

# The Global 5G Rollout: Exploring the Network Core



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In the telecom industry, discussions of [5G](#) services often center on [the network edge](#), as we noted in a previous post. But as edge services expand, billions of devices will send discrete data flows into the core network. Like a snowball rolling down a hill, the result will be an avalanche of aggregated data by the time it reaches the central repository.

The network core is critical to service providers. To thrive, providers must be agile enough to offer whatever services customers desire. The scope of these potential services is very large. For consumers, gaming and video streaming are clear use cases. But the bulk of the revenue opportunities will lie with enterprise services. Potential use cases include video surveillance with real-time analytics, e-health services, smart stadiums, connected vehicles, cloud robotics, and more.

The carrier core has traditionally been reliable but static. However, with the dynamic mix of services that 5G will enable, a highly flexible and adaptive core will be a key ingredient for success. So what are the potential barriers? We see three areas of concern.

- **Operational efficiencies will be critical to maximize profitability.** It's no secret that large operators have been [reducing headcount](#). But services and reliability can't be sacrificed. Here, orchestration and automation are key. Carriers must be able to serve more devices and network

traffic, without cost curves exceeding revenue curves.

- **Carriers need to embrace new technologies.** The shift from physical devices to Virtualized Network Functions (VNFs) made things simpler, but it didn't deliver on all the hoped-for efficiency gains. Environments based on virtual machines are still monolithic and difficult to automate. The new wave of Cloud-Native Network Functions (CNFs) based on containers and stateless microservices offers far more opportunity to truly automate at scale, making deployment, fulfillment, and assurance more reliable.
- **Operators must look to innovative partners and technology leaders as their best hedge against risk.** Since it isn't yet known for certain which 5G use cases will take off, carriers must place a premium on architecture flexibility that will allow them to pivot toward any killer apps that emerge.

So how can Pure Storage® help? Pure's technology is ideally suited for the telecom network. By design, it's effortless, efficient, and Evergreen™. Let's look at each of these attributes.

## Effortless Storage

We believe storage should be plug-and-play simple. A Pure Storage installation consists of connecting a few cables while glancing at instructions printed on something the size of a business card. No more tuning, storage pools, caching, tiering, performance troubleshooting, planned downtime, forklift upgrades, or any of the other speed bumps of legacy storage. Time-to-service is always critical. With Pure, you'll be up and running faster as you pivot to new revenue opportunities.

Even the traditionally arduous and uncertain task of capacity planning is made easy with forecasting and workload simulation driven by Pure1 Meta®. This powerful AI engine helps identify future needs and timelines and also models upgrade scenarios for both load and storage capacity.

## Efficient Storage

One element of efficiency is putting more data in less space. Pure's unique combination of data reduction technologies deliver outstanding space reduction. One major service provider with more than 100 deployed storage arrays sees 3.6:1 global data reduction across its Pure fleet. Combined with Pure's footprint density and low power consumption, the savings on space, power, and cooling are exceptional.

Efficiency is also operational. Pure provides an extensive suite of REST APIs, plug-ins, and integrations. [VMware integrations](#) simplify automation for back-office IT or VNF deployments. Carriers moving to CNFs will find a seamless container-based storage solution with Portworx®.

## Evergreen Storage

Pure's Evergreen Storage subscription model is a subscription to innovation. It provides flat and fair, predictable maintenance pricing year over year, with no forced obsolescence. It also includes all software features at no additional cost. Any future enhancements are automatically made available. And it's all delivered non-disruptively by Pure's support teams. Evergreen delivers a cloud-like experience into the data center.

As telecom providers face the exciting but unpredictable future of 5G, a reliable storage partner is key to successfully deploying a flexible and high-performance network core. Pure Storage is already helping [15 of the top 20](#) leading global telecoms deliver on the promise of 5G.

Read [Powering 5G Success with Modern Data Storage](#) and [The Global 5G Rollout: Exploring the Network Edge](#) for more about telecom and 5G infrastructure services from Pure.