

# Alibaba Cloud DNS Practice

ICANN64 TechDay

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# introduction

- Who we are?
- Alibaba Cloud DNS team (Managed DNS/Cloud DNS/DNS service provider?)
- What we do?
- SLD Authoritative Sever / Local Resolver Server / Public Resolver Server ...

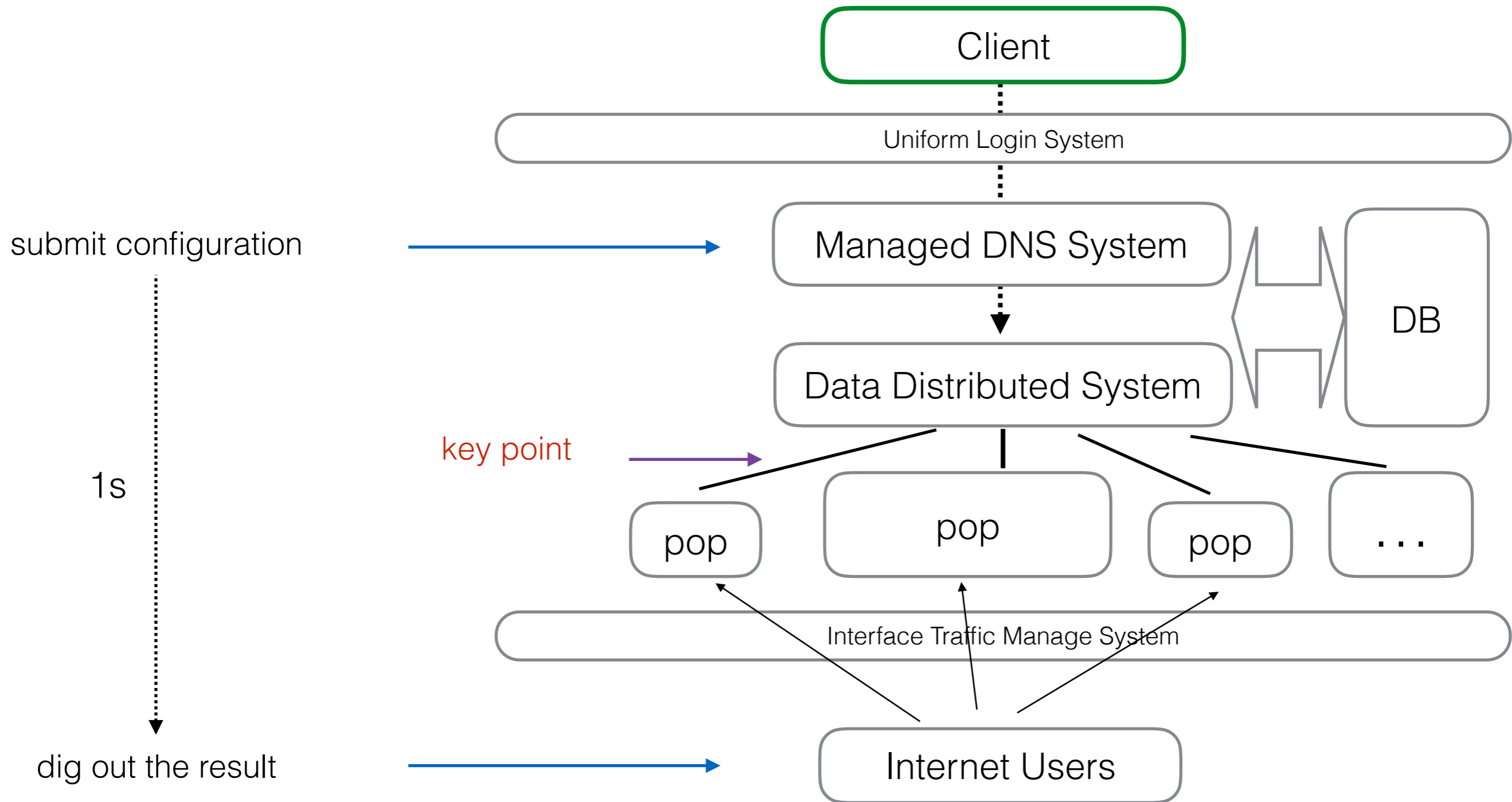
# authoritative server

- How many **SLDs** in our cloud DNS? 14+ millions
- How many **query** per day? 160+ billions
- How many **security attack**? everyday

# goals

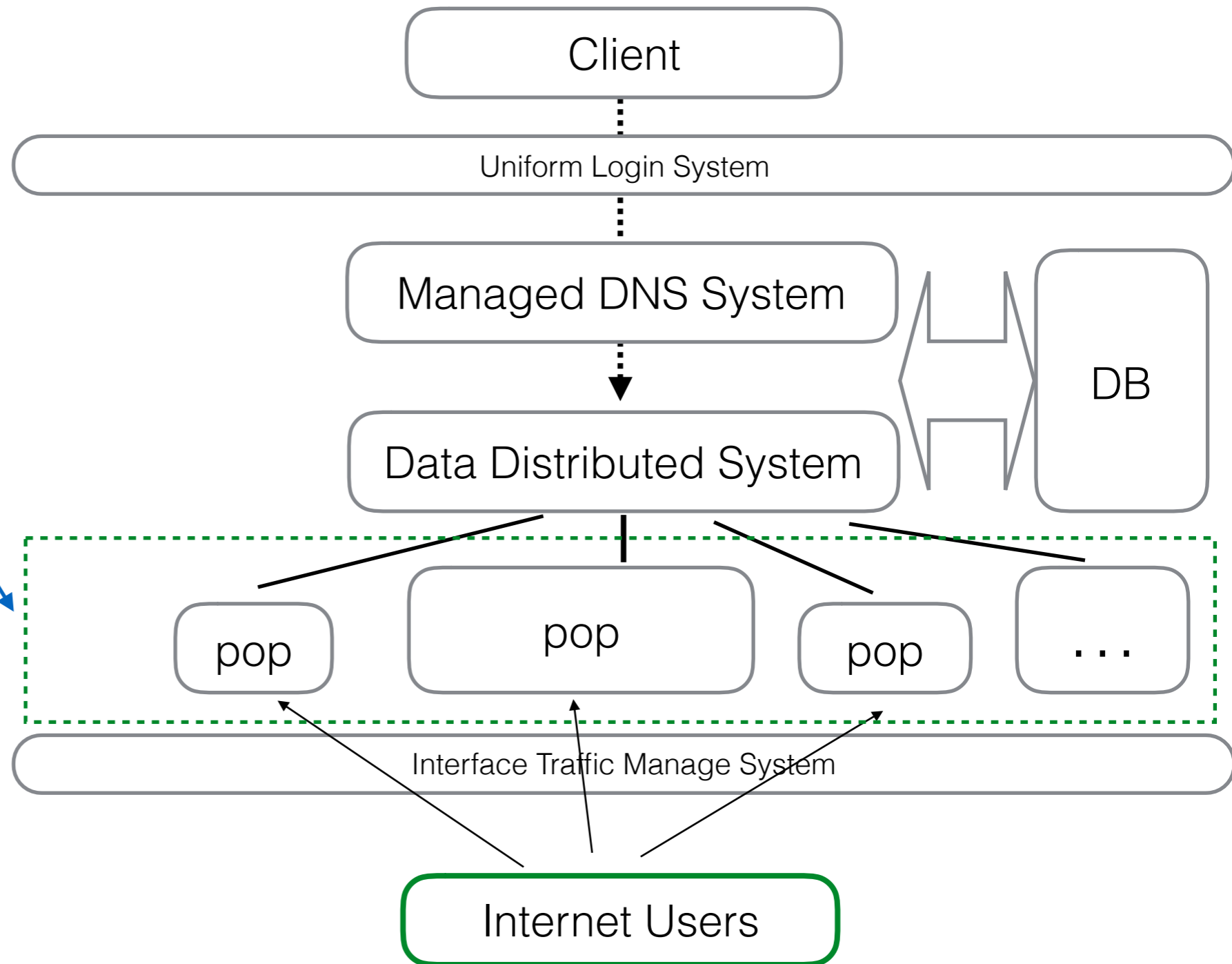
- **Stable**, e.g. provide SLA service
- **Fast**, e.g. user data distribution / client user query
- **Safe**, e.g. user login / network attack
- **Customize**, e.g. private zone / weighted records

# fast

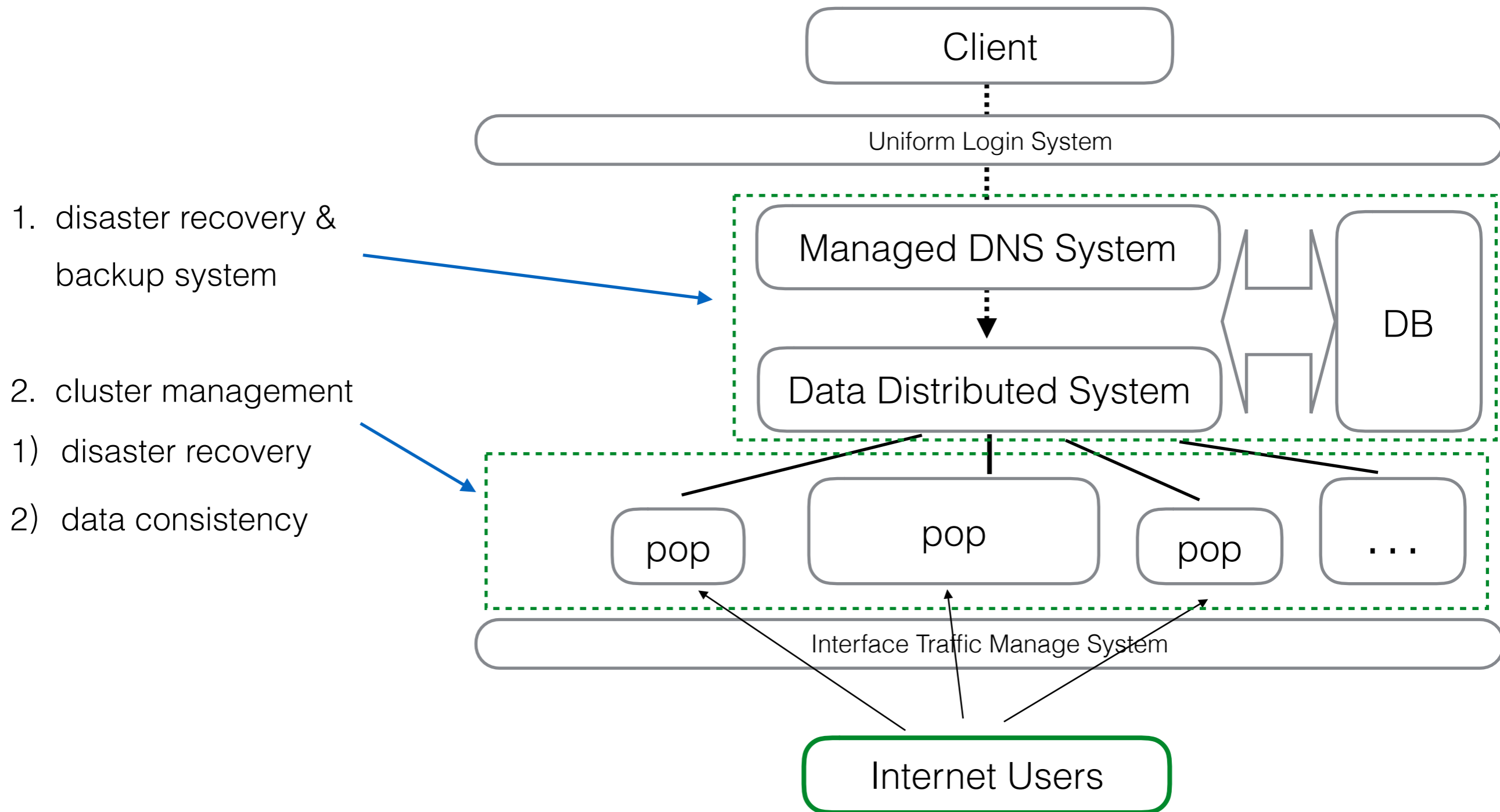


# fast

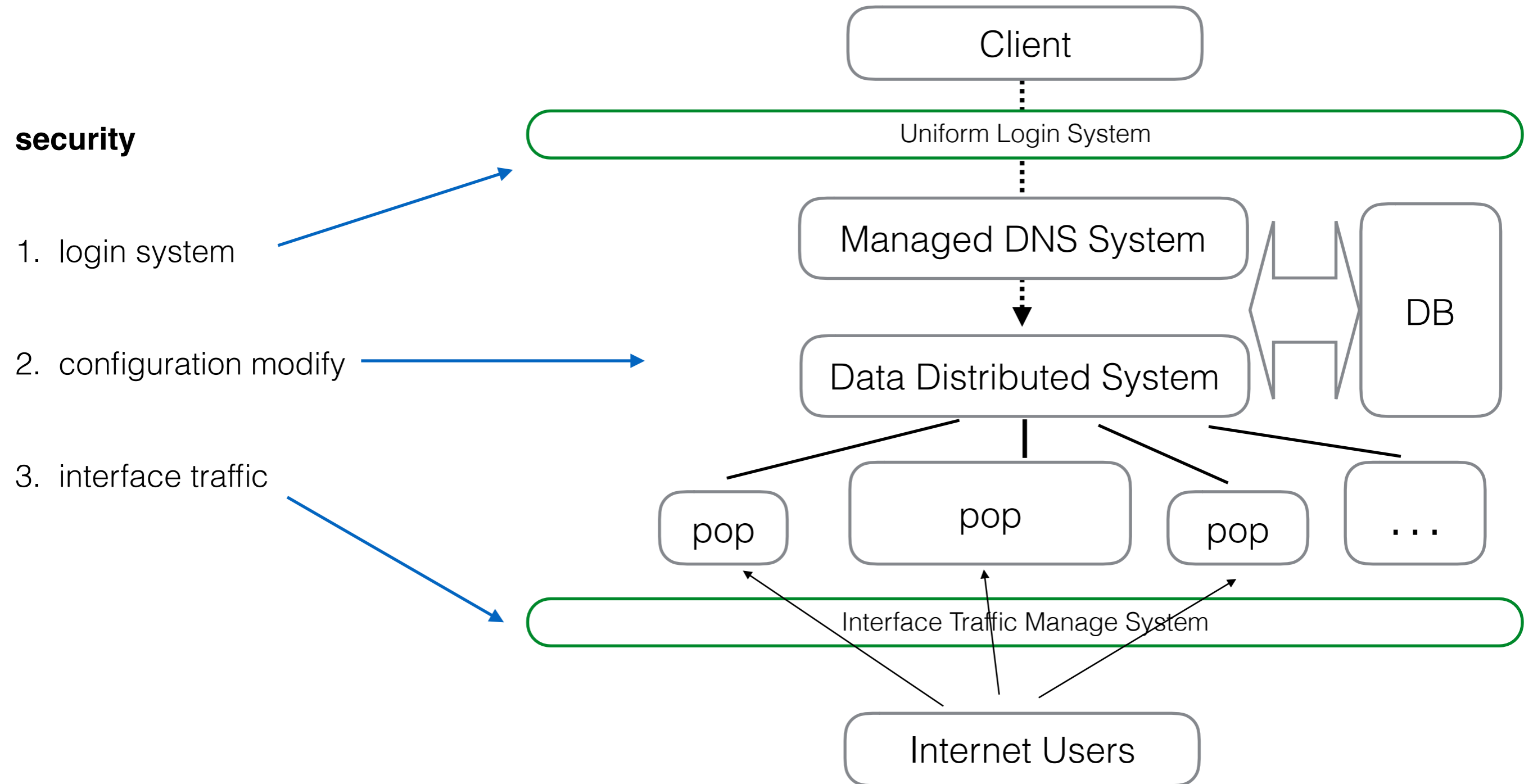
- 1. dpdk-based servers
- 2. anycast architecture



# stable



# safe

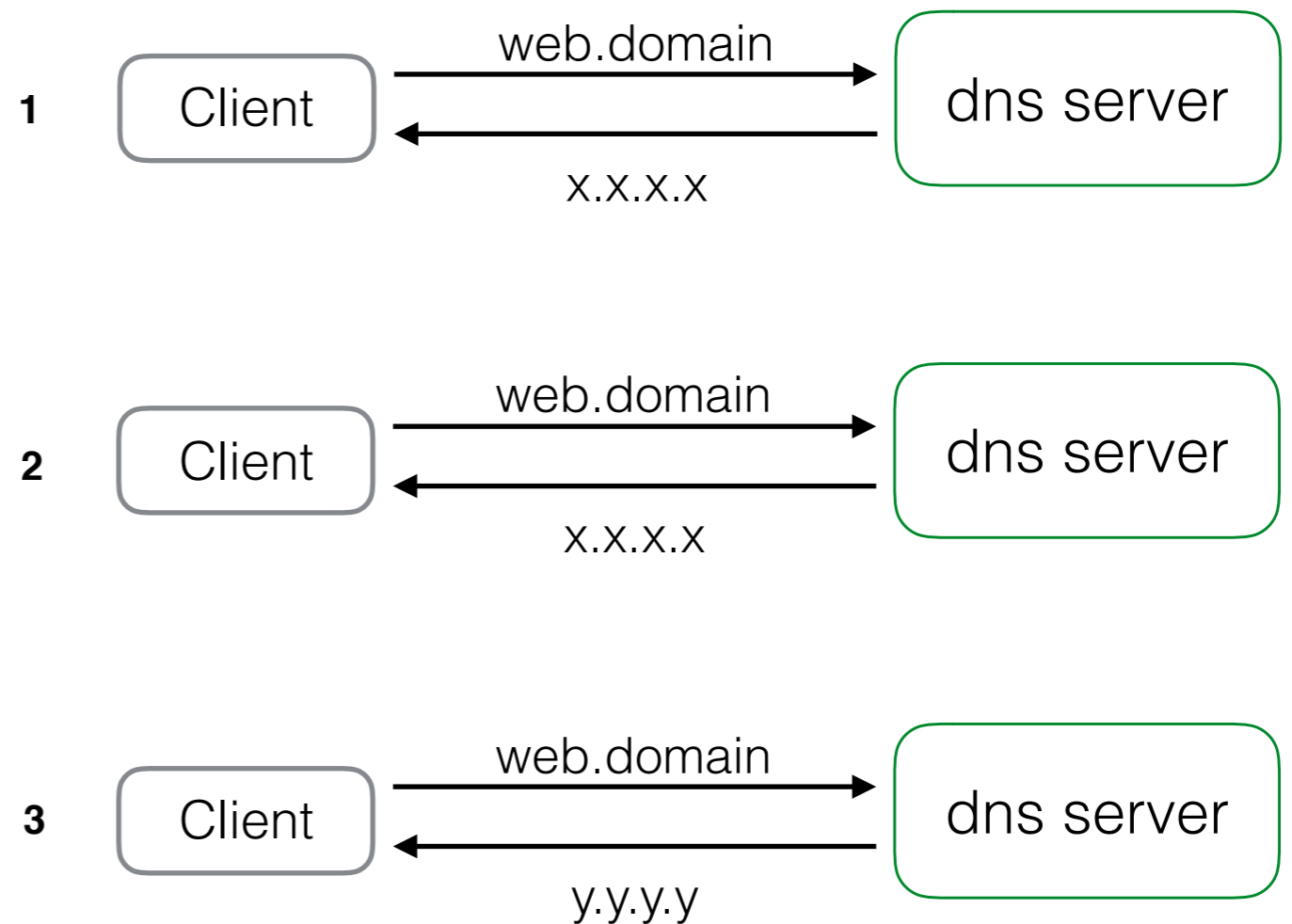




# a customize example: weighted A

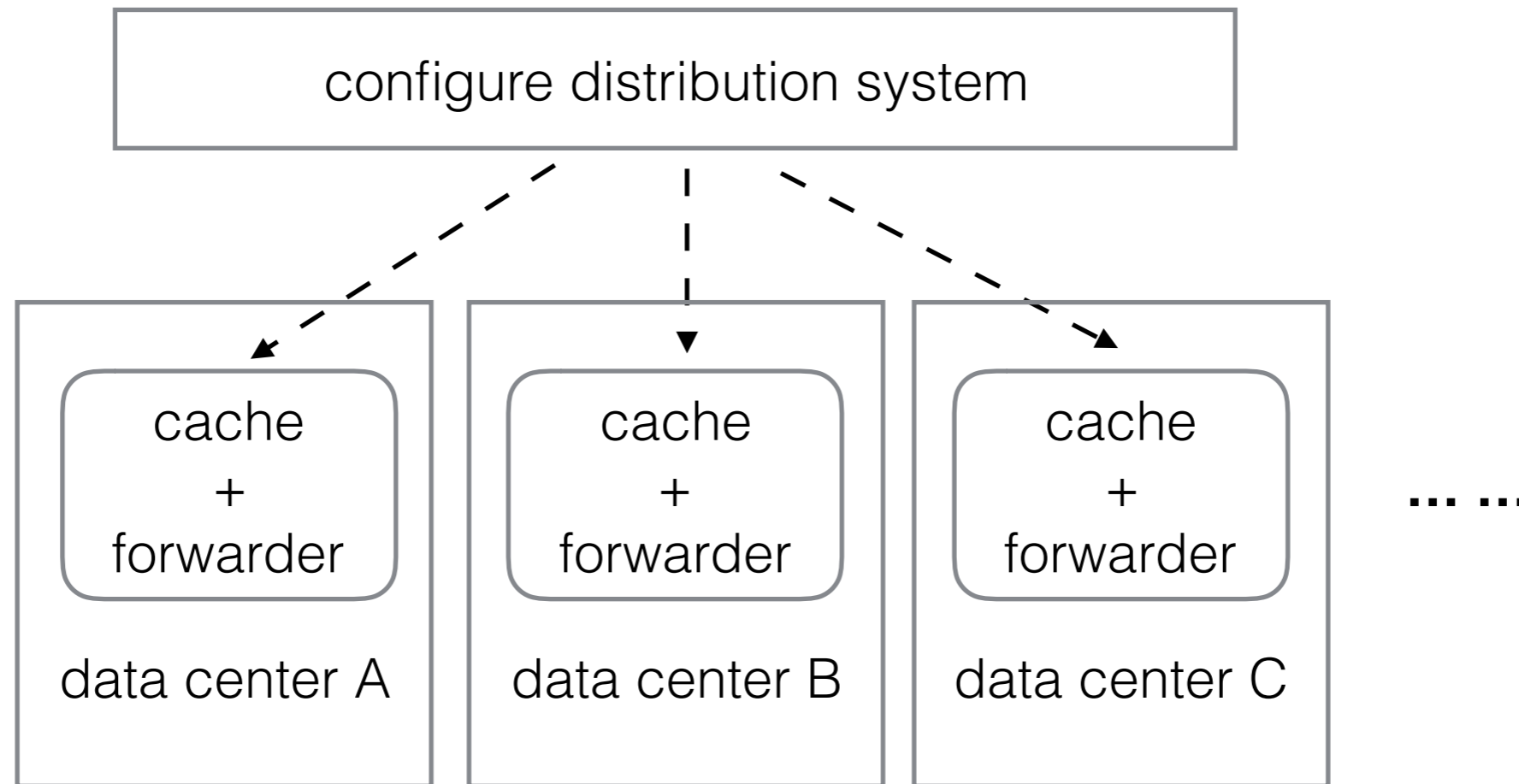
**web.domain A x.x.x.x 2**  
**y.y.y.y 1**

**weight**



three times query, there will be 2/3 return x.x.x.x, 1/3 return y.y.y.y

# local resolver

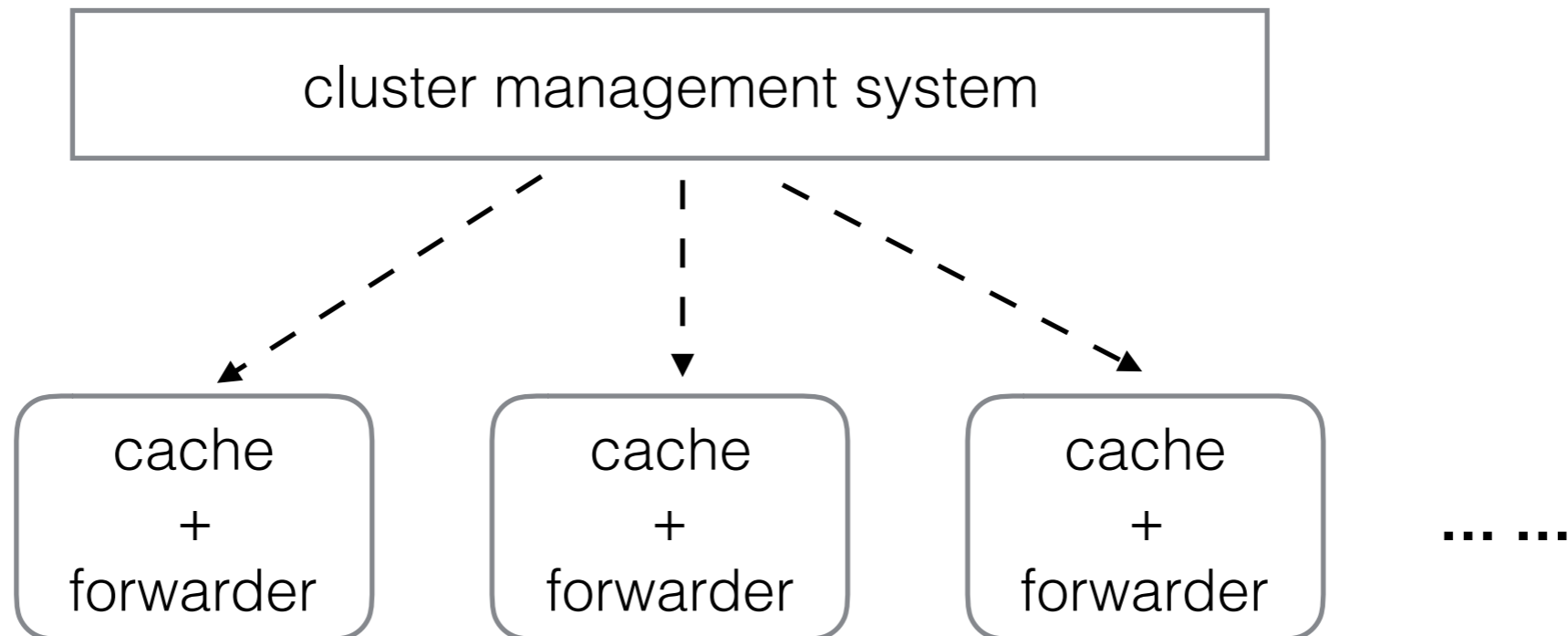


anycast cluster in every data center

kernel module as cache for performance

custom configuration for example PVT zone (Virtual Private Cloud)

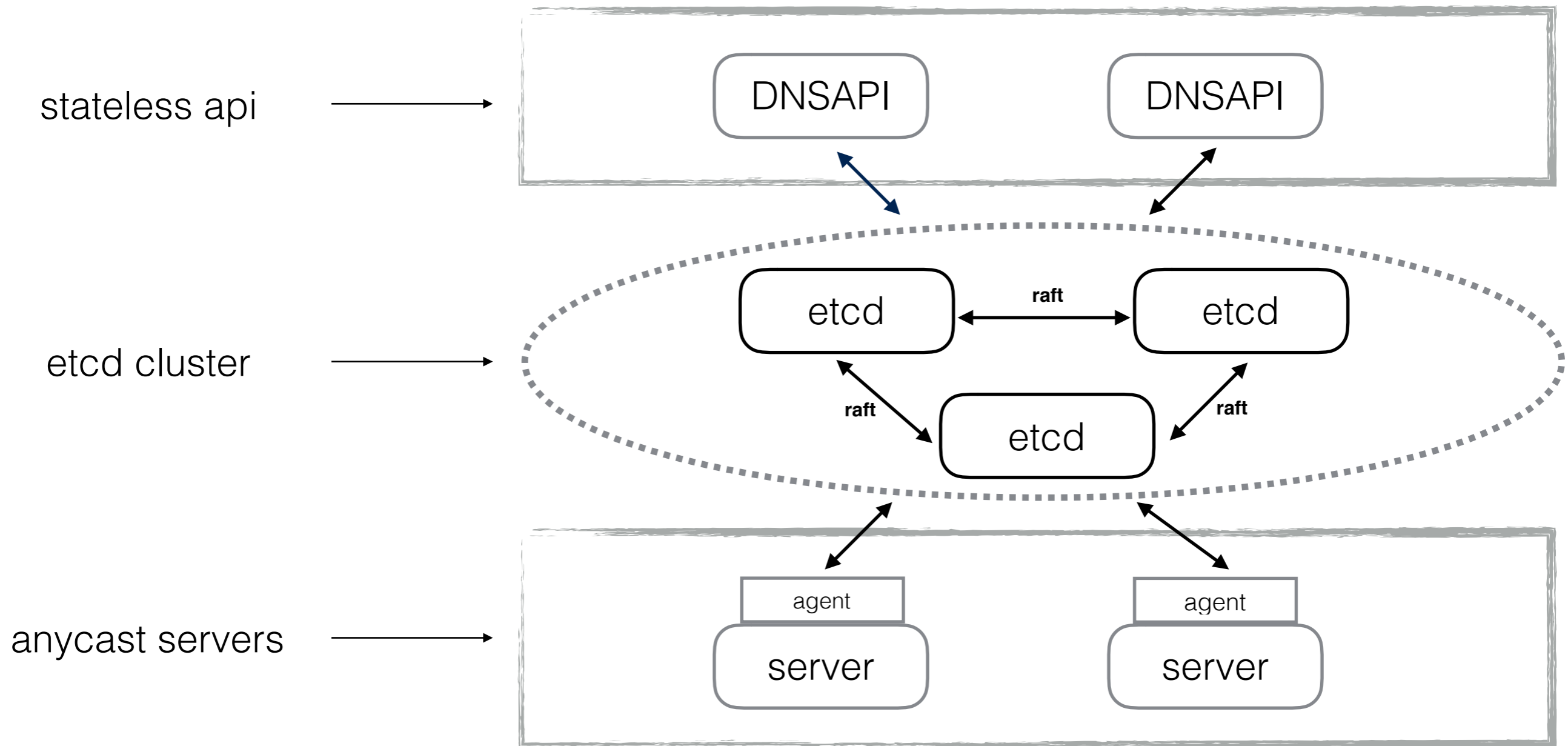
# public resolver



223.5.5.5/223.6.6.6

custom configuration for example PVT zone (Virtual Private Cloud)

# dns in private cloud



# in the future...

- DoH + DNSSEC are security?



- What will be the next killer app?

email system

world wide web

what's next?

Thank you!