



Bring entertainment to life at the edge.

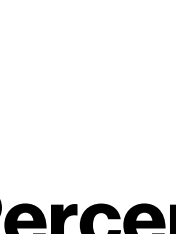
How Verizon 5G Edge with AWS Wavelength is transforming the media landscape

Together, these technologies bring compute, storage and powerful services to the edge of the Verizon network, enabling content producers and distributors to offer more immersive experiences to their consumers.

1 New content creation paradigms



Creation democratized by the ability to develop content anywhere



Production that pulls in augmented information and stats

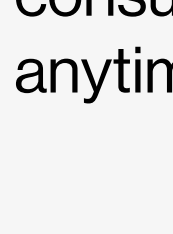


The ability to stream, package and monetize live content

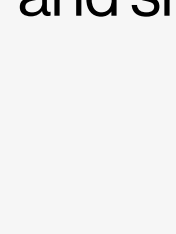
65%

Percentage of broadcasters that see remote production as the biggest potential use case for 5G, followed by content distribution at 61%¹

2 New consumption and distribution models



Nonlinear and multidevice content consumption — anytime, anywhere



Interactive, social content consumption and sharing



Distribution-network support for rapid, high-quality 4K/8K content

74%

Percentage of consumers who named video streaming as the chief motivation for upgrading to 5G in the home²

3.6

Number of networked devices/connections per person, and nearly 10 devices/connections per household³

3 Evolving technology and platforms



Media and entertainment platforms become more cloud-based, virtualized and digital.



Artificial intelligence (AI) and machine learning (ML) enhance the consumer experience and engagement.



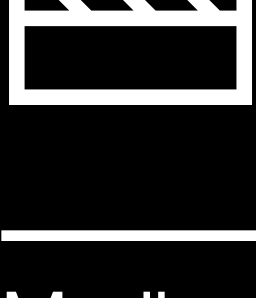
5G Edge helps enable near real-time video distribution.

575 Mbps

Projected average 5G speed by 2023³

70%

Percentage of the global population — 5.7 billion people — that will have mobile connectivity (2G, 3G, 4G or 5G) by 2023³



AWS Wavelength and 5G Edge in action

Media producers and distributors can use AWS® Wavelength Zones to take full advantage of bandwidth improvements enabled by 5G Edge. Companies can also use AWS Wavelength Zones as on-demand production hubs closer to live venues.

When using Verizon 5G Edge, traffic hosted in Wavelength Zones doesn't traverse the Internet. Wavelength Zones acquire and distribute content over the Verizon 5G network and other dedicated network connections in the United States.⁴

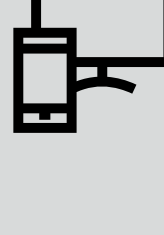
By implementing AI/ML inference engines in Wavelength Zones, media and entertainment companies can edit on the fly, transcode or adapt to network conditions in near real time.

New use cases enabled by 5G and 5G Edge



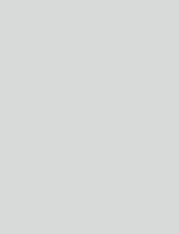
Video production at the edge

- Process live feeds from multiple cameras
- Reduce onsite equipment needs
- Exchange broadcast trucks for 5G Edge production hubs
- Edit live with GPU-accelerated edge compute infrastructure
- Transcode at the 5G Edge for multimodal distribution



Live events

- View live events from multiple angles at 4K, switching between near real-time views
- Pull up instant statistics or augmented reality (AR) overlays served from 5G Edge compute locations
- Enable participatory fan experiences



Shared media experiences

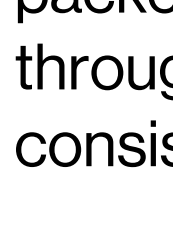
- Create group movie and TV watching experiences among local participants
- Respond in near real time with interactive elements
- Enhance audio and video interaction, chat and comments



Intelligent content caching

- Transform or repurpose content on the fly based on network, device and resource factors
- Collect near real-time metrics from cache server and device applications
- Monetize against collected metrics, improving subscriber experiences
- Optimize content offerings with detailed telemetry, view analysis and AI

Media and entertainment benefits



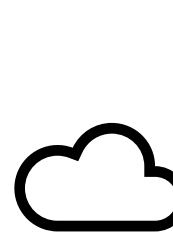
Offer higher-quality experiences.

Fewer network elements between the mobile device, application server and content lower variability and packet loss, improve end-to-end throughput, and provide a more consistent user experience.



Deliver content with ultralow latency.

This enables applications like remote audio and video production, cloud rendering for AR and virtual reality (VR), and real-time interactive viewing experiences.



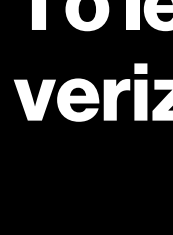
Reduce capital investments.

Access to always-available, enterprise-grade analytics close to production and consumption can help reduce capital expenditures for content to production infrastructure, transforming capex into opex.



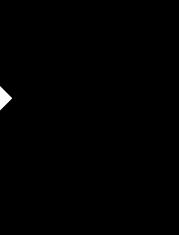
Drive innovation.

Use machine learning inference and video to capture insights, improve user engagement and bring new services to market faster by leveraging a global footprint and a broad portfolio of cloud services.



Scale in the cloud.

Shift workloads to AWS Regions and deploy and decommission 5G Edge-based production hubs as needed, in any geographic region.



Use familiar tools.

Enjoy the same benefits of the AWS cloud, like pay-as-you-go pricing and on-demand access.

Get started.

Deploy applications in AWS Wavelength Zones just as you would in any AWS Availability Zone.

To learn more, visit verizon.com/5Gedgeawscloud >

¹ 2020 Broadcast survey into the adoption of 5G. www.verizon.com/resources/research-and-trends/broadcast-2020-survey-into-the-adoption-of-5g/
² 5G to Increase Consumer Video Streaming Study. MediaPost, August 23, 2019. www.mediapost.com/publications/article/2019/08/23/5g-to-increase-consumer-video-streaming-study.html
³ 2020 Annual Internet Report. Statista, February 2020. www.statista.com/chart/10955/5g-to-increase-consumer-video-streaming-study.html
⁴ 5G Ultra Wideband available only in parts of select cities. 5G Nationwide available in 2,700+ cities.