

Ease into the future

Make your telco network infrastructure work for you today...and tomorrow



5G has had the **fastest mobile generation rollout** to date, launching in 2018 (or 2019, **depending on who you ask**) and reaching more than **1.6 billion connections** by the end of 2023. It has revolutionized the technology landscape and enabled innovation on a global scale.

But even as they continue to deploy 5G around the world, service providers must prepare for the future. 5.5G (also known as **5G Advanced**) is already in the works, bringing improvements like faster speeds, lower latency, and increased capacity.

And 6G isn't far behind. Beginning deployment as early as 2028, 6G is expected to broaden network reach and **offer**:

- Terabits-per-second-level peak data rates
- Microsecond-level latency
- 99.99999% network dependability

This will open the door to new technological advancements, such as enhanced threat detection, feature and facial recognition improvements, smart cities, autonomous vehicles, and immersive XR.

Future-proof your telco network

Is your telco network infrastructure built to handle the latency and capacity demands of today and tomorrow? Here are some considerations as you support 5G and enable future expansion.



Flexibility

How agile is your current network infrastructure? Can you accommodate the demands that are just around the corner? Consider a horizontal cloud-native solution that will simplify the deployment and lifecycle management of core workloads in your national and regional data centers, as well as distributed core and RAN workloads running at the edge. An open source software foundation is also key, because it helps ensure you have access to the latest technologies and advancements — critical in this era when the pace of change is only getting faster. And ensure you're capitalizing on automation wherever possible: when integrated seamlessly into your solution, automation enables your team to focus on innovation rather than rote tasks.



Scalability

5G has already passed 1.6 billion connections, and is **expected to reach** 5.5 billion worldwide by 2030. Is your network ready for that kind of traffic? Prepare for future growth, avoid overprovisioning, and deliver consistent quality of service to your customers by ensuring your network can scale appropriately. Even today, you need a solution that will support the deployment and lifecycle management of hundreds of thousands of endpoints across tens of thousands of sites. Consider pre-built workflows that simplify system upgrades and scale-out clusters to meet new capacity demands. You'll need to quickly and easily deploy thousands of apps across hundreds of nodes, manage and upgrade multiple clusters at once, and enforce policies across clusters at scale.



Reliability

You know how costly downtime can be, both in terms of **reputation** and **regulation fines**. And as 5G and 6G push the boundaries of connectivity, your need for a reliable, resilient solution is only growing. Invest in one that enables you to quickly identify and pool hardware resources and (re)configure devices to meet changing workload requirements. Consider one that's pre-tested, -validated, and -integrated by vendors you trust — you'll get to market faster, and it won't be a matter of crossing your fingers and hoping for the best when you do deploy. And seek out a partner who can offer you continuous, anytime, expert support. If it's 3am and your network is down, you need an answer and a resolution right away.



Security

As a telco service provider, you're entrusted with highly sensitive customer information and you play an indispensable role in an increasingly digital society, including enabling emergency services to operate quickly and efficiently. That makes you a prime target for hackers. Ensure your security framework encompasses access controls, automated scanning and intrusion detection, encryption, and prevention systems, along with regular security audits and employee training. Embed security at every layer of your infrastructure to safeguard against evolving threats. Because, in the **age of cybercrime**, security is paramount.



Dell Telecom Infrastructure Blocks for Red Hat: Your partner for 5G...and beyond

We know. Deploying infrastructure with these considerations is a daunting task.

The good news? A solution is already here. And we've done the heavy lifting for you.

Dell Telecom Infrastructure Blocks for Red Hat is a set of optimized foundational building blocks designed specifically to enable telecommunications service providers to build and expand their cloud-native network. This pre-integrated, -validated, and -tested solution has been purpose-built to streamline the design, deployment, and lifecycle management of telecom cloud network infrastructure, from the datacenter to the edge of the network.

With state-of-the-art technology, 24/7/365 support, and integrated and automated design, service providers can lower TCO and raise ROI, speed time to market, and free their teams to innovate. It's the most comprehensive cloud-native telecom network infrastructure solution on the market, brought to you by the most experienced and trusted names in the business: Dell Technologies and Red Hat.

You already have a challenging, complex, time-consuming, and costly job maintaining your current network infrastructure. But demand is only going to get higher, and you really can't afford to rely on outdated technology and processes.

Because 7G is coming.

Full ease ahead with Red Hat, Dell Technologies, and ePlus

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With state-of-the-art technology, 24/7/365 carrier-grade support, and integrated and automated design, service providers can lower TCO and raise ROI, speed time to market, and free their teams to innovate.

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