Zimbra Platform Roadmap

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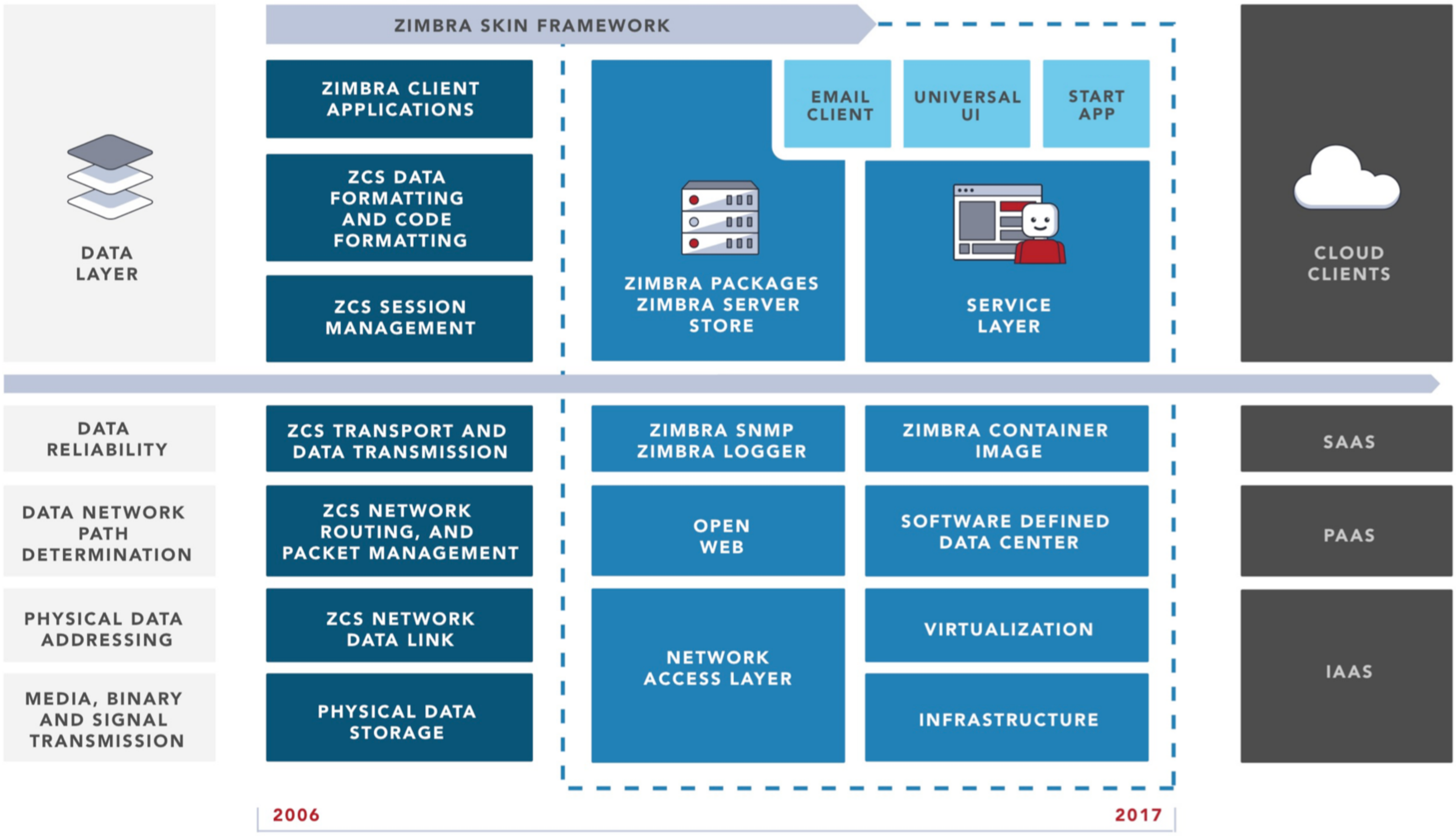
zimbra

Party like it’s 2006

- Zimbra, while robust, has always been more of an email application server, rather than an email service platform
  - Customer deployments
  - Integrators and developers
  - User experience expectations
- The community at large has done extremely well in deploying Zimbra services to their users, but the potential to evolve remains



ZIMBRA SKIN FRAMEWORK

DATA LAYER

ZIMBRA CLIENT APPLICATIONS

ZCS DATA FORMATTING AND CODE FORMATTING

ZCS SESSION MANAGEMENT

EMAIL CLIENT

UNIVERSAL UI

START APP

ZIMBRA PACKAGES ZIMBRA SERVER STORE

SERVICE LAYER

CLOUD CLIENTS

DATA RELIABILITY

ZCS TRANSPORT AND DATA TRANSMISSION

ZIMBRA SNMP ZIMBRA LOGGER

ZIMBRA CONTAINER IMAGE

SAAS

DATA NETWORK PATH DETERMINATION

ZCS NETWORK ROUTING, AND PACKET MANAGEMENT

OPEN WEB

SOFTWARE DEFINED DATA CENTER

PAAS

PHYSICAL DATA ADDRESSING

ZCS NETWORK DATA LINK

NETWORK ACCESS LAYER

VIRTUALIZATION

IAAS

MEDIA, BINARY AND SIGNAL TRANSMISSION

PHYSICAL DATA STORAGE

INFRASTRUCTURE

2006

2017

Hello 2017

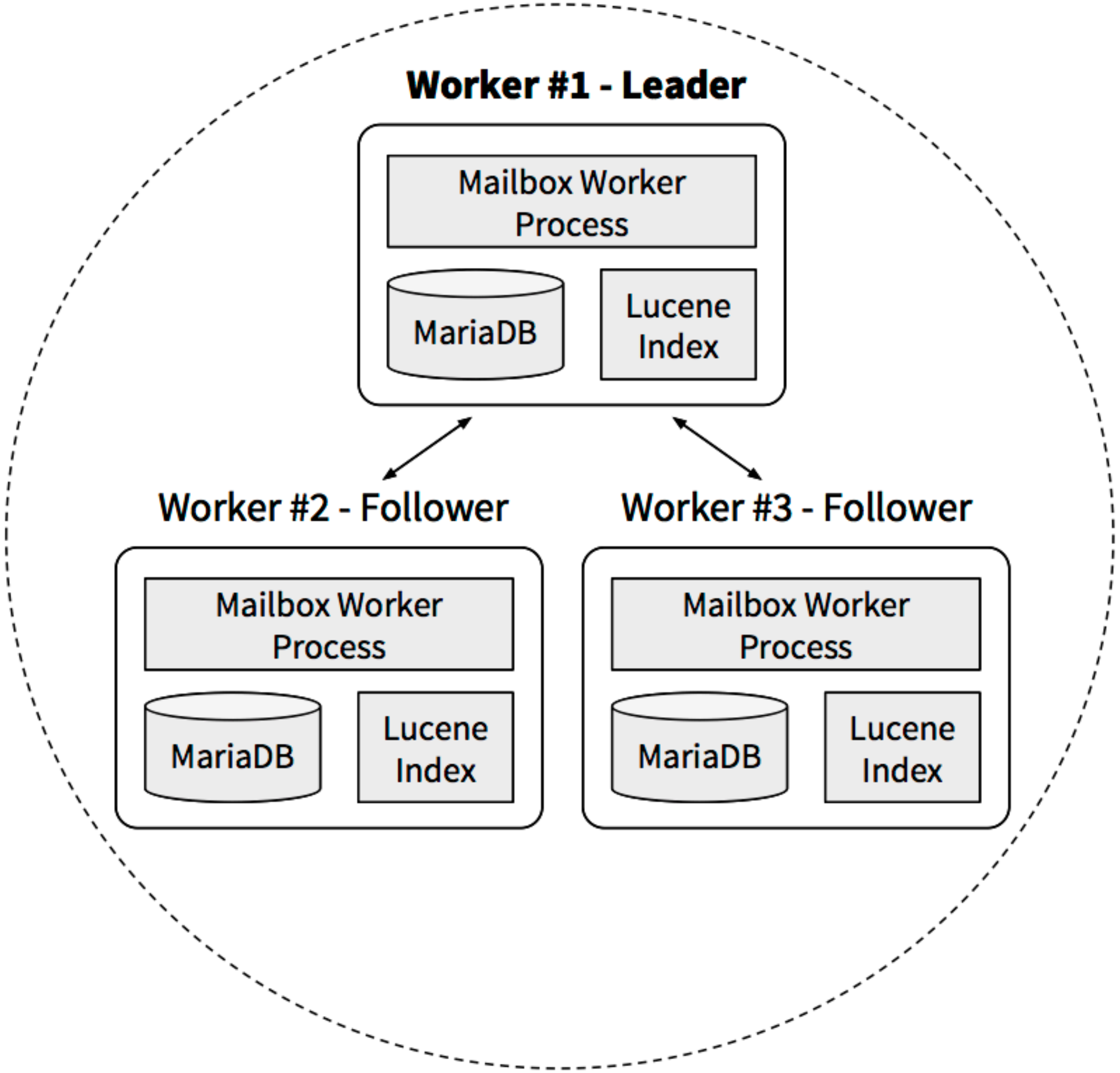
- An open-source email platform built for the expectations of 2017
    - Stable and reliable platform architecture
    - Scalable from small to massive deployments
    - Deployable into modern cloud environments (IaaS, PaaS) as well as traditional environments
    - Clear separation of backend email services, delivered as modern APIs to product developers

Beachhead Platform Projects

- Fault-tolerant, highly available application architecture
- Traffic management, infrastructure orchestration
- Full separation between platform and application layers, exposing platform services to applications through modern APIs
- Continuous integration environment

Fault-tolerant Architecture

- Fault-tolerant, distributed consensus architecture allows for rapid fail-over in mission-critical deployments
  - Replicates mailbox worker state between pool of mailbox worker processes
  - Workers distributed across multiple servers provide fault tolerance
  - Multiple pools scale environment horizontally
- Automatic scaling and self-healing simplify deployment
  - Automated worker and worker pool configuration
  - State snapshots allow for the rapid deployment of additional pools



Fault-tolerant Architecture Cont.

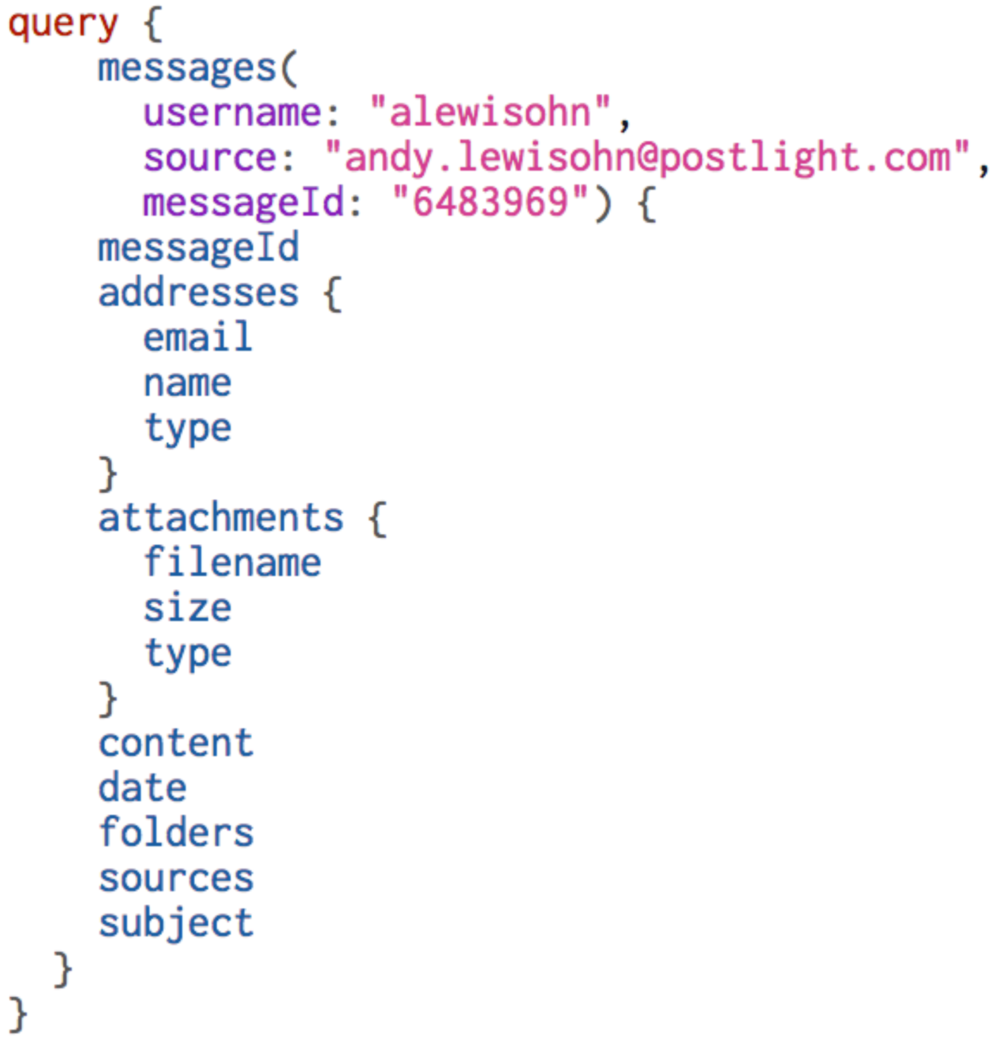
- IMAP as an independent service
  - Scale independently to optimize for growing performance needs
  - Isolates mailboxd from IMAP outtages
- Optimization of ephemeral data storage
  - Ephemeral data abstraction layer
  - Delivering connector for LDAP and SSDB in 17.13 release
  - Community can build connectors for additional key-value stores

Infrastructure Orchestration

- By leveraging advances in automated deployment, orchestration, and containerization we can meet the scalability needs of our customers and improve the availability of the platform
  - Using more deployments of smaller application nodes, automating the movement of users between nodes
  - Limiting blast radius of application failure
- Working with outside contributors, we have a validated plan and proof-of-concept that leverages Docker containers and Kubernetes

Modern Platform APIs

- A modern email platform must clearly separate the backend platform from the application layer and deliver email services through a set of modern APIs
- With outside contributors, we've identified GraphQL as the interface to expose for core email use cases
- Use cases
  - Full blown interfaces
  - Light integrations
  - Unique cases



```
query {
    messages(
      username: "alewisohn",
      source: "andy.lewisohn@postlight.com",
      messageId: "6483969") {
    messageId
    addresses {
      email
      name
      type
    }
    attachments {
      filename
      size
      type
    }
    content
    date
    folders
    sources
    subject
  }
}
```

Continuous Integration, Delivery

- Invest in CI infrastructure to monitor changes, build, and run unit/integration tests
- Significantly expand automated test coverage
- Deliver smaller number of changes to platform more frequently

Requesting contributors

- If you think you’d like to contribute to these projects, please post in the Developer forum expressing interest
- We will be having project team meetings to plan work

Thank you.

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