



EVENT DRIVEN ARCHITECTURES ON AWS

Rustam Hashimov,
Co-founder @ Everi.one

April 17, 2021 10:00-11:50 AM PST

Agenda

1

Kickoff
10:00-10:05

...

2

Introduction
10:05-10:10

...

3

Presentation
10:10-11:10

...

4

Break
11:10-11:15

...

5

Q&A Discussion
11:15-11:45

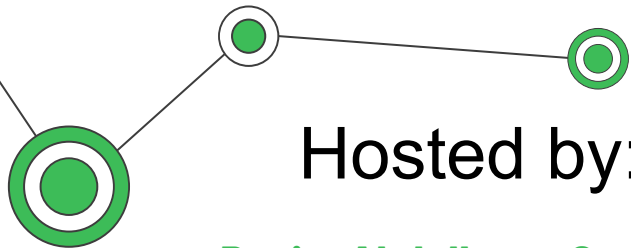
...

6

Wrap up
11:45-11:50

...



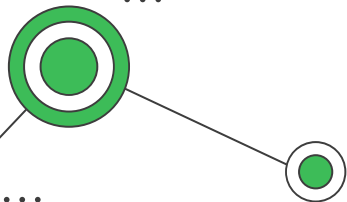


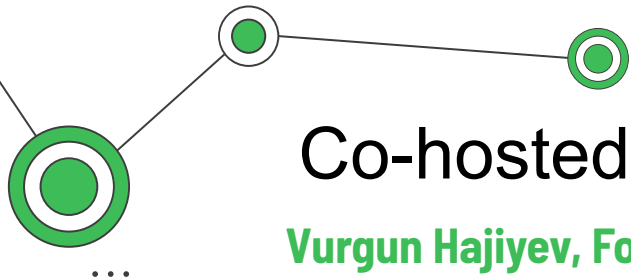
Hosted by:

Rasim Abdullayev Community Lead @ GoUp

GoUp Community driven Open source accelerator!

- Building next generation community: egoless, collaborative, competent, decentralized, scalable, fun community culture.
- Structure and index the data flow within community.



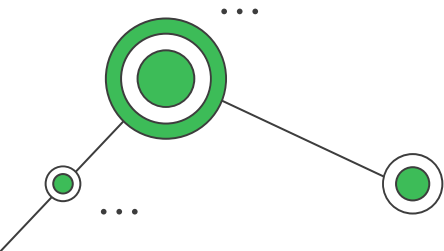


Co-hosted by:

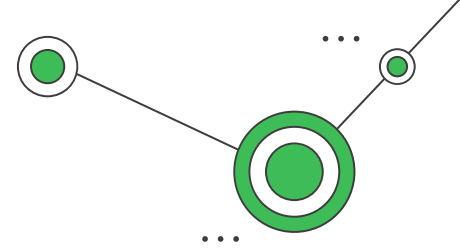
**Vurgun Hajiyeve, Founder @
Expertech**

Expertech is a monthly tech meetup series
organized by ATL Group to bring IT minds together.

The goal of this meetup series is a commitment to the
development of the local IT ecosystem for professionals,
students, and IT enthusiasts.



We want to know you, if you fit!



<https://goupaz.slack.com>



<https://www.linkedin.com/company/goupaz>



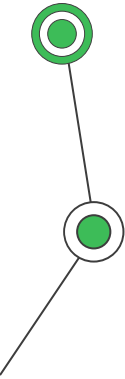
<https://github.com/goupaz>



<https://youtube.com/goupaz>



<https://www.meetup.com/goupaz>



Sponsor



<https://www.allmytaxes.com>



To reach for community event
sponsorship contact us over Slack:
slack.goupaz.com



Code of Conduct



01

Language

English

02

Collaboration

Learn, benefit,
contribute

03

Equality

Despite roles and
accomplishments

04

Neutrality

No marketing, selling,
competing



Photo Shoot Time

Please turn on your camera :D

...

A decorative network diagram consisting of several green circular nodes connected by thin black lines. The nodes are arranged in a non-linear fashion, with some having concentric circles. Ellipses (...) are used to indicate that the network continues beyond the visible nodes.

EVENT DRIVEN ARCHITECTURES ON AWS

whoami

Rustam Hashimov

<https://everi.one/meet/rustamhashimov>

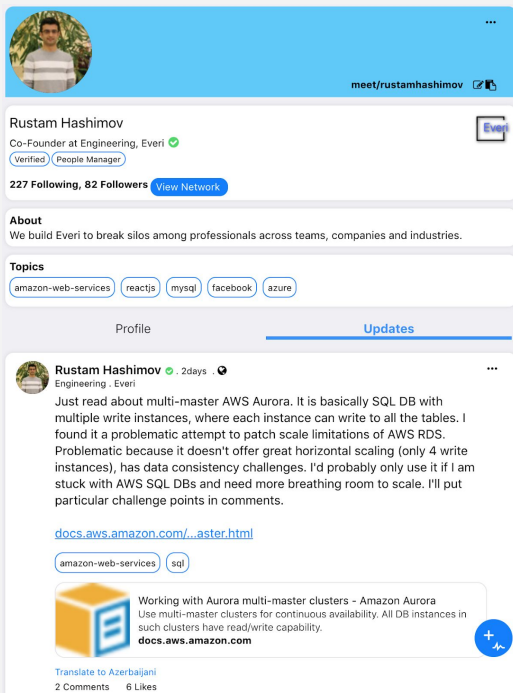
- Worked at Microsoft Azure (2015-2017)
- Building on AWS since 2019
 - Landing AI
 - Everi

Agenda

1. What is Everi?
2. Architecture Case Study

What is Everi?

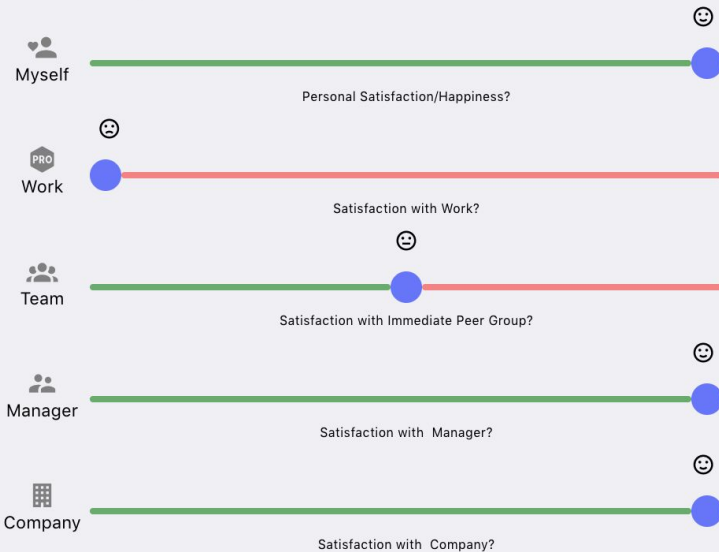
Everi is a network for professionals to express **what they do** and **how they feel**.



The screenshot shows a user profile for Rustam Hashimov. The profile header includes a profile picture, the name 'Rustam Hashimov', and the title 'Co-Founder at Engineering, Everi'. Below this, there are statistics: '227 Following, 82 Followers' and a 'View Network' button. The 'About' section states: 'We build Everi to break silos among professionals across teams, companies and industries.' The 'Topics' section lists: 'amazon-web-services', 'reactjs', 'mysql', 'facebook', and 'azure'. The 'Updates' section shows a post from 'Rustam Hashimov' dated '2 days' ago. The post text reads: 'Just read about multi-master AWS Aurora. It is basically SQL DB with multiple write instances, where each instance can write to all the tables. I found it a problematic attempt to patch scale limitations of AWS RDS. Problematic because it doesn't offer great horizontal scaling (only 4 write instances), has data consistency challenges. I'd probably only use it if I am stuck with AWS SQL DBs and need more breathing room to scale. I'll put particular challenge points in comments.' Below the text is a link: 'docs.aws.amazon.com/...aster.html' and tags: 'amazon-web-services' and 'sql'. There is also a small image of an Amazon Aurora database cluster and a 'Translate to Azerbaijani' button.

Would you like to update your Everi Index?

p.s: Your last checkin is pre-selected in the sliders below.

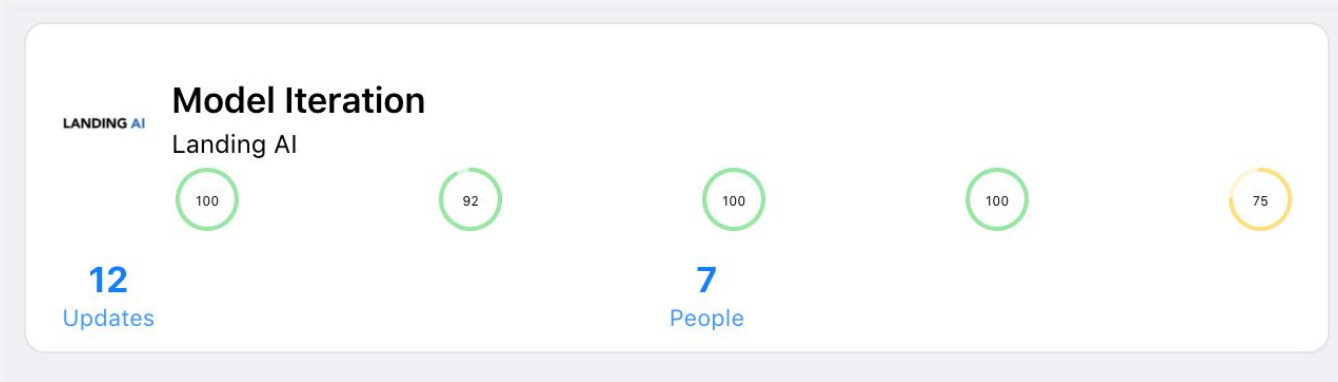


Why we launched Everi?

- Create an environment for students, new grads, early and mid career professionals where they **share their voice**.
- Bring visibility into teams of companies. You **choose the team**, not the company.

What is in it for you?

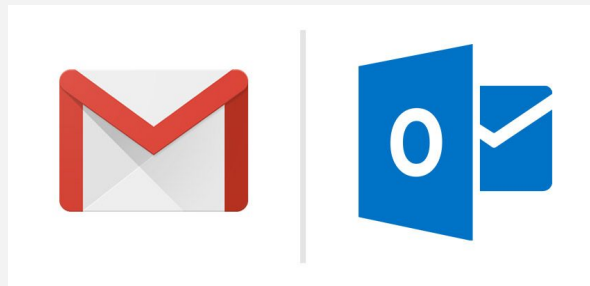
- **For individuals:** come and share your learnings regularly, build a profile much stronger than a static resume. Find right teams to work at.
- **For teams:** come and share about your team, attract talent via transparency and culture.



Everi's Event-Driven Architecture


- **Everi Notifications:** Users notified by other users' mentions, follows, comments, likes in near real-time
- **Everi Messages:** Group messaging feature. One member's message is delivered to many members of group under 1 sec

Delivered via:





Everything starts with a user action



Event: Rustam shares an update, mentions Agshin



Achal Prabhakar commented






Rustam Hashimov  · 13days · Edited · 


Engineering · Everi

I have been busy with building a new feature (stay tuned!) that uses rich text editor. We picked DraftJS for that given its community support. It also has rich set of plugins. We use draft-js-plugins as plugin. They are both easy to use. I managed to set them up and achieve my goal without reading much docs. One time consuming part was that the examples are mostly on React and CSS. Still, it works well with RN dektop and mobile browser
Thanks @Agshin Guliyev for posting about FB OS projects!

www.youtube.com/watch...EK7SXFrl4



Explain Like I'm 5: DraftJS
In this video, Facebook Open Source Developer Advocate Cami explains DraftJS, a rich text editor framework, in 60 seconds.----- Project Link...
www.youtube.com





Translate to Azerbaijani


2 Comments


6 Likes

4 Recommends











1. Notify Agshin






Rustam Hashimov mentioned you in their update


2. Increase update count for Rustam



Rustam Hashimov
Co-Founder at Engineering, Everi 

Verified

People Manager



70
Updates

amazon-web-services

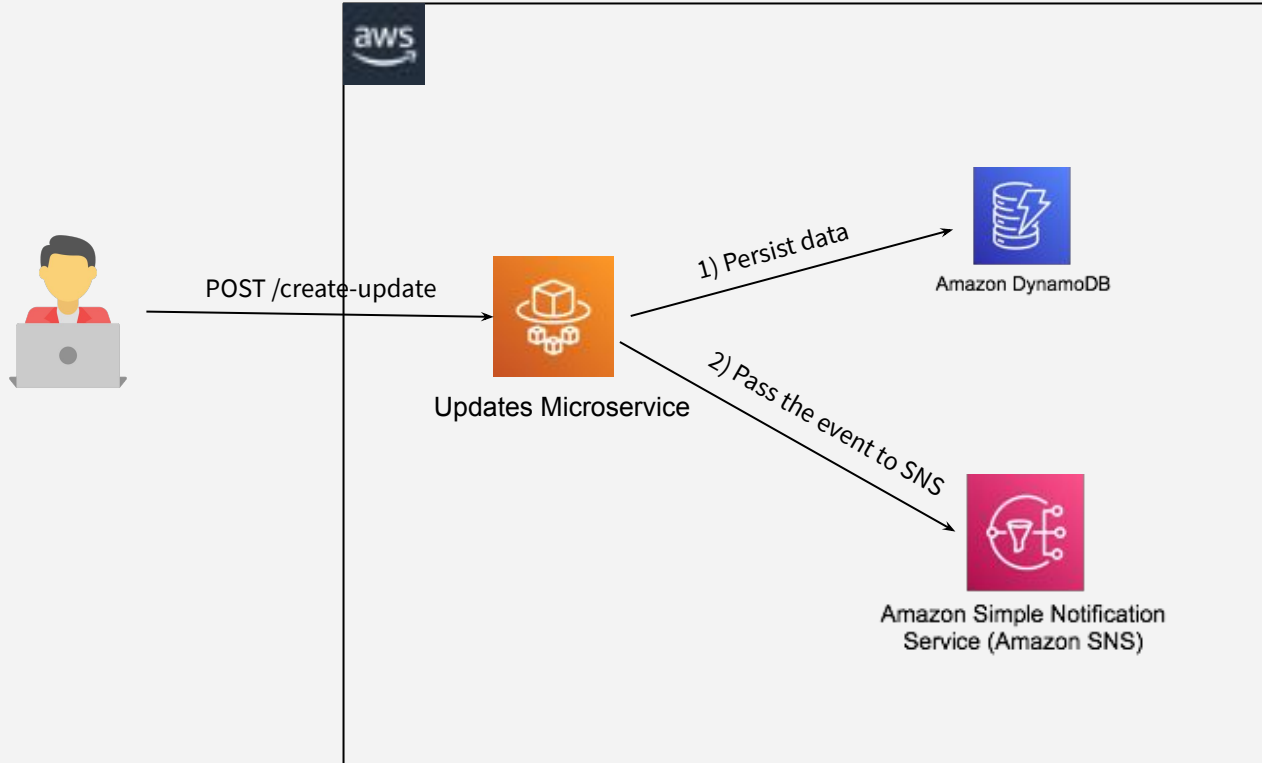
reactjs

mysql

facebook

azure

Start Processing the event



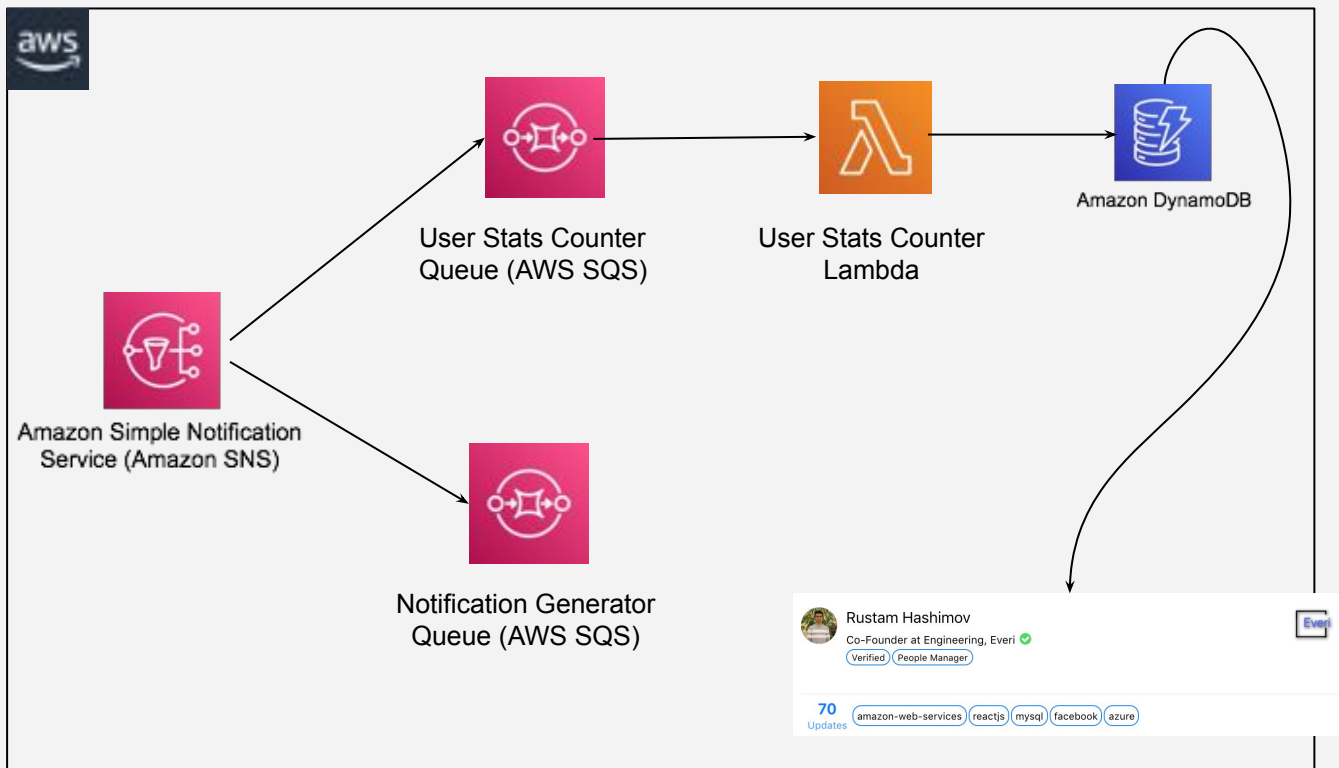
DynamoDB

- Serverless NoSQL (Key-Value) Database
- Provides easy scalability

SNS

- Serverless topic-based message delivery service (Pub-Sub)
- Allows up-to 10,000 subscribers

Push event to multiple subscribers



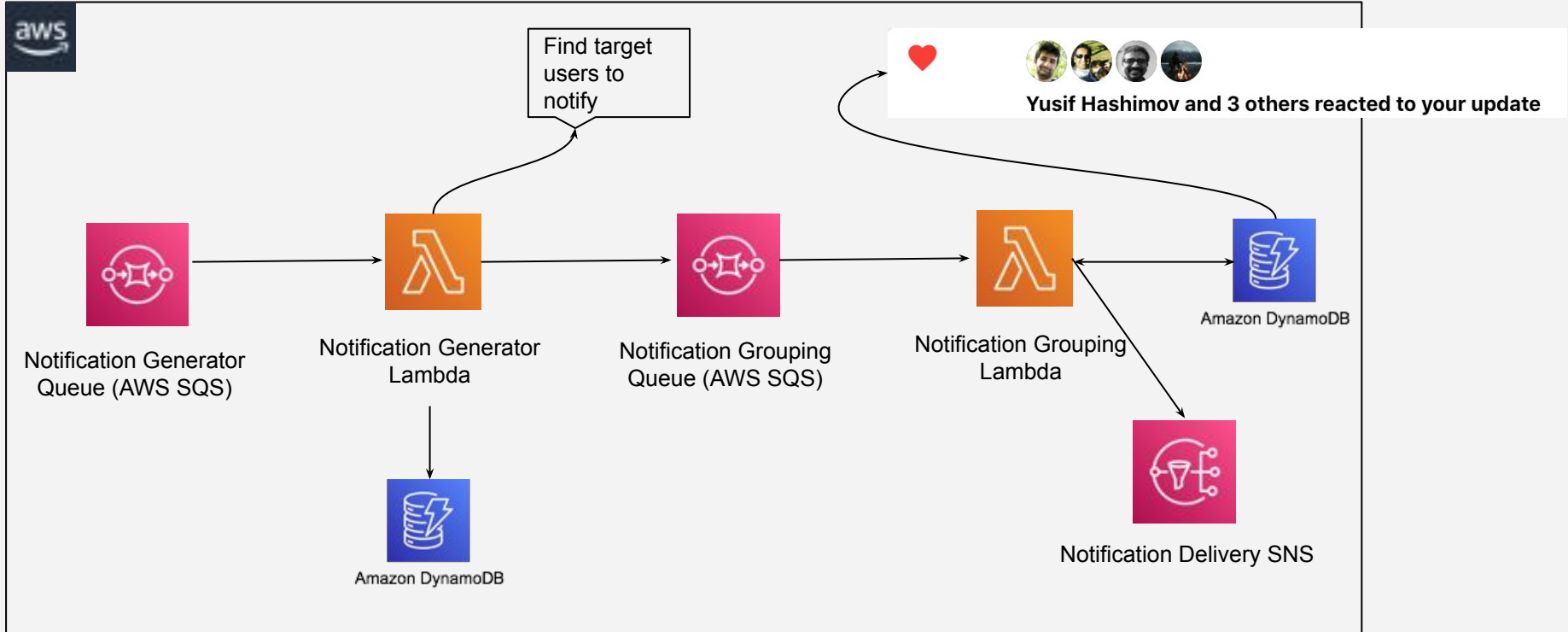
SQS

- Serverless Messaging Queue
- Provides multiple-retries, 4 days persistence

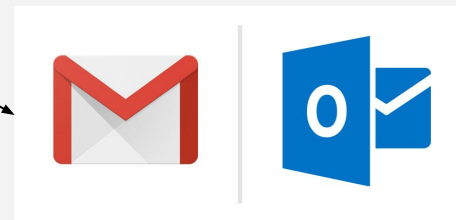
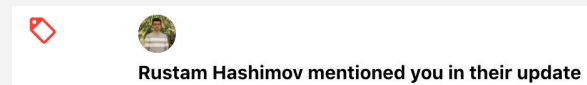
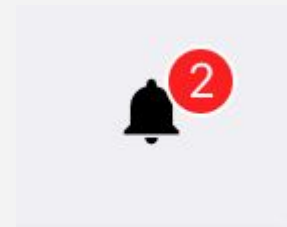
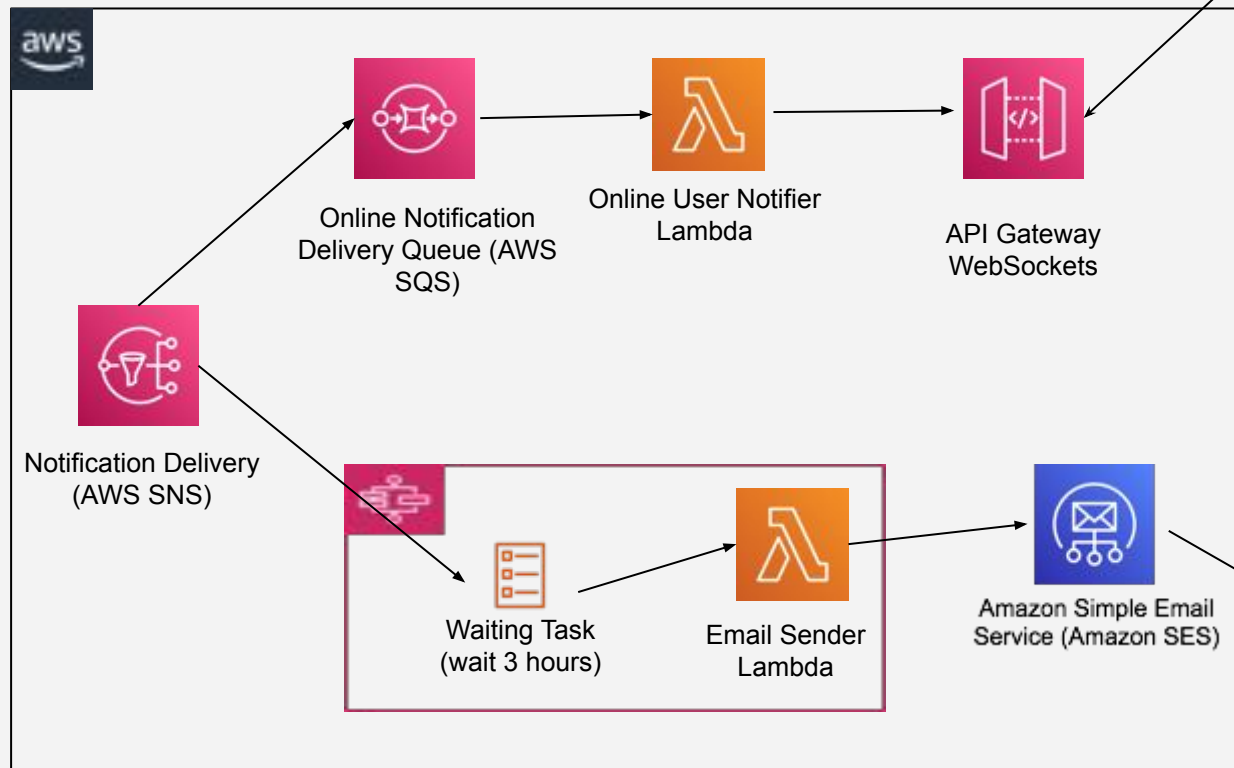
Lambda

- Serverless compute
- Allows deploying Javascript, Python codes without allocating a server
- Has cold start problem

Generate and Group Notifications



Deliver Notifications



Recap: Notification flow

1. Find the target user to notify
2. Group similar notifications into single one
3. Deliver the notification to the browser or email

Everi Messaging

1. Find the target users to send message
2. Deliver the message to the browser or email

Why we use AWS Serverless stack?

- **Cheap:** You only pay for what you use.
- **Easy to maintain:** You don't need to worry about keeping your servers up. AWS does it for you.
- **Easy to scale:** SNS, SQS, Lambda, API Gateway, DynamoDB, Step Functions - all of them scale dynamically as the usage changes.
- **Easy to code and improve:** Decoupled, lightweight services allow iterating on individual components without worrying about the rest of the system.

Recap: AWS Services

- **SNS:** Use when there are multiple consumer of an event.
- **SQS:** Use as a queue to pass an event to a service, with retries.
- **Lambda:** Use for lightweight compute operations.
- **Step Functions:** Use to orchestrate a graph of Lambdas
- **API Gateway Websockets:** Use to establish a websocket connection with browser

Thanks for listening!

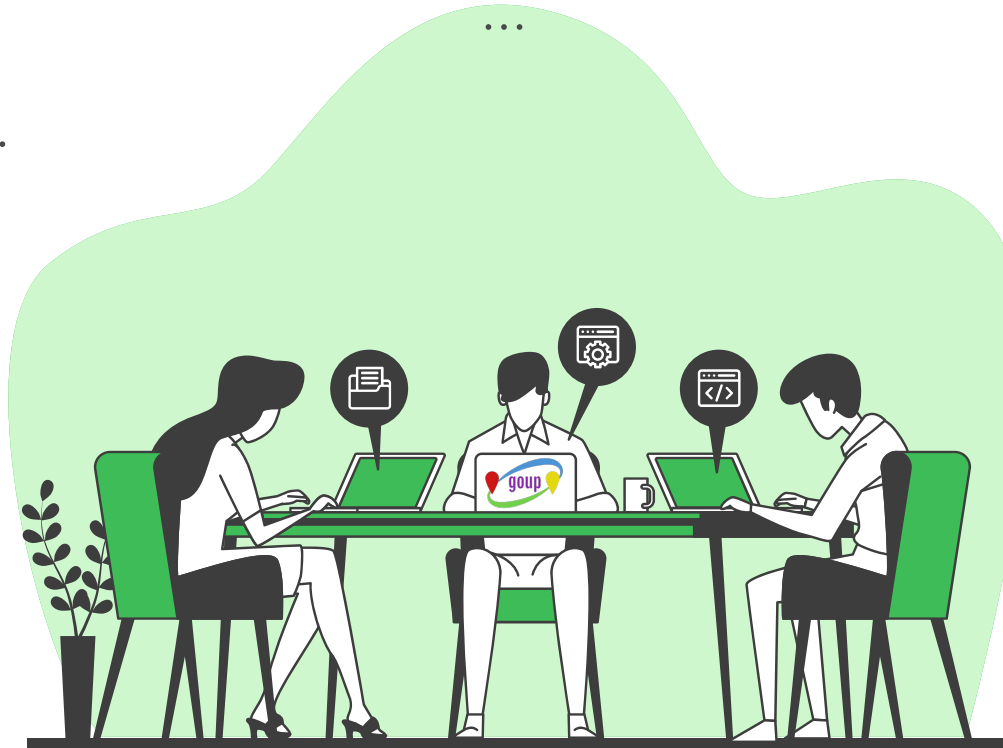
<https://everi.one>



5 MINS

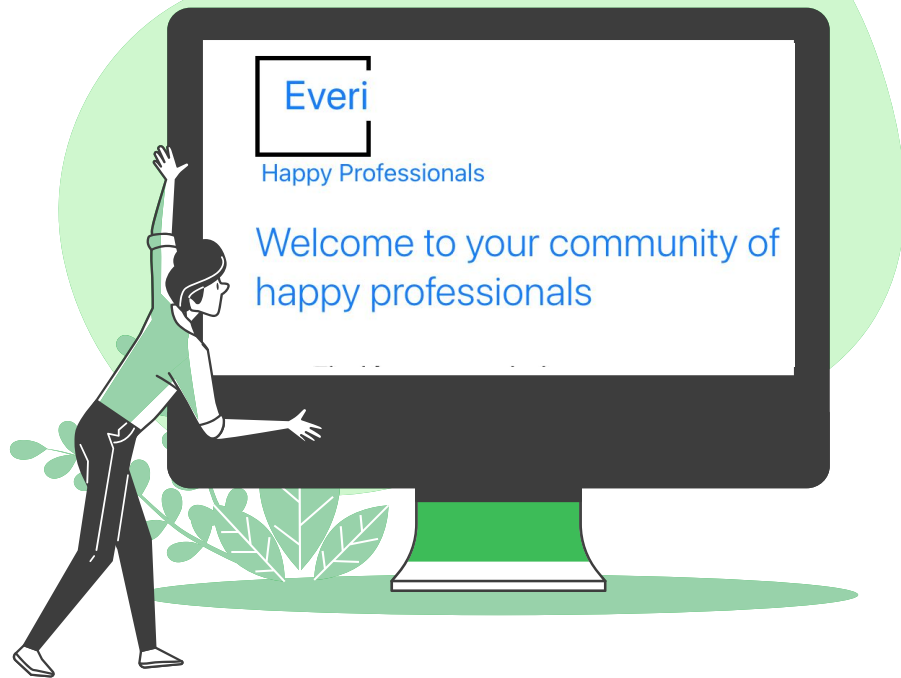
BREAK

Q&A Discussion

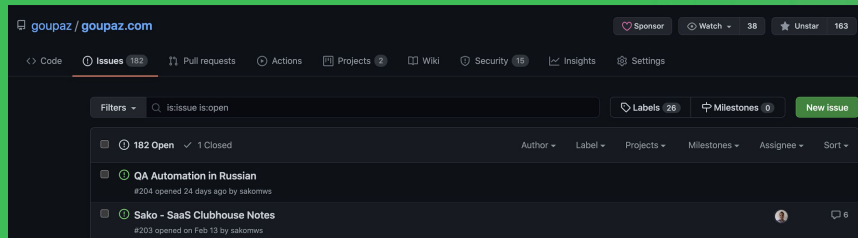


Wrap up

Feel free to reach out

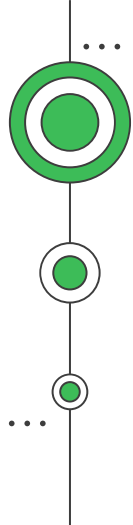


Open issue on GitHub!



<https://github.com/goupaz/goupaz.com>





Thank you!

