

Build Seamless Global Cloud-Based Infrastructure With AWS

Traditional infrastructure is limiting the scale and competitiveness of telecommunication networks. Communications service providers (CSPs) are shifting towards a services model built on cloud-based infrastructure, which offers flexibility and agility for virtualized network functions (VNFs), and support for innovation, enabling technologies like 5G.

With AWS, you can deploy seamless cloud-based infrastructure wherever you need it. Leverage the most extensive global cloud in AWS Regions and deploy on premises at virtually any location with AWS Outposts, improve connectivity in large metro centers with AWS Local Zones, and take the brakes off 5G with AWS Wavelength. You can have one consistent global infrastructure, with no gaps in coverage.

Cloud opportunities

CSP networks are changing rapidly. VNFs on cloud infrastructure is the paradigm that can enable the dynamic network services of the future, and the route for operators aiming to meet new customer demands.

- 3x** The global "telco cloud" market is set to triple in value to \$29.3 billion by 2025¹
- 50%** Some ambitious operators have decommissioned 50% or more of their legacy infrastructure²
- 3.5 billion** The astounding number of people who will use 5G networks by 2026, accounting for 2 in 5 mobile subscriptions³

Challenges faced by telco operators

Threats and obstacles posed by not being in the cloud



Location

Some VNFs need to be deployed geographically close to users to deliver satisfactory performance.⁴



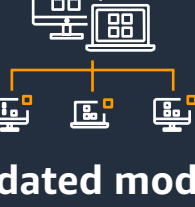
Data growth

5G, IoT drive demand to deliver services at greater scale, but revenue growth may not scale linearly with data/traffic growth.



Blocked innovation

Some infrastructure is not open enough to allow CSPs to use the services and vendors they need, and the lack of a cloud development mindset hinders the flexibility and agility to innovate.



Outdated models

Traditional workflows, business models, processes, no longer satisfy business or customer expectations.



Market disruption

New cloud-based competitors, Over The Top (OTT) entrants, and app ecosystems pose threats.



Falling revenues

Falling returns in what operators make from investing in their networks, drives pressure to reduce costs and operate more efficiently.⁵

Migrate and monetize

Edge computing and 5G present a significant opportunity to address these challenges. With AWS edge solutions you can:



Migrate to cloud infrastructure

- Build a scalable cloud platform
- Distribute VNFs across AWS Regions and your data centers and edge locations
- Manage and orchestrate data from multiple areas in a unified display or 'single pane of glass'

Unlock new revenue streams

- Offer innovative Mobile Edge Computing (MEC) across industry verticals
- Provide private 5G networks for enterprises
- Create new managed cloud and network services



AWS Outposts

Deploy fully managed, cloud-based infrastructure at any location



Run AWS infrastructure and services on premises for a truly consistent hybrid experience, with AWS Outposts.

- Keep data in a particular location for legal, regulatory, contractual or policy requirements, also for modernizing and migrating legacy apps
- Innovate with extensive AWS services, some running on premises

Coming Soon

- New 1U and 2U form factors fit locations with limited space or smaller requirements

Learn more about AWS Outposts →

AWS Local Zones

Deploy latency-sensitive applications close to end-users

AWS Local Zones place AWS compute, storage, database, and other select AWS services close to large population, industry, and IT centers.

- Provide services with single-digit millisecond latency for end-users in a specific metro location
- Local Zones provide a high-bandwidth, secure connection between local workloads and those running in the AWS Region
- Elastic and scalable shared capacity for local data processing
- Run select AWS services at the edge



Get started with AWS Local Zones →

AWS Wavelength

Deliver ultra-low latency applications for 5G devices



Wavelength Zones embed AWS compute and storage within data centers at the edge of the 5G network, so application traffic from 5G devices doesn't have to leave the network.

- Provide ultra-responsive user experiences, e.g. connected vehicles, interactive video, AR/VR, real-time gaming
- Run select AWS services at the edge, without leaving the 5G network
- Elastic, scalable shared capacity

Find out more about AWS Wavelength →

Learn more about AWS infrastructure solutions

Talk to your AWS account manager about your telco infrastructure challenges, and how you can architect seamless solutions that will evolve with your needs.



1. Engage

Reach out to an account team or fill out our [contact form](#) to discuss your particular telco scenario in detail.



2. Get started

Log into the AWS Management Console, and then use standard AWS APIs, or the Management Console to launch and run AWS resources. With Outposts, AWS will install and deliver your configuration on premises.

1 ABI Research. 2020. 36 Transformative Technology Stats You Need to Know For 2021. <https://go.abiresearch.com/lp-36-transformative-technology-stats-to-know-for-2021>.

2 STL Partners. Feb. 2020. Telco Cloud: Why it hasn't delivered, and what must change for 5G. <https://stlpartners.com/research/telco-cloud-why-it-hasnt-delivered-and-what-must-change-for-5g/>.

3 ZDNet. Dec. 2020. 5G: These are the countries winning the race right now. <https://www.zdnet.com/article/5g-these-are-the-countries-winning-the-race-right-now/>.

4 Springer Nature. Jun. 2020. Placement Issues in Network Function Virtualization. https://link.springer.com/chapter/10.1007%2F978-981-15-6318-8_47.

5 MobiliseGlobal. April. 2019. <https://www.mobiliseglobal.com/telecommunications-is-it-a-declining-business-model>.



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