

# Imagine a world where

your OSS/BSS supports business expansion





# Don't let OSS/BSS hold you back

**Globally, connected devices now outnumber the human population. Data volume is increasing exponentially—and communication service providers (CSPs) must constantly innovate to keep up.**

With rapid developments in 5G, and over-the-top (OTT) vendors changing the future of communication, CSPs face several challenges.

Making the transition to become a competitive digital service provider requires a complete transformation of legacy operation support systems (OSS) and business support systems (BSS).

At Red Hat, we believe this transformation is critical to supporting the open hybrid cloud-based networks, cloud-native services, and software-defined operations that CSPs need to create agile new products and customer experiences.

## **But where to start?**

In this guide, we'll show you why and how transforming your OSS/BSS can result in greater value for your business—and case studies that demonstrate Red Hat's experience and success.







## Create value with your OSS/BSS systems

**CSPs are under constant pressure, facing commoditized services, a saturated wireless market, and shrinking fixed-line demand. Competition is fierce, both from established players and external disruptors.**

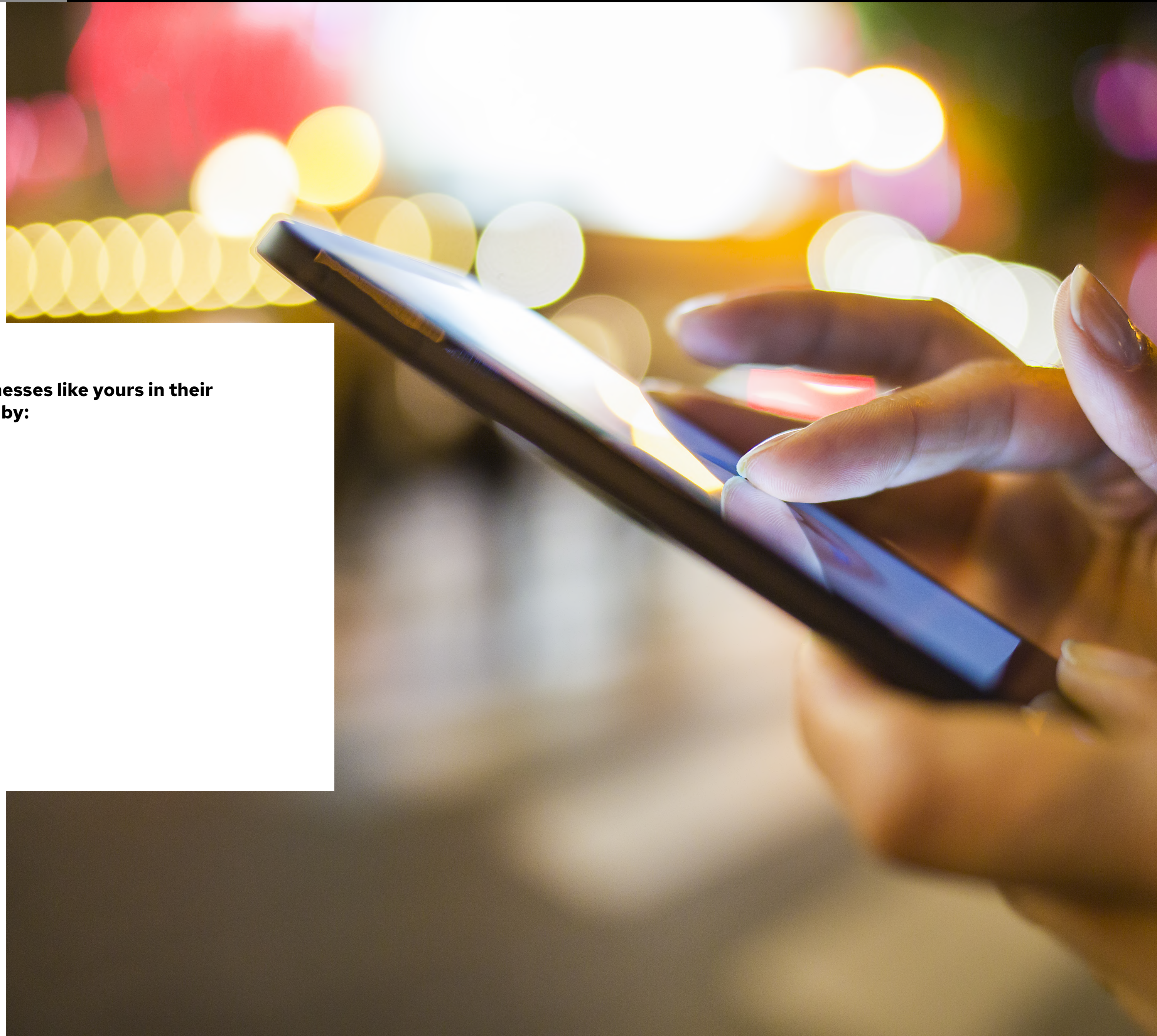
As you make strategic decisions, success will be determined by how you respond to four key questions:

- How will you diversify?
- Where will you differentiate?
- How do you streamline high-investment implementations?
- How will you create new revenue opportunities?

For example, diversification may include a move into home security and management solutions, telematics, or identity and security operations. Differentiation may come by delivering media, content, and innovative services via a growing partner ecosystem. Successful long-term investments will likely include 5G-based fixed wireless access (FWA) and fiber to the home (FTTH) infrastructure.

Red Hat can help you implement your choices cost-efficiently and build a flexible OSS/BSS foundation, the key to delivering services faster and responding better to evolving customer needs.





## Examples of what's possible

Modernizing your OSS/BSS can reinvigorate your business. We've helped many CSPs achieve:

- **Increased network efficiency.**
- **Reduced downtime.**
- **Lower operational costs.**
- **Improved customer satisfaction.**
- **New business and market opportunities.**

By adopting a robust operations platform, you can give your team more capacity to focus on creating the next great experience for your customers.

**Red Hat has helped businesses like yours in their transformation journeys by:**



# Augmenting legacy systems

**Products** Red Hat® Integration, Red Hat OpenShift®, and Red Hat Process Automation

## Addressing the challenge

Legacy OSS/BSS are often rigid, segmented, and expensive, requiring specialized skills—all of which can hamper digital innovation.

One client had an outdated enterprise service bus (ESB) that was making it difficult to quickly develop and launch new innovations.

They needed a solution to support agility, quick adoption, and business process automation (BPA).

## Achieving transformation

Using Red Hat 3scale API Management software, we created an application programming interface (API) wrap-around for the business' existing systems.

The customer used Red Hat OpenShift to develop new features and functions based on microservices to further complement the legacy OSS/BSS.

This hybrid platform adds flexibility, scalability, and the ability to decommission redundant functionalities over time.

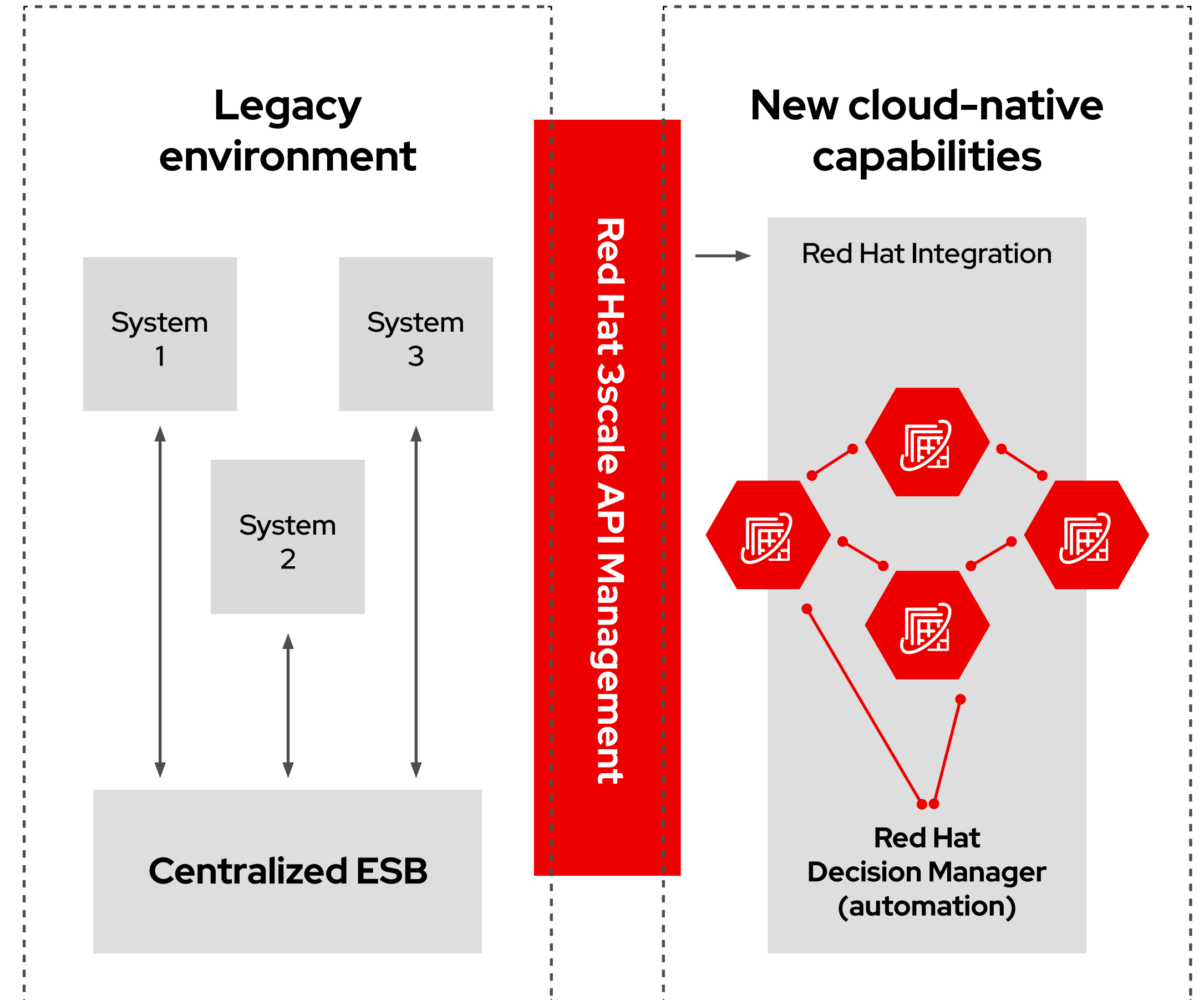
## Unlocking the value

With minimal customer time commitment, we worked together to develop a long-term transformation strategy and implementation plan.

The telco company achieved:

- Enhanced digital customer experience.
- Increased service velocity.
- Greater knowledge share—meaning a wider talent pool of operatives and less reliance on specialist technicians.

With automation, manual errors have been eliminated, resulting in cost savings for the organization.<sup>1</sup>



<sup>1</sup> Based on internal Red Hat customer data.

# Connecting data and analytics

**Products** Red Hat Integration and Red Hat OpenShift

## Addressing the challenge

A large telco organization identified four core business areas with untapped data potential:

- **Marketing:** Information from operational systems can be gathered to examine customer experience management (CEM) and predict Net Promoter Scores (NPS). This data can also be broken down and analyzed by segment (area, customer, device, etc.).
- **Operations:** Access to complete, real-time data can speed up root-cause analysis, reducing mean time to resolution (MTTR), decreasing outages, and ultimately improving customer satisfaction.

- **Planning:** Analysis of network changes and upgrades can provide insights into the strategic capital expenditures (CapEx) investment and the impact on customer experience.
- **Customer care:** Data visibility across the entire user journey can increase first-call resolution, reduce average handling time, and increase customer satisfaction.

The organization wanted to empower business and operational innovation through real-time synchronized data. To support this goal, they teamed with Red Hat to create a cloud-native solution.

## Achieving transformation

We worked together to integrate existing record systems into new microservices-based systems. The setup enabled:

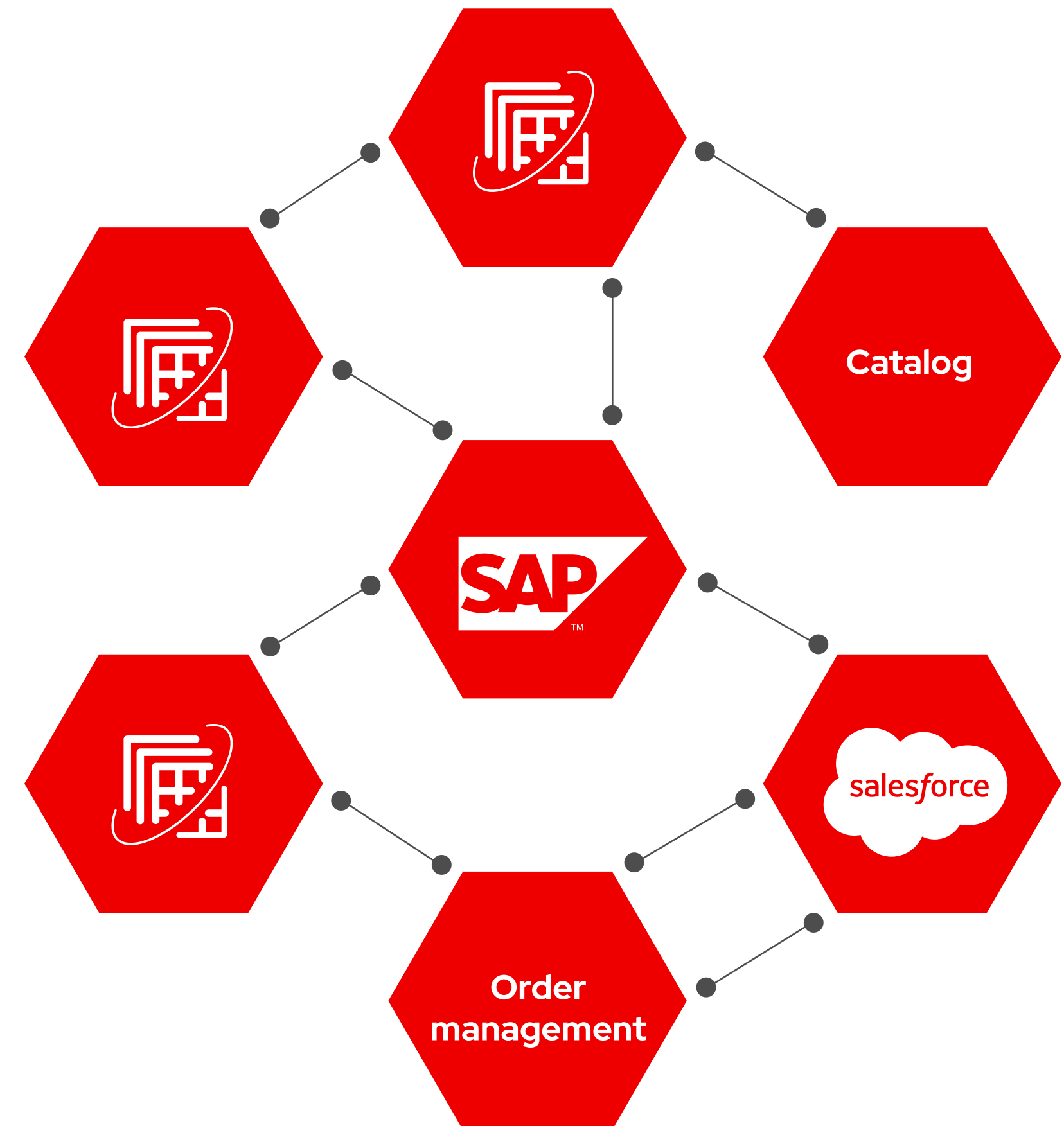
- Data synchronization between the new systems and any implemented OSS/BSS solutions.
- Cognitive services.
- Operational analytics.
- Change data capture.

## Unlocking the value

By synchronizing data, our customer was able to analyze their data at scale and develop better business models.

The insights gained from Marketing and Customer Care allowed more efficient and effective marketing budget management and stronger customer enablement.<sup>2</sup>

## OSS/BSS cloud-native data synchronization



# Accelerating deployment of fiber to the home

**Products and technologies** Red Hat OpenShift, Red Hat Integration, Red Hat Process Automation, cloud-native development infrastructure

## Addressing the challenge

Fiber to the premises (FTTP) installations are set to total 168 million subscribers across Europe by 2025.<sup>3</sup> However, FTTP involves a complex and manual deployment process, which takes a lot of time and is prone to human error.

A telco provider in Germany partnered with Red Hat to develop a solution that would reduce the time needed to order and install FTTH, so they could provide the service to more customers faster and more efficiently. They wanted to incorporate automation to reduce the level of human error.

## Achieving transformation

Working in close collaboration with both the customer and the service integration partner, Red Hat jointly designed a new cloud-native IT architecture based on open-source technology. This approach provided a stable and flexible platform to host the newly required applications and allow for greater reuse and interoperability.

Red Hat implemented a microservices lightweight API integration layer (following TM Forum's OpenAPI program and other open standards) to augment the client's legacy back-end systems with new cloud-native OSS/BSS capabilities.

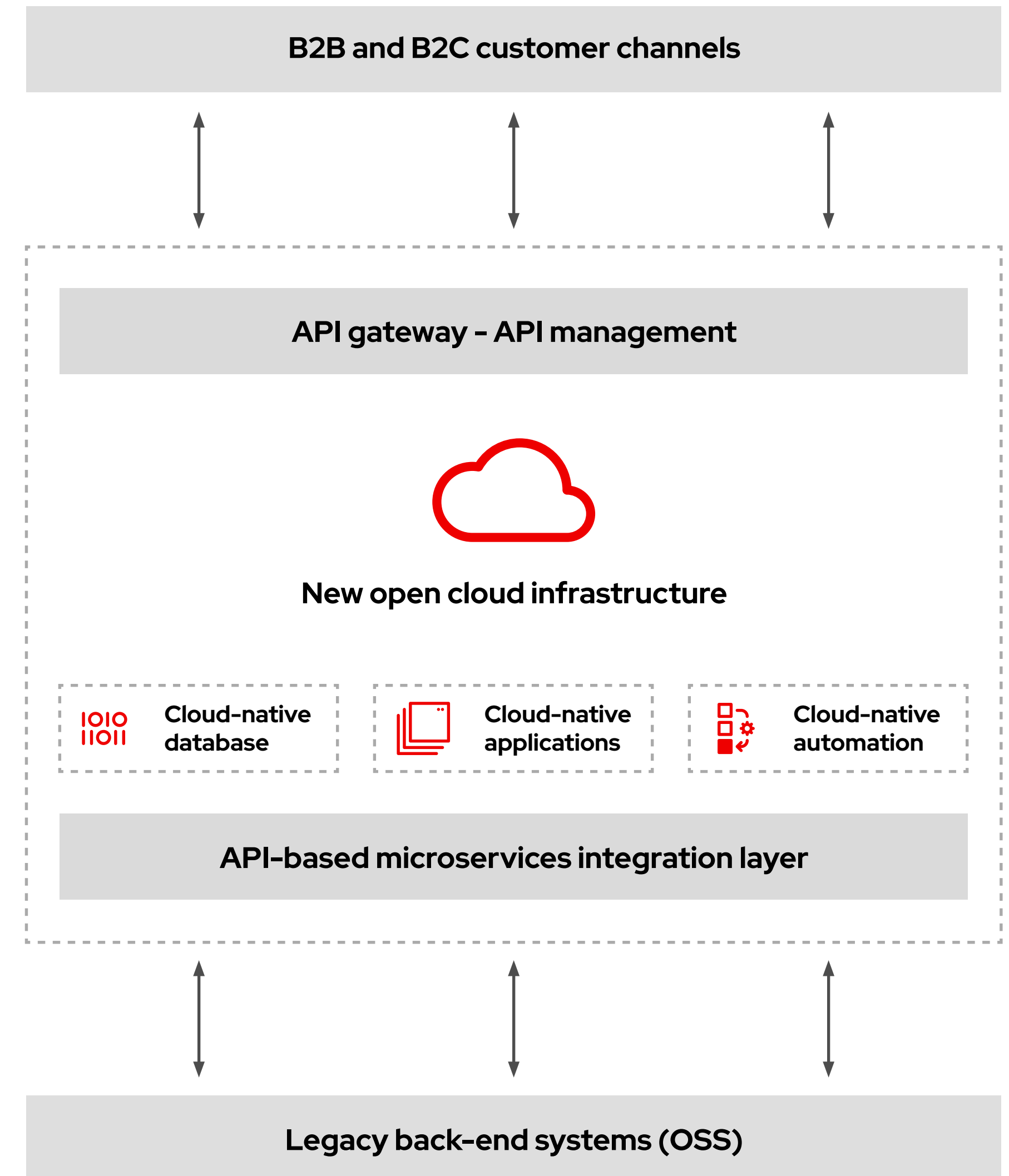
As a result, the customer can use an agile process and continuous delivery workflow, which helps them develop new functionality faster and supports data-driven installation decisions.<sup>4</sup>

## Unlocking the value

These new microservices capabilities –combined with automation, APIs, and a decoupling of infrastructure components–have helped the client modernize its IT environment smoothly and effectively.

Thanks to agile processes running on a cloud-native architecture, they are now better able to adapt to changing customer needs and market trends. Automation is at the heart of the solution, accelerating the robust and effective rollout of new installations and improving the customer experience.

In addition, Red Hat helped the client bring this new greenfield FTTH provisioning infrastructure to market in just one year.



<sup>3</sup> Montagne, Roland. "FTTH forecast for Europe." Idate, FTTH Council Europe Conference.

<sup>4</sup> Based on internal Red Hat customer data.



# Get started

Every transformation initiative requires a solid foundation.

Our Red Hat experts can help you address your challenge and unlock transformation in weeks, rather than months.

Join us for a 60-minute Red Hat Services Discovery Session, where we'll explore your goals, examine your current landscape, and create a joint roadmap for your OSS/ BSS vision.

You'll also get access to our large partner ecosystem, where you'll be able to work with partners who have specialized experience to meet your specific needs.

Visit [redhat.com/telco](https://redhat.com/telco) to learn about Red Hat's solutions for CSPs. Or, get in touch to organize your discovery session.

