

DevOps Engineer Interview

Part 1

Think of something you've accomplished in your current position that you are especially proud of. Prepare to chat about it for about 15-20 minutes, and be prepared to answer questions. The format of this part is a back-and-forth talk that gives us an opportunity to hear about a project where you made an impact. The chat can include whiteboard drawings, slides, or anything that you think helps get your ideas across to the audience.

Part 2

Our team is planning to replace existing EC2-based services with ones running in containers. One service provides SMTP proxying from a private subnet to an [AWS SES SMTP Endpoint](#).

Using the architecture overview provided below, please spend up to 2 hours creating a container that can be used to proxy SMTP traffic to an AWS SES SMTP Endpoint.

You will be asked to give a demonstration. Please be prepared to share your laptop's screen with us. It will help to choose a private, quiet, location with reliable internet for the interview.

Requirements

- The proxy software must proxy TCP connections (for example HAProxy or Nginx)
- The proxy must listen on TCP Port 1587 internally
- The proxy must connect to an AWS SES SMTP Endpoint on port 587
- The proxy must **not** connect to any other SMTP endpoint.

Guidelines

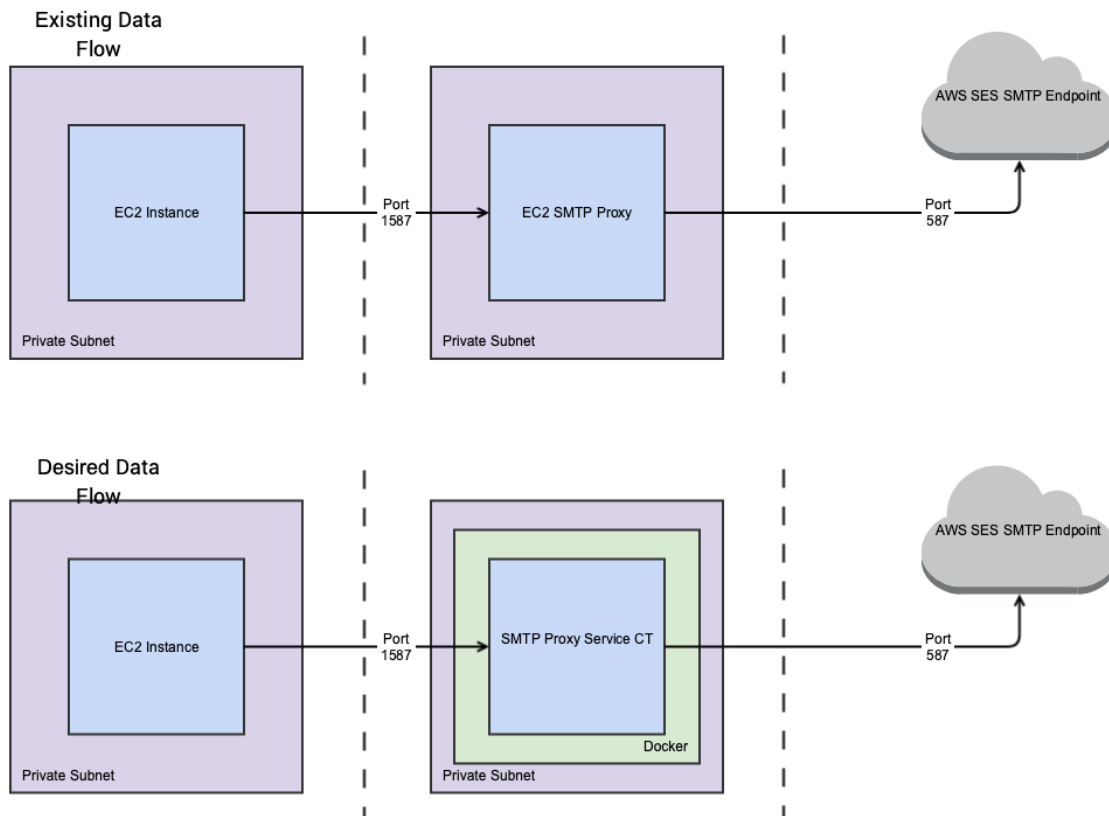
- You do not need to run the container in Amazon, your laptop is fine.
- You don't need to sign up for an AWS account, simply establishing a proxied connection to the AWS SMTP server is OK. You can use `nc` (netcat) or `telnet` to verify that connectivity.
- Using community-provided containers is OK.
- Do not worry about the subnet configuration.
- You are not required to validate SSL certificates

Demo should include

- Describe the steps for creating & configuring your container
- Demonstrating a working proxy (e.g., you should be able to `telnet` to your service and get a response from the AWS SMTP Endpoint)
- What happens if the container crashes?

Be prepared to answer additional questions about your choices, configuration, security implications, alternative implementations, and improvements.

Proxy Architecture



Part 3

We'll invite the rest of the team to join our conversation. This will give them the opportunity to ask you questions, and for you to ask us questions, and to get to know each other. This will be very informal, and there is no special preparation required.