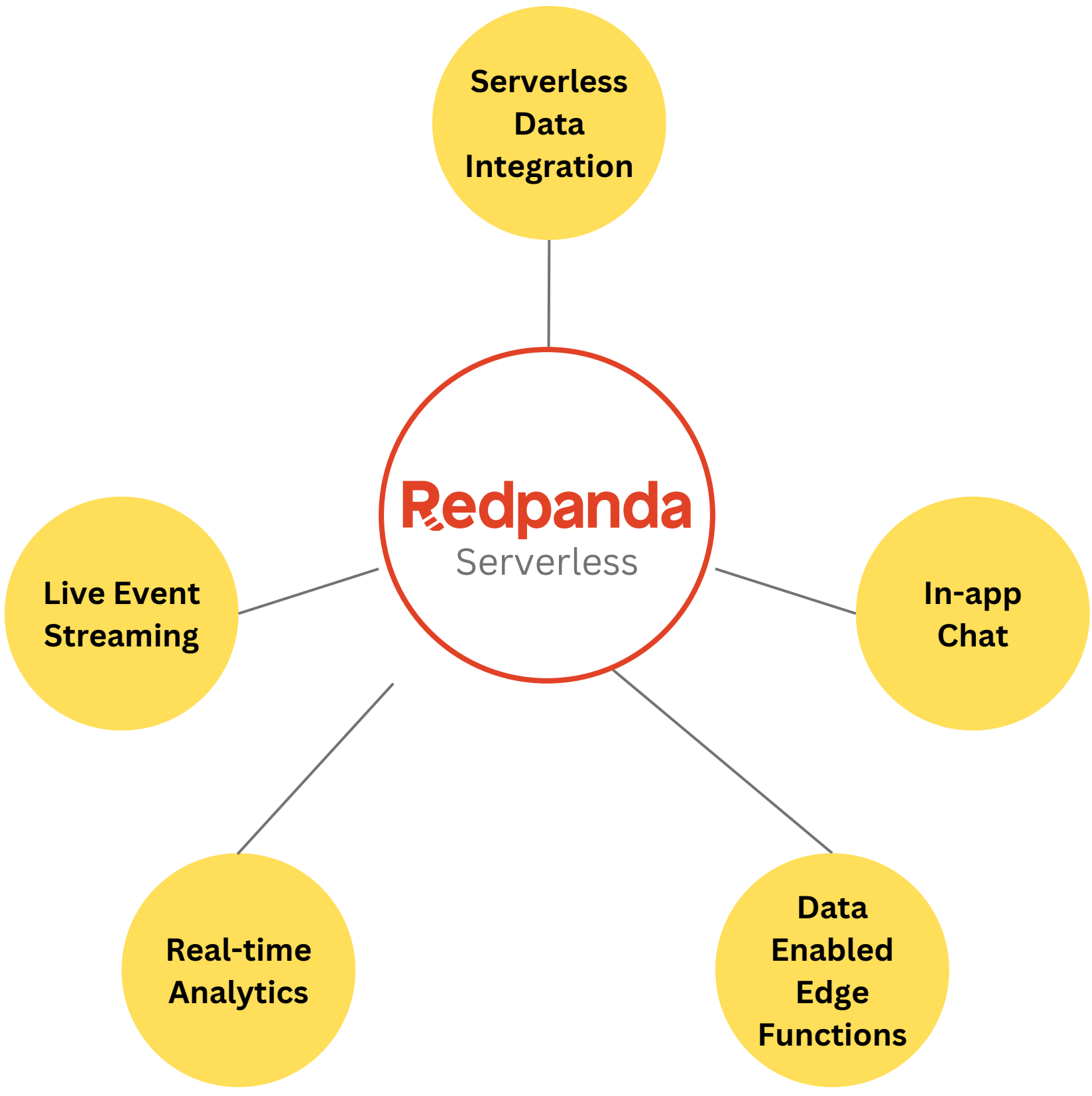
5 Serverless Streaming Data Use Cases with Redpanda

With a serverless streaming data platform, such as Redpanda Serverless, there's no infrastructure to deploy or systems to configure. As a developer, you can easily get started and introduce real-time features to your applications, making them dynamic and engaging.

Let's explore 5 application use cases for that.



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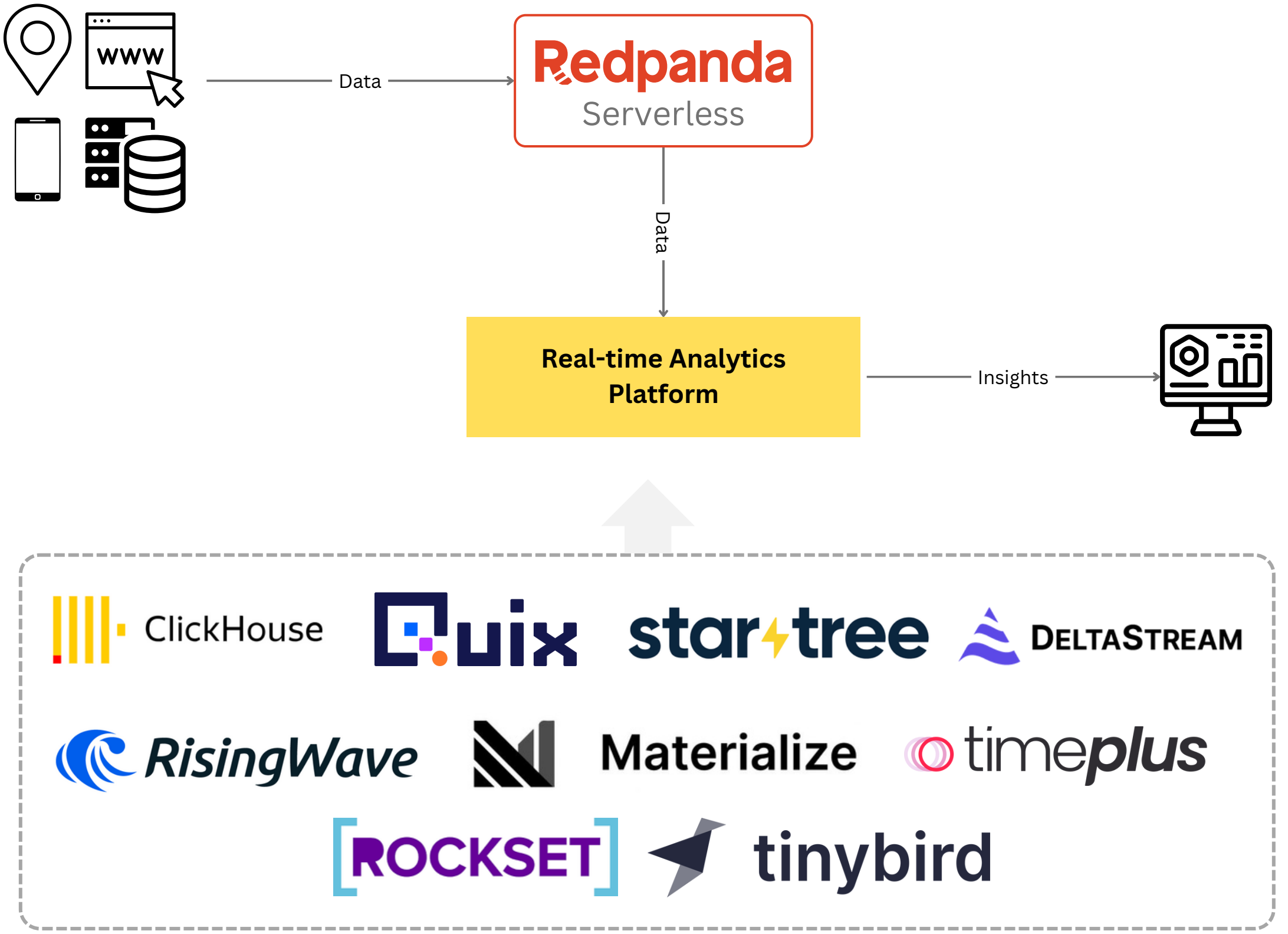
1 Real-time Analytics Applications

Ingest data into Redpanda from different data sources and feed them into a real-time analytics platform to derive insights from moving data and serve them to consumers at scale.

Real-time recommendations, user-facing dashboards, anomaly detection, and monitoring are popular usage scenarios.



Pair Redpanda with a serverless real-time analytics platform of your choice.

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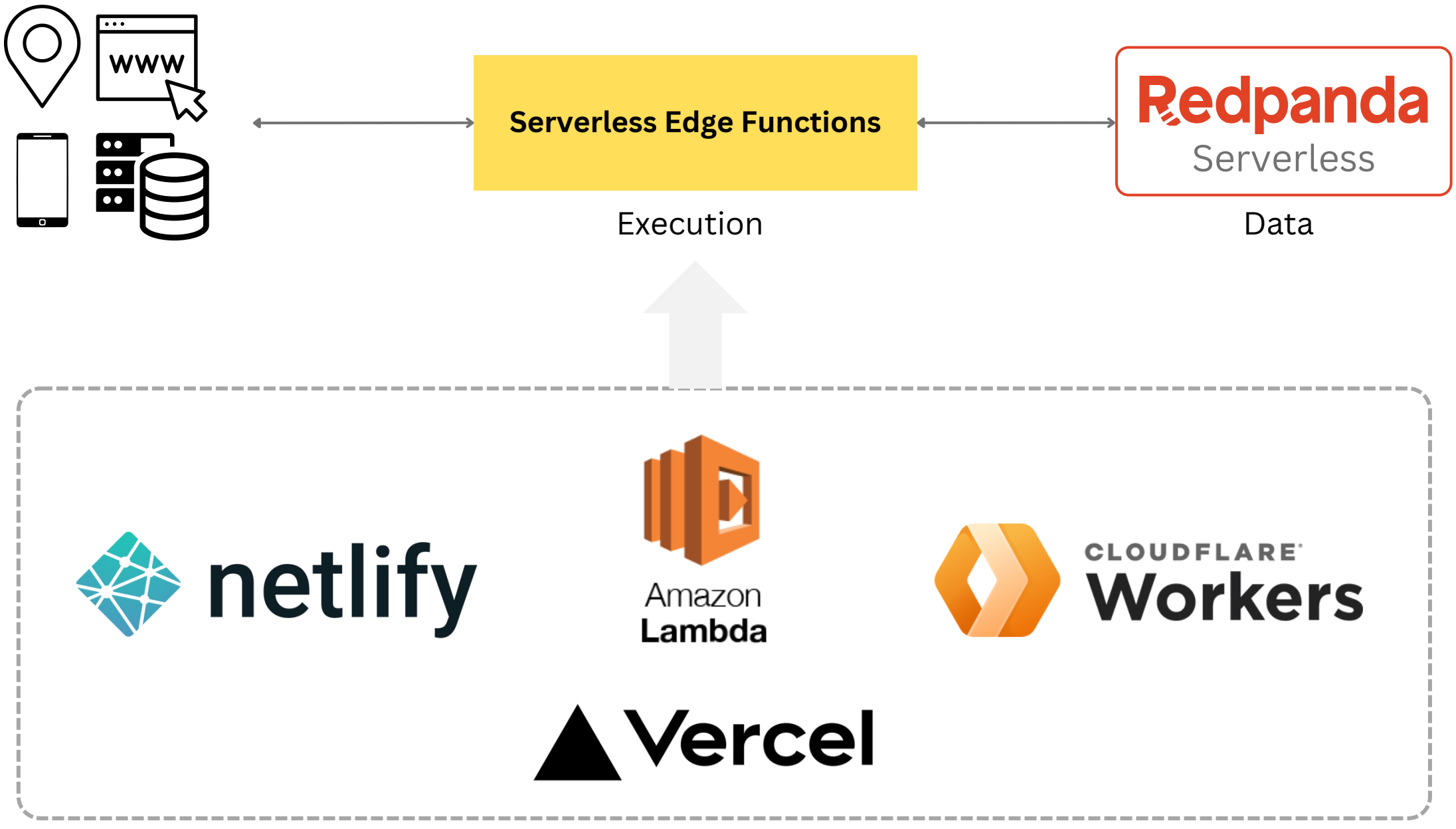
2 Run Functions At the Edge

Create a serverless Redpanda cluster in a region closer to your users allowing edge-deployed functions to read and write data with improved security and minimal latency.

- **Examples**: Clickstream ingestion, user authentication, conditional routing, ML inference, etc.
- **Who can benefit:** Web and mobile developers, data engineers

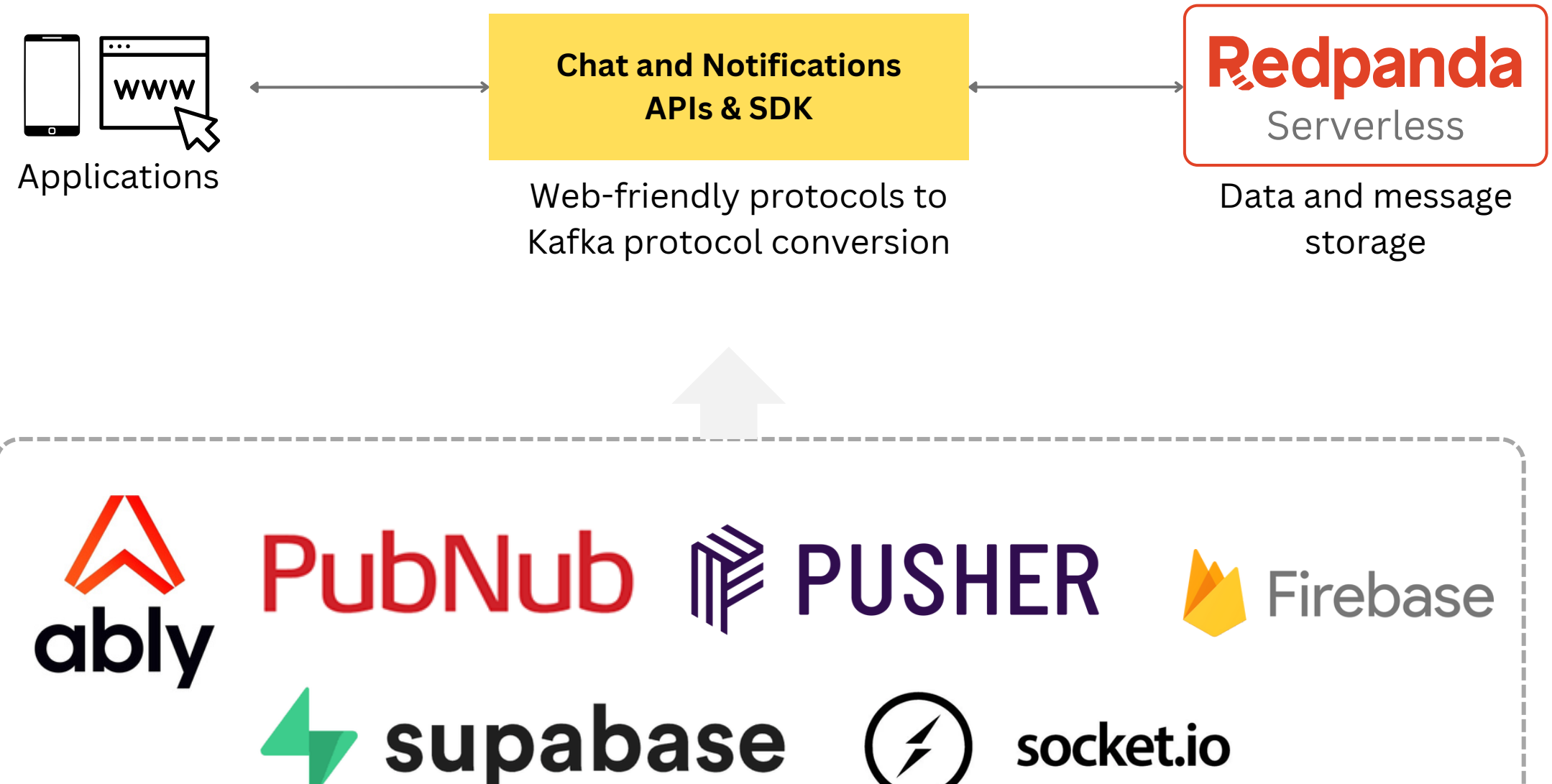


Pair Redpanda with FaaS platforms to eliminate the need for managing infrastructure and benefit from usage-based billing.

3 In-app Chat and Notifications

Easily extend the built-in topics and pub-sub features to provide public, groups, and 1:1 chat experience for users within your application.

- **Examples**: In-game chat, Instant Messaging
- **Who can benefit:** Web and mobile developers

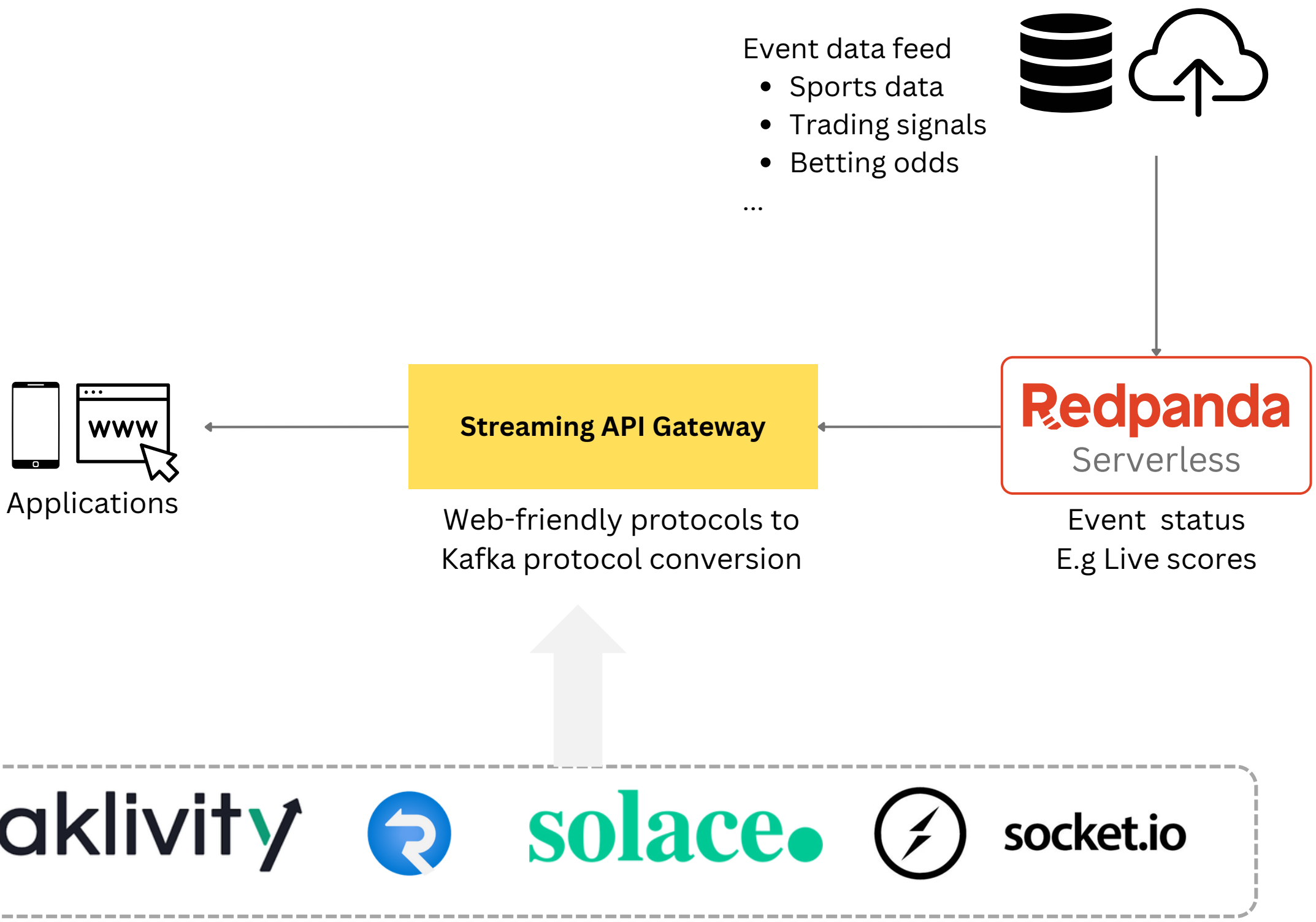


You can place Redpanda behind a real-time API or Mobile Backend As A Service (MBaas) platform to offer more support for web-friendly APIs, such as WebSockets, SSE, and GraphQL Subscriptions. That also allows developers to enforce fine-grained security schemes on the frontends, such as OAuth and OIDC.

4 Live Event Broadcasting/Streaming

Stream the current status of live events to user's devices over web-friendly protocols.

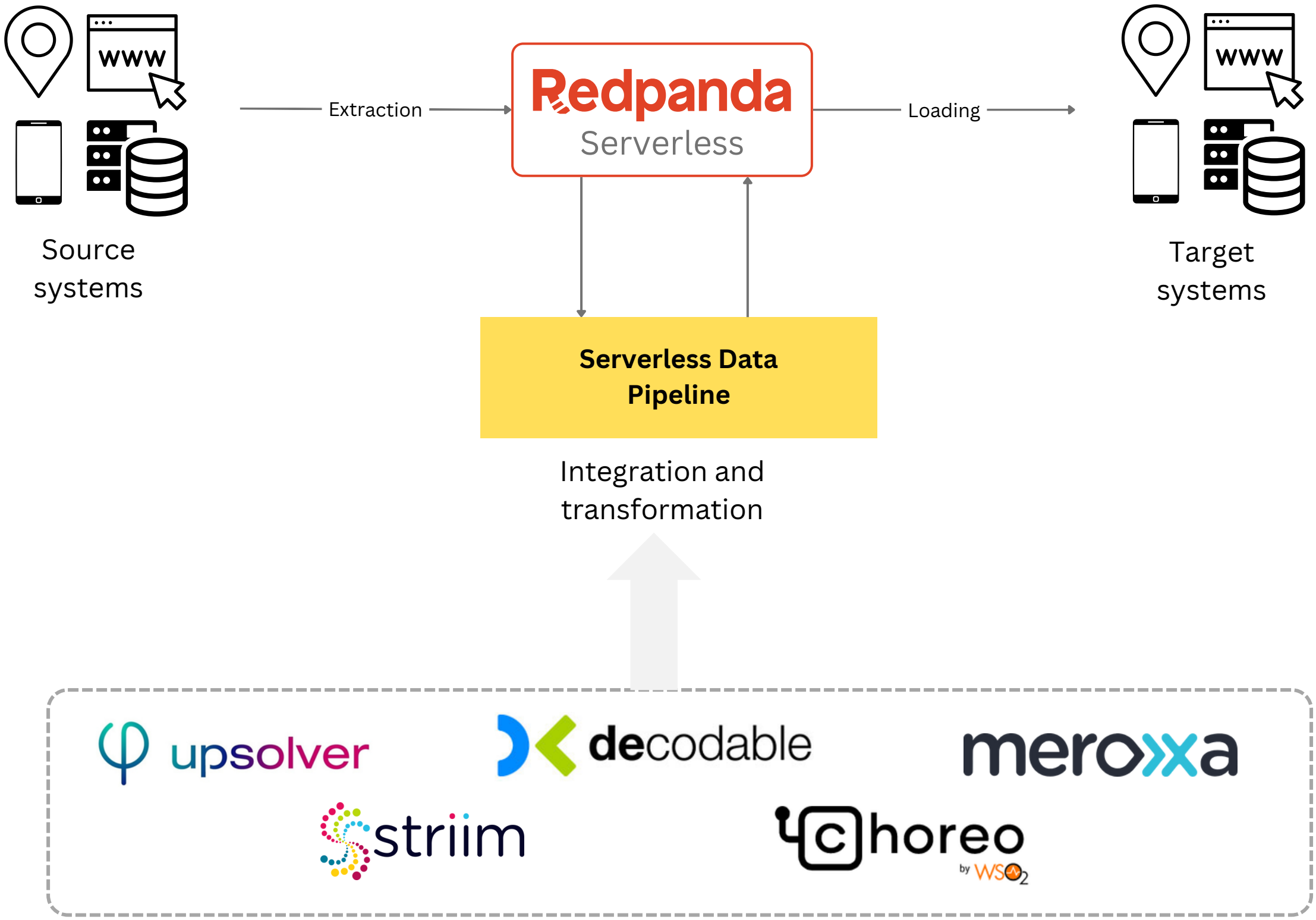
- **Examples**: Live sports scores display, sports betting, trading dashboards, and live auctions.



The Streaming API Gateway bridges the gap between frontend-friendly web protocols and Kafka protocol. They will own the frontend security, rate limiting, and QoS when streaming event data out.

5 Serverless Data Pipelines

Create serverless data processing pipelines that integrates data across SaaS platforms. These pipelines can perform simple data loading tasks as well as complicated streaming ETL operations—transformations, enrichment, and storage of data they are generated.



The operations can vary from simple event-driven processing to high-velocity high-throughput stream processing. Either case, Redpanda provides a scalable, low-latency data ingestion and cost-efficient data storage over time.