


Ako po si Marilag Dimatulac

 Twitter: @marilag

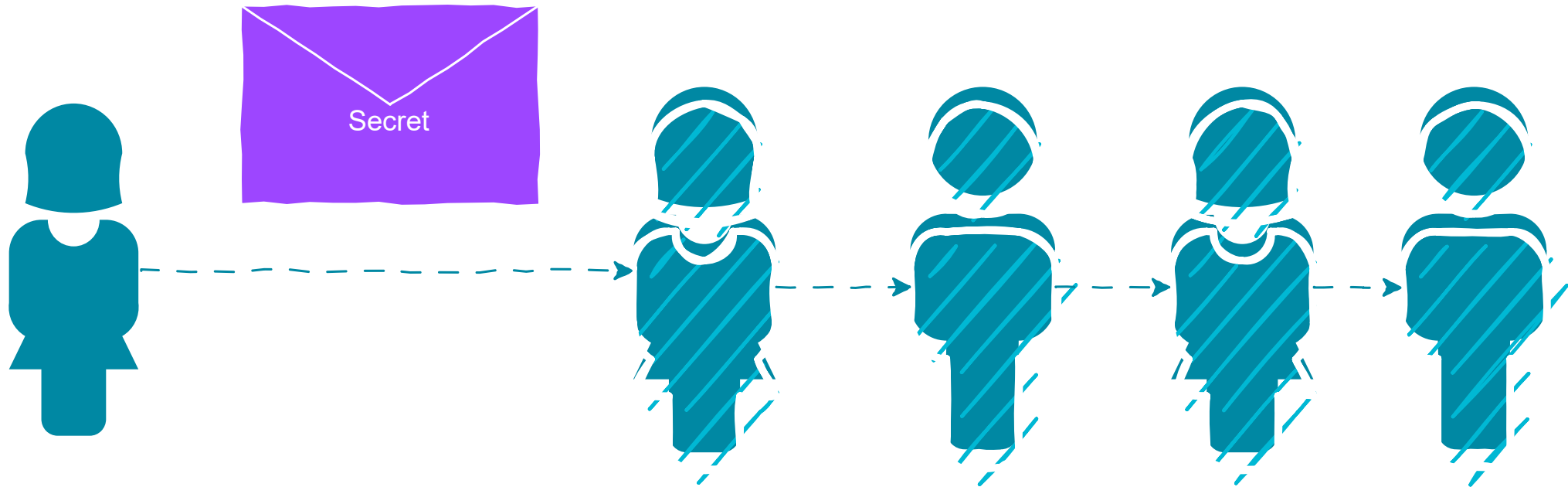
 Founder & Chief Architect at [Dewise](#)

 Co-Founder of [ulap.org](#)

 Microsoft MVP for Azure

 Organizer of AZUG Manila & DK

The Gossip Game

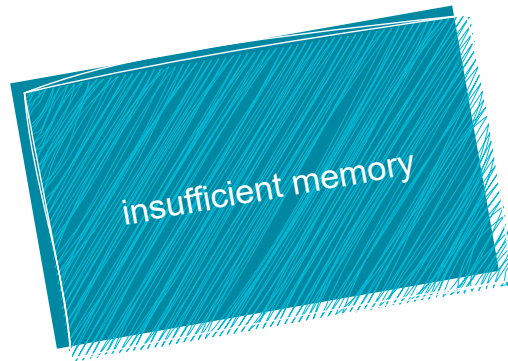


Let's Play!

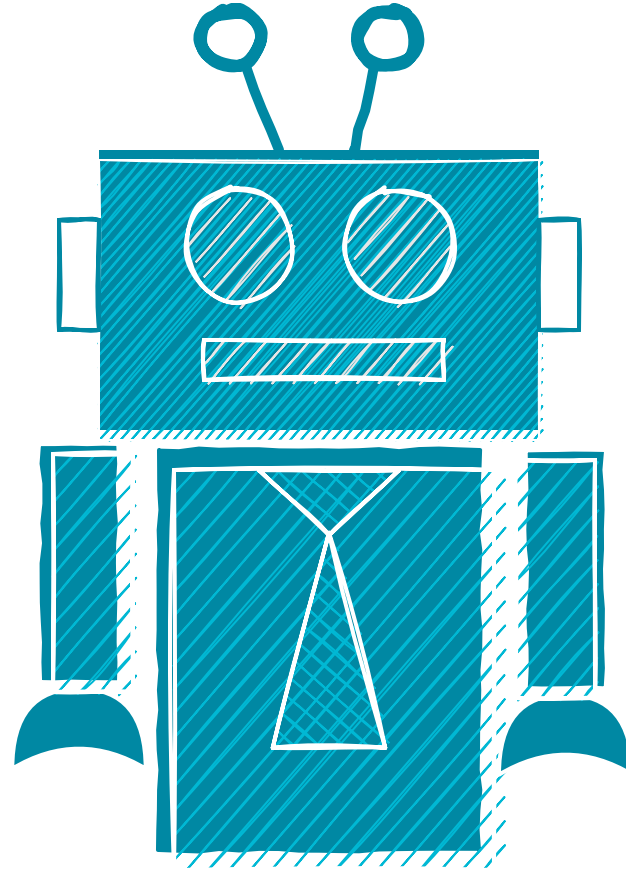
In October 4, 2021, approximately 11:30 Eastern time, Facebook, Instagram and Whatsapp went down. It showed major DNS failure. People thought [facebook.com](https://www.facebook.com) domain was for sale. A bit later Cloudflare VP Dane Knecht reported that there was a problem with Facebook's Border Gateway Protocol. Later that day, Santosh Janardhan, VP for infrastructure wrote that the root cause of the outage was due to Facebook network engineers pushing a wrong config change on their backbone routers. Mark Zuckerberg reportedly lost about £4,4bn. He posted on his account "Sorry for the disruption today"

Who won?

What went wrong?



We're not perfect...



Message Brokering and Event-Driven Architecture

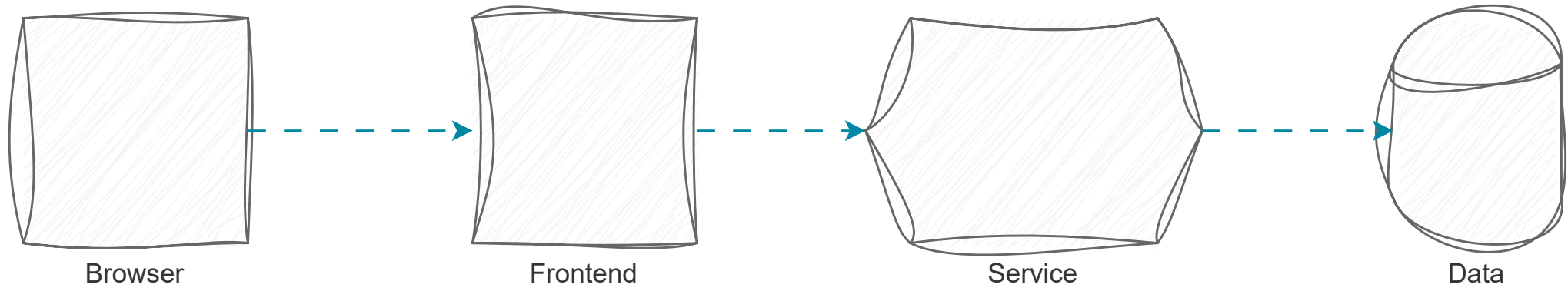
- Intro and demo of queues, service bus and event grid
- Architectural Patterns
- Design Pitfalls

The Distributed Dungeon

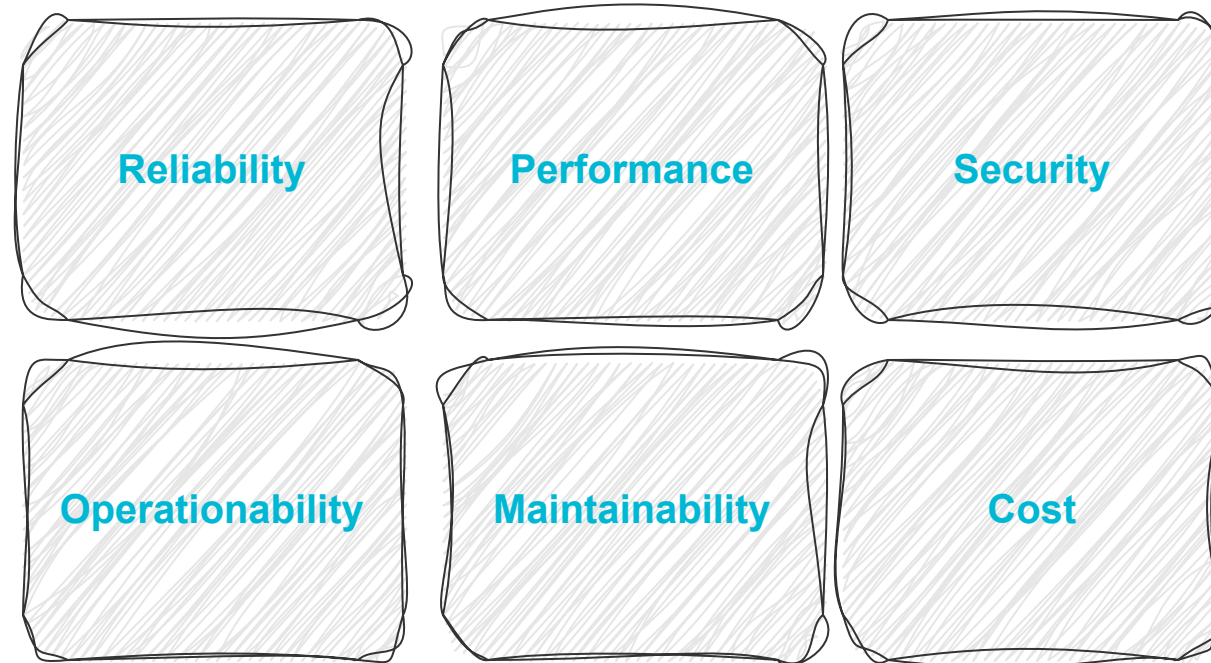
A distributed system is one in which the failure of a computer you didn't even know existed can render your own computer unusable.

- Leslie Lamport, winner of Turing award

Simple system?

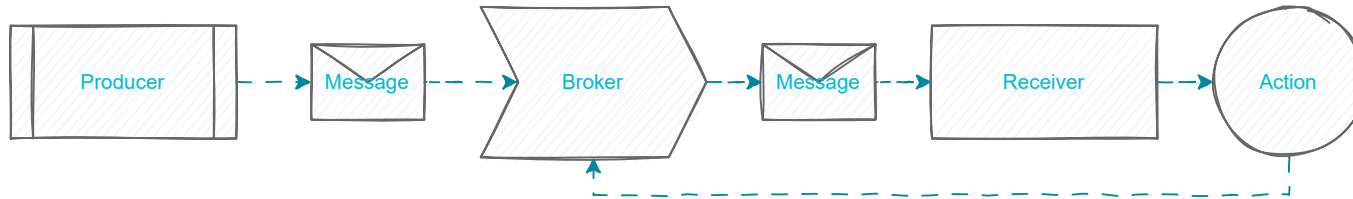


Test surface



Messages and Events

Message



- binds the producer and the receiver in a request/result contract
- it contains all the information to complete an action
- action message can be a command - e.g change state, which is high-value
- action message can also be a query - e.g return a view state

Demo - Azure Queues

Azure Queues

- ✓ larger messages, upto 80GB
- ✓ at least once
- ✓ server logs

Demo - Service Bus - FIFO

Demo - Service Bus - Transactions

Demo - Service Bus - Topics and Subscriptions

Service Bus

- ✓ at most once (duplicate detection)
- ✓ Upto 64 kb and less than 80 GB
- ✓ dead-lettering, auto-forwarding

Demo - Event Grid for Pub/Sub notification

Event Grid

- ✓ Push-style notification
- ✓ Azure service as event sources and event handlers
- ✓ 24-hour retry with exponential backoff

The Serverless Sanctuary

Team's Toolbox

☒ Event modeling

☒ In-process message brokering with mediator

Key Points

- ✓ Know when to use Queues, Service Bus, Event Grid and Event Hubs
- ✓ Model, test and handle all known and unknown issues

Thanks!