

Architecture Diagrams

Web3 Decentralized Applications on AWS



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Web3 Decentralized Applications on AWS: Architecture Diagrams

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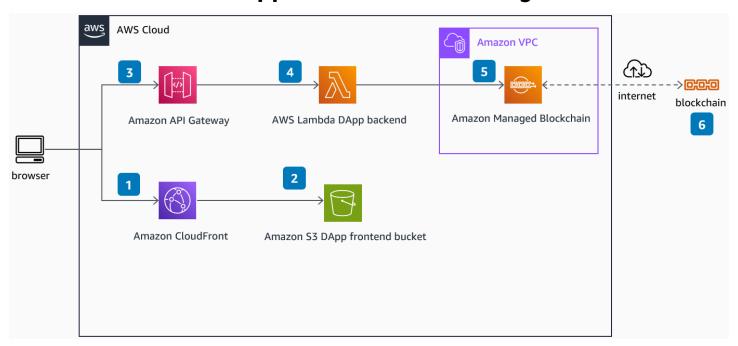
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Web3 Decentralized Applications on AWS

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Use this architecture as a reference for developing static hosted web applications that communicate with a blockchain network through an Amazon Managed Blockchain node.

Web3 Decentralized Applications on AWS Diagram



- 1. The browser makes a requests to the **Amazon CloudFront** domain, routed to the closest distribution for the Decentralized Application (DApp).
- 2. The DApp is cached at the edge in **CloudFront**. The DApp files are distributed to the edge by a **CloudFront** distribution that makes a request to an **Amazon Simple Storage Service** (Amazon S3) bucket, where the DApp files are statically hosted.

The **Amazon S3** bucket is secured by blocking all traffic except for a configured origin Access Identity of the CloudFront Distribution. Refer to Restricting access to an Amazon S3 origin.

- 3. The DApp makes requests to the Amazon API Gateway from the browser.
- 4. All requests to the **API Gateway** are sent to the **AWS Lambda** DApp Backend. It reads the path and method requests and binds them into a Web3.js request with a sigv4 signed Http Request Provider.
- 5. Amazon Managed Blockchain Ethereum Node receives and processes Web3 requests.

6. Ethereum requests and transactions are propagated to and received from the decentralized Ethereum Blockchain Mainnet.

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Further reading

For additional information, refer to

- AWS Architecture Icons
- AWS Architecture Center
- AWS Well-Architected

Contributors

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Diagram history

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