Decision Automation from IBM: A key component of the IBM Cloud Pak for Business Automation

IBM

AI-powered Automation will improve business performance by making all information-centric jobs more productive

$134B

in labor value will be released in 2022
by employing both Automation and AI

80%

of those scaling **AI-powered automation** expect their organization to **outperform the competition in revenue growth**

IBM Automation / © 2021 IBM Corporation

Hyperautomation is one of Gartner's top strategic technology trends for 2020 and 2021

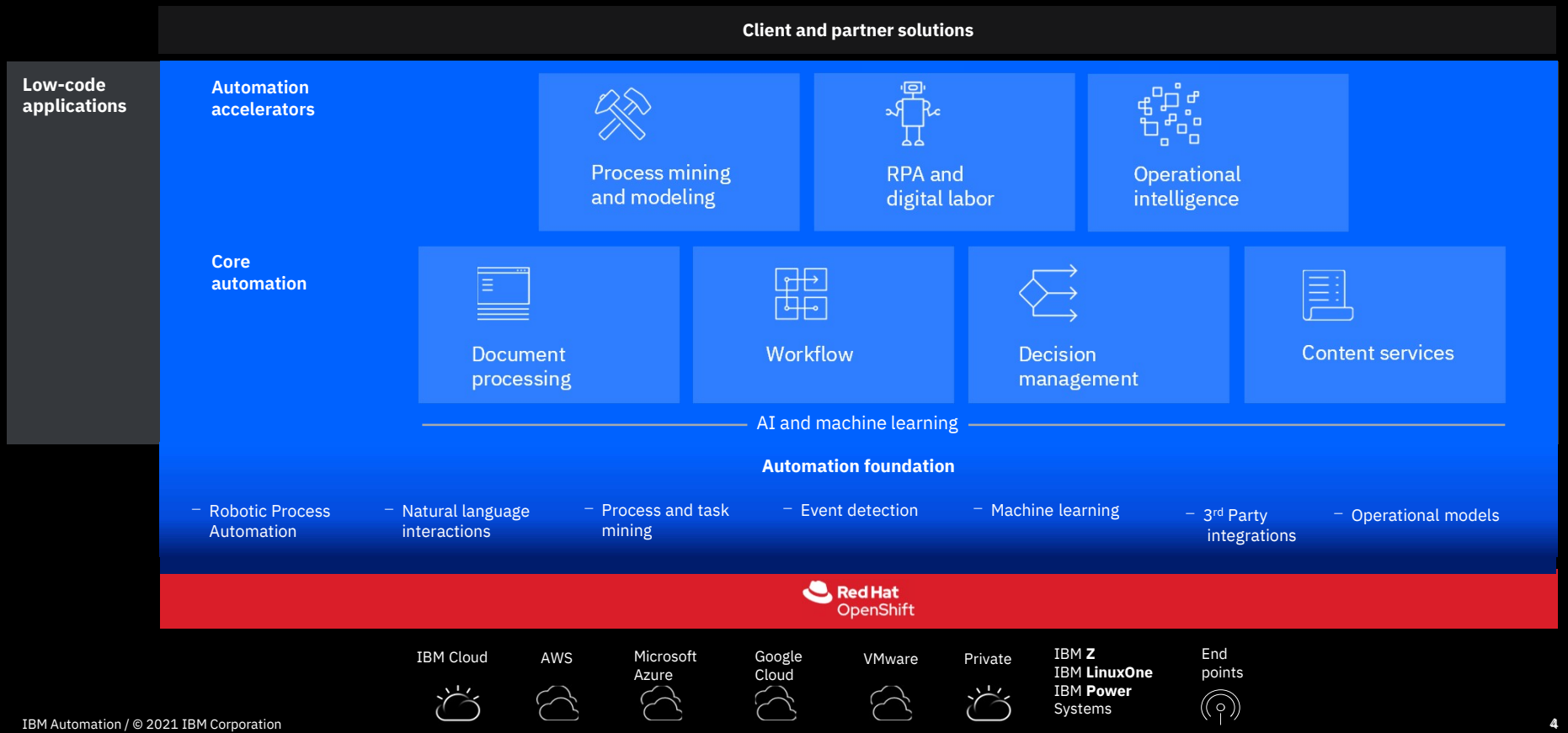
"Hyperautomation deals with the application of advanced technologies, including artificial intelligence (AI) and machine learning (ML), to increasingly automate processes and augment humans."

Gartner
2019, Gartner Top 10 Strategic Technology Trends for 2020
Published October 21, 2019

Gartner

IBM Cloud Pak for Business Automation

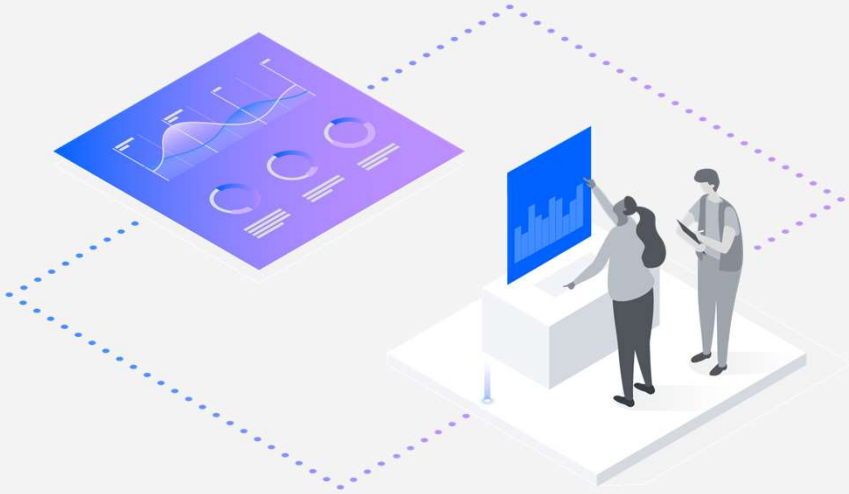
A complete hyperautomation solution



IBM Decision Automation

Automate repeatable decisions based on business rules, augmented with AI to make intelligent operational decisions

Available as part of the Cloud Pak for Business Automation, and as a standalone offering with multiple deployment options: private cloud, on premises, and public cloud including SaaS



Decisions are a **key component** of intelligent automation

- IBM Operational Decision Manager
- IBM Automation Decision Services
- IBM Decision Composer

Rapidly adapt to business change

Gain business agility by quickly adapting to changing conditions and keep your business on track

Improve decisions in real time

Learn from past decisions, simulations, and real-time data to improve your decisions

Empower business users

Isolate business logic and give your business users the power to control it

Operational Decision Manager

Decision Automation helps in improving business agility and efficiency

Author and validate business decisions with easy-to-use tooling.

Manage and govern business decisions throughout their lifecycle.

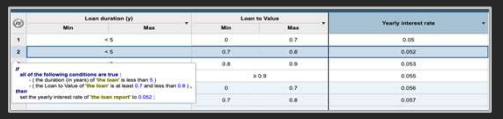
Execute and test business decisions at enterprise scale on the platform of your choice.

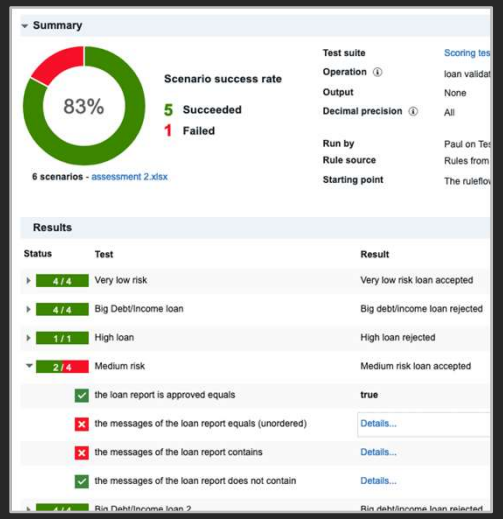
IBM Automation / © 2021 IBM Corporation

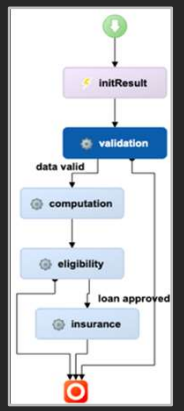
Author and validate business decisions with easy-to-use tooling

Decision models

Model with easy-to-use tools such as decision tables and ruleflow and test decisions







Natural Language

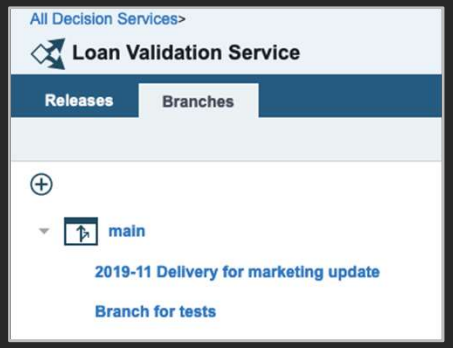
Business rules in simple natural language, making it easy for Non-IT users

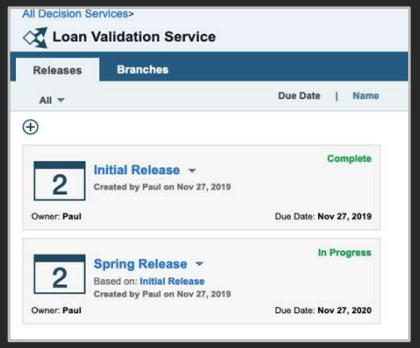
```
if the credit score of 'the borrower'  is less than 'the minimum score'
then
   set decision to a new approval where
      approved is false ,
      the message is "Credit score below " + 'the minimum score' ;
```

Manage and govern business decisions throughout their lifecycle

Release management, versioning

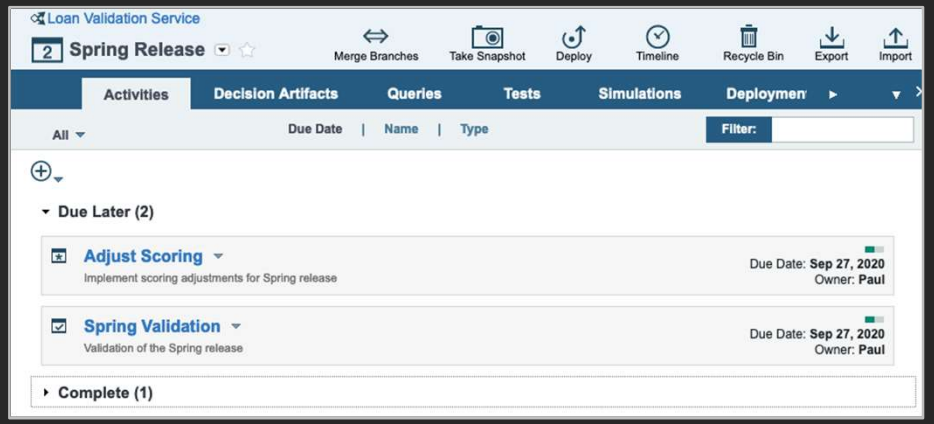
Governance and control for multiple releases in parallel





Governance

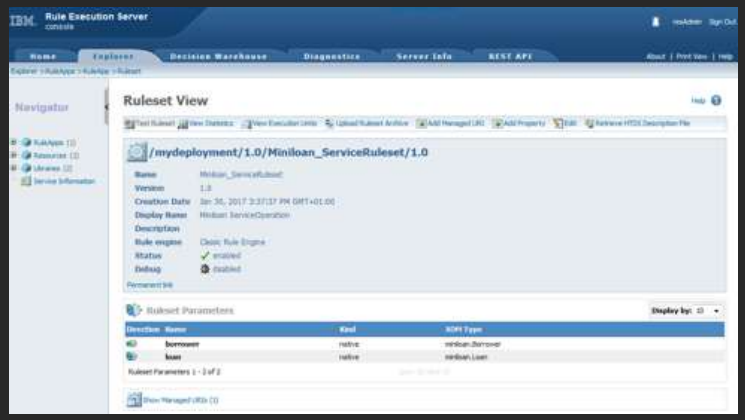
Decision Center uses change activities to guide collaboration



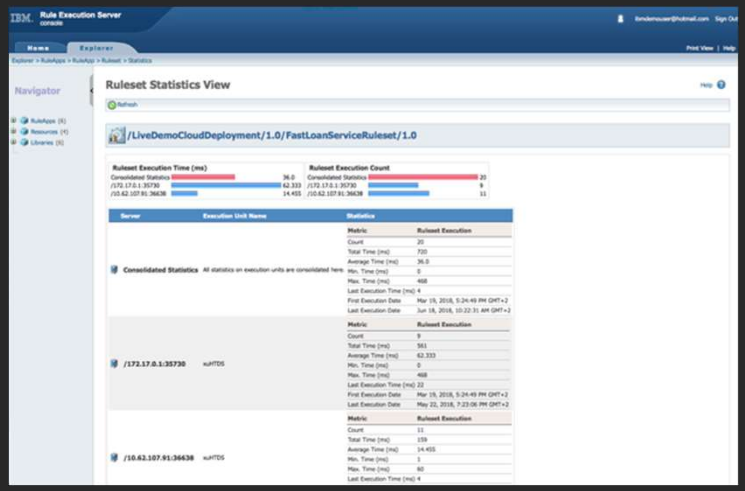
Run business decisions at enterprise scale on the platform of your choice

Rule Execution server console

Manage executable rule applications within an execution server



Display statistics of rule execution



Automation Decision Services helps businesses make better decisions, faster

Intuitive

- Initiate and build enterprise-scale decision automation projects
- Low code environment for decision modeling designed for business users

Intelligent

- Embed Machine Learning predictions inside policy-based decisions
- Use insights to adjust and improve business operations

Integrated

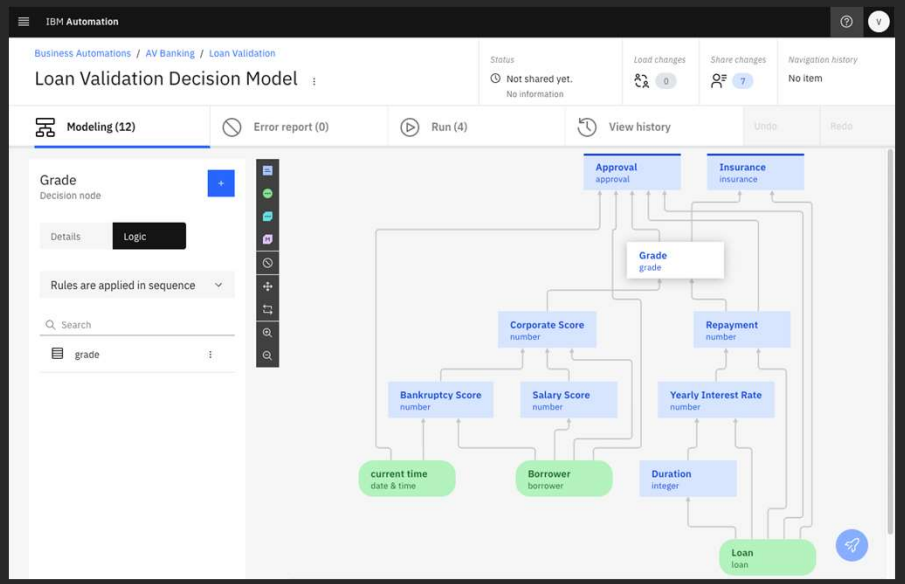
- Cloud and DevOps Native
- Seamlessly integrated with other automation technologies such as workflow, capture, and content

Intuitive decisions: with low-code decision modeling

Automation decision services

Provides built-in integration of business rules and machine learning:

- Makes machine learning models accessible to business analysts in a low-code environment
- Extends rules-based decisions by incorporating machine learning models while staying in control
- Enables native integration with Watson Machine Learning predictive analytics
- Provides an extensive framework for third-party machine learning providers



	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
				900	C	Average risk loan
				600	D	Risky loan
					C	Average risk loan
				900	D	Risky loan
				600	E	Very risky loan

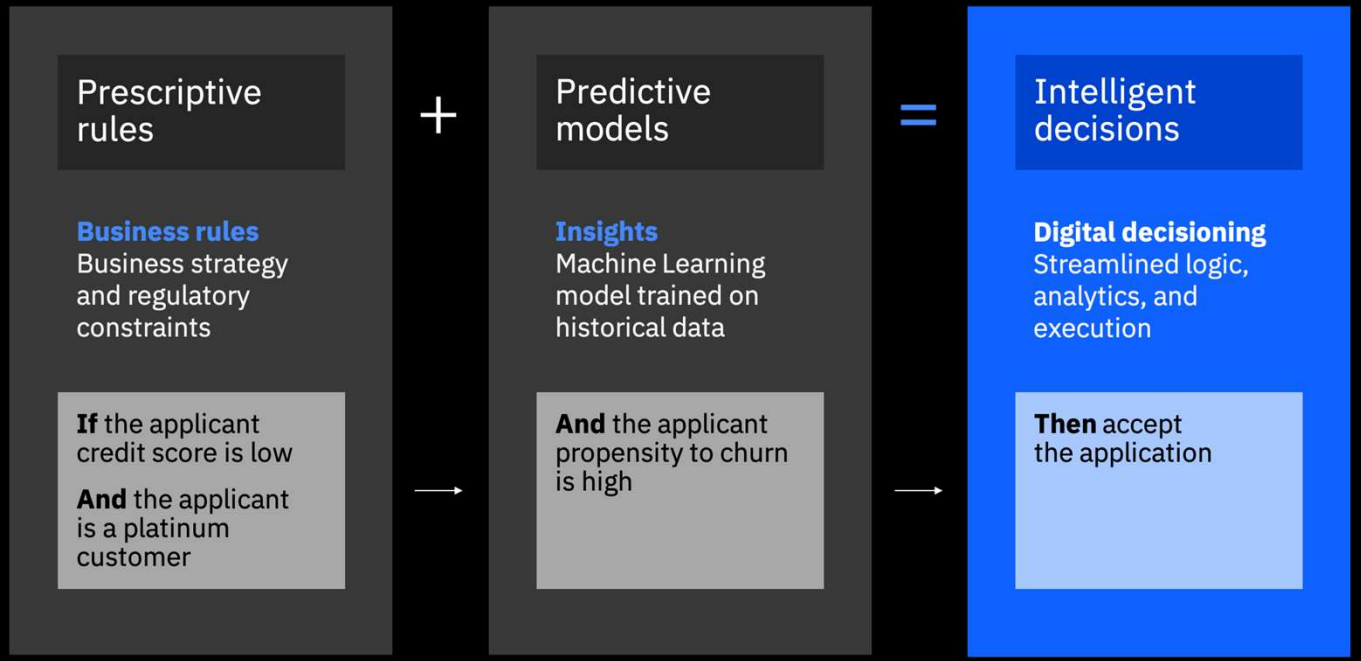
```
if
   all of the following conditions are true :
      - ( 'Repayment' * 12 is at least 30000 and less than 60000 )
      - ( 'Corporate Score' is at least 900 ) ,
then
   set 'decision' to a new grade where
      the grade is "B" ,
      the message is "Low risk loan" ;
```

Intelligent decisions enhance business rules with predictions

Combine **predictive analytics** with **business rules** to make **predictive decisions**.

Benefits:

- Personalize content at scale, increasing engagement
- Increase operational efficiency by streamlining common cases and reducing costs
- Drive growth and retention by leveraging client touchpoints to ensure compliance and transparency



Make predictive decisions: opportunities

Examples:

- In product recommendations, ML scores how likely a customer is to buy a product, and business rules ensure eligibility and decide on personalized offer
- In insurance underwriting, ML determines propensity for a customer to churn, and business rules calculate a quote and apply discount if appropriate
- With travel disruptions, ML exposes potential for missed connections, and business rules apply policies to rebook early/efficiently

Before applying AI

Automated decisions such as:

- Is the applicant eligible to this offer?
- Should I approve this claim/loan?

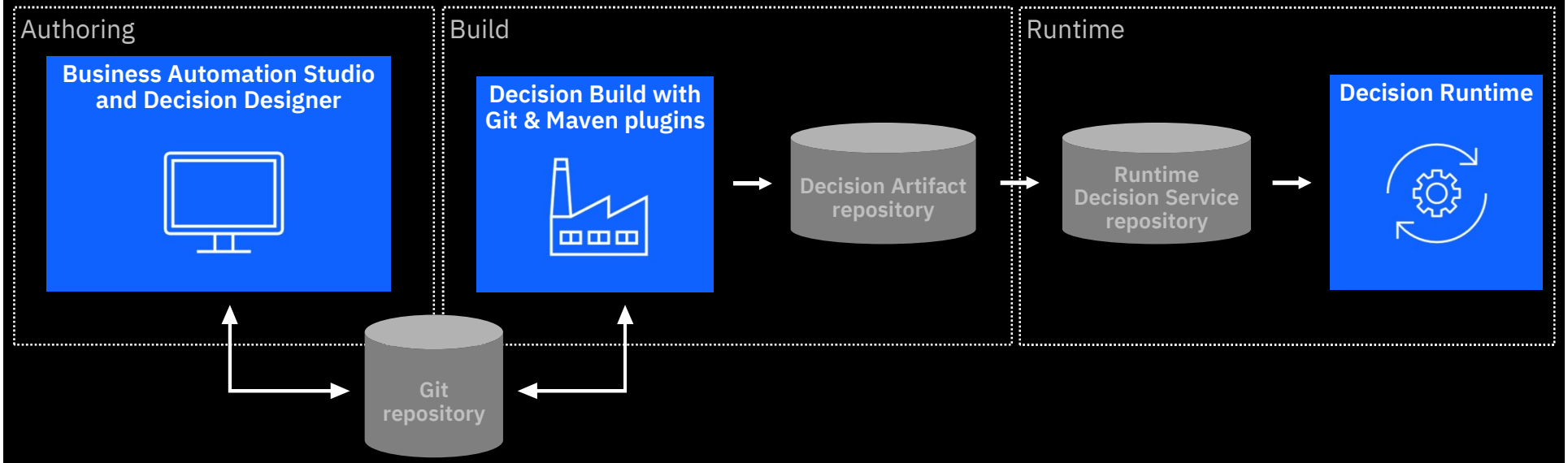
After applying AI

Richer decision making such as:

- What is the best personalized offer I can make?
- What self-service options can I offer to minimize cost to serve?
- How can I manage compliance in a consistent and transparent way?

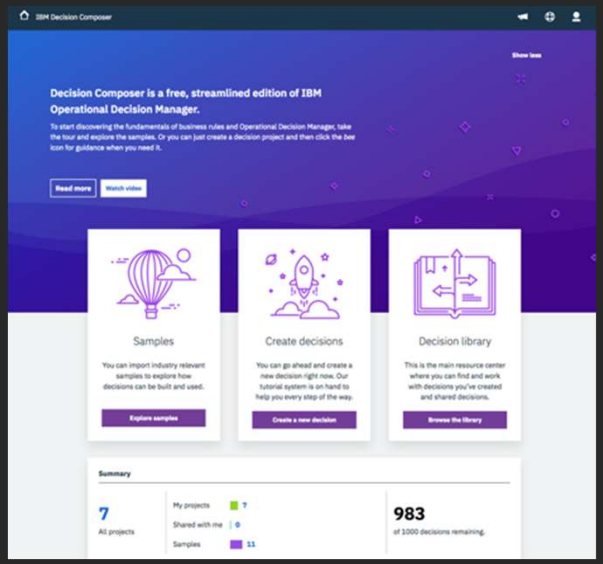
Predictive decisions are most effective when combined with business rules. Rules are the guardrails of AI. They are here to make sure the decision is compliant with your business strategy and the insights generated by analysis of past data are used with the right context.

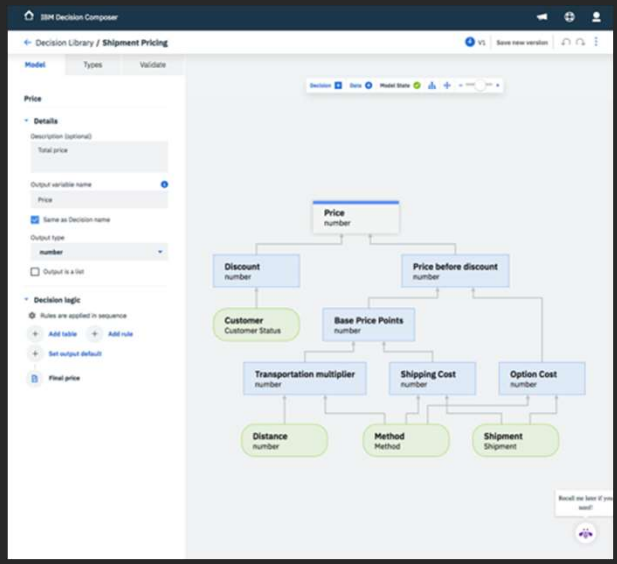
Integrated decisions with standard IT tools for source and delivery

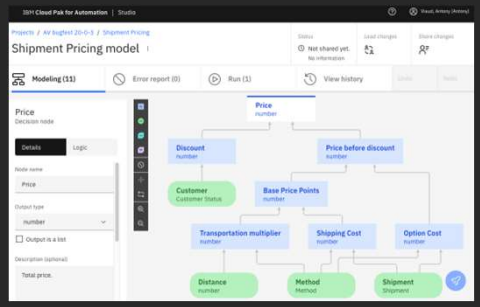


Decision Composer

- Discover and learn how to model, author, validate, and share business rules on the cloud
- No code environment enables you to initiate and invoke decisions in minutes
- Run up to 1000 decisions per month
- Start in Decision Composer, then import into Automation Decision Services for full fledged decision modeling







IBM has helped organizations create efficiencies, improve customer outcomes, and reduce risk

Maximize patient outcomes

50+
liver transplants

NHSBT streamlines delivery and maximizes utilization of organ allocation schemes

NHS Blood and Transplant

Create efficiencies

80%
reduction

Reduction in number of loan applications that must be manually reviewed

PNC BANK

Increase productivity

20%
more claims

Each day and on-board new clients in hours rather than days

ControlExpert

Improve customer experience

300%
increase

In throughput of regulated items combined with a 200% decrease in customer wait times

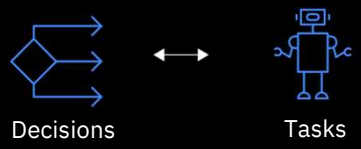
BROWNELLS

IBM leads the market

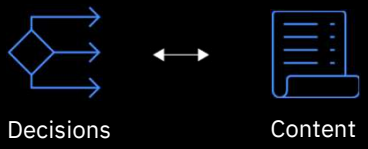
IBM has been named a leader by Forrester in The Forrester Wave™: Digital Decisioning Platforms, Q4 2020

Source: Forrester Wave™: Digital Decisioning Platforms, Q4 2020

Decisions can be combined with other capabilities to add value

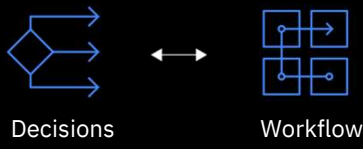


Make smarter decisions faster by combining RPA and Decisions



Extract content from unstructured documents to enlarge the scope of data to support better decisions

Analyze unstructured data, invoke business rules to improve responsiveness



Extract business logic into rule-based decisions to enhance agility and reduce complexity

Next steps on your automation journey

Get started today with no-code decision modeling

Decision Composer is a no-code environment, where business users can model, author, validate, and share business rules.

Try the no-cost decision automation tool today

Automate and manage decisions on the cloud

Get started right away–within 48 hours from purchase to use. You can rapidly experiment to get on to the path to success and get to market quickly.

Start your no-charge 30-day trial

Tap into intelligent decisions

Combine business rules and machine learning to make intelligent operational decisions in IBM Cloud Pak for Business Automation.

ibm.com/cloud/cloud-pak-for-business-automation

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Thank you

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