

AWS blockchain template

AWS was lukewarm on blockchain until recently, but customer demand might have pushed the cloud provider to change its tune and offer some entry-level templates.

AWS has made its first true foray into blockchain technology.

AWS Blockchain Templates configure the necessary resources to underpin applications for distributed ledgers or cryptocurrency networks. They represent a tepid first stab at making it easier to build these applications on its platform, and come just months after CEO Andy Jassy expressed trepidation about the practical applications of blockchain.

The CloudFormation-based templates, which are currently limited to three U.S. regions, are available for Ethereum or Hyperledger Fabric networks. Either can be used to build private networks through Amazon Virtual Private Cloud (VPC), while there's a public option for Ethereum. The templates work in an Amazon Elastic Container Service (ECS) cluster within a VPC, with Docker images launched inside the cluster. There's also a docker-local option in which Docker images run on Amazon EC2 VMs. Both models rely on DynamoDB and Application Load Balancer.

Blockchain isn't totally foreign to AWS. Last November at re:Invent, its annual user conference, AWS added a Blockchain Partner Program. It also had representatives from T-Mobile, PwC and PokitDok on stage at one session to discuss how they've built blockchain applications on top of AWS.

But many industry observers expected a native AWS blockchain service to be disclosed at the conference. When Jassy was pressed on the topic after his keynote, he said the company was interested in blockchain, but that it didn't see many uses beyond a distributed ledger.

"We don't build technology because we think technology is cool," he said. "We only build it when we think it solves a specific customer problem, where building that service is the best way to solve that problem."

AWS often says it builds products based on customer feedback, so this reversal is likely a response to market demands. These templates also follow a common practice by AWS, which often puts out a minimally viable product and leaves the door open to expanded functionality over time.

"I could well understand that there has been pressure from AWS customers to say, 'Why can't you make it as easy to experiment with this stuff as it is on Microsoft Azure or IBM Cloud?'" said Martha Bennett, an analyst at Forrester Research.

IBM and Microsoft have had blockchain offerings for years, and what AWS has done with templates isn't even in the same category, Bennett said. It's similar to what was available on Azure in 2016, but if AWS wants parity with IBM, Microsoft and others, it needs to add a lot more, such as enterprise features for access and confidentiality.

But AWS doesn't need to go that far if it just wants to make it easier to attract blockchain startups, said Arran Stewart, co-owner of Job.com, which uses a blockchain as part of its job recruitment platform.

"IBM and Oracle have tailor-made solutions that keep blockchain away from being an accessible technology," he said. "As easily as you can build a website, you can also create blockchain."

That may not be the case with proprietary software, but these AWS Blockchain Templates would be sufficient for smaller companies that want a simple way to do things, such as incorporate a distributed ledger to ensure the accuracy of transactions on their website, Stewart said. Still, he also expects AWS to add more customizable templates as the service matures.

The cloud and blockchain make a good pair

Cloud platforms are seen as a natural fit for blockchain applications because of their distributed nature and the potential to streamline the process of standing up these applications. In addition to IBM and Microsoft, [Oracle](#) also has a blockchain service on its cloud, while Google reportedly plans to add its own blockchain services soon.

There are technical differences between the various blockchain technologies currently available, but they all share a need to manage distributed nodes and keep them in sync, Bennett said. The hyperscale providers excel at doing just that, as they manage distributed systems at a much larger scale than any existing blockchain.

It won't take long for AWS to catch up with the mechanics of blockchain because of that internal expertise. But eventually, it will have to decide if it wants to stick with the basics or really help its clients get these workloads operational.

"When it comes to really using blockchain networks for serious business processes, it's 80% business and 20% technology," Bennett said. "You need a consulting partner who can really help you with that business aspect."

AWS has a growing consulting practice, but it's not on the scale of IBM and others. Regardless, AWS' blockchain framework isn't too late to the market, Bennett said. There aren't many blockchain applications in production today, and AWS' dominant position in the cloud market will continue to be an advantage in this market.

"They're certainly not leapfrogging anyone," Bennett said. "In a way, it's a catch-up move in an environment where no one has missed the train yet."