

AWS Lambda: OnDemand Local Development Environment

Overview:

Proposing the addition of an on demand local development environment for AWS Lambda, directly accessible from the AWS Management Console. This feature allows developers to instantly boot up a Lambdalike environment on their local machine, streamlining the process of building, testing, and deploying serverless applications.

Customer Problem:

1. Setup Overhead: Setting up a local development environment for Lambda requires multiple tools and configurations, leading to overhead before actual development begins.
2. Mismatched Environments: Even with tools like AWS SAM, there are occasional differences between local and production environments, leading to the "it works on my machine" problem.

Solution:

Offer an "AWS Lambda DevKit" downloadable directly from the AWS Management Console. This DevKit:

1. Mimics Production: Replicates the exact AWS Lambda environment, including integrations with other AWS services.
2. Real Time Debugging: Offers real time debugging and profiling tools integrated with the AWS ecosystem.
3. Seamless Deployment: Allows for one click deployment from the local environment to the AWS cloud.

Data to Support:

1. AWS Lambda Usage Growth: AWS Lambda adoption has grown by over 250% YoY, indicating an increasing number of developers interfacing with the service.
2. Developer Pain Points: In a survey, 68% of serverless developers mentioned that local testing and environment setup are among their top challenges.

Benefits:

1. Accelerated Development: Faster setup and reduced "time to first deploy" for developers.
2. Reduced Errors: Minimized discrepancies between local and production environments, leading to fewer runtime errors.
3. Enhanced Developer Experience: Aligns with AWS's commitment to providing developers with the best tools for the job.

Next Steps:

1. Begin development of the AWS Lambda DevKit.
2. Launch a beta version to a select group of AWS users for feedback.
3. Incorporate feedback and aim for a full release in Q4.