



IBM Services

Open banking on AWS

Reshaping the future of banking

Open banking provides open access to a customer's financial data from banks and other financial institutions using application programming interfaces (APIs).

This banking solution takes advantage of the next-generation API for accelerating revenue-generating opportunities. Built on cloud, open banking platforms are facilitating ever-increasing on-demand needs of financial data. This can include transactions and consumer experience for third party providers (TPPs), payment initiation service providers (PISPs) and account information service providers (AISPs). Banks are fast-tracking digital transformation initiatives with cloud, providing resilient infrastructure and scalable services.

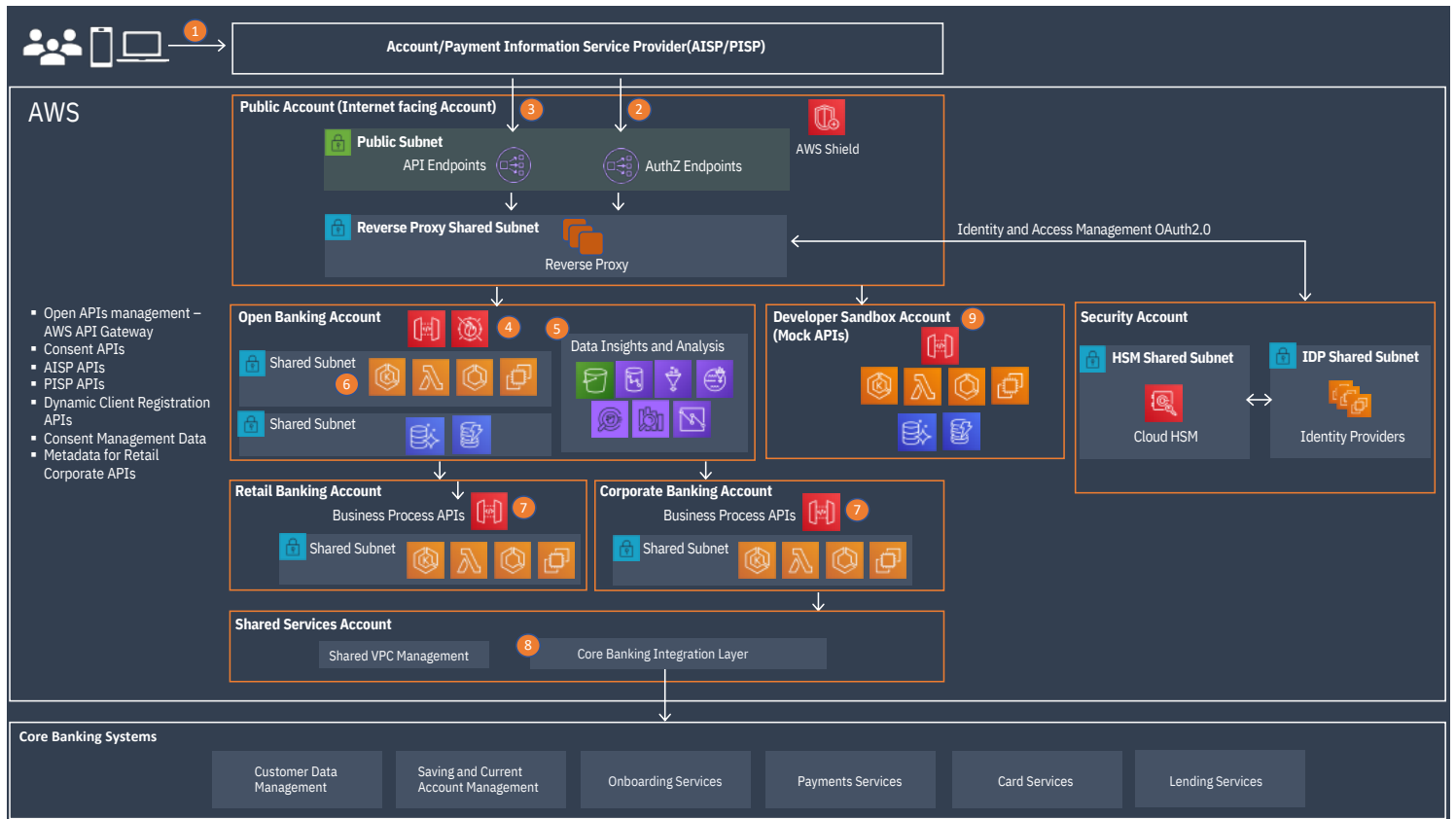
AWS cloud for open banking

AWS cloud provides required agility for meeting business and regulatory demands, as well as security needs for integration with third-party providers and client registrations. AWS cloud also provides customer experience for better engagement through highly scalable AWS Lambda and container services offerings. API development, management and consumption insights with API gateway makes AWS cloud a powerful foundation platform for open banking. AWS data analytics capabilities can be used for effective business decision making by analyzing the data generated through open APIs. While new banks are embracing an end-to-end open banking architecture through open APIs, more and more banks are adopting a hybrid strategy of core banking services integration with open APIs on AWS.

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Open banking platform on AWS

The reference architecture depicts an open banking platform with shared virtual private cloud (VPC) on AWS where retail and corporate banking systems can access the backend system of records. AWS shared VPC service is managed by a central account. Subnets are shared among other AWS accounts, eliminating the need of VPC peering, thus reducing network management complexities. This also ensures communication between resources of different accounts within a trust boundary.



The reference architecture: Open banking platform on AWS

Open banking on AWS: How it works

1

Users access account information service provider (AISP) and payment initiation service provider (PISP) services through mobile and web applications.

2

AISPs and PISPs route the request to the bank's AuthZ endpoints for identification and acquire access token from identity service providers.

3

Once the identification process is complete, AISPs and PISPs access actual API endpoints to initiate the required open banking services. Banks trigger an explicit consent management flow to provide authorization for AISPs and PISPs to access user data.

4

The request is then passed to the open banking account, AWS API gateway, which provides API management, traffic management, tracing, tracking and monitoring capabilities.

5

API gateway further passes the request to compute services like AWS Lambda, AWS EKS, AWS ECS or AWS EC2 instances, depending upon the computes selected for hosting the open banking services.

6

The request is further routed to retail banking or corporate banking business process APIs, depending on the configuration of AISPs, PISPs and users.

7

Retail and corporate banking accounts exploit the required services from the underlying system of records through the shared services account.

8

Data analytics and insight services such as AWS Glue, Amazon Athena and Amazon QuickSight are used to analyze the data generated by these open banking APIs.

9

Developers can also use the API portal page for banks to understand APIs exposed by the bank and test the expected response before live deployment.

Open banking platform



Consumers

Multi-account access in one place, customized product offerings, service personalization, ease of payment services and one-click access to financial positions



Banks

Improved customer engagement, increased revenue, ecosystem collaboration and opportunity to increase client base as it allows access to user data from other financial institutions



FinTechs

Seamless access to user data, enhanced customer experience and new revenue streams

The future of banking is open

Open banking is revolutionizing the banking industry at pace and scale. Banks are accelerating their digital transformation journey through open banking. There is increased focus on inside-out modernization and a cloud adoption strategy to meet the growing business and regulatory demands. It's time for banks to optimize their IT landscape to exploit the full benefit of open APIs in the AWS public cloud infrastructure.

Learn more about IBM Services for open banking on AWS. Schedule some time with an expert who can answer your questions.

[Start your journey →](#)



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