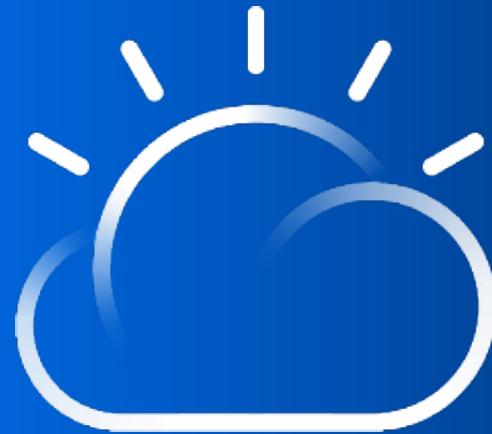


# Modernizing Integration

IBM

Integration TechCon 2019  
30 April 2019



—  
Juan Carlos Soto  
Vice President, IBM  
Hybrid Cloud Integration & API Economy

IBM Cloud

# Cloud accelerates business transformation

Innovate with the latest technology from any source

Access more types of data, analytics and AI, anywhere

Improve return on existing investments

Deliver superior experiences from Digital Transformation

IBM Cloud / April 2019 / © 2019 IBM Corporation



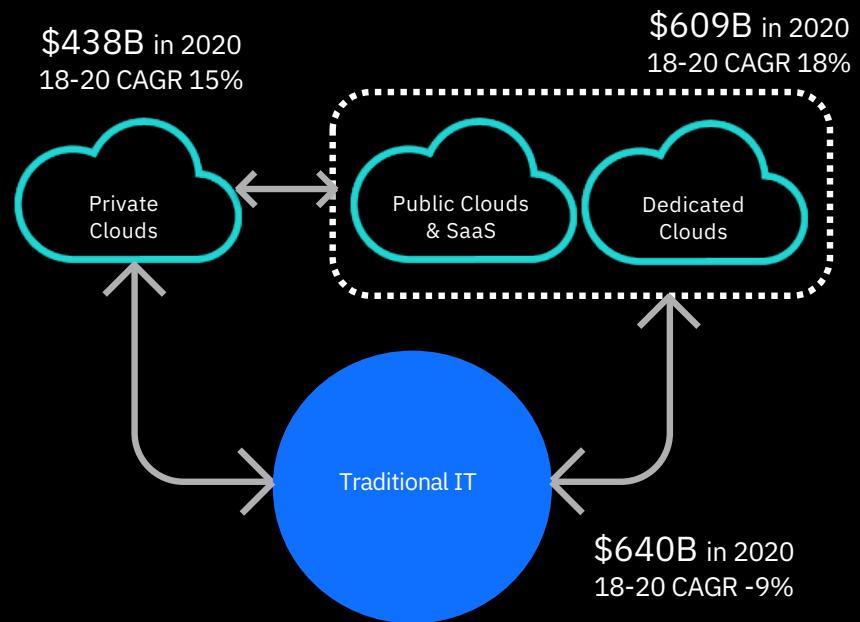
Yet only around

20%

of enterprise workloads  
have moved to the cloud.<sup>1</sup>

Why?

# The hybrid, multicloud reality new opportunities, as well as new challenges...



## A real world look at multicloud



Share of enterprise customers  
using multiple clouds



Share of enterprise customers using  
more than one public cloud provider

Movement  
between clouds

73% priority  
concern



Connectivity  
between clouds

82% priority  
concern

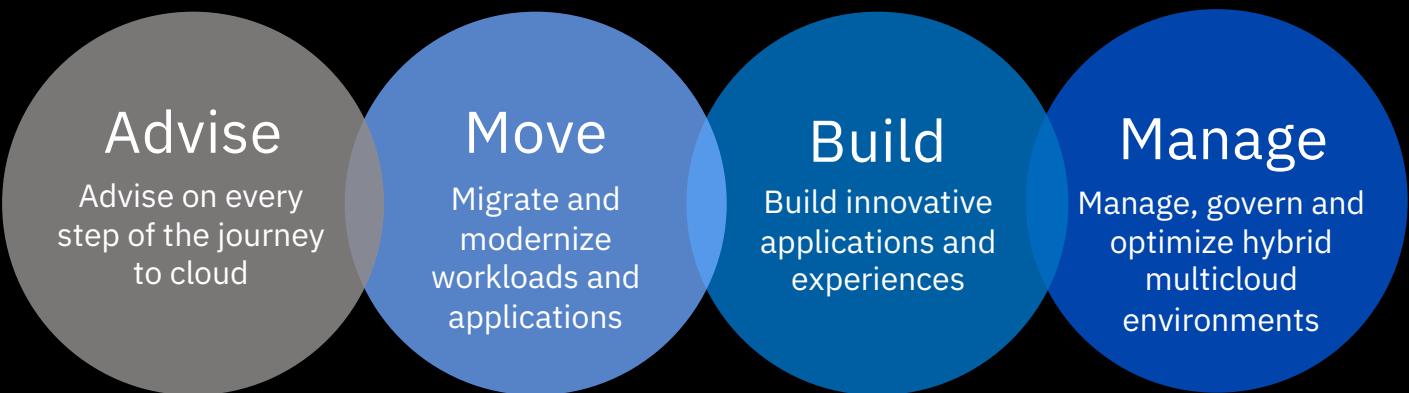


Consistency  
of management

67% priority  
concern

# Accelerating transformation through a continuum of solutions designed to simplify and reduce risk

IBM offers value at each step on the cloud journey.



## Cloud

- 90,000 experts
- 20-year promise to open source
- 100,000 migrations
- 38 global studios

## Security

- Security built in
- 60 billion security events managed every day

## Data

- 20,000 data scientists, developers, and consultants

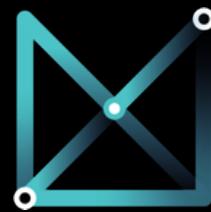
## Industry

- Depth in 20 industries
- \$6 billion spent in R&D each year
- Patent leader for 26 consecutive years

# Open, hybrid, multicloud for application modernization and **enterprise transformation**



Open Application  
Development



Integration  
Anywhere



Multicloud  
Operations

## Digital transformation leader

“ Perhaps most importantly as we look toward the future, **a CIO should lead digital transformation** – from establishing an enterprise-wide understanding of what it means, to successfully supporting the corporate digital-transformation strategy.





84%

of digital transformation  
projects fail due to  
siloed data and  
unreliable integration  
approaches

Forbes - [Why 84% Of Companies Fail At Digital Transformation](#)

# Integration demand is skyrocketing

- SaaS adoption
- AI
- Business Automation
- IoT
- Partner ecosystems and Blockchain
- Microservices architectures
- Hybrid, multicloud IT

Through 2020, integration work will account for

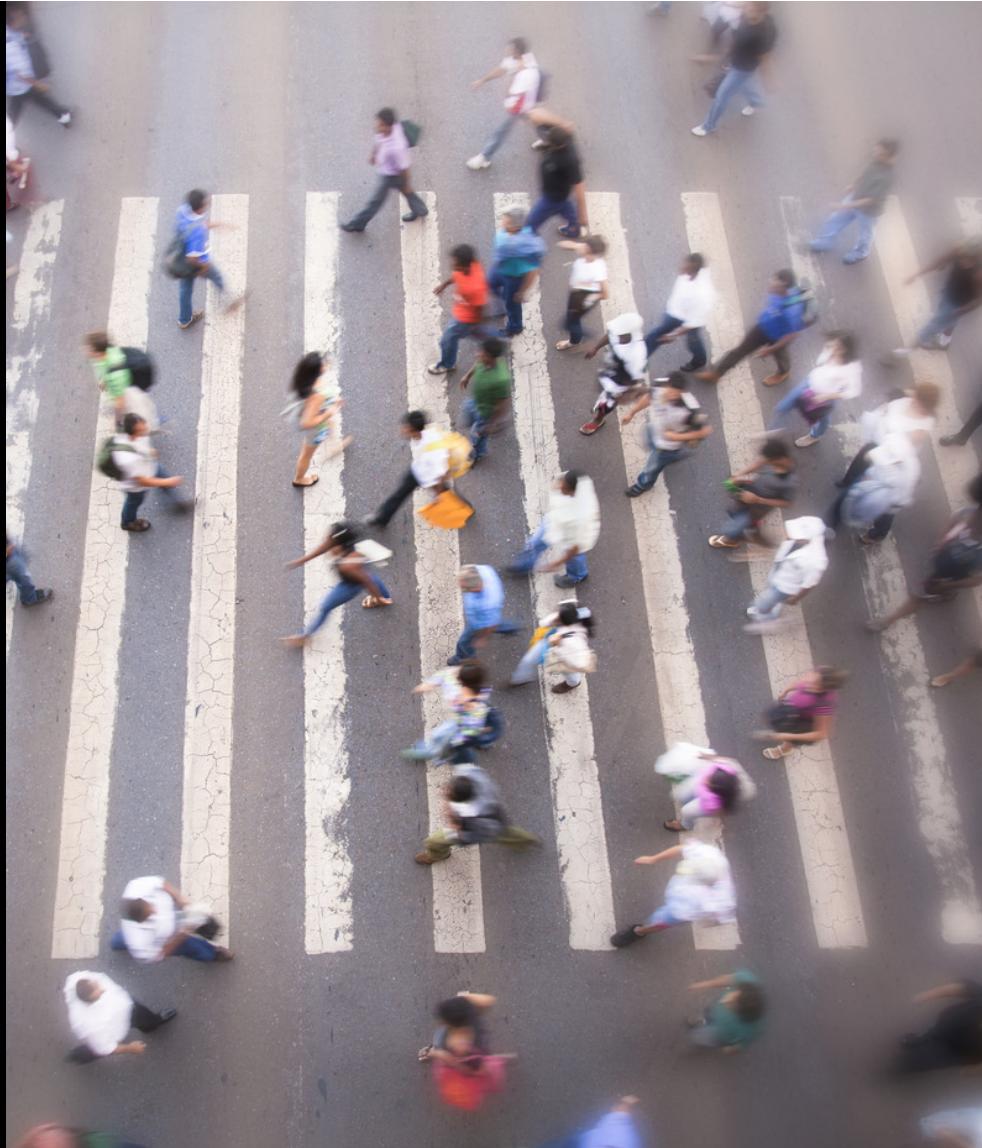
50%

of the time and cost of building a digital platform.

# However...

“Integration has become an obstacle to success because traditional approaches cannot cope with the volume and pace of business innovation.”

Source: Gartner — Modernizing Integration Strategies and Infrastructure Primer for 2018 (Jan 12, 2018)

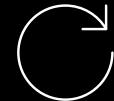


# Successful enterprises **modernize their integration** ...

## From



Central Integration,  
with specialized skills



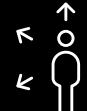
Monolithic with  
centralized deployment



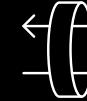
Point products and  
limited capabilities



## To



Decentralized,  
empowering others



Fine-grained, build once,  
deploy anywhere



Hybrid Integration Platform

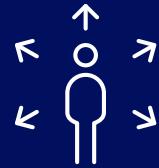
...resulting in lowering costs while better meeting demand

**1/3 ↓ ↑ 3X**

reduction in integration cost

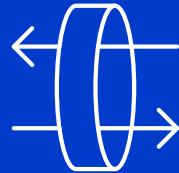
faster creation &  
deployment of integrations

IBM can  
help you  
modernize  
with an  
**Agile**  
**integration**  
methodology



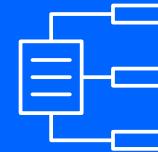
### People & Process

Development over a wider set of people and skills



### Architecture

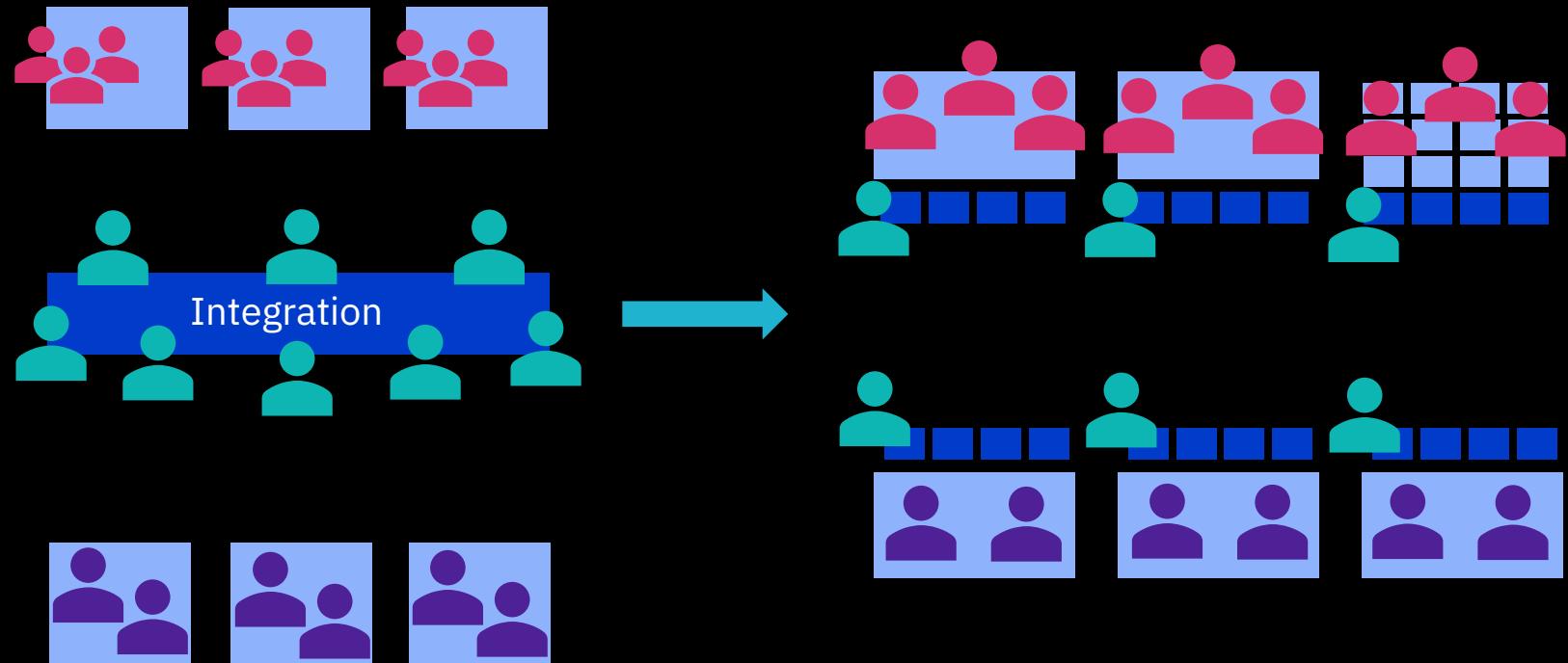
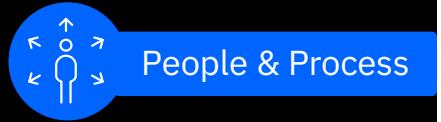
Hyper modular:  
build once, deploy anywhere



### Technology

Platform for rapid build, iteration, and management across an expanding range of integration styles

# Integration decentralization

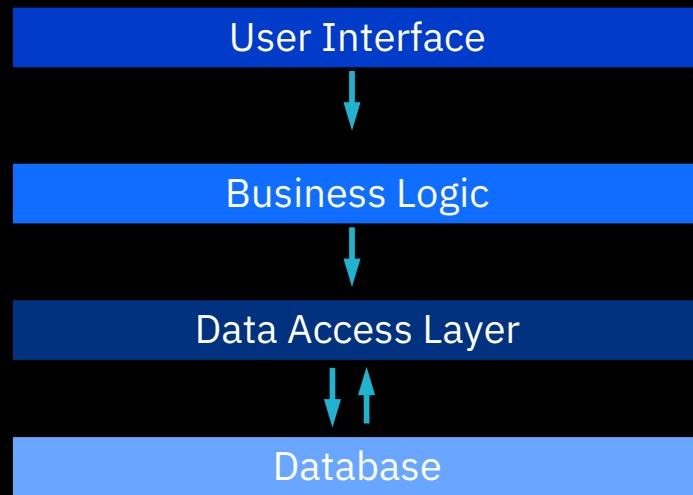


# Move to microservice architecture



Architecture

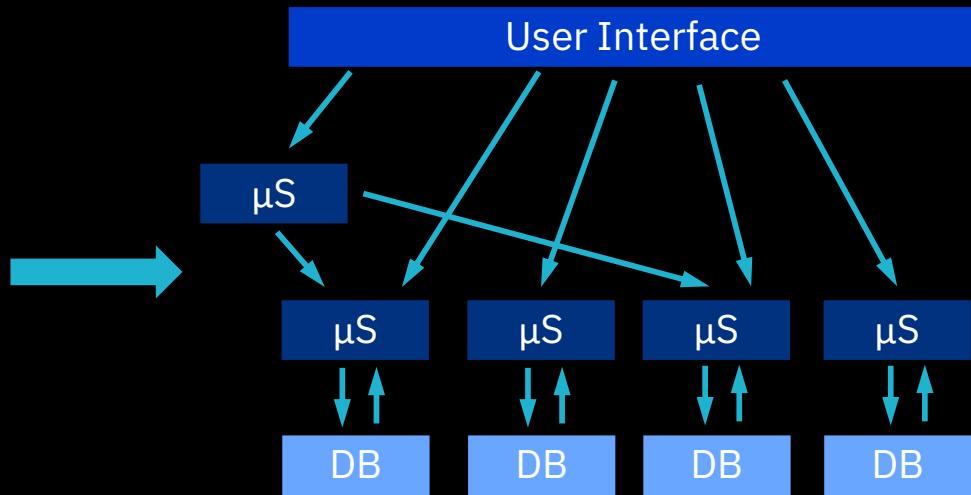
## Monolithic Architecture



### Agility

Faster iteration cycles,  
bounded contexts,  
autonomous teams

## Microservice Architecture



### Scalability

Elastic scalability, workload  
orchestration, cloud  
infrastructure

### Resilience

Minimized dependencies,  
discrete failover,  
fail fast, start fast

**“Modern apps are distributed, meaning integration must now be built in, not bolted on.”**

John R. Rymer, VP, Principal Analyst  
Forrester Research



# IBM Cloud Integration Platform

## Broadest integration capabilities

Proven integration technology, unified experience, operational efficiency & reuse

-

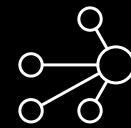
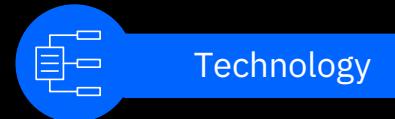
## Deploy and consume where needed

Container-based architecture with common enterprise services

-

## Enterprise-grade

Secure, scalable



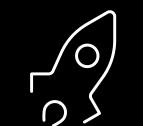
API  
Lifecycle



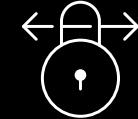
Application &  
Data Integration



Messaging  
& Events



High Speed  
Transfer



Integration  
Security

# IBM Cloud Integration Platform

Brings together industry-leading integration capabilities to form the industry's most complete hybrid integration platform (HIP)

Supports the scale, security, and economics required for all integration and digital transformation initiatives

## API Lifecycle



**IBM API Connect** is industry's first multicloud API solution delivering high scalability & performance.

## Application & Data Integration



**IBM App Connect** delivers breadth of application integration needs across a modern digital business.

## Messaging & Events



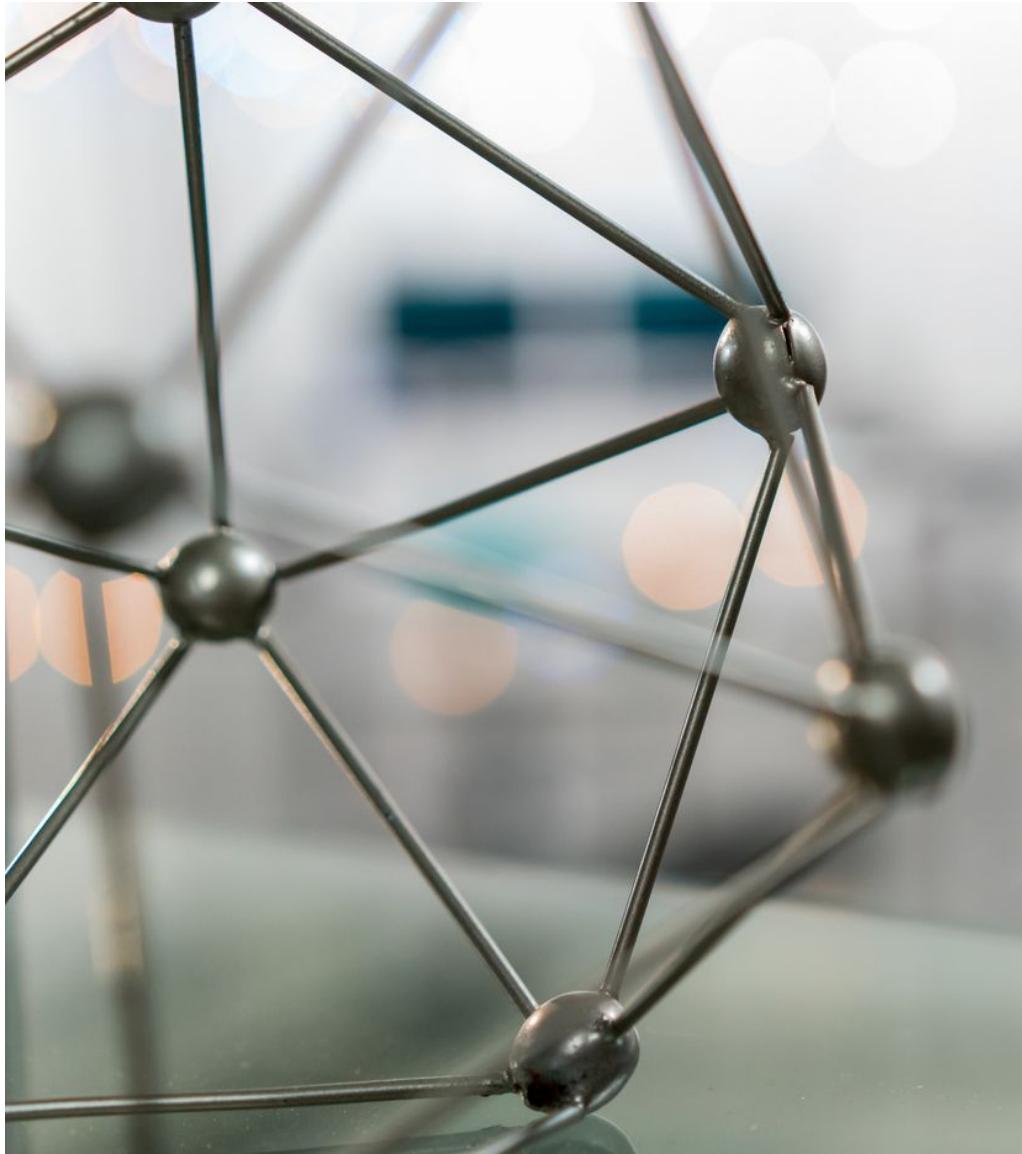
**IBM MQ** is the proven and trusted market leader.

**IBM Event Streams** delivers real-time Kafka event interaction.

## High Speed Data Transfer



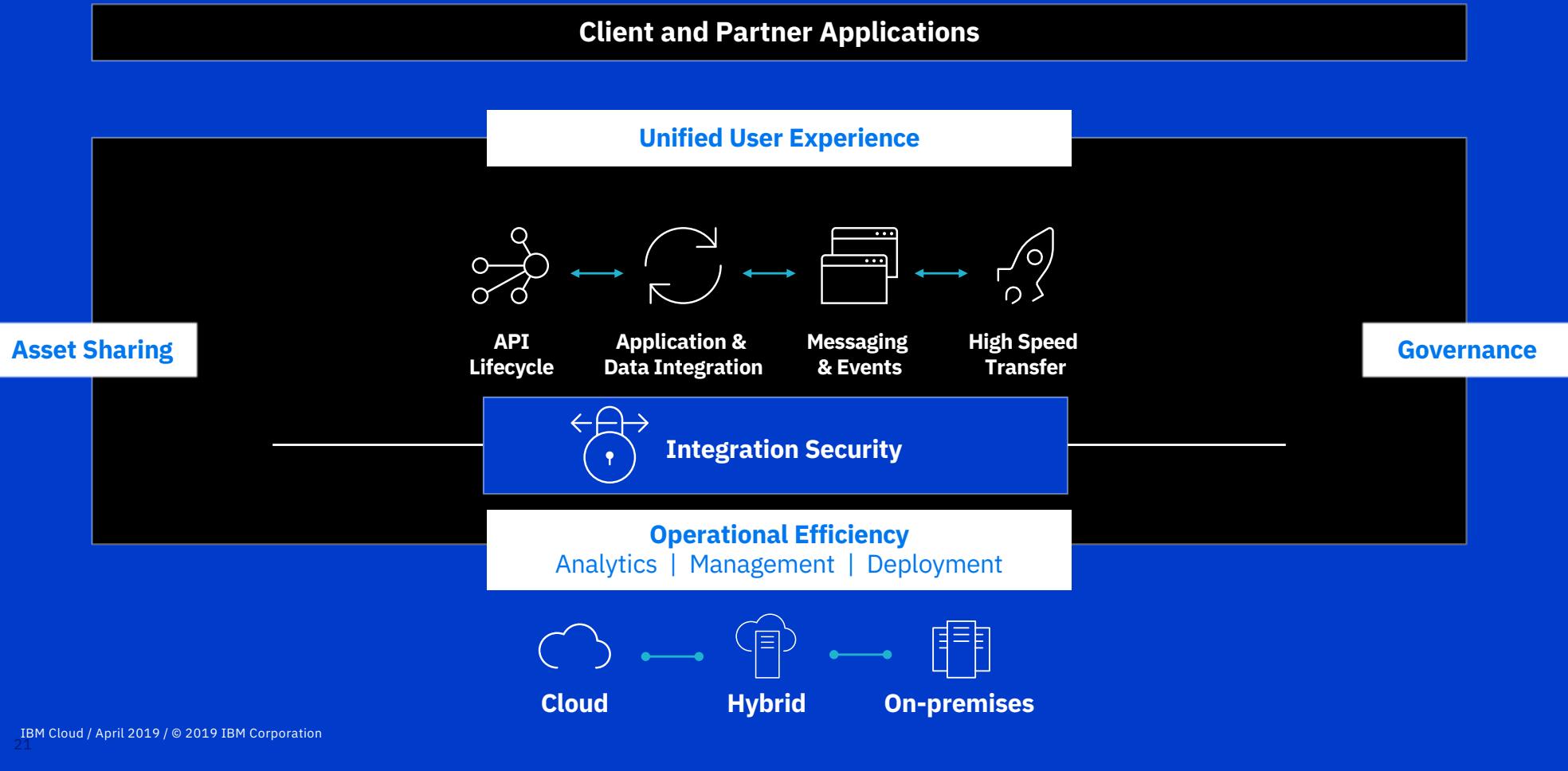
**IBM Aspera** to send, share, stream and sync large files and data sets more securely, reliably and at maximum speed over global IP networks.



By 2022, Gartner predicts at least  
**65%**  
of large organizations will have implemented a HIP to power digital transformation.

- Smarter with Gartner - [Use a Hybrid Integration Approach to Empower Digital Transformation](#) (April 26, 2018)

# IBM Cloud Integration Platform



# Transportation | Customer Care

**Customer Care:** React to events in real time



A photograph of a flight information display board. The board has columns for GATE # and STATUS. Most flights listed are delayed. The data is as follows:

GATE #	STATUS
A21	DELAYED
A23	DELAYED
C72	DELAYED
B34	DELAYED
A14	DELAYED
C89	DELAYED
G12	DELAYED
F5	DELAYED

**Required:** Events + MQ

## Need:

Improve overall customer experience when unexpected delays or cancellations occur

## Solution:

Leverage event streams and messaging integration patterns to automatically rebook customers, extend travel vouchers, book/rebook hotels and cars, etc.

## Integrations:

- Streaming and aggregation of weather events
- Connectivity to airline reservation systems (backend)
- Third party integration with hybrid multi-cloud vendors & systems

## Business Outcome:

- Reduced cost of re-accommodating customers by 10%
- Reduced the time of re-routing disrupted passengers by 50%
- Increased airline Net Promoter Score

# Retail | Personalized in-store experience

**Mobile:** Deliver responsive in-store customer experiences



**Required:** API management +  
App Integration + Events

## Need:

Provide exceptional in-store experience leveraging personalized offers and VIP treatment

## Solution:

Use in-store activity (events) and geo-position in combination with existing customer data to help them find products, offer customized promotions and complete purchases.

## Integrations:

- Secured integration from mobile device
- Data aggregation from a variety of systems (order management, CRM, inventory)

## Business Outcome:

- Increase in customer loyalty and repeat purchasers, leading to overall revenue increases
- Improvement in inventory management enabled by better buyer interactions

# Third Party Banking | Supply Chain Finance

**Trade Finance:** Supply chain finance with blockchain



**Required:** API management + App Integration + MQ

## Need:

Expedite the discounting and disbursal of funds to third party vendors and institutions

## Solution:

Implement multi-nodal blockchain solution using cryptography and a distributed messaging protocol to create a shared ledger between trading counterparties.

## Integrations:

- Upstream and downstream applications of core banking API ecosystem
- Seamless transmission to ERP and Blockchain

## Business Outcome:

- Reduces bill discounting from 4 days to near real-time
- Transparency to all parties
- Elimination of paper trail and manual intervention

# Cross-Industry | Digital Business Transformation

## Need:

Deliver integration across organizations with complete visibility, consistent reuse of assets, comprehensive debugging capability and security.

## Solution:

Implements a mesh of on-premises and cloud-based integration and security capabilities that enable a wide range of integration use cases.

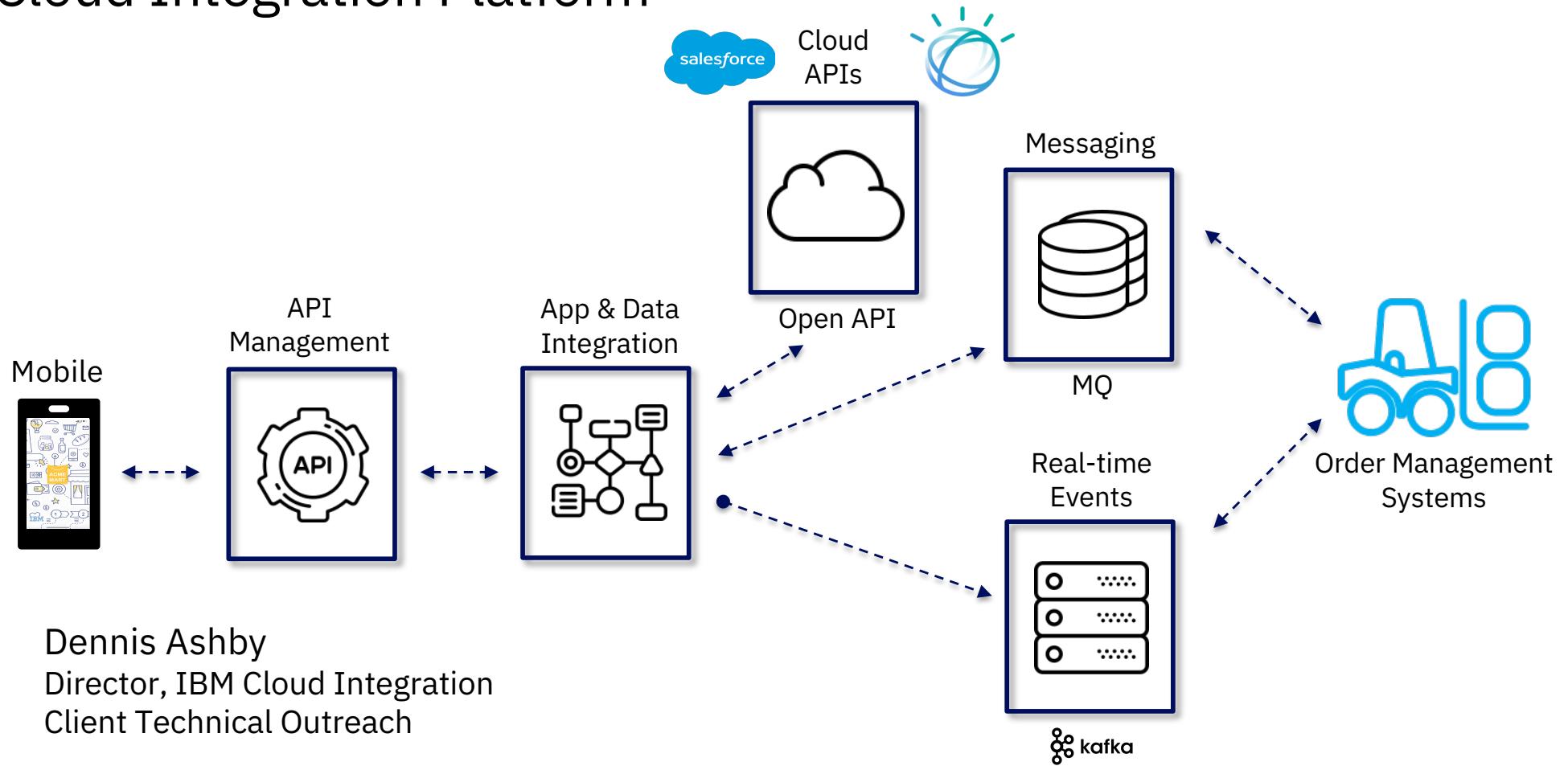
## Business Outcome:

- Reduced cost of building integrations
- Faster time to market
- Flexible, multi-cloud deployment

The screenshot shows the IBM Cloud Integration Platform interface. At the top, there are tabs for 'Integrations', 'Resources', and 'Monitor'. On the far right, there are buttons for 'Add', a gear icon, a bell icon, and a user profile for 'Arnle Smith'. Below the tabs, there's a sidebar with sections like 'Resources' (All), 'API specifications', 'Connectors', 'Data models', 'Data mappings', 'Documents', 'Custom views', 'Warehouse updates', 'My projects', and 'Patient assets'. To the right of the sidebar is a search bar with the placeholder 'Search' and a dropdown for 'Recent activity: Personal'. Below the search bar is a grid of 16 resource cards arranged in four rows and four columns. Each card has a thumbnail image, a title, and a brief description. The titles include 'New OpenAPI API Spec', 'NurseRecord Model', 'StaffRecord Model', 'Hospital supplies - v2 API Spec', 'Medical ISO standards Document', 'Hospital supplies API Spec', 'PatientNumber API Spec', 'Ward Inventory Model', 'Stock delivery API Spec', 'Stock delivery Document', 'Procurement API Spec', 'Worker details Document', 'Stock order API Spec', 'Stock order Document', 'Assessment API Spec', and 'Contractor details Document'. Each card also has a timestamp indicating when it was last updated.

# Acme Mart Demo

## Cloud Integration Platform



**“IBM is first-to-market with a holistic integration platform**  
exploiting container-based portable architecture for a range of hybrid integration use cases, as well as providing essential advice & support to help enterprises succeed with their integration modernization initiatives.”

**Saurabh Sharma**  
*Principal Analyst*  
*Ovum*





# Only IBM provides investment protection as you **modernize**

## **Leverage existing integration investments**

- Integration assets, skills, licenses

## **Investment flexibility**

- Purchase only the integration capabilities you need
- Expand on-demand for more capacity or additional integration capabilities

## **Future proof, leveraging open standards and IBM integration innovation**

- As new integration patterns emerge (e.g., OpenAPI, Istio, GraphQL)

# IBM Integration: A trusted partner in enterprise integration

**23** of the top  
25 US Retailers

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**21** of the top 25  
insurance companies

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**90%** of global credit  
card transactions

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**20** of top 20 global  
comm service providers

---

**50** of the top  
50 global banks

---

**80%** of all worldwide  
airline reservations

## Visit our other sessions

**Set the Right Integration Foundation for  
the Future of Your Business**

Wednesday, 01 May 2019, 8:30 am

**Randy Heffner, VP and Principal Analyst at  
Forrester Research**

—  
**Learn more about Agile Integration**  
[www.ibm.com/cloud/integration/agile-integration](http://www.ibm.com/cloud/integration/agile-integration)

**Ask us about attending an IBM Cloud Garage  
½ Day Integration Modernization Briefing**



# IBM Cloud Integration