Project Proposal

Building a Cloud Powered Slack Bot for AWS EC2

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Slack, a chat-based team collaboration tool, allows businesses to communicate, share files, and hold virtual meetings right from the computer. Employees communicate with one another through public channels, direct messages, or private channels [1]. Slack is rapidly penetrating the market as it has 200,000 paying subscribers and was valued at $2.8 billion back in April 2015 [2].

One important feature of Slack is the use of bots. These bots are integrations that enhance the capabilities and turn it from a communication tool into a workplace platform. Business can either install already developed third-party bots or they can write their own code for a custom bot. A popular bot is the built-in SlackBot which can remind the user of an upcoming appointment or save a note for later [1].

For this project, a custom Slack bot will be developed to serve as a connection between Amazon EC2 and Slack. Users will be able to check on their EC2 instances, start a new instance, or stop an existing instance. All actions will be saved and have the ability to query at a later time. Other features will be added if time permits.

Figure 1 below shows the process flow of the AWS Slack bot. A user will enter a command in their instance of Slack which will trigger Slack to call AWS API Gateway using Outgoing Webhooks with the entered command. AWS API Gateway will format the input into JSON and pass it over to AWS Lambda for processing which will then communicate with AWS EC2 to perform the action like starting a new instance, stopping an existing one, or just simply checking on the status and health of the current EC2 setup. After AWS Lambda receives a

response, it will send the reply to AWS API Gateway which will then send the response and error code back to Slack and displayed to the user.

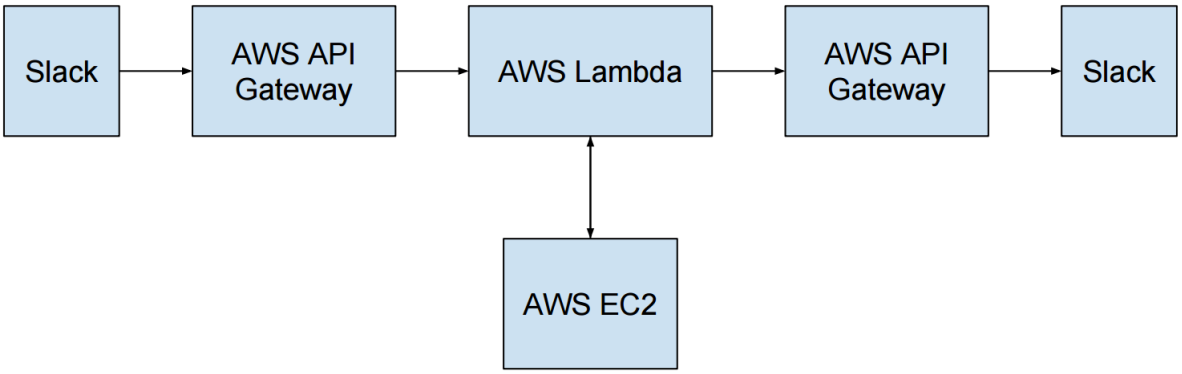

Figure 1 - Process flow

This custom bot will be very useful for companies that utilize both Slack and AWS. Employees can type a single command and interact with their AWS EC2 instance right from the same tool from which they communicate with each other. The software company that I work for, XYZ, uses Slack and recently started evaluating AWS EC2. This custom Slack bot will be used immediately at XYZ upon completion.

References

[1] Slack: Be less busy. (n.d.). Retrieved November 9, 2015, from https://slack.com/

[2] Lunden, I. (n.d.). Used Daily By 750K Workers, Slack Raises $160M, Valuing Collaboration Startup At $2.8B. Retrieved November 9, 2015, from http://techcrunch.com/2015/04/16/used-daily-by-750k-workers-slack-raises-160m-to-value-collaboration-startup-at-2-8b/#.vwzmj1t:seee