

# Couchbase on AWS Local Zones

## AWS Local Zones

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.

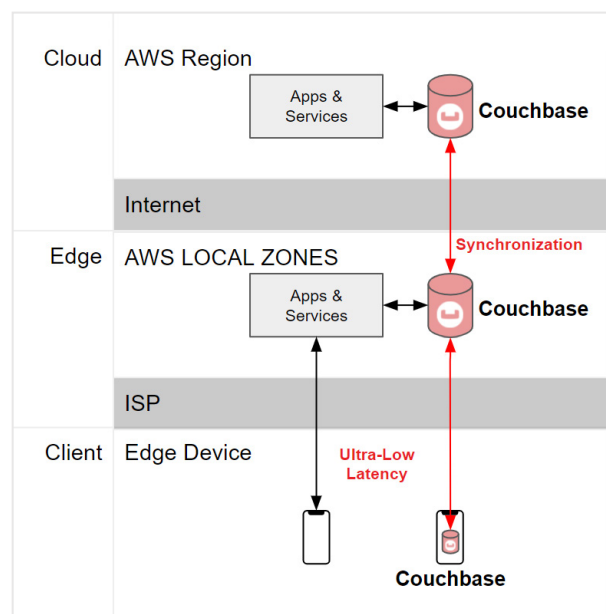
AWS Local Zones places compute, storage, and other select services closer to large population, industry, and IT centers, enabling you to deliver superior speed and reliability to end users. Local Zones are designed for applications that require ultra-low latency, bringing compute and storage resources closer to your end users without the need to own and operate your own data center infrastructure.

## 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 Local Zones infrastructure.

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

With Couchbase on AWS Local Zones, your edge data center runs on standardized AWS services to serve applications in geographic proximity with extremely low latency. It powers use cases in real-time gaming, media and entertainment content creation, engineering simulations, and more.



Couchbase Edge Computing Architecture

## Benefits of Couchbase on AWS Local Zones

### Run AWS services and store and process data in your local area

Couchbase on Local Zones allow customers to gain all the benefits of having compute and storage closer to end users, without the need to own and operate their own data center infrastructure.

### 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 in distant cloud data centers.

### 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 Local Zones, you essentially bring your data center into the local metropolitan area, eliminating the time needed for your applications to send data to distant cloud data centers for processing. When data is closer to the clients that use it, latency is reduced 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 & entertainment content creation

Ultra-low latency reduces the time it takes to compile and render 3D models and animations. AWS Local Zones bring data and compute resources closer to graphic artists and designers, accelerating the design process.

### Enterprise migration

Establish hybrid cloud/edge environments that provide ultra-low latency communication between applications running in Local Zones and on-premises installations, streamlining cloud migrations.

### Real-time multiplayer gaming

Deploy latency-sensitive game servers in major metro areas to be closer to gamers. Provide a consistent and fast experience across thousands of players at once.

With Couchbase on AWS Local Zones, 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 Local Zones:  
<https://aws.amazon.com/about-aws/global-infrastructure/localzones>

powered by  aws



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](http://www.couchbase.com) and follow us on Twitter.