

Couchbase on AWS Wavelength

AWS Wavelength

A distributed cloud architecture is fundamental to edge computing, which greatly reduces latency by storing and processing data closer to the applications and users that consume it, enabling innovations like connected homes, autonomous vehicles, robotic surgery, and advanced real-time gaming.

AWS Wavelength embeds AWS compute and storage services within 5G networks, providing mobile edge computing infrastructure for developing, deploying, and scaling ultra-low-latency applications.

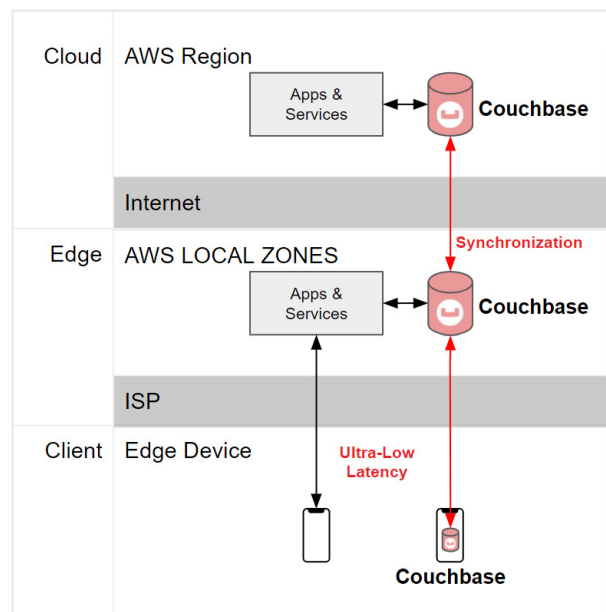
By combining the high bandwidth and ultra-low latency of 5G networks with AWS compute and storage services, developers are enabled to innovate and build a whole new class of applications.

Couchbase

Couchbase is a cloud-native, edge-ready distributed JSON document database that inherently supports the edge computing architecture. It fits seamlessly into the AWS Wavelength infrastructure. Running a Couchbase-powered

data center at the edge on AWS Wavelength ensures high guarantees of speed and availability, providing the fastest possible response times for applications that require ultra-low latency.

With Couchbase on AWS Wavelength you can run standardized AWS services and store and process data within the telco provider's 5G network, dramatically reducing application latency for use cases in media and entertainment streaming, smart factories, healthcare, real-time gaming, AR/VR, and more.



Couchbase Edge Computing Architecture

Benefits of Couchbase on AWS Wavelength

Run Couchbase within the 5G network

Go from the device on the 5G network to the local edge data center on AWS Wavelength – compute and storage are hosted directly within the telco providers' 5G networks.

Achieve ultra-low latency for critical applications

Reduce slow response times caused by multiple network hops and congestion that would be required to access application resources outside of the 5G network.

Deliver a consistent architectural, development, and operational experience

Build the next generation of ultra-low latency applications using the same familiar AWS services, APIs, tools, and functionality already used in the enterprise today.

Couchbase: Edge-Ready

Couchbase can be deployed in the cloud, at the edge, and even on edge devices. And its built-in sync features ensure that data is instantly synchronized between the cloud, the edge, and the devices, maintaining data integrity and eliminating data loss.

By deploying Couchbase on AWS Wavelength, you essentially bring your data center into the local 5G network, eliminating the time needed for your applications to send data to the cloud for storage and processing. When data is closer to the clients that use it, you reduce latency by orders of magnitude.

With this architecture you can support online and offline applications with the fastest and most reliable experience for users.



Use Case Examples

Media and entertainment

Leverage ultra-low latency to live stream high-resolution video and high-fidelity audio, and embed interactive experiences into streaming video. Enable real-time video analytics to enhance live event experiences.

Smart factories

Process manufacturing data at the edge to analyze and detect quality issues on fast-moving assembly lines, enabling real-time responses to issues and problems.

Real-time gaming

Maintain consistent gameplay and provide a great gaming experience across thousands of players at once. Stream the most demanding games from Wavelength for mobile devices with limited processing power.

With Couchbase on AWS Wavelength, you can build and deploy applications at the edge that are always fast and always on!

Learn more about Couchbase for edge computing:
<https://www.couchbase.com/solutions/edge-computing>

Get the latest IDC report:
[Performance Accountability and Edge Decision Making with Couchbase](#)

Learn more about AWS Wavelength:
<https://aws.amazon.com/wavelength/>

powered by 



Modern customer experiences need a flexible database platform that can power applications spanning from cloud to edge and everything in between. Couchbase's mission is to simplify how developers and architects develop, deploy and consume modern applications wherever they are. We have reimagined the database with our fast, flexible and affordable cloud database platform Capella, allowing organizations to quickly build applications that deliver premium experiences to their customers—all with best-in-class price performance. More than 30% of the Fortune 100 trust Couchbase to power their modern applications. For more information, visit www.couchbase.com and follow us on Twitter.