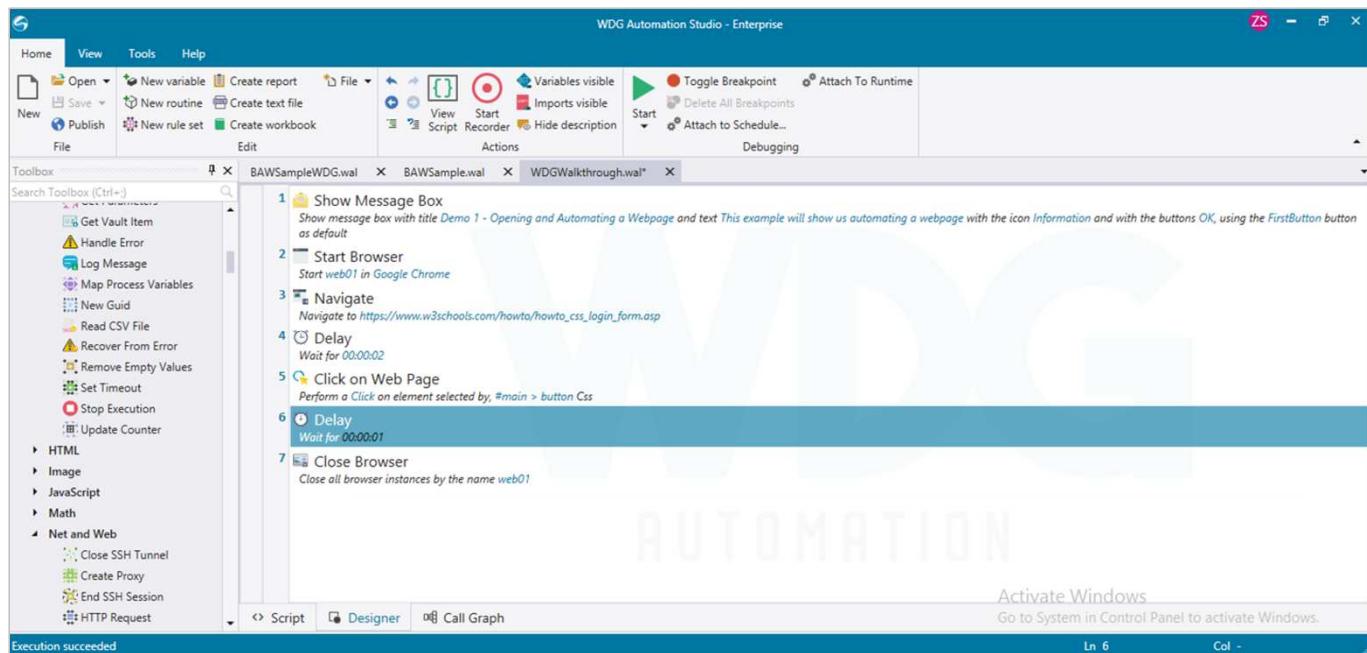
- Role-based user access control
- Development lifecycle management



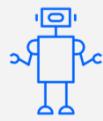
Robotic Process Automation

Easily build bots with low-code editors

- Record user interactions to automatically generate bot scripts
- Assemble bot scripts from hundreds of prebuilt commands
- Test automations directly from the bot studio



Graphical bot development capabilities include drag-and-drop of pre-built commands and ability to instantly step through and test bots



Robotic Process Automation

Comprehensive features for managing bots

Repository

- Bots managed from secure central repository
- Credentials for unattended bots are stored in an encrypted repository

Workload management

- Intelligently distribute work across multiple bots to optimize throughput
- Reduce cost of ownership by running multiple bots on the same virtual host

Dashboards

- Gain business insights into business operations

The screenshot shows a browser window titled 'WDG Automation' displaying a list of scripts. The left sidebar contains navigation links for Dashboard, Scripts (which is currently selected), Workflow, Schedules, Counters, Jobs, Chats Mappings, IVR, Launchers, Machine Learning, Queues, Storage Provider, Credentials, and Bulk. The main content area is titled 'Scripts' and shows a table with three entries:

Name	Modified By	Modification Date	Allow scheduling	Action
Alamy	Andrew Macdonald	5 days ago	✓	Actions ▾
jebjee	Jukka Juselius	5 days ago	✓	Actions ▾
LaunchBrowser	Joel Milgram	5 days ago	✗	Actions ▾

Below the table, it says 'Showing 1 to 3 of 3 entries'. At the bottom right, there are 'Previous' and 'Next' buttons.

Browser-based interface to schedule bot, manage bot repository and access dashboards

Unique multi-threaded architecture enables
multiple bots to run simultaneously on the same computer



Robotic Process Automation

Support for chatbots and interactive voice response

Chatbots for intelligent virtual agent (IVA) and interactive voice response (IVR)

- Built-in RPA chatbot commands
- IVR for voice synthesis and recognition
- Combine chatbot and other RPA commands to provide engaging client interactions

The screenshot shows a RPA script editor and a chat interface. The script editor on the left lists steps 17 through 21:

- 17: Connect to Chatbot or IVR
Connect Chat, using \${languageEn}, assigning Chat to \${chatInstance}
- 18: Bot Says
Says the text *Hi! I'm a Customer Service Bot. using the language \${languageEn}*
- 19: Bot Says
Says the text *If you provide me a ZIP code, I'll return you with the city and state it references. using the language \${languageEn}*
- 20: Run Subroutine
Executes the routine *AskAndSearchZipcodeAndAnswerUser*
- 21: Disconnect Chatbot or IVR
Disconnect

The chat interface on the right shows a conversation:

- WDG Automation: Hi! I'm a Customer Service Bot.
- WDG Automation: If you provide me a ZIP code, I'll return you with the city and state it references.
- WDG Automation: Please, enter a ZIP code so I can search for it (numbers only).
- WDG Automation: The city and state for ZIP code "90210" is "BEVERLY HILLS CA".
- WDG Automation: What is your request today?

A message input field at the bottom says "Type your message..."

Intelligent virtual agent (IVA) chatbots used to interact with customers and pass inputs directly to bots in order to perform automated interactions



Lets hear from
our customer

The solution: right at home

Axxin chose the IBM® Robotic Process Automation (RPA) solution* because of its local presence and grounding in big data. With Inter Aduaneira's 35,000 trade operations across Brazil and multinational clients that span the globe, the company wanted to take advantage of the data automation solution to help it plan for the future.



About Inter Aduaneira

Inter Aduaneira is a worldwide trade consultancy. Founded in 1996 in Belo Horizonte, Brazil, the company operates more than 40 offices across the globe, including nine in Brazil, one in the US, one in Canada and 30 partner offices in Brazil.

“Digital transformation is not immediate; it’s a whole journey to be planned.”

The RPA solution has freed analysts to apply their skills to creating better customer relationships and helping Inter Aduaneira grow. So far, it has automated:

- 6,500 issued invoices
- 7,300 tax payment forms
- 5,550 air cargo system accesses
- 4,300 exportation processes
- 1,400 international trade process instructions



In 2016, Cobmax Sales Center, a telemarketing, sales and customer service provider based in São José Do Rio Preto, Brazil, faced an unexpected dilemma. Cobmax had just won a major contract to handle customer calls for one of Brazil's largest telecommunications companies.

The growth opportunity for the young company was tremendous. But it soon became clear that the company's outdated and manual administrative systems threatened this growth. Founded in 2008, Cobmax had expanded rapidly. By 2016, it had approximately 200 salespeople working in its call center. With the new contract, the number of sales calls quickly increased. For each call, sales staff had to enter customer information



into Cobmax's customer relationship management (CRM) system. The company then had to transfer that information into each of its clients' CRM systems.

This is where the back-office team came in. Nearly 50 employees worked full-time in the back-office, cutting and pasting information from one CRM into another. However, with the increased number of calls, they could not keep up.

The employees worked longer hours, sometimes until 11:00 PM, which required overtime pay. Even so, reports to Cobmax clients were often delayed because of mistakes resulting from manual entry. At times, clients received invoices with varying amounts, which led to confusion and long phone calls with Cobmax service staff.

"We knew something had to be done, and quickly," says Alexandre Voltan, Innovation Manager at Cobmax. "In spite of our best attempts, costs and errors were increasing. If we wanted to keep growing, we needed to streamline our back-office systems."

Unexpected benefits

With this in mind, Cobmax management asked IBM for help in solving the problem. Within days, the IBM team met with the company to review problems and solutions, including IBM® Robotic Process Automation (RPA).

After this meeting, IBM provided Cobmax with a proof of concept (PoC) that included a demonstration of a working RPA process. This demonstration was exactly what Cobmax management needed to see.

"The demonstration showed us that RPA technology would not only solve our problem, but it could also do far more than we thought," recalls Voltan. "It became clear that we could scale this technology. That made the decision to work with IBM an easy one."



This review resulted in further, unexpected benefits for Cobmax management. Voltan explains: "We now realize how important it is to make a process as simple as possible before you automate it. And documenting everything ensures processes are clear and done correctly. This is something we had never done before working with IBM."

Cobmax chose a hybrid solution for the RPA Technology, which runs the analysis in the IBM cloud, while the bots are located on computers in Cobmax offices. This software-as-a-service (SaaS) solution allowed the company to get the entire process up and running in about two hours. Cobmax also saved money, since it had no start-up costs, and there was no need to invest in server hardware or software. Plus, locating the bots in Cobmax offices makes it easier for the company to ensure compliance and monitor the RPA process.

The company also asked IBM to train Cobmax staff in using the new RPA technology. Voltan explains why: "Our company prides itself on helping our employees feel empowered to learn and grow in their work. And the training IBM provided helped our employees feel more comfortable with the automation process. It made implementation easier for everyone."

“In 2016 we started with a little seed. We had only one process to improve, a simple cut and paste. Today, we have a team of five developers, a technical leader and a process owner inside Cobmax, hired by us, and we are automating a wide range of processes.”

Alexandre Voltan, Innovation Manager,
Cobmax Sales Center

Sales consultants sell more than
products every month

20,000
products every month

This is where the back-office team came in. Nearly 50 employees worked full-time in the back-office, cutting and pasting information from one CRM into another. However, with the increased number of calls, they could not keep up.

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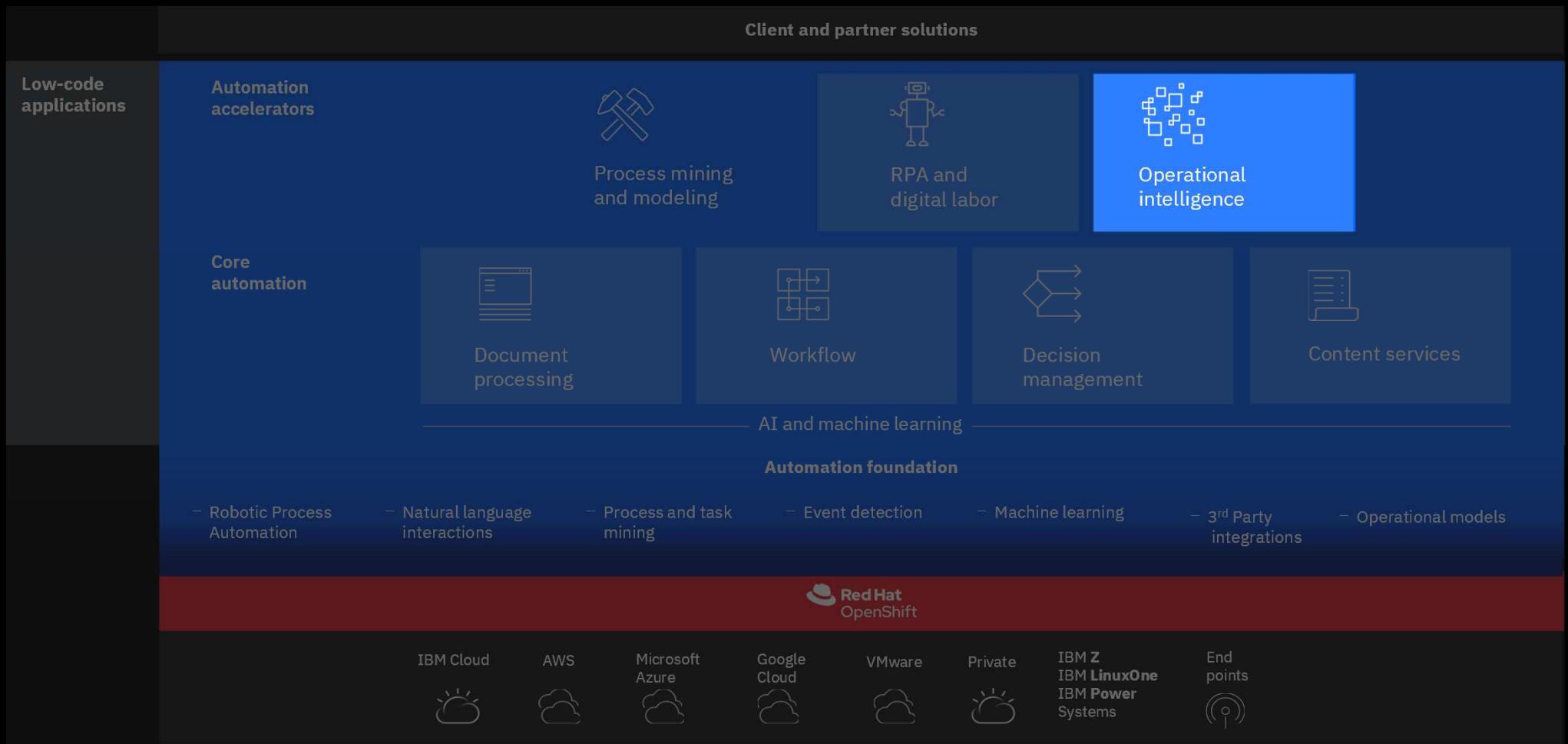
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Alexandre Voltan, Innovation Manager,
Cobmax Sales Center

IBM Cloud Pak for Business Automation





Operational intelligence

Business automation insights

provides deep understanding of business operations by capturing and analyzing data generated by operational systems

The data is presented in dashboards and made available to data scientists for analysis using AI and machine learning

Why IBM?

- Gain actionable insights from business operations running across the automation platform
- Supports data scientists for AI/ML projects by infusing pre-curated operational data into a data lake



Collect and prepare

- Capture data from multiple business and operational sources into a data lake
- Transform operational data for dashboards and AI
- Correlate events across multiple automation capabilities



Visualize

- Real-time visibility
- Pre-defined dashboards
- User configurable dashboards



Enable AI and machine learning

- Enables AI/ML projects by pre-curating operational data
- Use insights to make adjustments to improve business operations

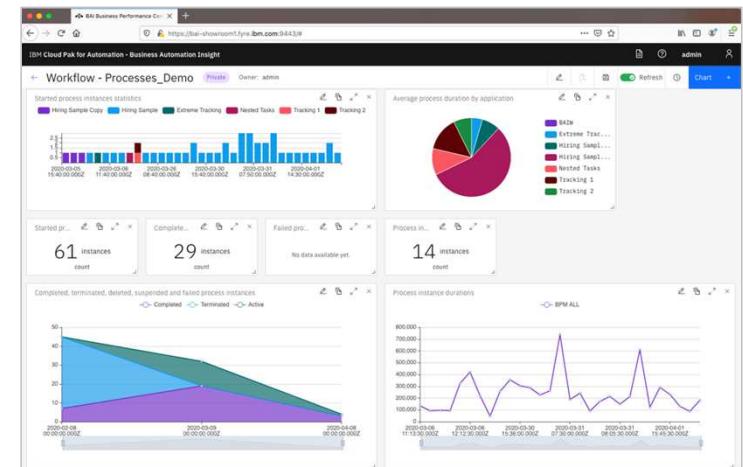
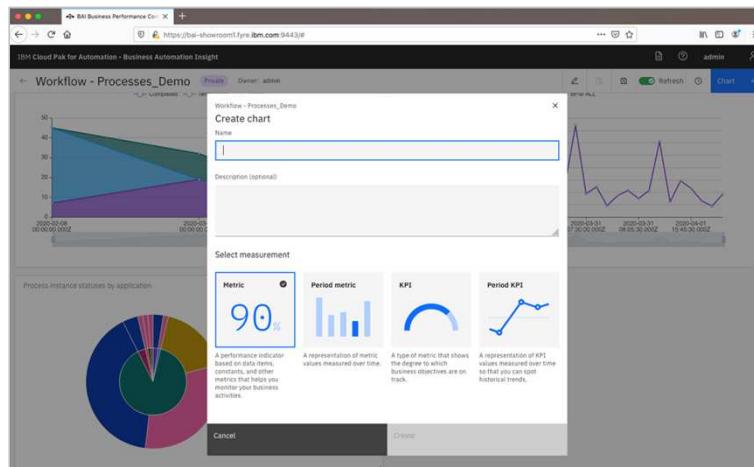


Operational intelligence

Dashboards and analytics for business owners

Automatically collects and curates operational data

- Easy configuration of event emitters
- Automatically aggregates and correlates events
- Enable data privacy and protection through anonymization and event data removal



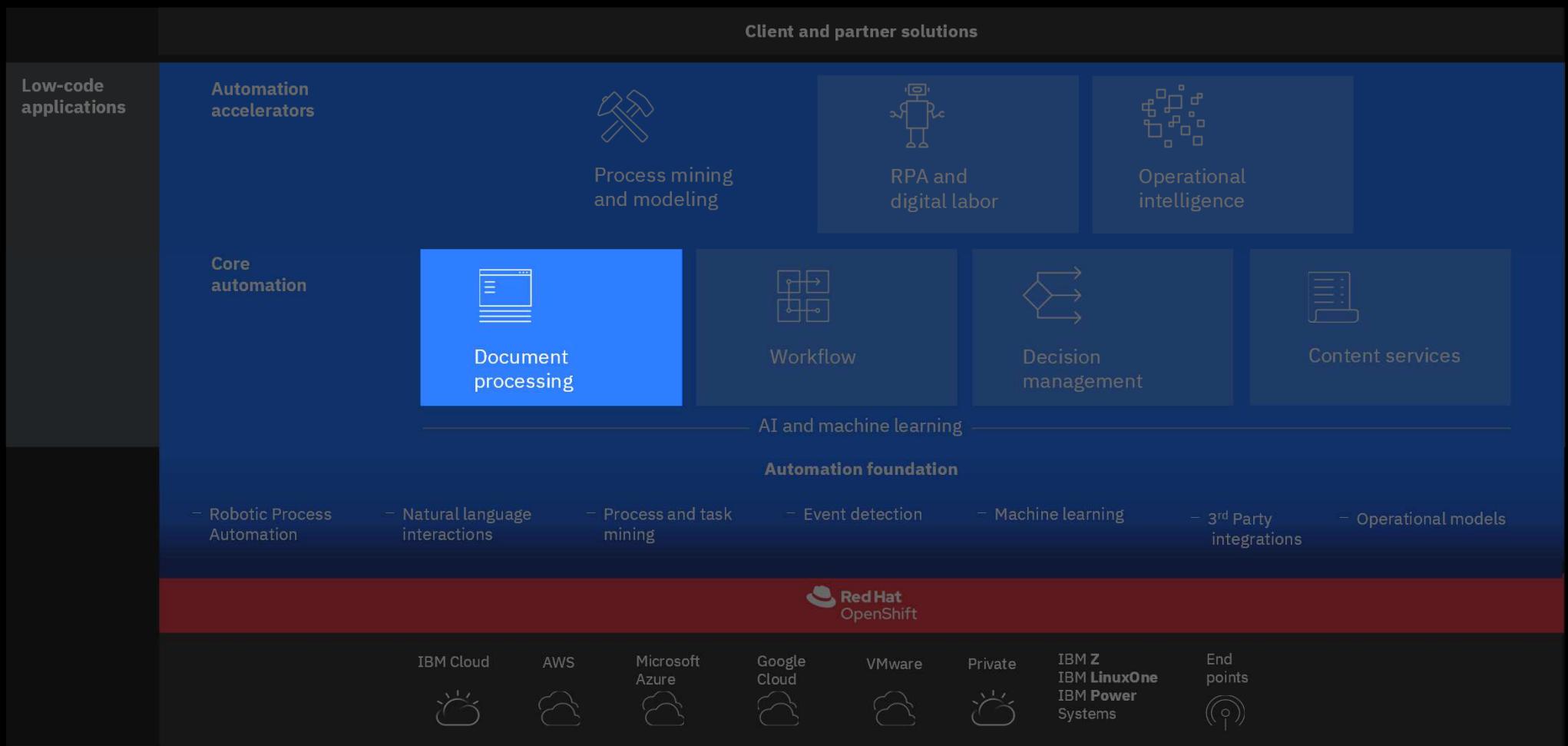
Provides out-of-the box and customizable dashboards

- Out-of-the box dashboards
- No code creation of custom dashboard with charts, KPI's and metrics

Business Performance Center is used to build dashboards with no code and to monitor performance



IBM Cloud Pak for Business Automation





Document processing

Document processing is the ability to import unstructured paper or electronic documents and extract data through recognition, classification and artificial intelligence.

Why IBM?

- Enterprise-grade offering that meets the requirements of an end-to-end capture solution
- Uses a combination of Watson analytics, advanced imaging and machine learning to understand documents



Acquisition

- Multi-channel document acquisition
- Sources include scanner, fax, email, mobile, file system, content repository



Extraction

- Classify and extract data from documents and images
- Machine learning and AI tools
- Sophisticated rules to validate data



End-to-end solution

- Build flexible and customizable capture applications
- Manage capture workflow
- High availability and enterprise-grade reliability, security, and disaster recovery



Document processing

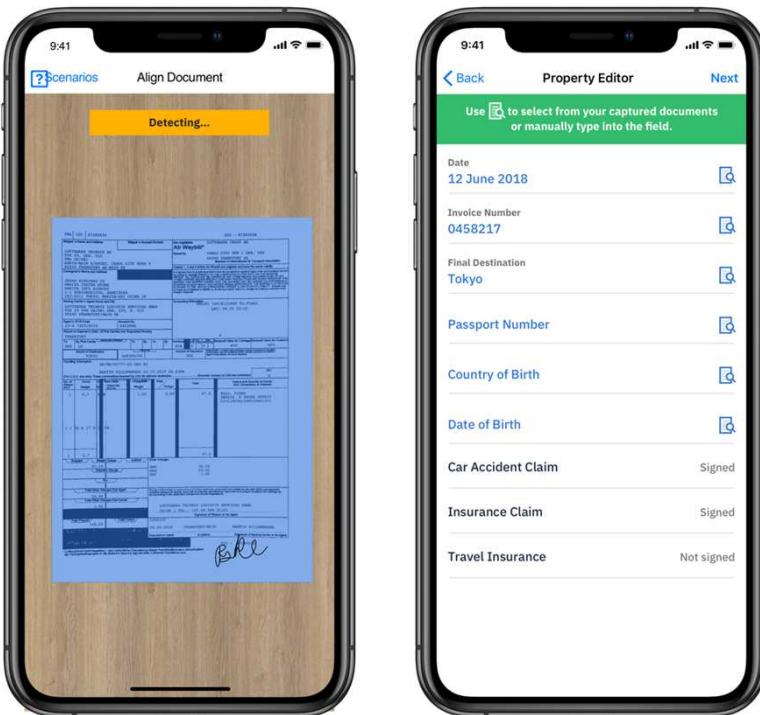
Get started easily with mobile capture

Simple mobile capture setup

- Set up in minutes to create a simple guided user experience
- Improve straight-through processing with on-device data checking and correction
- Out-of-the-box mobile iOS and Android apps and mobile SDK to augment client applications

Easy to get started with machine learning

- Low code configuration performed by business analysts
- On-device AI models for extracting key data types
- Real-time image processing to ensure high quality



Capture, validate and submit data from documents and images from an easy-to-use mobile app



Document processing

End-to-end enterprise capture solution

- Multi-channel content acquisition from fax, email, scanners, mobile, file upload, folder scanning and API
- Broad support for extraction from key-value pairs, tables, checkboxes, ID-cards, and signature validation
- Efficient high-volume batch processing with automated document identification and separation
- Comprehensive *human in the loop validation process* to efficiently address errors and omissions
- Publish digitized documents and data with support for multiple file formats

The screenshot shows a software interface for document processing. At the top, there's a toolbar with various icons: Next, Submit, Previous, Next Problem, Prev Image, Next Image, Document Images, Batch Structure, Hide Toolbar, and Run Validations. Below the toolbar, there's a menu bar with Image View, Index, and other options.

The main area displays an invoice from "Brilliant Repair Shop". The invoice details are as follows:

PO#	Vendor	Postal Code	Invoice Number
0	Brilliant Repair Shop	89701	03-8508
	TS93208	89701	03-8508

Invoice Date: 02/15/10 PO Number: 0811012 Shipping: Tax Total: 554.68
2/15/2010 0811012 27.68 554.68

SALES TAX 27.68

Tax Type	Tax Value
Sales	27.68
VAT	
GST	

ITEMS OR SPECIAL INSTRUCTIONS:

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
1	Left quarter panel	175.00	175.00
1	Tail lights	50.00	100.00
1	Gaskets	.95	76.00
2	Front headlights	50.00	100.00
80	Bolts	.95	76.00

Subtotal 572.00
Sales Tax 27.68
Shipping & Handling

A detailed line item table is also shown:

ItemID	Description	Qty	Price	Line Total	PO Line No
	Left quarter panel	1	175.00	175.00	10
	Tail lights	2	50.00	100.00	20
	Gaskets	80	.95	76.00	10
	Front headlights	2	50.00	100.00	20
	Bolts	80	.95	76.00	10

Buttons at the bottom include: Add New Fingerprint, Blank, Routing Instructions, None, Language, English, and OK.

Recognize, classify and extract business data from highly unstructured inputs

Enterprise capabilities that can capture **hundreds of thousands of documents per day**



Document processing

Intelligent classification and extraction

- Intelligent classification to automatically understand document categorization
- Deep learning to understand relationships between document labels and values (replaces traditional zone-based extraction methods)
- Extract meaning from text (e.g., emails, contracts) with Watson Knowledge Studio
- Intelligent mobile document capture in real-time using on-device AI to extract important information

The screenshot shows the 'Create data extraction model' page in the DBA Studio. The top navigation bar includes 'IBM Cloud Pak for Automation | Studio' and icons for help, notifications, and user profile. Below the navigation is a breadcrumb trail: 'DBA Studio / DEMO1 / Data Extraction'. The main title is 'Create data extraction model'. There are five tabs at the top: 'Split samples' (radio button), 'Teach model' (radio button), 'Train model' (radio button, selected), 'Enrich data (optional)', and 'Preview model (optional)'. A 'Teaching summary' section states: 'The document types and fields to be trained for this model.' It lists three document types: 'Invoice', 'Packing List', and 'Purchase order'. For 'Invoice', 'Samples taught' is 2/9, 'Fields taught' is 6, and 'Status' is 'Ready to train' (green circle). For 'Packing List' and 'Purchase order', both 'Samples taught' and 'Fields taught' are 0, and their status is 'Will not be trained' (grey circle). To the right, a 'Training' panel shows '1 document type' and '6 fields', with a prominent blue 'Train model' button. A search bar at the bottom left says 'What are you looking for today?'

No-code design tool for training the system to classify documents and identify data fields





Processing millions of documents in just months

Time was of the essence when it came to finding a solution—Turkcell had just over a year to verify its compliance with the new regulations. After evaluating a number of document capture and data extraction solutions, the company selected IBM Datacap software offered as part of the IBM Cloud Pak® for Automation solution and worked with IBM Business Partner Aksis to get its data validation project underway.

Gonca Çorman, Expert CRM Analyst at Turkcell, says: “Aksis has been our technology partner for more than a decade. They help us to maintain all of our enterprise content management platforms to the service-level agreements set by our regulators and our customer service metrics. Aksis played



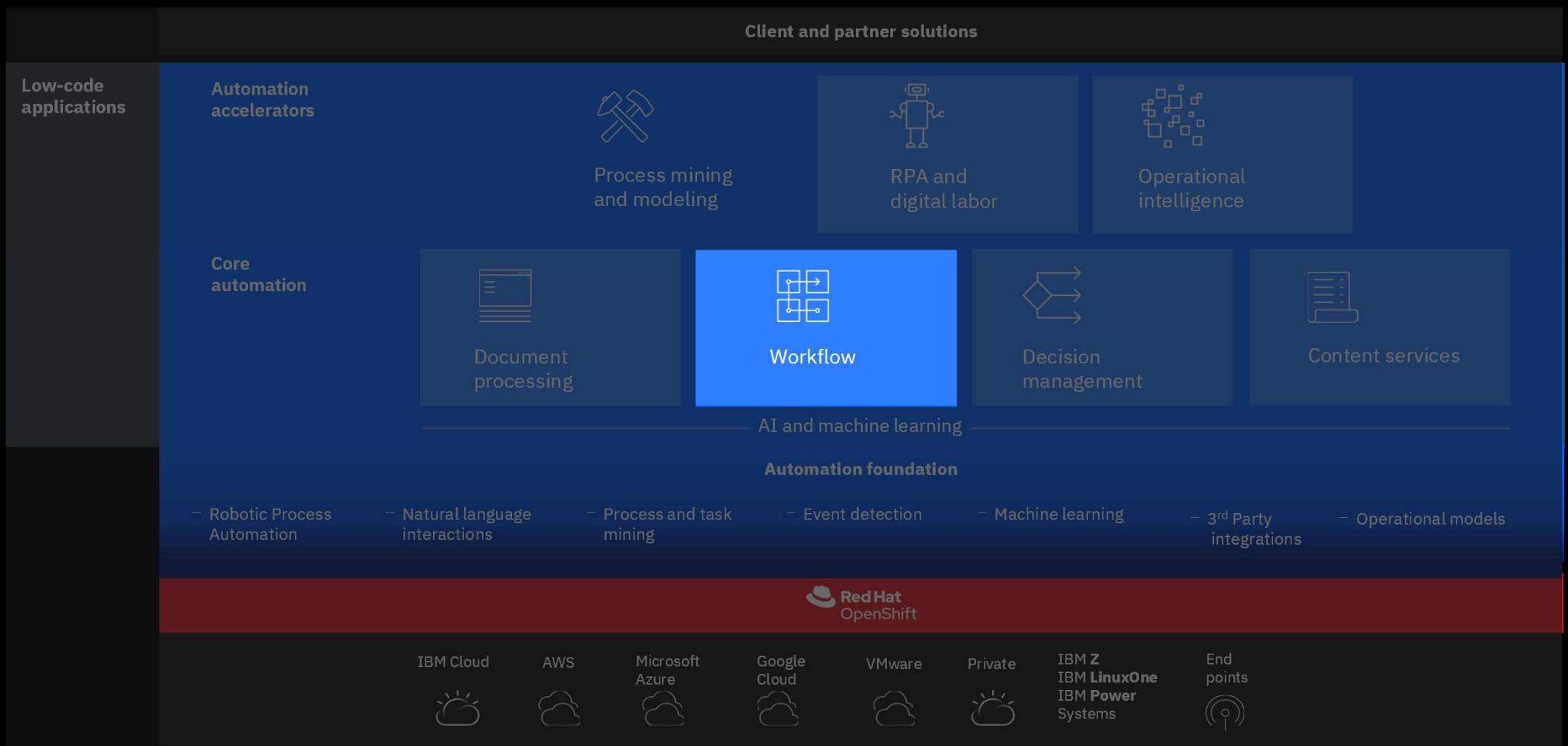
a key role in this project, helping us to expertly configure the Datacap solution to ensure that the data validation progressed smoothly.”

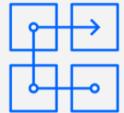
Using Datacap software, Turkcell checked the contract documents of customers whose CRM entries indicated that they had given permission to

“ We were extremely pleased with the performance of IBM Datacap’s OCR [Optical Character Recognition] engine. We were able to take advantage of a variety of techniques to ensure the best results, even when the image quality was poor. This helped to reduce manual effort and allowed us to stick to a tight schedule.”

Nevra Biyikli
CRM Manager
Turkcell İletişim Hizmetleri A.Ş.

IBM Cloud Pak for Business Automation





Workflow

Workflow defines how work gets done through a sequence of steps performed by humans and systems.

Workflow management is the design, execution and monitoring of workflows.

Why IBM?

- Designed for process owners and business users to engage directly in the implementation
- Broad support for the smallest initial projects to enterprise-wide adoption



Design

- Graphical workflow designer
- Low-code design environment
- UI builder with rich palette of controls
- Reuse common components



Execution and monitoring

- Consolidated task management
- Flexible search and filtering
- Responsive, mobile ready UI
- Real time process metrics



Governance and lifecycle management

- Centrally managed development
- Built-in versioning and “one-click deployment”
- Manage hundreds of process applications across the enterprise

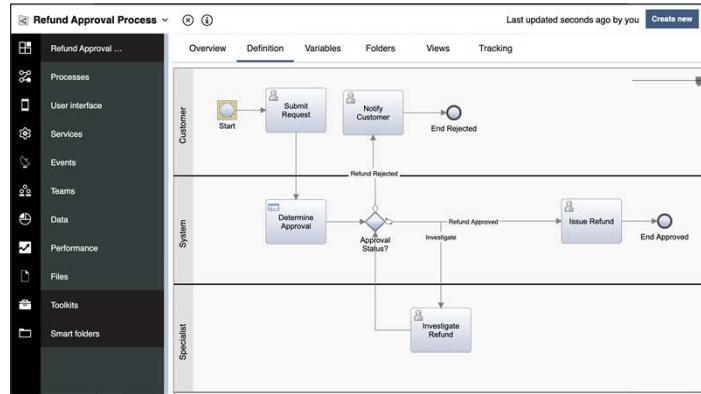


Workflow

Intuitive tools for workflow definition

This screenshot shows the Intuitive Case Designer interface. It displays a hierarchical list of tasks under three main categories: Required tasks, Optional tasks, and Discretionary tasks. Each task entry includes a small icon, a name, a brief description, and a 'Set' button.

- Required tasks:**
 - Verify Case
 - Close Case
- Optional tasks:**
 - Approve Compensation
 - Contact Customer
 - Review Complaint
 - Review Document
 - Review Query
 - Review Customer Reply
- Discretionary tasks:**
 - Request Assistance



This screenshot shows a drag-and-drop user interface builder interface for creating mobile applications. The main area displays a "Fire Department Dispatch" screen with components for "Call Transcript", "Call Audio", and "Location". The "Location" component includes a map and form fields for "Name", "Emergency Type", and "Phone Number". The interface features tabs for DESIGNER and INSPECTOR, and a sidebar with various tool icons and navigation links.

Intuitive case designer

- Easily define the business level tasks needed
- Group tasks by required and optional steps

Graphical process layout

- “The picture is the process”
- Allows non-technical business users to configure their processes for execution

Drag-and-drop user interface builder

- Over 70 out-of-the-box user interface components
- Ability to create additional reusable components



Workflow

Scale from initial projects to an enterprise-wide program

- Toolkits provide reusable functionality across workflows
- Graphical interface provides visibility into workflow deployment
- Enterprise versioning capabilities manage updates while process instances are in-flight

Snapshot Version	Created On	Created By	Status	Server	Instances	Action Links
V3	3/30/09	BrandonBaxter	Not Yet Installed			Edit New Workspace Export Clone Install Archive Compare
V2.2	12/11/08	BrandonBaxter	Currently Installed:	Test-eastUS(twserver1)	9 instances	Server Details Uninstall
				QA-NorthAmerica(twserver2)	11 instances	Server Details Uninstall
				QA-EMEA(twemea2)	54 instances	Server Details Uninstall
				Prod-NorthAmerica(jordan)	39 instances	Server Details Uninstall
V2.1	12/10/08	BrandonBaxter	Currently Installed:	Test-eastUS(twserver1)	14 instances	Server Details Uninstall
				QA-NorthAmerica(twserver2)	8 instances	Server Details Uninstall
				Prod-NorthAmerica(jordan)	36 instances	Server Details Uninstall
				Prod-EMEA(twemea3)	42 instances	Server Details Uninstall
V2	12/10/08	BrandonBaxter	Currently Installed:	QA-NorthAmerica(twserver2)	8 instances	Server Details Uninstall
				Prod-NorthAmerica(jordan)	27 instances	Server Details Uninstall
V1.1	12/10/08	BrandonBaxter	Currently Installed:	Prod-NorthAmerica(jordan)	10 instances	Server Details Uninstall
				Prod-EMEA(twemea3)	8 instances	Server Details Uninstall

One-click deployment across dev, test and production environments

Enterprise capabilities to execute **millions of real-time process instances**



Workflow

Apply AI to improve workflow productivity

Intelligent task prioritization

- Every task in a worker's task list is scored using predictive analysis:
 - Skill score
 - Performance score
- Each worker's task list is sorted with the high-valued, high-skill, and high-performance tasks at the top of the list
- Workers are enabled to prioritize their time on the highest value tasks

The screenshot shows a user interface for managing tasks. On the left, there is a sidebar with a user profile for 'tw_admin' and links to Dashboards, Work, Processes, Process Performance, Team Performance, Launch, Discover UI, and Standard HR Open New Position. The main area is titled 'Work' and contains a list of tasks. At the top right, there is a summary bar showing '19 Total Open' with breakdowns: 0 On Track, 0 At Risk, and 19 Overdue. Below this are search and filter icons. The task list is as follows:

Task Details
Task: GM Approval Standard Employee Requisition for Tom Miller (Standard HR Open New Position) GeneralManagers Due: May 28, 2020, 9:03:27 AM
Task: GM Approval Standard Employee Requisition for Tom Miller (Standard HR Open New Position) GeneralManagers Due: May 28, 2020, 10:49:05 AM
Task: GM Approval Standard Employee Requisition for Tom Miller (Standard HR Open New Position) GeneralManagers Due: Jun 10, 2020, 12:50:41 PM
Task: GM Approval Standard Employee Requisition for Tom Miller (Standard HR Open New Position) GeneralManagers Due: Jun 9, 2020, 3:10:15 PM
Task: GM Approval Standard Employee Requisition for Tom Miller (Standard HR Open New Position) GeneralManagers Due: May 28, 2020, 9:05:02 AM
Task: GM Approval Standard Employee Requisition for Tom Miller (Standard HR Open New Position)

Prioritized task list uses predictive analysis to score each worker's tasks by expected skill and performance

All In One Multi-Purpose Workflow Platform

Can Integrate with Enterprise System via BPEL

Can Perform as a ESB between Systems

Can Integrate with 40+ ECM via CMIS

Can Support BPM and Case Management

Compliant to BPMN, XPDL, BPEL and SOA Principles

Include an ECM within Workflow

Include a Business Rules Engine within Workflow

Include Certified Connectors with IBM RPA, AA, UIPath, Blueprism

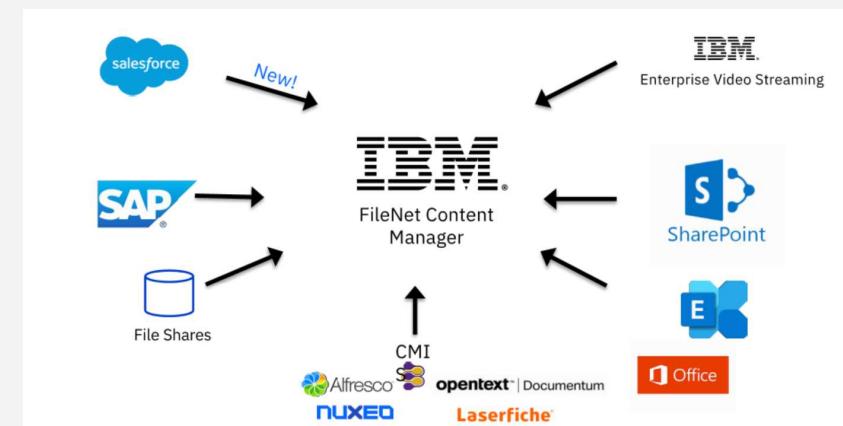
Incorporates AI and Machine Learning for Task Prioritisation, Next Best Action

Supports both Low Code and High Integrations Requirements

Support Common UI for Enterprise Systems with Workflow

Supports Headless Workflow requirement for Customised UI

Supports On Prem, Private and Public Cloud Deployment



DBA . CP4BA Intelligent Workflows

Case and Process Automation	Process Submission Tracking	Process Auditing	Regulation Rules	Eligibility Rules	Secured Content
Task Distribution to Internal Teams	Intra-Government Coordination	Team Assignment & Management	Rules Versioning	Rules Impact Analysis Scenarios	External Share
SLA Management	Team Alerts	Escalations	Benefit Calculation	Rules Auditing	Privacy Redaction
Workload & Bottlenecks	Heatmaps	Performance Dashboards	Straight-through Processing	Decision Services	Hybrid Cloud Business Services





The Total Economic Impact™ of the IBM Automation Platform for Digital Business

FORRESTER®

Forrester concluded that the IBM Automation Platform for Digital Business has the following three-year financial impact for an interviewed retail bank, especially related to loan application processes.

SUMMARY OF BENEFITS

Three-year risk-adjusted present value of \$23.9 million in benefits



IBM DIGITAL BUSINESS AUTOMATION BY THE NUMBERS



Today, 80% of all loan applications do not require manual steps and are processed automatically.



Event marketers can complete new application sign-ups 75% more quickly, leading to more accounts opened.



Over 200,000 hours of loan processing time were saved each year

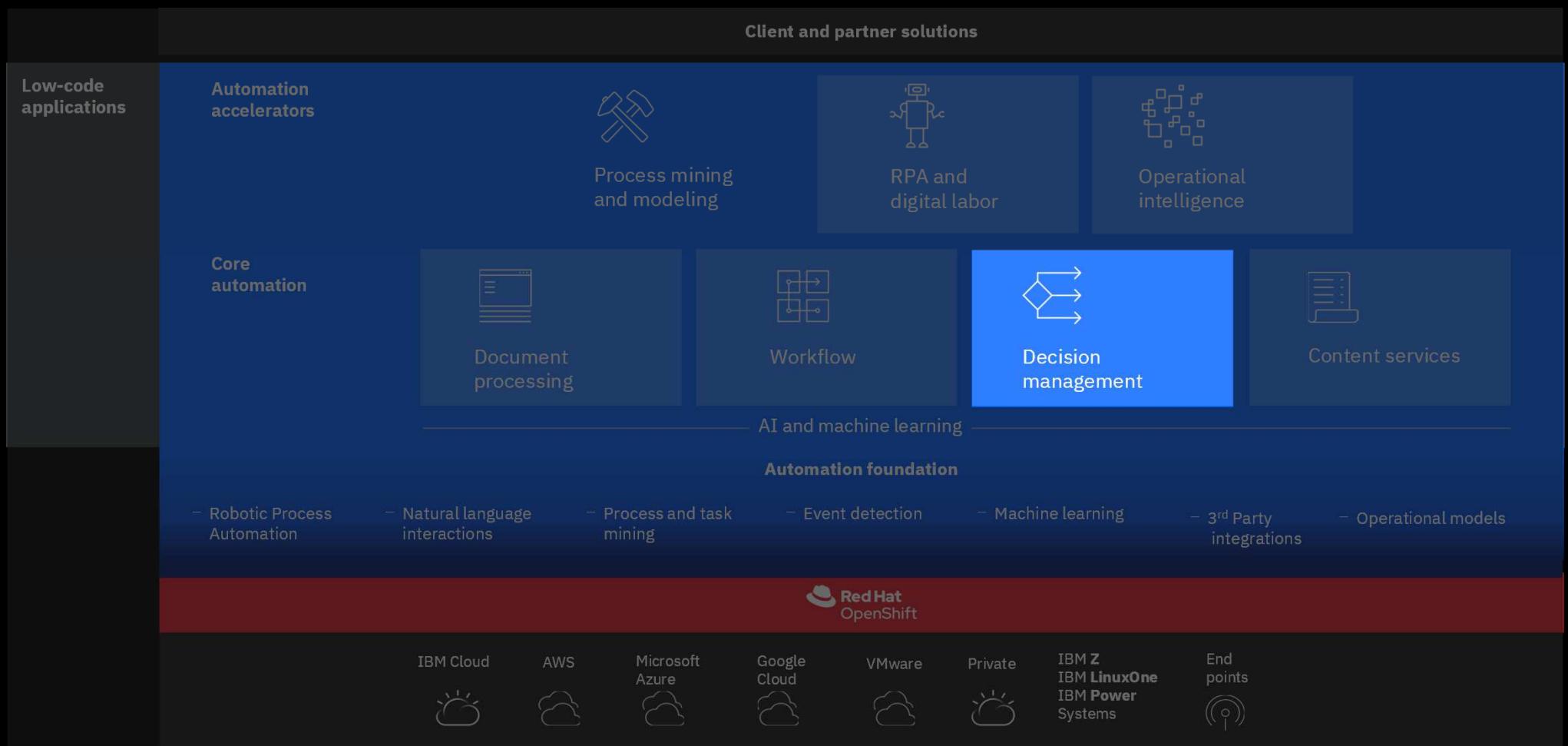
VOICE OF THE CUSTOMER

From the business process management (BPM) manager at the interviewed retail bank:

“Some loan approval processes were taking days, now 80% of our loan applications flow straight through and are done in seconds.”

“If you get it approved in seconds, it won’t become an abandoned loan; but if it takes you two weeks, then it could.”

IBM Cloud Pak for Business Automation





Decision management

Decisions are the repeatable rules and policies made as part of day-to-day business operations.

Decision management is the software used to gather, manage, execute and monitor decisions.

Why IBM?

- Comprehensive business rules lifecycle management
- Business-friendly capabilities for development, testing and governance



Define

- No-code decision modeling
- Graphical guided tools to model and validate decisions
- Integrates business rules with machine learning



Execution and testing

- Test and simulate decisions
- Execute decisions with speed and consistency
- Highly scalable micro services architecture
- Execution tracing for auditability



Governance and lifecycle management

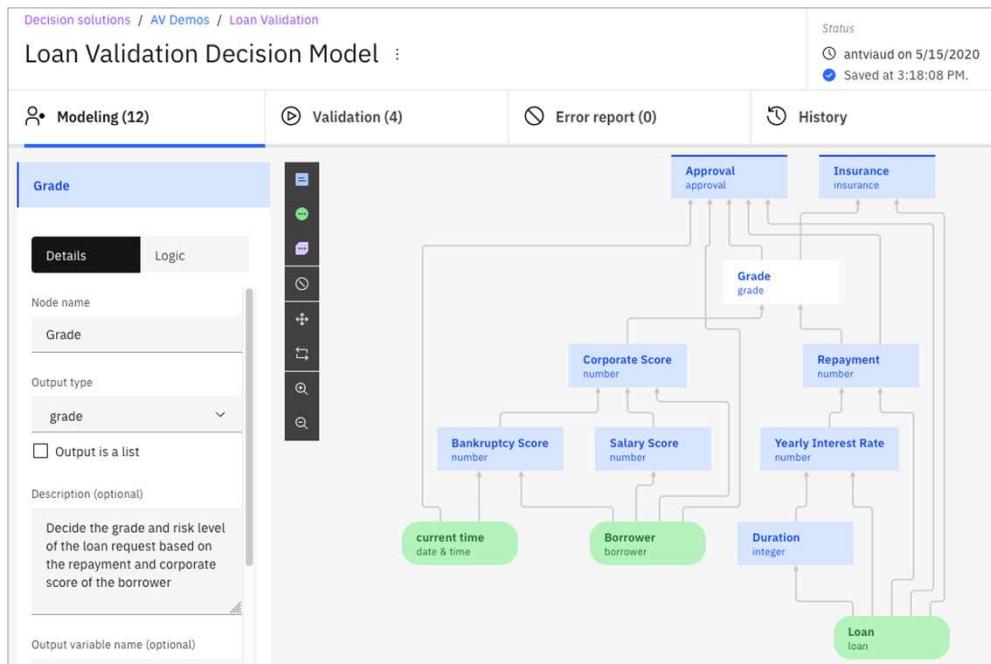
- Release management and versioning
- Role-based permission management



Decision management

Business-friendly tooling for decision management

- Intuitive business-friendly tooling to model repeatable decisions
- Business experts create and edit rules using natural language
- Test and govern decisions within a business environment
- Integrated capability for decision automation



Low-code editors provide easy-to-use tools to graphically model business decisions



Decision management

Scalable and secure decision automation

Testing and simulation

- Step-by-step debugging with value inspectors
- Test suite definition, simulation and rule analysis

Centralize decisions

- Centralize and externalize business knowledge
- Simple effective governance and security

Execution at scale

- High performance and scalability for the most demanding enterprise deployments
- Supports transactional and batch rule execution

	Repayment		Corporate Score		Grade	
	min	max	min	max	grade	message
1	0	10,000	≥ 900		A	Very low risk loan
2	0	10,000	600	900	A	Very low risk loan
3	0	10,000	300	600	B	Low risk loan
4	10,000	30,000	≥ 900		A	Very low risk loan
5	10,000	30,000	600	900	B	Low risk loan
6	10,000	30,000	300	600	C	Average risk loan
7	30,000	60,000	≥ 900		B	Low risk loan
	30,000	60,000	600	900	C	Average risk loan
if all of the following conditions are true : - ('Repayment' * 12 is at least 30000 and less than 60000) - ('Corporate Score' is at least 900), then set 'decision' to a new grade where the grade is "B", the message is "Low risk loan";				600	D	Risky loan
					C	Average risk loan
				900	D	Risky loan
				600	E	Very risky loan

Highly scalable environment to manage millions of business rules

Enterprise decision capabilities with scalability to execute over **1 billion decisions per day**





Operational intelligence

Apply AI to operational data

Enable machine learning algorithms

- Feed pre-curated operational data into a data lake
- Enables data scientists for AI/ML projects
 - Get insight into process execution
 - Understand worker efficiency
 - Provide recommendations based on historical performance



Operational data can be used to find previously undetected process patterns and to identify work patterns

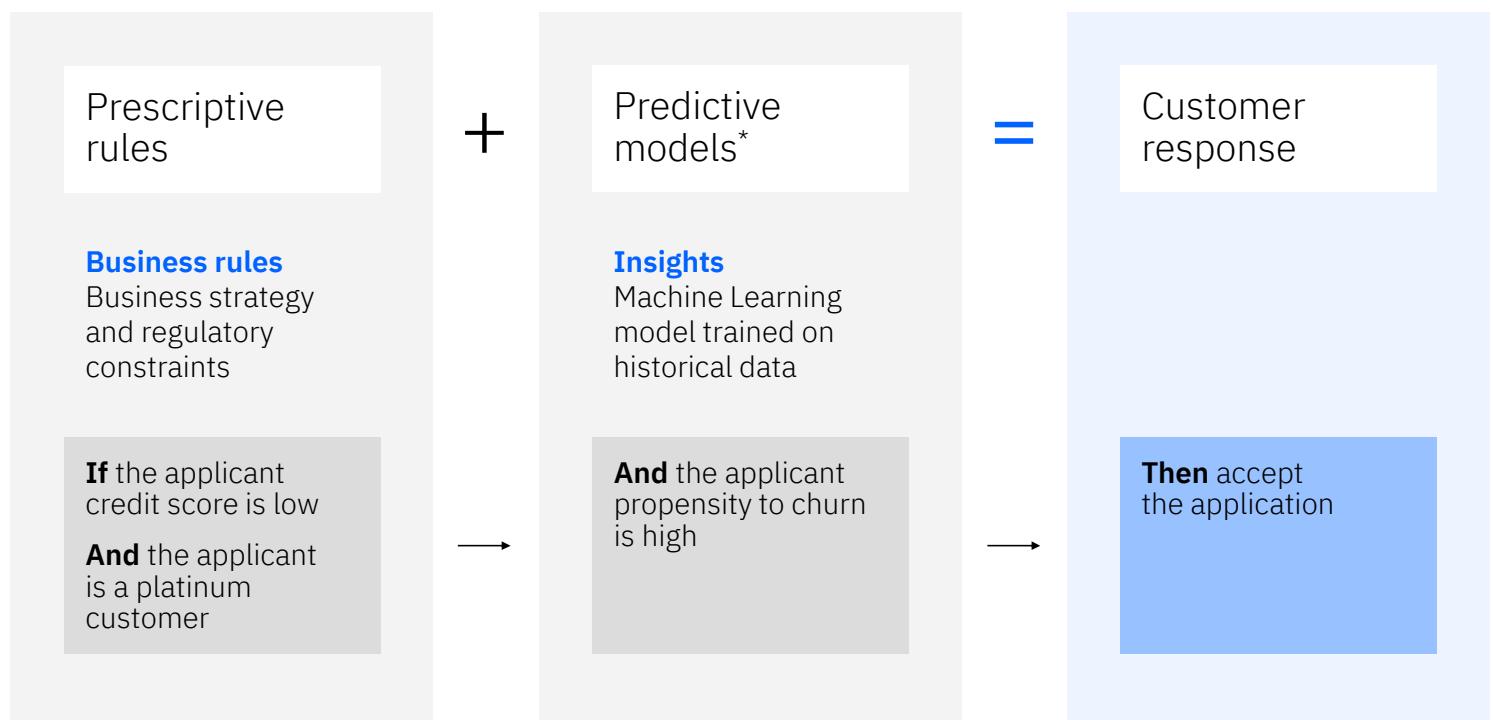


Decision management

Integrated machine learning for better decisions

Built-in integration of business rules and machine learning

- Machine learning models accessible to business analysts in a low-code environment
- Extend rules-based decisions by incorporating machine learning models
- Native integration with Watson Machine Learning predictive analytics
- Extensive framework for third-party machine learning providers



*Native integration with Watson Machine Learning



Decision Automation Use Cases

Means-Test System

- Means-test is a method to calculate the subsidies you will receive from the government when you use care services. It ensures that patients from lower-income households receive more subsidies than those from higher-income households.
- IBM ODM is employed to manage and automate scheme specific eligibility criteria, means test calculation and banding determination.



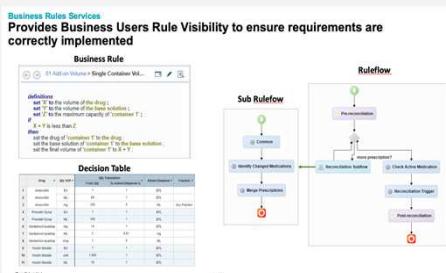
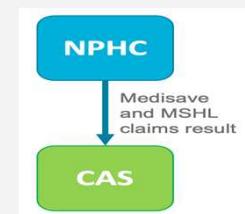
• Healthcare Claims

- IBM ODM is used to manage and automate policy rules for claims processing including claim eligibility and computation

Per Capita Income	min	AV	max	Subsidy Band
a 700	13,000	21,000	C1	
a 700	1,000	= 21,000	C2	
b 700	13,000	21,000	C3	
b 700	1,000	= 21,000	C4	
c 700	13,000	21,000	C5	
c 700	1,000	= 21,000	C6	
d 700	13,000	21,000	C7	
d 700	1,000	= 21,000	C8	
e 700	13,000	21,000	C9	
e 700	1,000	= 21,000	C10	
f 700	13,000	21,000	C11	
f 700	1,000	= 21,000	C12	
g 700	13,000	21,000	C13	
g 700	1,000	= 21,000	C14	
h 700	13,000	21,000	C15	
h 700	1,000	= 21,000	C16	
i 700	13,000	21,000	C17	
i 700	1,000	= 21,000	C18	
j 700	13,000	21,000	C19	
j 700	1,000	= 21,000	C20	
k 700	13,000	21,000	C21	
k 700	1,000	= 21,000	C22	
l 700	13,000	21,000	C23	
l 700	1,000	= 21,000	C24	
m 700	13,000	21,000	C25	
m 700	1,000	= 21,000	C26	
n 700	13,000	21,000	C27	
n 700	1,000	= 21,000	C28	
o 700	13,000	21,000	C29	
o 700	1,000	= 21,000	C30	
p 700	13,000	21,000	C31	
p 700	1,000	= 21,000	C32	
q 700	13,000	21,000	C33	
q 700	1,000	= 21,000	C34	
r 700	13,000	21,000	C35	
r 700	1,000	= 21,000	C36	
s 700	13,000	21,000	C37	
s 700	1,000	= 21,000	C38	
t 700	13,000	21,000	C39	
t 700	1,000	= 21,000	C40	
u 700	13,000	21,000	C41	
u 700	1,000	= 21,000	C42	
v 700	13,000	21,000	C43	
v 700	1,000	= 21,000	C44	
w 700	13,000	21,000	C45	
w 700	1,000	= 21,000	C46	
x 700	13,000	21,000	C47	
x 700	1,000	= 21,000	C48	
y 700	13,000	21,000	C49	
y 700	1,000	= 21,000	C50	
z 700	13,000	21,000	C51	
z 700	1,000	= 21,000	C52	
aa 700	13,000	21,000	C53	
aa 700	1,000	= 21,000	C54	
ab 700	13,000	21,000	C55	
ab 700	1,000	= 21,000	C56	
ac 700	13,000	21,000	C57	
ac 700	1,000	= 21,000	C58	
ad 700	13,000	21,000	C59	
ad 700	1,000	= 21,000	C60	
ae 700	13,000	21,000	C61	
ae 700	1,000	= 21,000	C62	
af 700	13,000	21,000	C63	
af 700	1,000	= 21,000	C64	
ag 700	13,000	21,000	C65	
ag 700	1,000	= 21,000	C66	
ah 700	13,000	21,000	C67	
ah 700	1,000	= 21,000	C68	
ai 700	13,000	21,000	C69	
ai 700	1,000	= 21,000	C70	
aj 700	13,000	21,000	C71	
aj 700	1,000	= 21,000	C72	
ak 700	13,000	21,000	C73	
ak 700	1,000	= 21,000	C74	
al 700	13,000	21,000	C75	
al 700	1,000	= 21,000	C76	
am 700	13,000	21,000	C77	
am 700	1,000	= 21,000	C78	
an 700	13,000	21,000	C79	
an 700	1,000	= 21,000	C80	
ao 700	13,000	21,000	C81	
ao 700	1,000	= 21,000	C82	
ap 700	13,000	21,000	C83	
ap 700	1,000	= 21,000	C84	
aq 700	13,000	21,000	C85	
aq 700	1,000	= 21,000	C86	
ar 700	13,000	21,000	C87	
ar 700	1,000	= 21,000	C88	
as 700	13,000	21,000	C89	
as 700	1,000	= 21,000	C90	
at 700	13,000	21,000	C91	
at 700	1,000	= 21,000	C92	
au 700	13,000	21,000	C93	
au 700	1,000	= 21,000	C94	
av 700	13,000	21,000	C95	
av 700	1,000	= 21,000	C96	
aw 700	13,000	21,000	C97	
aw 700	1,000	= 21,000	C98	
ax 700	13,000	21,000	C99	
ax 700	1,000	= 21,000	C100	

• Claims Analytic System (CAS)

- IBM ODM Rules Engine flags out medical claims that do not meet the claim rules (including policy and clinical rules) for further review of claims before approval or for audit purposes



• National Harmonized Integrated Pharmacy System

- a common pharmacy platform for harmonised and integrated medication management processes.
- enables an enhanced level of patient safety and efficiency in the area of medication management by promoting best practices in pharmacy and nationwide sharing of medication information with standardised medication terminologies.
- IBM ODM automates and ensures accuracy of medication translation rules, decision support, alert management.

Try to keep up

The health insurance sector in Turkey is growing quickly.

Over the past two decades, a series of governmental reforms established a universal healthcare system that was managed by the nation's Sosyal Güvenlik Kurumu (Social Security Institution).

However, in recent years, additional legislation was passed, opening up the market for supplemental coverage and empowering citizens to secure plans that helped cover charges received from private medical institutions.

With such a young and growing market, customer expectations, government policy and even system requirements are in a constant state of flux, making it challenging for insurance providers, like Anadolu Sigorta, to keep pace.

"There's a lot of competition," explains Mehmet Abaci, Chief Information Officer at Anadolu Sigorta. "And we have built our business and our reputation on the principle of paying claims quickly and in full. But that speed can sometimes lead to difficulties."

In particular, the business was concerned about claims leakage—improper payments being issued. With so many changes occurring with its backend processes, far too often the conditions printed on official policy documents did not

match the rules being followed by the insurer's automation system. And each time one of these mismatches occurred, the issue had to be arbitrated by a third party, which delayed resolution and final payment often by weeks.

"It was a shortcoming that we couldn't tolerate in such a competitive market," adds Abaci.

Making the fast answer, the right answer

To address this challenge, Anadolu Sigorta joined with IBM Business Partner J-FORCE to create its new Anadolu Sigorta Medical (ASMED) portal, an integrated health claims management solution that automates processing according to established business rules.

Now, hospitals or other medical offices can submit their health insurance claim provisions to Anadolu Sigorta through the centralized portal, which automatically identifies:

- If the submitter is eligible for payment
- If the patient has a valid policy
- If the identified policy covers the recommended treatment

"We looked through all of Anadolu Sigorta's policy information, extracting, grouping and rationalizing all of these rules," explains Umit Sile, Business Development and Software Director at J-FORCE. "Altogether, we

"Altogether, we organized around 300,000 medical claim codes into 14,000 services on the portal. And we synchronized the codes for all of these services with an expanded version of the government's health catalog, helping to simplify compliance."

—Umit Sile, Business Development and Software Director, IBM Business Partner J-FORCE Bilişim Teknolojileri A.Ş.

regarding payment. At the same time, the system monitors for irregularities that might indicate a larger issue.

"It looks at the timing of the treatment," clarifies Abaci, "particularly if it's near the beginning or ending date of a policy. Or it notifies us if a suspiciously large volume of treatment requests for a condition are being requested by the same physician. If something seems strange, it lets our staff know to take another look at the claim."

For the new ASMED portal, Anadolu Sigorta and J-FORCE assembled a joint solutions team comprised of five doctors, four data analysts, 14 developers, four line of business experts, three scrum masters, one project manager and one technical consultant.

"We looked through all of Anadolu Sigorta's policy information, extracting, grouping and rationalizing all of these rules," explains Umit Sile, Business Development and Software Director at J-FORCE. "Altogether, we

Results

~80% of claims
are now processed automatically

50% drop
in leakage, leading to a 40% reduction in operations costs

< 1 year
for a full return on investment (ROI) for the project

"We can add new products and health policies to the platform in a matter of hours—that used to take us weeks."

—Mehmet Abaci, Chief Information Officer, Anadolu Anonim Türk Sigorta Şirketi

organized around 300,000 medical claim codes into 14,000 services on the portal. And we synchronized the codes for all of these services with an expanded version of the government's health catalog, helping to simplify compliance."

The Jsure Health Insurance Platform serves as the heart of the ASMED portal, managing the automation and authorization of the incoming claims. And the team used IBM® Business Automation Workflow software to develop two rule-testing suites that track compliance with the insurance company's ever-shifting policy adjustments. In addition, the JFORCE team created a Microsoft Excel-based scenario tool that Anadolu Sigorta can use to vet conflicting rule sets.

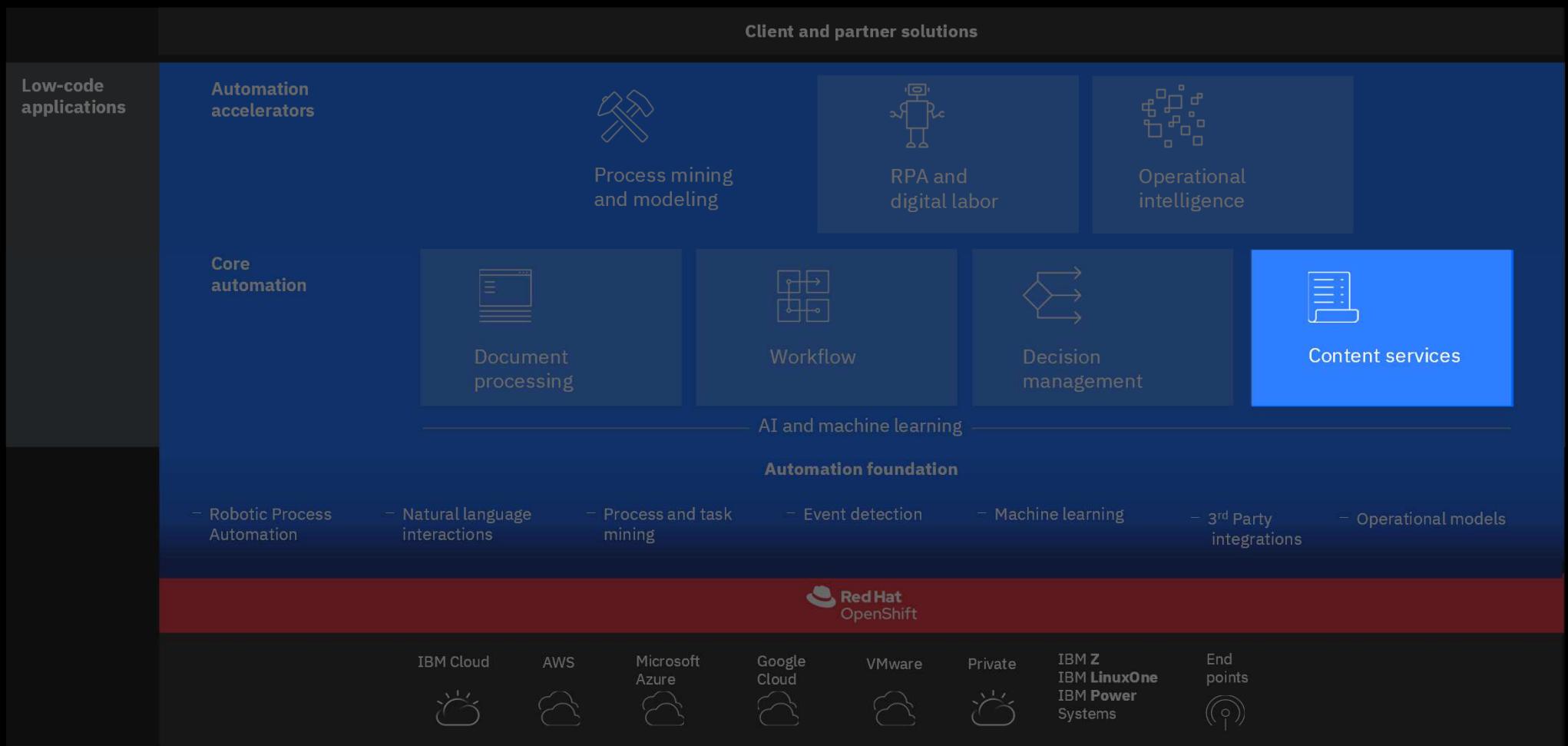
And to promote security-rich communication between the claims automation portal and its greater network environment while also overseeing business-to-business web service integration, Anadolu Sigorta deployed an IBM DataPower® Gateway device.

A distinct advantage

With the IBM technology and ASMED portal in place, Anadolu Sigorta streamlined its claims processes, with roughly 80% of incoming claims now being handled without human intervention. And the bulk of these determinations are

With each claim, ASMED is designed to evaluate the submitted information against thousands of rules and policies in under one second and make a determination

IBM Cloud Pak for Business Automation





Content services

Content is unstructured or semi-structured information including documents, text, images, audio and video.

Content services enable users to securely manage the full lifecycle of content.

Why IBM?

- Flexible, reliable and secure content services delivered in modern lightweight architecture
- Delivers a rich set of capabilities while optimizing for simplicity and speed



Content management

- Store and manage business content
- Powerful search capabilities
- Federation across repositories



Security and privacy

- Rich granular security controls
- Role-based redaction



Collaboration

- Collaboration, content synchronization and sharing, and mobile support
- Securely share documents and folders with external users



Governance and lifecycle management

- Information governance for cross-organizational data retention
- Lifecycle and records management



Content services

Easily customize a content solution for any team

- Search for documents across repositories
- View, annotate, edit and share documents
- Teamspace provide a focused view of the relevant documents, folders, and searches a team needs to complete their tasks

The screenshot shows the IBM Content Navigator web interface. At the top, there's a header with the title 'IBM Content Navigator', a user icon labeled 'suser', and a help icon. Below the header is a toolbar with buttons for 'Browse' (selected), 'Refresh', 'Add Document', 'New Folder', 'New', and 'Actions'. The main area displays a list of files under the path 'Focus Corp > Invoices > 2018_12'. The table has columns for Name, Modified On, Modified By, Size, and Major Version. The data is as follows:

Name	Modified On	Modified By	Size	Major Version
Invoice.pdf	12/10/2018, 9:03 PM	Adam Jones	49 KB	1
Multi-content element	1/12/2019, 11:52 AM	suser	1.4 MB	1
Photo Sample.jpg	1/12/2019, 2:00 PM	Adam Jones	8 KB	1
Re- Test.eml	1/12/2019, 2:11 PM	Adam Jones	14 KB	1
Rental_Agreement.doc	5/3/2019, 11:30 AM	Adam Jones	36 KB	12
Test.eml	1/12/2019, 2:06 PM	Adam Jones	2 KB	1
commercial invoice.jpg	12/7/2018, 7:58 AM	Adam Jones	99 KB	1
wesellstuff inc.docx	1/21/2019, 1:02 PM	Adam Jones	141 KB	1

To the right of the list, there's a preview of the 'Invoice.pdf' file, which appears to be a scanned document with tables and text. Below the preview, there's a 'Properties' section with fields for 'Class' (Document) and 'Document Title' (Invoice.pdf). A link to 'System Properties' is also present.

Content Navigator enables users to search for and work with documents stored in multiple content servers from a web browser.



Content services

Scale content services across the enterprise

- Secure and scalable foundation addresses full set of content management requirements across the enterprise
- Full spectrum of governance capabilities from acquisition to disposition, with event-driven retention policies
- Enterprise-class reporting and auditing

The screenshot shows a 'General' section with 'Entry template: Performance Reviews', 'Save in: Alan Osborne', 'File name: Alan Osborne Evaluation 2018.docx', and a checked 'Major version' checkbox. Below it is a 'Properties' section with fields: 'Class: Employee Review', 'Document Title: Alan Osborne Evaluation 2018.docx', 'Employee Name: Alan Osborne', 'Date of Hire: M/d/yyyy, h:mm a', 'Department: Sales', 'Employee Termination Date: M/d/yyyy, h:mm a', 'Employee Rating: (dropdown)', and 'Manager Name: (dropdown)'. A 'Security' section is partially visible at the bottom. To the right, a sidebar titled 'Add Document' contains the text: 'The values that you enter for the document properties can be used to find the document later.' At the bottom right are 'Add' and 'Cancel' buttons.

Easily customize document entry templates to facilitate storing and searching for documents across the enterprise

Scalable from thousands to billions of documents while maintaining robustness and reliability



Content services

Enterprise-class content security

- Individual, group and role-based security settings
- Object/folder level and attribute-based controls
- Relationship-based permissions
- Role-based redaction

The screenshot shows the IBM Administrative Console interface for the Content Platform Engine. On the left, there is a navigation tree under 'Object Store PBObjectStore' with categories like 'Administrative', 'Storage', 'Workflow System', 'Browse', 'Data Design', and 'Classes'. The 'Classes' node is currently selected. On the right, a detailed view for a 'Custom Object' is displayed. The top navigation bar includes tabs for 'General', 'Properties', 'Property Definitions', 'Default Instance Security', 'Security Policy', 'Security' (which is selected), 'Retention', 'Change Preprocessor Definitions', 'Text Indexing Preprocessor Definitions', 'Subscriptions', and 'Audit Definitions'. Below the tabs, a note states: 'You can allow or deny permissions to a user or group. Each permission group contains one or more access rights.' and 'Predefined permissions are collections of access rights that grant varying degrees of access to the object. When you select a predefined permission group, the access rights that are included in the permission group are selected. You can customize a predefined permission as needed. Learn more...'. A table titled 'Access Permissions' lists three entries:

Name	Source	Permission Type	Permission Group	Apply To	Delegated By
GeneralUsers	Direct	Allow	Custom	This object only	
PBAdmins	Direct	Allow	Full Control	This object only	
#CREATOR-OWNER	Direct	Allow	Full Control	This object only	

Use access management to grant access permissions to users across environments



Business agility is a must for fast-growing Sol Caribbean, Ltd. The petroleum company has expanded exponentially since it launched in 2005. Today, it's valued in the billions of dollars and operates in 23 countries throughout the Caribbean basin, supplying fuel, liquid petroleum and lubricant to the retail automotive, aviation, marine and trucking industries—among others.

To coordinate and automate its capital expenditure (CapEx) processes across its complex, diverse organizational structure, Sol Caribbean uses IBM



Cloud Pak for Business Automation.

That coordination is no easy task. The company initiates approximately 1,000 projects a year spanning its countries and businesses. Projects vary greatly in scope, from developing a new gas station to purchasing an office computer.

Before engaging IBM in 2017, the company's CapEx process was far from agile. "At the time, the entire process was done via email," says Juan Lopez, Regional Operations Manager at Sol Caribbean. "There was no central repository, no way to



Automates capital expenditure process in 23 countries for

1,000 projects per year

Streamlines approval time for major projects from weeks to

1 week or less

"In the past, we would spin our wheels for weeks on some of the more complex projects, trying to reach consensus on decisions Now, the great majority of our approvals are done in a week."

"This solution complements the management of our investment process. I'm very happy with it."

Juan Lopez, Regional Operations Manager, Sol Caribbean, Ltd.

When it's your job to protect and grow your customers' money, it's important to make a great first impression.

That's why TD Ameritrade, Inc. embarked on an enterprise workflow automation (EWA) project aimed at making the entire customer experience as engaging as possible. To accomplish this, the organization would have to modernize processes on the back end. Michael McGraw, Director of Enterprise Process Design, describes the challenge: "We had different and disparate workflow systems across the organization. If we wanted to compete and grow volume without increasing resources, we really had to take a hard look at ourselves and invest in automation technology."



He continues: "We knew that IBM had great expertise in this area, so we could count on them for both the technology and the resources to help guide us as we headed down this path."



Straight-through processing for

97%

of new margin(option requests

Up to

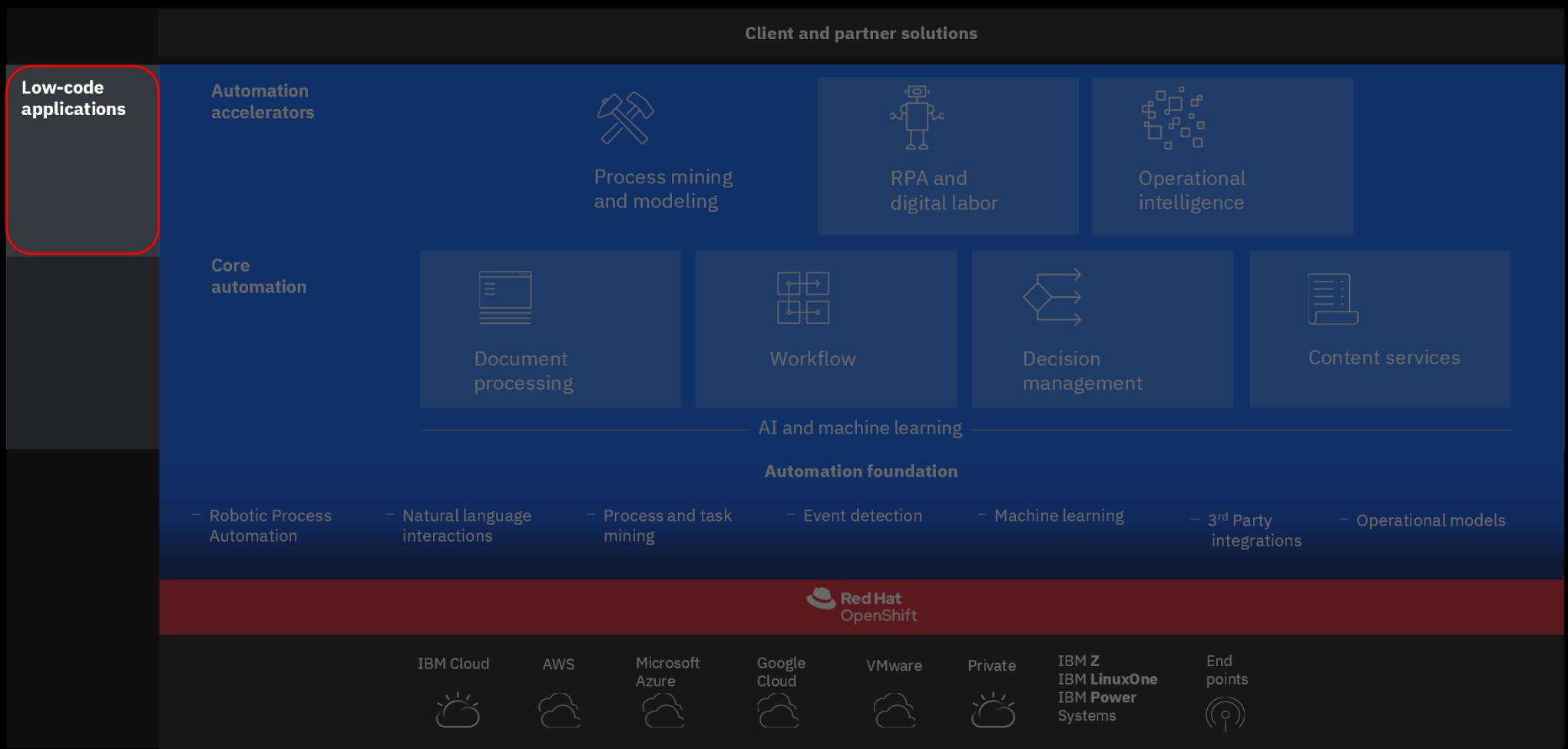
70%

reduction in time required to open a new account

"When COVID hit, we saw huge amounts of market volatility and trading. Had we not already automated the process, we would have been in a huge bind."

Michael McGraw, Director of Enterprise Process Design, TD Ameritrade, Inc.

IBM Cloud Pak for Business Automation





Low-code applications

Low-code application development is a visual approach to building applications using drag-and-drop components. Low-code tools enable business users and developers to create applications without having to write code.

Why IBM?

- Build applications that leverage existing automation capabilities
- Create and deliver automation applications in a fraction of the time it takes with traditional methods



Build

- Low-code application builder
- UI builder with rich palette of controls
- Drag and drop automation components for workflow, decisions and content



Collaboration and reuse

- Toolkits and templates are created by developers and used by business users to assemble applications
- Components can be reused across applications



Governance and lifecycle management

- Test applications
- Create new versions
- Publish for deployment



Low-code applications

Create low-code apps to leverage existing automations

- Build user interfaces using drag and drop
- Toolkits included to create apps that use workflow, content and decisions
- Sample templates to get started quickly

The screenshot shows the IBM Low-Code Application Platform interface. At the top, there's a navigation bar with tabs like Overview, Diagram, Variables, Page: Starting Page, Content, Grid, Mobile, Tablet, Desktop, Visibility, Static analysis, and Test. Below the navigation is a mobile application prototype titled "Mortgage Department". The prototype has fields for First Name, Last Name, Country, State, and City. To the right of the prototype is a "Toolkits" library. The library has a search bar and categories: All, Input, Informational, Layout, Operational, Chart, Uncategorized, and Variable. Under the Input category, there are icons for various building blocks: Button (with OK), Check box, Date/time picker, Decimal, Integer, Masked text, Password, Slider, Switch, Plain text, Text area, and Rich text.

Toolkits are collections of shared, reusable components used to create applications



Low-code applications

Manage low-code application development

- Manage application lifecycle for versioning, publishing and execution
- Manage users and access control
- Build reusable toolkits to extend low-code capabilities with additional functions and user interface elements

The screenshot shows the 'IBM Cloud Pak for Automation' interface with the title 'Apps (11)' at the top. Below the title are 'New' and 'Import' buttons, and a search bar. A message indicates 'Displaying 11/11 projects'. The main area lists 11 applications, each with a star icon, a three-dot menu, and a 'Details' button. The first application, 'Mortgage with Layout', has a context menu open over it. The menu items are: 'Update details' (highlighted with a blue border), 'Export', 'Archive', 'Request publish', and 'Delete'. There is also a 'New' button below the application card.

Administrators manage users and publish applications in order to make them available to end users



No-code applications

No-code productivity applications automate internal processes, such as approvals, with no technical skills or ramp-up required.

This streamlines, automates and accelerates activities in daily work.

Why IBM?

- Empowers business workers to configure and execute a full spectrum of work patterns
- Simplifies the authoring experience, reducing the dependency on technical skills



Business friendly configuration

- Arrange sequences of activities into workstreams
- Define users who are responsible for the activities
- Specify the data including field labels and data types
- Pre-defined workstreams for simple automations



Execution

- Start workstreams and fill in data
- View and manage tasks



Governance and lifecycle management

- Test workstream definitions
- Review and approve workstreams before publishing
- Manage user access and team membership



No-code applications

Quickly build no-code applications

Configure entire productivity application from a single editing page

- Start by adding activities to the sequence and configuring fields and checklists
- Make application available for testing and publishing
- They are available to be started from the Start list in the Workplace app.

The screenshot shows the 'Document approval' workflow configuration page in the IBM Workflow Portal. On the left, there's a list of activities: 'Upload document' (Worker), 'Submit for approval' (Management), and 'Activity 2' (Specify a team). Each activity has its 'Triggers' and 'Outcomes' defined. The main right panel is titled 'Document approval' and contains the following fields:

- What is the activity name?**: Activity 2
- Who is responsible?**: Specify a team
- Activity instructions**: Complete checklist. Be sure to use correct country codes when submitting finance data. (0/300)
- What is the activity type?**: Approval (selected)
- The checklist you're configuring in this task.**: A table with columns Position, Description, and Mandatory. It lists one item: 'Submit for approval'.
- What triggers this activity?**: Submit for approval
- What are the outcomes?**: End

At the bottom, there are 'Save as draft' and 'Save' buttons.

Create productivity applications by arranging activities in any sequence. Configure each activity and assign it to the team that will work on it





Tapping into mountains of evidence data to find insights that could be the needle in the haystack, helping solve a case

[Find out more](#)

Government

Business Problem:

Every day, Edmonton Police Service collects millions of pieces of digital evidence. Buried within it can be case-changing insights—but piecing through it all and identifying the key pieces of evidence through traditional methods was time-consuming and costly.

Solution:

With a pioneering digital policing platform built with IBM Automation software, EPS unifies and analyzes data from multiple sources to a centralized repository, helping unearth crucial leads hidden in the data. It integrates existing business intelligence and analytics applications with the digital policing platform, opening up even more ways for teams to harness data in the fight against crime.

Outcome:

- Faster decisions & investigative lead times
- Reveals hidden clues in digital evidence
- Real-time intelligence ensures safety of officers in the field

Data is one of the most powerful weapons that we have in the fight against crime, and our digital policing platform will help us make the most of this asset.

Greg Preston
Deputy Chief
Edmonton Police Service

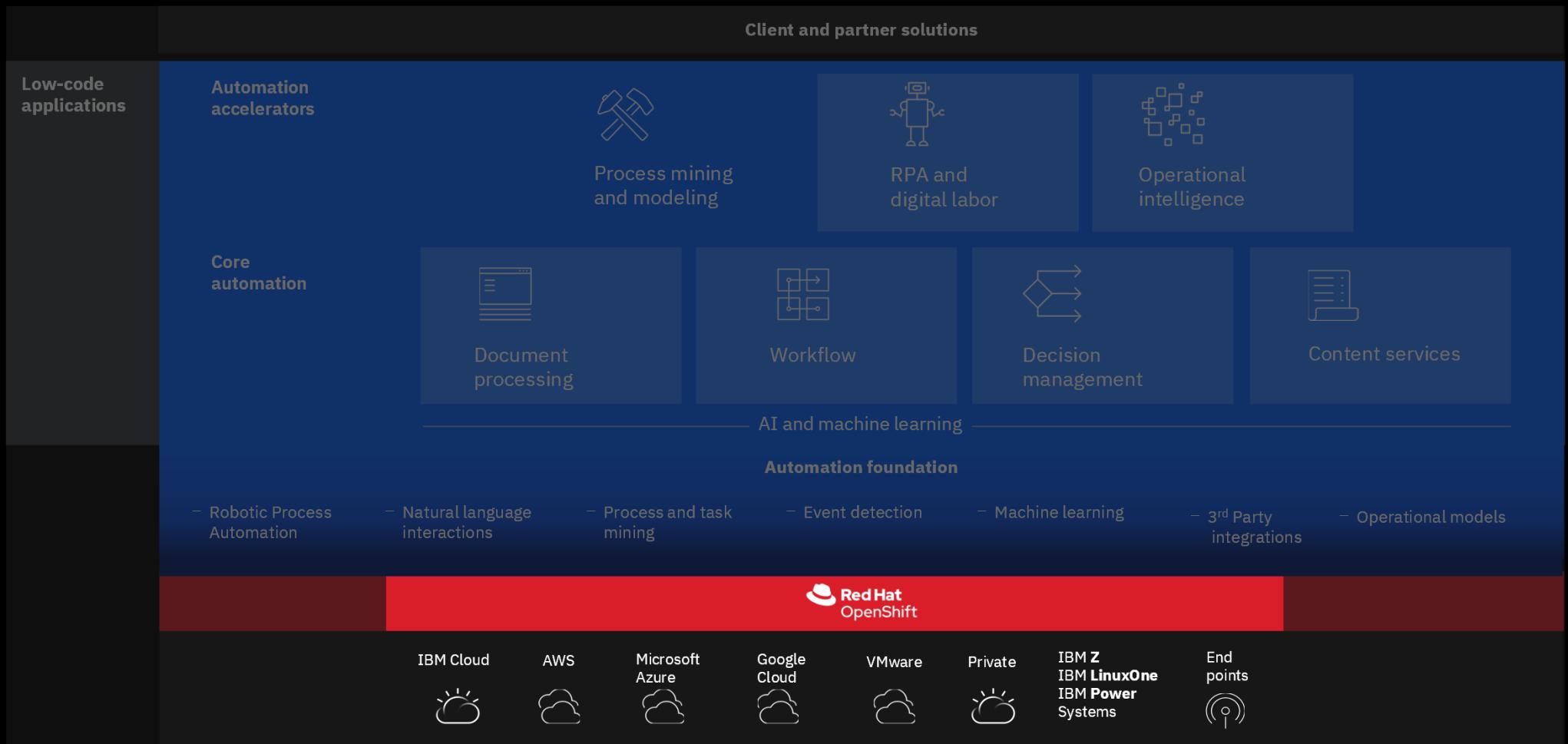
Solution Components:

Workflow
Content Manager
Filenet
Capture

Use Case
Issue Resolution

IBM

IBM Cloud Pak for Business Automation



Deploy on
any cloud or
on-premises

Cloud Pak for Automation

- Single license for all automation capabilities provides entitlement to container-based and traditional on-premises install
- Fully supported on Red Hat OpenShift Container Platform (included)
- Move to containers at your own pace



Any cloud

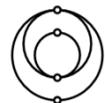


Hybrid



On-premises

Benefits of a container-based approach



Build agility

Accelerated development and improved consistency across environments



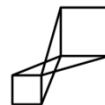
Team productivity

Empower autonomous teams with end-to-end delivery responsibility



Fine-grained resilience

Independent deployment of highly available components



Scalability

Fine-grained dynamic scaling



Operational consistency

Homogeneous administration of heterogeneous components



Component portability

Portability across nodes, environments and clouds

Red Hat OpenShift is trusted enterprise Kubernetes

Install

- Templating
- Validation
- OS setup

Deploy

- Identity and security access
- App monitoring and alerts
- Storage and persistence
- Egress, ingress, and integration
- Host container images
- Build/deploy methodology

Harden

- Platform monitoring and alerts
- Metering and chargeback
- Platform security hardening
- Image hardening
- Security certifications
- Network policy
- Disaster recovery
- Resource segmentation

Operate

- OS upgrade and patch
- Platform upgrade and patch
- Image upgrade and patch
- App upgrade and patch
- Security patches
- Continuous security scanning
- Multi-environment rollout
- Enterprise container registry
- Cluster and app elasticity
- Monitor, alert, remediate
- Log aggregation



Red Hat OpenShift simplifies container management

Container challenges:

Container security

Image scanning, patching, and compliance

Day 2 management

Installations, upgrades, and maintenance
Integration of existing enterprise technology

Application delivery

Monitoring, metering, and management

Red Hat OpenShift:

Trusted enterprise Kubernetes

Continuous security, world-class support and services, and deep expertise to confidently run any application

A cloud-like experience, everywhere

Full-stack automated operations on a consistent foundation across on-premises or hybrid cloud infrastructure

Empowerment to innovate

Ability to get applications to production sooner with a wide range of technologies and streamlined workflows

We're here to help

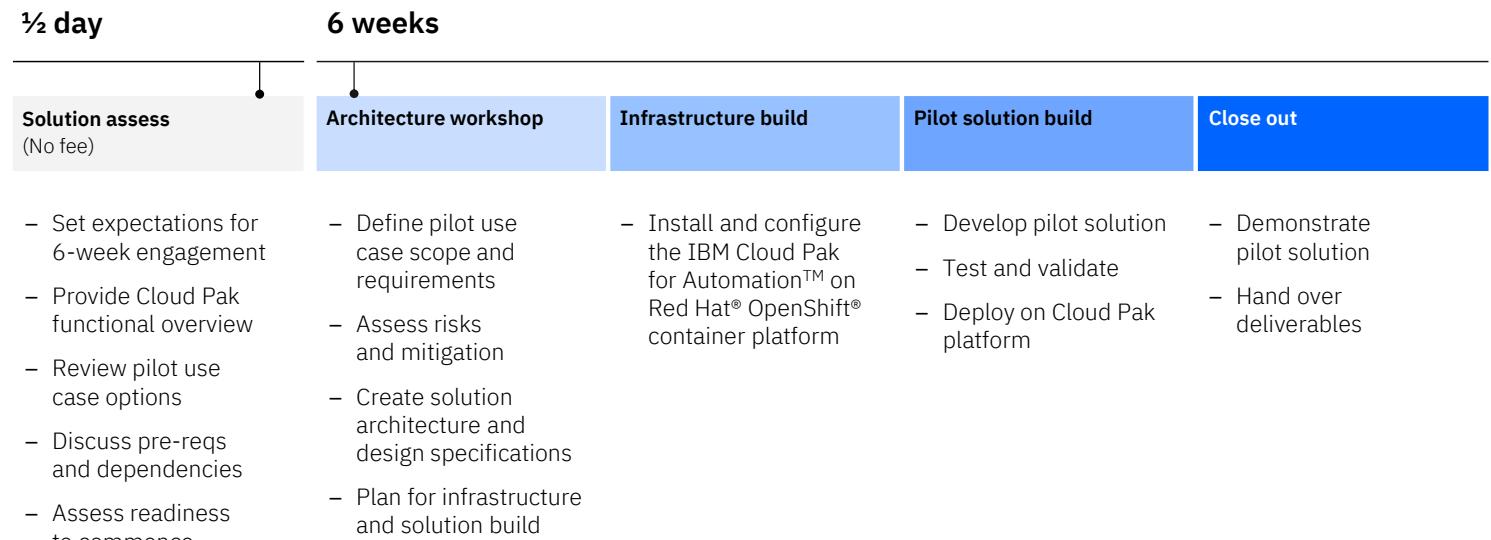
Deploy a “quick win” project in 6 weeks

Objective: Execute a focused and fast paced 6-week engagement with Expert Labs

9 Entry points to get started:

Handle spikes in demand with straight-through-processing	Support customer self service with mobile capture	Enable cross-team collaboration with cloud-based process and decision modeling
Enable scalable customer service with intelligent automation	Quickly create new automation solutions with low-code applications	Enable secure, compliant content access with content services
Help employees spend time on higher value work with robotic process automation	Adapt business policies to changing conditions with decision services	Automate internal processes with lightweight workflow applications

Our approach:



Do forensic cost-cutting analysis of your business operations

Business Automation Forensic Evaluation

A virtual workshop to identify operational areas for cost reduction.

During the workshop we will:

- Identify **unused assets** and opportunities for technology consolidation
 - Pinpoint underutilized infrastructure
 - Uncover duplicate applications and services
- Apply **process mining** to understand your workloads and reassign resources to where they provide the highest return
- Develop an **action plan** to drive value quickly



Accelerate your move to the cloud



Get automation applications up and running quickly

- No need to build out IT infrastructure
- Host software in our data centers or use containers to deploy on any cloud
- Rapidly prototype new automation applications



Spend less upfront and decrease total cost of ownership

- Lower data center costs and resources (e.g., space, personnel, power, maintenance, backup, security)
- Convert capital expenditures to operating expenditures
- Offload software management (e.g., security patches, software updates, compliance management)



Scale up and down as needed

- Easily add capacity to meet spikes in demand
- Use flexible pricing models to only pay for what you need
- Reallocate licenses to other automation platform capabilities with no new contracts



We can host your applications in **over 60 high-bandwidth, low-latency data centers** in 19 countries on six continents

Thank you

First Lastname

Job Title

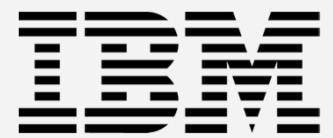
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Cloud Pak for Automation: Components and deployment options

Business Automation Workflow	FileNet Content Manager	Operational Decision Manager	Robotic Process Automation with WDG Automation
Datacap	Enterprise Records	Content Collector	Process Mining
Automation Document Processing	Business Automation Insights	Automation Workstream Services	
Business Automation Studio	Application Designer	Automation Decision Services	
 Traditional and containerized	 Traditional on-premises	 Cloud native containerized	