4 reasons to adopt event-driven architecture for digital banking

To offer competitive services, many banks need to upgrade traditional systems for digital banking capabilities. Digital banking leaders are using cloud technology to make IT architectures more adaptive, more reliable, and—ultimately—more efficient to operate. Adopting an event-driven approach can help your bank compete and succeed in an industry that is rapidly changing.

Here are four reasons to adopt an event-driven architecture and advance your digital business.

1 Better customer experiences

Customers expect responsive banking with quick information retrieval and processing. Event-driven integration means that new data from users and systems can be used in near-real time.

Data is more distributed than ever before. This presents a challenge for banks, whose customers expect quick and convenient access to accurate information at any time. In a world where push notifications and real-time payments are increasingly common, traditional messaging infrastructure hampers digital banking capabilities that consumers are looking for.

Event-driven integration can improve the speed of information so that you can deliver better digital banking experiences.

- Keep consumers updated as information changes.
- Incorporate artificial intelligence into your banking systems more easily through event processing.
- Align your applications and services with how customers interact with the devices they use.

Event data comes in various forms. With Red Hat, you have a range of integration capabilities so that you can source almost any type of event data and make it available to your customers with the security features and scalability you need to meet their expectations.

2 Bring new features to market faster

Adopting microservices can improve time to market by allowing independent updates. An event-driven architecture supports continuous deployment and reduces the impact of changes.

The challenge of getting new features into the hands of your customers is not new to the banking industry. Setting up new message sources and destinations has long been a frustrating endeavor, worsened by the ever-evolving messaging structures powering digital services in banking and other industries. Reducing the time to integrate new message sources will improve the time to market for your bank's applications and services.

An event-driven architecture makes continuous integration and continuous delivery (CI/CD) easier so new features can be deployed more quickly.

- True decoupling between microservices reduces the impact of updates.
- New sources of information can be added to processes without updating existing destinations.
- Adopting event-driven microservices reduces the need to route, transform, and filter data between components.

With Red Hat, you have the power of Apache Kafka and the scalability of Kubernetes, preconfigured to work within the same underlying cloud platform. This means that you can spend more time creating distinctive digital services and less time on data-streaming infrastructure.

3 Improve resiliency and scalability

In distributed architectures, a failure can create a chain reaction that could cause a digital service to collapse. Event-driven messaging protects producers from subscriber failures.

Invariably, system components will fail. An event-driven approach means that if a backend consumer fails, messages can resume once that consumer is available again and the message producer remains unaffected throughout.

Maintaining an always-on distributed service can be increasingly difficult. Event-driven messaging can:

- Help ensure digital services are functional even when individual components are not available.
- Offer high throughput and velocity for both producers and consumers, providing consistent performance even with large data sets.
- Provide an always-on messaging backbone that automatically scales infrastructure.

With Red Hat, you have simple yet configurable provisioning of highly available Apache Kafka clusters on Kubernetes with built-in security features that can be used as a self-managed or Red Hat®-managed service.

4 Reduce infrastructure and operations costs

Batch processing and polling for changes in data can put an unnecessary strain on the underlying infrastructure. Event-driven data processing can save time and money.

The reality is that digital consumers have accelerated the growth in transaction volume and overall data size. Batch processing or other mechanisms to keep data updated becomes increasingly costly and difficult to schedule and scale as the amount of information continues to grow.

As existing messaging approaches become too costly or time-consuming, event-driven architecture:

- Can make new data available to components without complex and costly batch processing.
- Naturally fits serverless functions and processing, reducing the need for costly and complex idle compute resources.
- Eliminates the need for point-to-point integrations. One event producer supports multiple consumers.

With Red Hat, you have a consistent and efficient operating platform for your digital services. You have a full range of consulting services and training to help you adopt event-driven architecture.

Because speed matters in digital

Competition is driving the need to be more responsive than ever before. Adopting an event-driven architecture can help banks make their digital channels more nimble and connected, delivering services that their customers expect. With Red Hat, you have a technology partner who helps digital leaders across the globe adopt cloud technology to release digital services more quickly and cost-effectively. Red Hat provides tools that make it easier to adopt an event-driven microservice architecture across your channels with enhanced security features and performance. Learn how Red Hat provides cloud capabilities for digital banking that you need to thrive in a rapidly changing industry.

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