5G and the edge for application acceleration

Verizon 5G Edge with AWS Wavelength powers a new wave of engaging user experiences
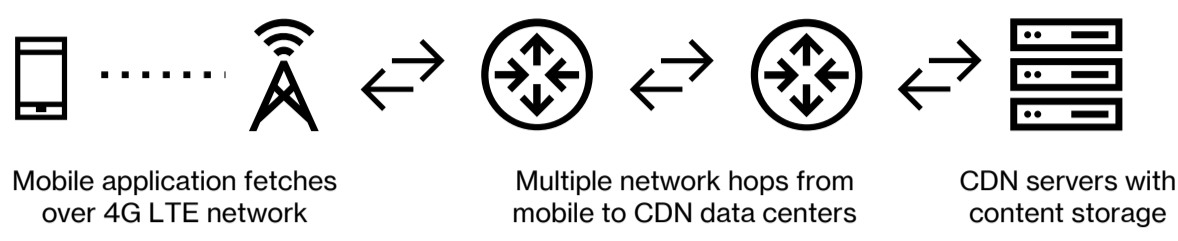
Application experience is critical to user satisfaction and customer retention
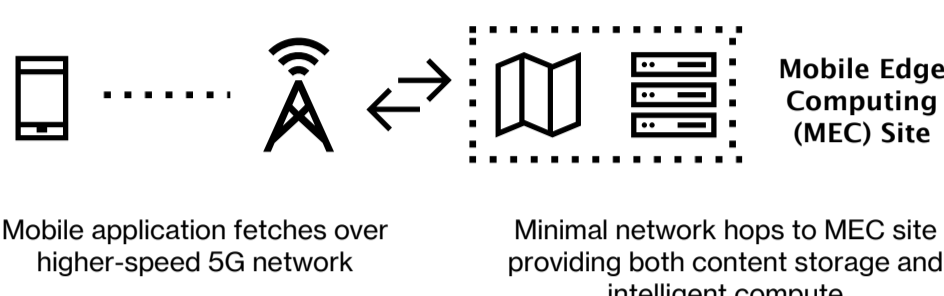
2.5X

Latency matters
A site that loads in 1 second has a 2.5x higher conversion rate than a site that loads in 5 seconds*

Traditional application acceleration with content delivery networks (CDNs)

Mobile application fetches over 4G LTE network

Multiple network hops from mobile to CDN data centers

CDN servers with content storage

5G with mobile edge computing provides additional acceleration options

Mobile application fetches over higher-speed 5G network

Minimal network hops to MEC site providing both content storage and intelligent compute

Mobile Edge Computing (MEC) Site

5G and MEC provide lower latency and more compute flexibility to support application acceleration.

* Site Speed is (Still) Impacting Your Conversion Rate, Portent.com, April 20, 2022

5G and edge improves the application experience

Ultra-low latency: Close proximity of edge computing to the mobile user provides the lowest possible latency between computing and devices.

Ultra-high bandwidth: Data transfer between the edge computing resource and end-user devices reduces potential constraints in the backhaul or core network.

Reliability: Reduced number of network hops between the mobile user and computing resources helps ensure a reliable connection with reduced variability.

Powerful computing: AWS Wavelength provides access to powerful Amazon EC2 instances equipped with GPUs to handle the heaviest application workloads.

Scalability: AWS cloud services can be scaled up or down as needed based on customer workloads. Pay-as-you-go pricing provides added financial flexibility.
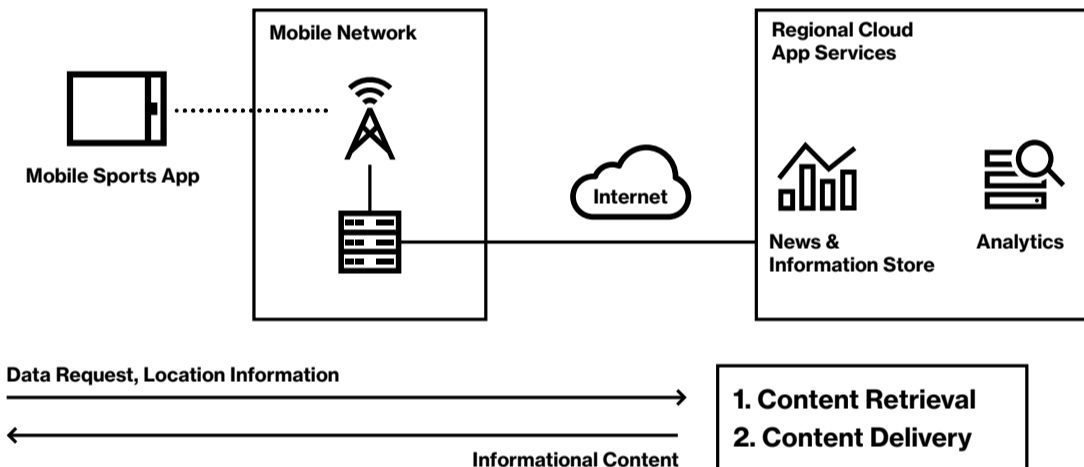
Sports experience application example

For golfers on the fairway, a mobile sports app hosted on a cart can enhance the game experience. The app can provide real-time weather forecasts, news, and course-specific information. Golf courses can offer members curated national, international, and financial news along with on-demand streaming music, radio, and sports broadcasts.

Premium versions of the app could provide GPS-enabled yardage calculation, course flyovers along with real-time explainer videos, guidance and tips from elite athletes on a pay-as-you-go basis.
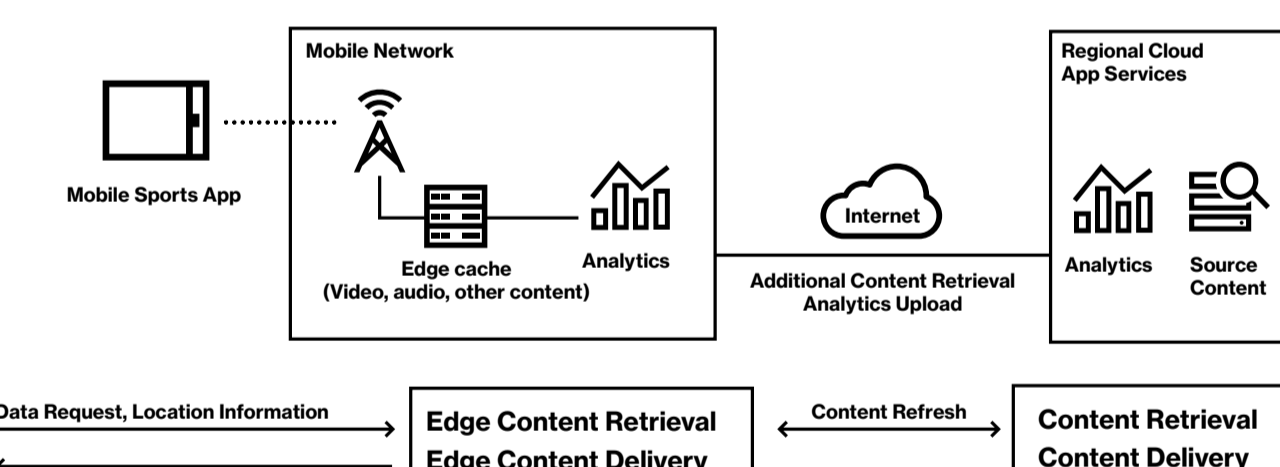
Without 5G and edge computing:

• Reliant on traditional CDNs
• Unpredictable internet leads to inconsistent app performance
• Bad user experience, impacting conversion rates to premium app

Mobile Sports App • Mobile Network • Internet • Regional Cloud App Services • News & Information Store • Analytics

Data Request, Location Information
Informational Content Streaming Video
1. Content Retrieval
2. Content Delivery

With 5G and edge computing:

• Reduced latency and improved reliability means immediate app load
• Fast and satisfying interactions
• Favorable app experience improves premium conversion rates

Mobile Sports App • Mobile Network • Edge cache (Video, audio, other content) • Analytics • Internet • Additional Content Retrieval Analytics Upload • Regional Cloud App Services • Analytics • Source Content

Data Request, Location Information
Informational Content, Streaming Video
Edge Content Retrieval
Edge Content Delivery
Content Refresh
Content Retrieval
Content Delivery

Application acceleration using Verizon 5G Edge with AWS Wavelength

Explore how fast and reliable mobile technologies coupled with strategically-located edge computing resources can bring accelerated applications to enterprises and consumers everywhere.

AWS Wavelength is located with Verizon's 5G mobile core, providing the lowest latency and most reliable access to cloud computing that hosts mobile applications.

Verizon 5G Edge is protected from direct internet access and relies on secure mobile identity management, providing increased security.

Mobile apps can use Verizon Edge Discovery Service (EDS) in real-time to find the closest AWS Wavelength instance.

Developers can use familiar AWS console, APIs and AWS services for development, with access to appropriate EC2 instances to fit the application.

Full-access to rich computing resources that can power a wide diversity of application workloads.

Edge-based applications can continue to process data even if upstream network connections are down, improving network resiliency and application uptime.

Get started.

Verizon 5G Edge with AWS Wavelength delivers superior app experiences with a lower starting cost, pay-as-you-go pricing, and comes with a large ecosystem of developer and professional services support.

Learn more

verizon.com/5gedgeawswavelength

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