

# Building flexible infrastructure for 5G

Use a capability-rich platform to help streamline 5G deployment and speed success

*“Telecom service providers and their vendors must transition to a software-based, cloud-centric architecture. At the same time, they need to reevaluate their positioning, value and differentiators in the new ecosystem introduced by digital marketplaces.”*

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## **Building 5G networks offers both challenge and opportunity**

5G networks are more than just an iteration of networking technology. They enable fundamentally new ways for businesses to operate and offer their products and services. To unlock this, service providers will need to adopt a new network architecture that is software-defined, fully disaggregated and has the ability to be distributed optimally to meet performance and latency requirements.

## **How the industry is shifting**

**Service providers are looking to create a 5G platform that accelerates time-to-value for new business opportunities.**

Responding to more dynamic and increasingly competitive markets is a must. Technology innovation and digital marketplaces have fostered new ways of working, and new entrants not encumbered by legacy can deliver capabilities faster. Service providers need to streamline service innovation and improve experiences to deliver more value and compete better.

## **Differentiate yourself within the 5G value chain**

**The ability to deliver diverse service requirements for demanding and immersive experiences requires a flexible network architecture.**

The low latency and high bandwidth of 5G networks allow telecommunications service providers to develop and deliver new services that were not previously possible. These new use case categories will need to cost-effectively support millions or even tens of millions of devices while offering highly reliable connections, and very low power consumption.

Using a cloud-native platform, service providers can deliver the service-based distributed architecture defined for 5G functions, helping to optimize the performance and latency of their networks for consumer and business customers.

Service providers are in a unique position within the value chain as they have access to a plethora of network data that can provide insights for the enrichment and personalization of 5G-based services. These value-added interactions will drive increased revenue opportunities and greater customer satisfaction.

The move to cloud-native infrastructure and cloud-native network functions (CNFs) is an efficient and flexible way to deliver 5G services and applications at the pace a service provider's business requires.

A common cloud-native platform provides a consistent, automated development, deployment and operations experience across private, public and hybrid clouds.

### Move away from complex and rigid network infrastructures

**Legacy networks are complex and inflexible, slowing service provider efforts to innovate and deliver new services.**

A cloud-native 5G platform built with software allows service providers to easily move functions and applications between different cloud environments. They can respond to changing demand and implement different deployment strategies without interrupting services.

In order to capitalize on business opportunities afforded by 5G, network architects will need a solution that improves flexibility, performance, efficiency and agility of their current infrastructure. A cloud-native infrastructure will allow the delivery of 5G services at the pace your business requires.

### Have a clear 5G evolution path

Protect your existing investments with a clear evolution path to 5G. With Red Hat® OpenShift®, service providers gain operational simplicity, along with the ability to cost-efficiently deploy and operate their networks and that will allow them to deliver 5G-based services faster than ever before.

Red Hat and its ecosystem of partners are focussed on 5G innovation. We constantly advocate for service provider's business needs in open source communities. We pre-integrate solutions with our partners for 5G operational readiness, providing customers with a choice among trusted vendors.

Red Hat OpenShift is built upon Red Hat Enterprise Linux® so the reliability, performance, ecosystem, and other benefits of Red Hat Enterprise Linux® inherently apply up through the entire stack.

These products offer an enterprise-ready distribution of open source technology innovation, designed for, tested, and certified on different types of hardware and deployed across many industry verticals.

Learn more about how [Red Hat can help service providers maximize the value of their 5G investments.](#)



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