Build your open insurance ecosystem

Design, deploy, and manage open insurance interfaces with Red Hat

Common use cases for open insurance ecosystems

Open insurance ecosystems support new business models and use cases, including:

- Parametric insurance offerings for travel, real estate, business, and more.

- Automatic insurance quotes for automobiles, real estate, pets, and others.

- Streamlined policy acceptance for immediate coverage at points of sale.

- Data- and sensor-driven pricing and adjustments.

- Straight-through claims processing.

- Brokerage product management.

An open insurance ecosystem helps you deliver high-value services

Widespread availability of digital technologies and services continues to transform nearly all industries. Policyholders expect high-quality, personalized digital services in all aspects of their lives — including insurance — and are quick to consider competitors' services if their needs are not met. Insurance providers must deliver valuable, engaging services to their policyholders to remain competitive. Even so, no single insurer can develop the multitude of required services themselves. Insurers must collaborate with partners to create multifaceted customer experiences.

An open insurance ecosystem can help you connect with partners to build valuable relationships with your customers. These partners include other insurance companies, financial services organizations, insurtech companies, and third-party service providers from other industries. Whether you assemble your own or connect with another established ecosystem, your organization can gain many benefits:

▸ Deliver the innovative, integrated services and experiences that policyholders want.

▸ Adopt new business and delivery models to expand revenue opportunities.

▸ Employ partner capabilities and emerging technologies to create new services faster, boost efficiency, and promote innovation.

▸ Monetize your assets by providing controlled, authorized third-party access to your own services and to customer data.

Considerations for creating an open insurance ecosystem

Open business platforms and application programming interfaces (APIs) are critical for ecosystem initiatives. An open platform provides a place for teams across your organization to collaborate and work toward joint goals. Open APIs connect services, products, and data to create comprehensive products and offerings. These connections also allow authorized financial institutions and partners to access preapproved policyholder data, transforming the relationships between insurers, third-party firms, and customers.

To build your open insurance ecosystem and effectively use APIs, you need to consider your business initiatives, operational model, and technology foundation.
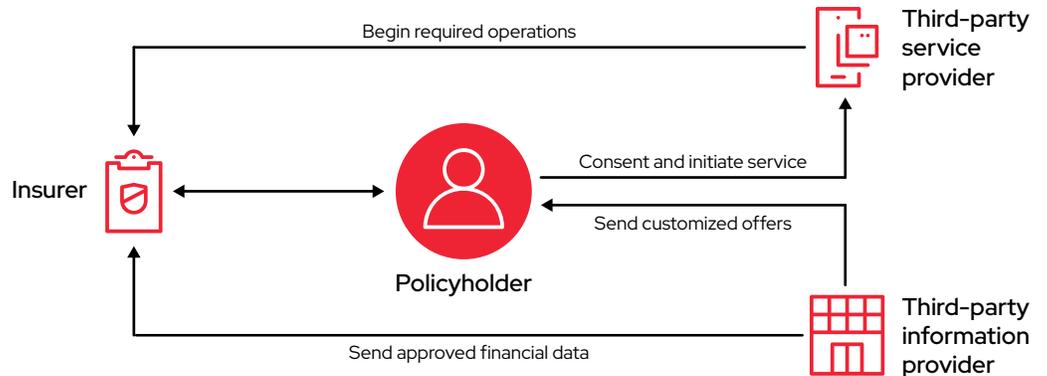
Figure 1. An open API ecosystem connects insurers, policyholders, and third-party providers to allow security-focused exchanges of services.

Tip

Read the Open APIs in Financial Services for Dummies e-book to learn more about using APIs within insurance and other financial services organizations.

Business initiatives

Business initiatives are at the core of your open ecosystem strategy. The first step in creating any strategy is to understand and define your goals and expected outcomes. Keep in mind that objectives may not be the same for every partner and service. Nonetheless, an overarching strategy is essential for maintaining a high level of consistency and efficiency.

When establishing your open ecosystem strategy, consider how your organization will:

▸ Improve customer experiences using policyholder data.

▸ Provide secure, authorized access to data so that third parties can create and deliver services directly to policyholders.

▸ Establish best practices and collaborate with partners using open APIs and platforms.

▸ Connect to and work with third-party developers via catalogs of APIs and developer portals.

▸ Meet and respond to changing regulatory requirements and industry standards.

Operational model

Your operational model defines how your organization will use technology to achieve your business initiatives. Assessing your operational strengths, weaknesses, and objectives can help you choose the right technology and platforms for your organization.

When defining your operational model, consider how your organization will:

▸ Adjust and optimize your processes over time.

▸ Adapt to new technologies, business initiatives, and organizational changes.

▸ Achieve compliance with security and governance requirements for open APIs and data exchange.

▸ Attract, develop, and retain staff and partners with the desired skills, experiences, and potential.

Technology foundation

Your technology foundation provides the tools and capabilities for implementing your operational model and achieving your business initiatives.

When building your technology foundation, look for solutions that provide:

▶ Comprehensive API management capabilities, including authentication, authorization, policy enforcement, rate limiting, developer portals, life-cycle administration, and analytics.

▶ Advanced, layered security capabilities that span your entire environment and align with hybrid cloud operational models.

▶ Integration with your existing systems, new technologies, and third-party products.

▶ Real-time messaging and data-driven architectures to accelerate processes and workflows.

▶ Developer-friendly tools for building, testing, and deploying APIs and collaborating with other developers, teams, and organizations.

Build an innovative, adaptable foundation for your open insurance ecosystem

Mainframes and legacy systems do not provide the agility and scalability needed to support a complex API ecosystem. To build an effective technology foundation for your open insurance ecosystem, you need a flexible, modern infrastructure that integrates with your existing systems and with partner services and systems. Consistent API and services monitoring, security, and deployment are also critical. Finally, your ecosystem technology foundation should align with your larger core modernization efforts, as both initiatives have similar requirements.

Red Hat offers a technology foundation that meets all of these needs and helps you focus on delivering valuable, differentiated services to your policyholders. As an enterprise open source leader, Red Hat has the technical expertise, extensive experience, and innovative hybrid cloud solutions needed to successfully implement open ecosystems strategies. Red Hat's flexible, integrated products allow you to build complete service management solutions using APIs, microservices, and your existing services. A modular, integrated architecture lets you deploy the components you need now, connect with existing systems, and expand as needs change. Finally, a large certified partner ecosystem and open source interoperability allow you to confidently customize and adapt your foundation.

Tip

Read the Build a foundation for flexibility overview to learn about modernizing your core insurance systems with Red Hat.

**Service mesh
or API management?**

Service mesh and API
management technologies
are complementary tech-
nologies that work together
to deliver a complete service
management architecture.

Read the Service mesh or API
management? e-book to learn
how you can accelerate new
service development, speed
application launch cycles, and
deliver real-time, data-based
services to users.

**Get started faster with
managed services**

Reduce complexity and focus
on business value with Red Hat
OpenShift Dedicated, a fully
managed service of Red Hat
OpenShift, and Red Hat
OpenShift API Management,
a hosted and managed API
administration service.

Each component provides key capabilities within the overall solution.

▶ Red Hat® Enterprise Linux® is an open source operating system that provides consistency for
deploying applications across bare-metal, virtual, container, cloud, and edge environments.

▶ Red Hat OpenShift® is a scalable hybrid cloud container platform that helps IT development and
operations teams work together to deliver and manage microservices-based applications. It sup-
ports containerized, legacy, and cloud-native applications and provides everything you need to
construct a microservices foundation, including built-in security capabilities, monitoring, logging,
and service and resource management.

Red Hat OpenShift Service Mesh — included with Red Hat OpenShift — provides a uniform way
to connect, manage, and observe microservices-based applications. It incorporates a set of open
source projects for integrated, managing, tracing, monitoring, and analyzing traffic between
microservices. It also includes multiple networking interfaces and integrates with Red Hat 3scale
API Management, allowing you to create APIs that govern access to service mesh backends.

▶ Red Hat Integration is a comprehensive set of integration and messaging technologies that
connect applications and data across hybrid infrastructures. It is an agile, distributed, container-
ized, and API-centric solution. Red Hat Integration provides service composition and orchestra-
tion, application connectivity and data transformation, real-time message streaming, change
data capture, and API management — all combined with a cloud-native platform and toolchain to
support the full spectrum of modern application development. Key technologies within Red Hat
Integration include Red Hat 3scale API Management and Red Hat AMQ.

Red Hat 3scale API Management allows you to share, secure, distribute, control, and monetize
your APIs on an infrastructure platform built for performance, customer control, and future
growth. It integrates with Red Hat OpenShift Service Mesh via the Red Hat 3scale Istio plugin,
allowing you to set up APIs with service mesh backends.

Red Hat AMQ is a flexible messaging platform that delivers information reliably, permitting
real-time integration and connecting the Internet of Things (IoT).

Red Hat Fuse is a distributed, cloud-native integration platform that uses an API-centric,
container-based architecture to decouple services, allowing them to be created, extended,
and deployed independently.

▶ Red Hat Single Sign-On is an identity provider solution that implements federated authentication
for web applications, mobile applications, and RESTful web services. It allows you to protect your
APIs and applications via security tokens based on popular standards like OpenID Connect and
OAuth 2.0.

Figure 2 shows how the Red Hat architecture connects with other systems throughout your environment and business.
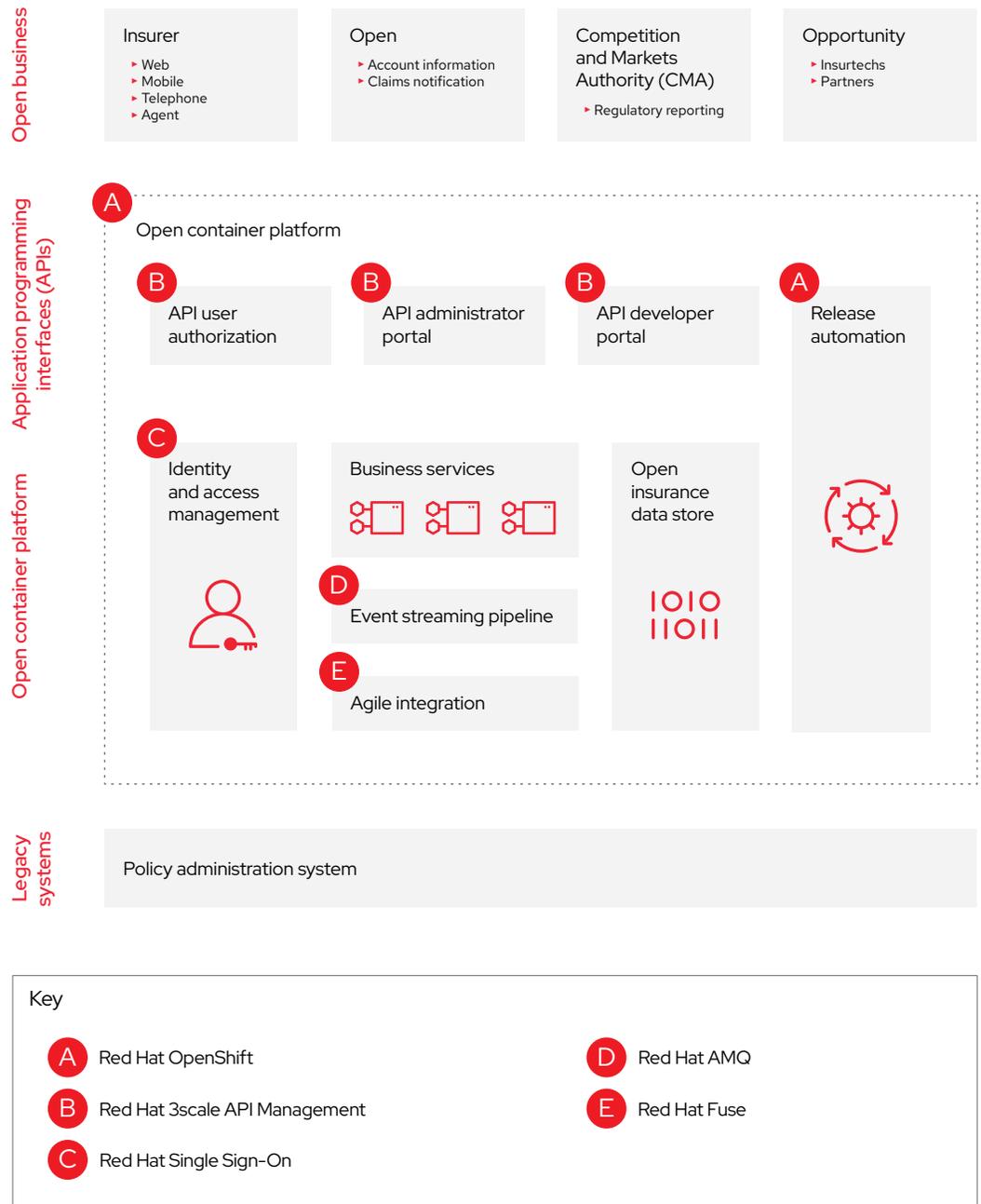
Open business

Insurer
▸ Web
▸ Mobile
▸ Telephone
▸ Agent

Open
▸ Account information
▸ Claims notification

Competition and Markets Authority (CMA)
▸ Regulatory reporting

Opportunity
▸ Insurtechs
▸ Partners

Application programming interfaces (APIs)

(A) Open container platform

(B) API user authorization

(B) API administrator portal

(B) API developer portal

(A) Release automation

Open container platform

(C) Identity and access management

Business services

(D) Event streaming pipeline

(E) Agile integration

Open insurance data store

Legacy systems

Policy administration system

Key

(A) Red Hat OpenShift

(B) Red Hat 3scale API Management

(C) Red Hat Single Sign-On

(D) Red Hat AMQ

(E) Red Hat Fuse

Figure 2. The Red Hat open API architecture integrates with your existing systems and business processes.

Key functional areas of the solution include:

▸ **Open container platform.** The API and microservices architecture is deployed within Red Hat OpenShift, with connections to data and event feeds, authorized business partners and users, traditional core systems, databases, and storage.

▸ **Event streaming pipeline.** Data and event feeds are integrated into a unified pipeline using Red Hat Integration and Red Hat AMQ.

▸ **Service mesh.** Red Hat OpenShift Service Mesh contains microservices for common core and product functions like payment, account balance, fraud evaluation, and transaction authorization services. You can connect your traditional services, create new microservices internally, or purchase and integrate third-party offerings into the service mesh.

▸ **Agile integration.** Other supporting systems and functions are connected to the new systems through Red Hat Fuse.

▸ **API management.** APIs for connecting business partners and other authorized users to the new architecture, as well as other core systems and microservices, are centrally managed through Red Hat 3scale API Management.

Figure 3 shows an overview of an open API and business platform architecture using Red Hat products and technologies.

Customer success highlight: Wiener osiguranje

Wiener osiguranje, a leading Croatian insurance provider, needed to simplify its growing application programming interface (API) environment to maintain security and reduce management effort. By adopting Red Hat 3scale API Management, running in a flexible container-based environment on Red Hat OpenShift, the company has improved visibility into its hundreds of APIs. As a result, Wiener can enhance features, bring new services to market faster, and integrate with new partners while protecting its data and IT systems.

Improved security with better visibility and control

Reduced partner integration time from hours to minutes

Enhanced API features with open API approach

Read the customer success story to learn more about Wiener's experience.

A Open container platform

B Application programming interface (API) management

Administrator portal   Developer portal

Identity management system

A Continuous integration and continuous deployment (CI/CD) pipeline

A Service mesh

Product API   Claims microservice   Transaction authorization service

Current account microservice   Fraud evaluation microservice

Entitlement system

Applications and users

C Authorization server   **D** Event streaming pipeline

Policy administration system

Key

A Red Hat OpenShift   **C** Red Hat Single Sign-On

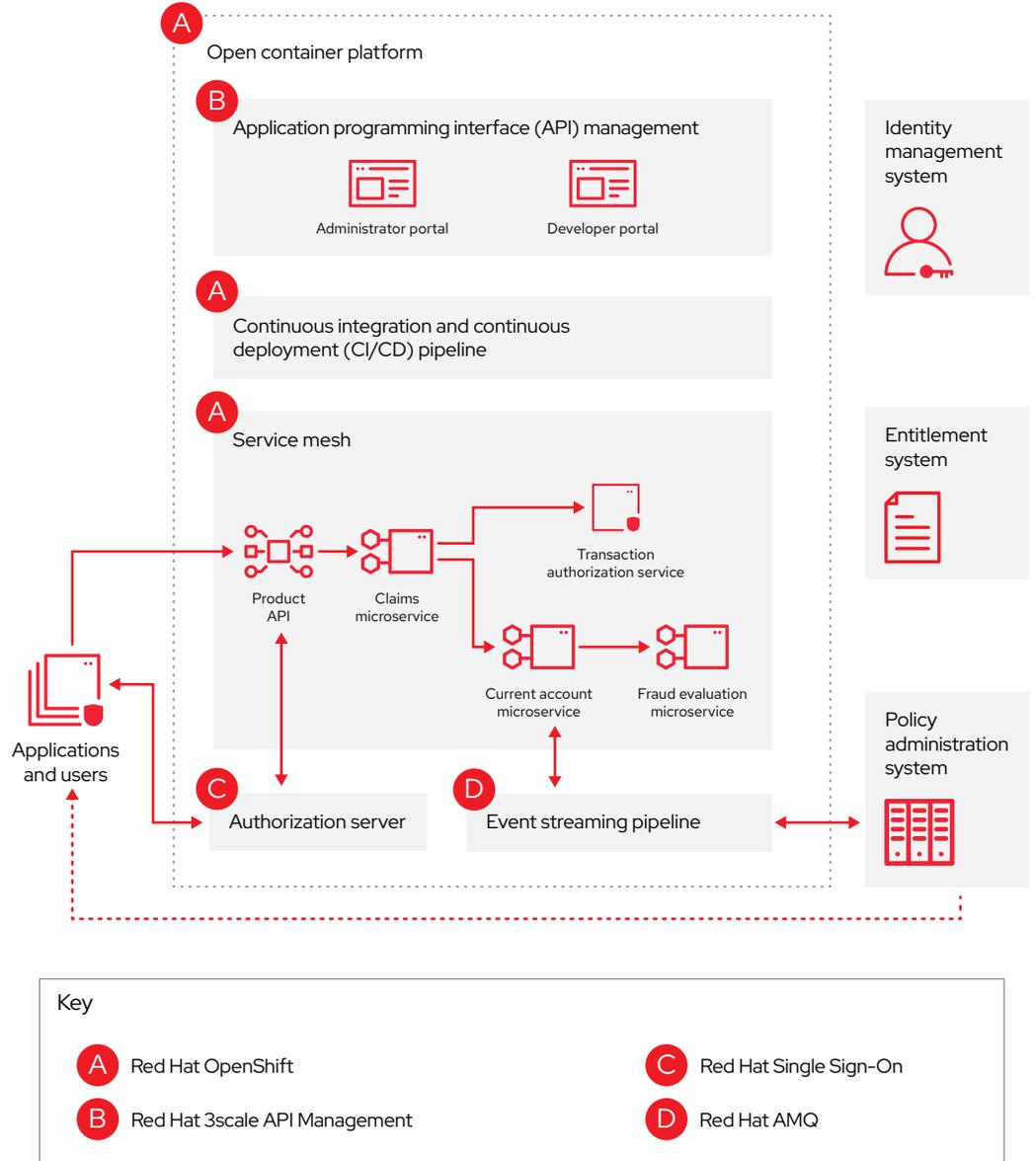**B** Red Hat 3scale API Management   **D** Red Hat AMQ

Figure 3. Red Hat provides a flexible, modern foundation that can integrate with partner services and systems, as well as your existing systems and infrastructure.

Customer success highlight: Bajaj Allianz Life Insurance Company

Bajaj Allianz Life Insurance Company (BALIC), one of India's leading private life insurance companies, wanted to take advantage of the massive potential of the country's growing insurance market. To speed time to market and respond to opportunities faster, the company created a reliable microservices environment for digital applications using Red Hat OpenShift, supported by Red Hat 3scale API Management and Red Hat's single sign-on (SSO) technology. Now, the company has reduced development and delivery time while eliminating downtime in its hybrid on-premise and public cloud environment.

"*With Red Hat's technology, we were able to create an efficient microservices-based environment to enhance business flow and at the same time, scale up our IT infrastructure, with minimum resources and a simpler access process.*"

———
GOUTAM DATTA
CHIEF INFORMATION & DIGITAL
OFFICER, BAJAJ ALLIANZ LIFE
INSURANCE COMPANY

Improved time to market for new services and features

Enhanced security using API management

Eliminated downtime across hybrid IT environment

Read the customer success story to learn more about BALIC's experience.

Learn more

With an enterprise-grade open technology platform, you can access new revenue streams from digital ecosystems. As an open source leader with extensive experience supporting financial services firms, Red Hat helps you focus on providing valuable, differentiating services to your policyholders. Enhance your products and services, develop new partnerships and distribution channels, and improve your operational efficiency. Red Hat can help.

▸ Learn more: redhat.com/fsi

▸ Schedule a complementary discovery session: redhat.com/en/consulting-discovery-session

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted adviser to the Fortune 500, Red Hat provides award-winning support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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North America	**Europe, Middle East, and Africa**	**Asia Pacific**	**Latin America**
1 888 REDHAT1	00800 7334 2835	+65 6490 4200	+54 11 4329 7300
www.redhat.com	europe@redhat.com	apac@redhat.com	info-latam@redhat.com

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