Regulations and Compliance

Design architecture for today and future

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Introduction

- The current situation
- Changes and upcoming changes

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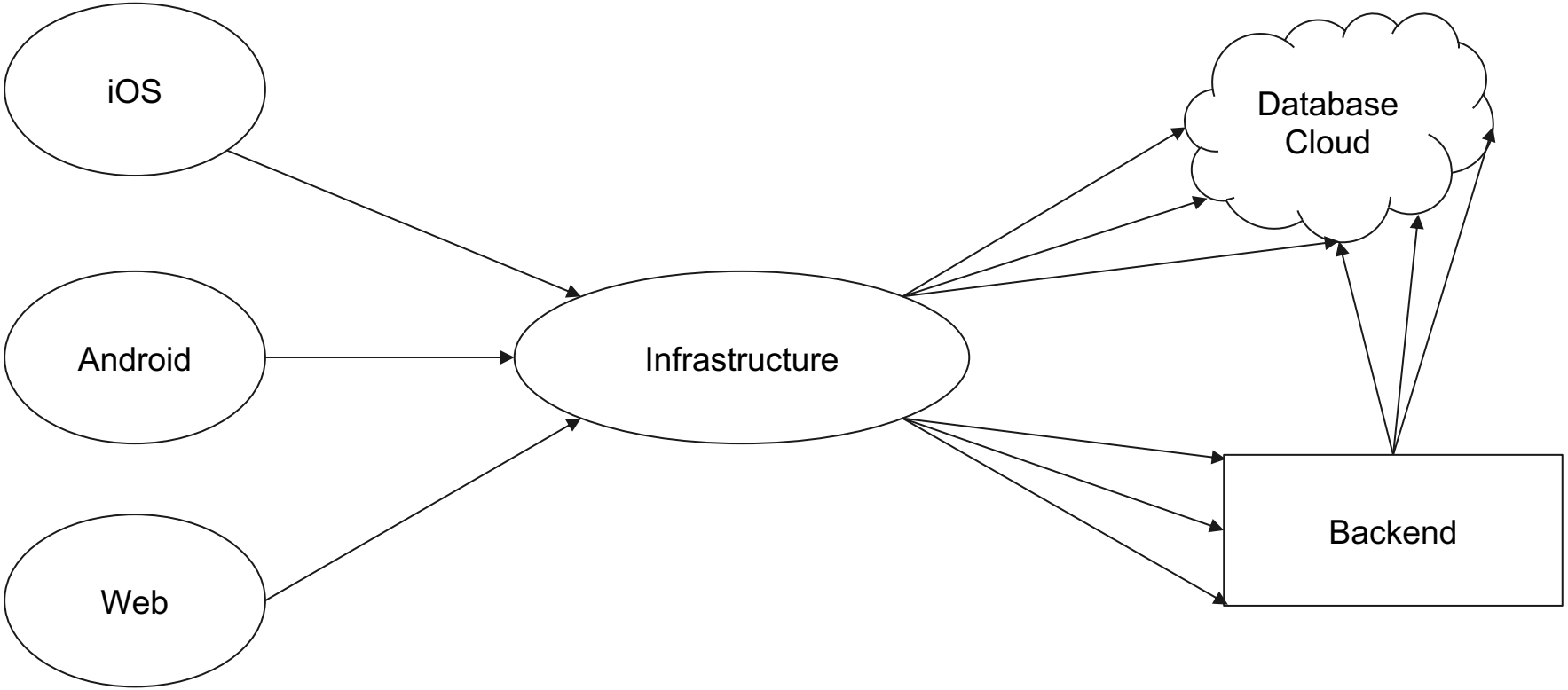
High level design of simple multi platform application



Compliance / Sensitive Data

GDPR (General Data Protection Regulation)

IDFA (Identifier for Advertiser)

Google data safety

.....

Problems

Collect everything in 1 point

Run your app without sensitive data

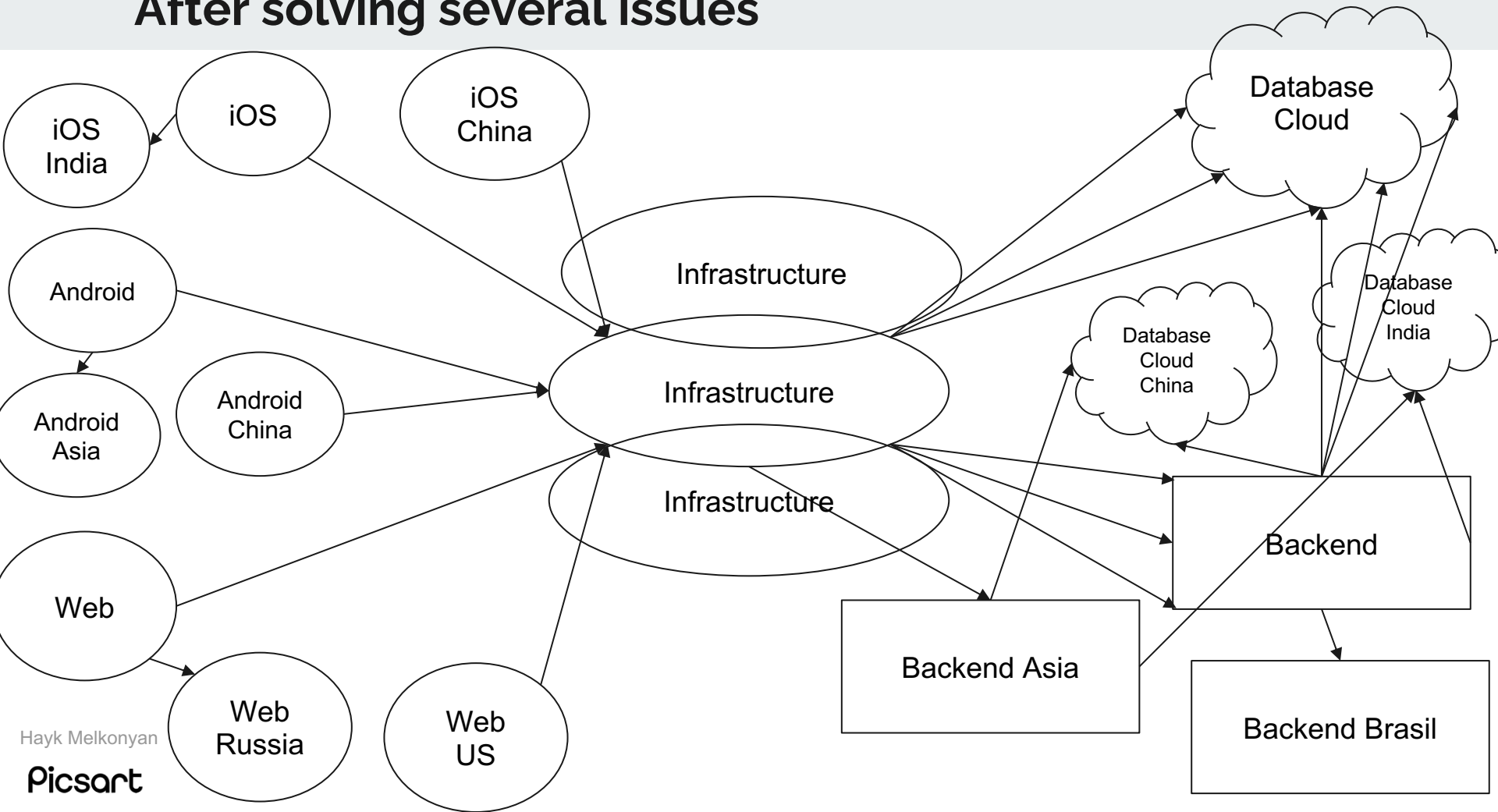
Find placeholders for each

Solutions

Regulations

1. User
2. Content
3. Another Content
4. Something you never thought is content :)

After solving several issues



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Dangerous points in each part

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Front | iOS | Android | Web | Desktop

- **App Identificator** (package name, bundle Id ….)
- **Backend URL** (manageable)
- **Content Related Functional** (in totally independent module)
- **All third party libraries** (manabale, replaceable)
- **Sensitive Data** (Full info of used data by your application or by third party libraries, proper working without this data)

Databases | Cloud Storage

- Separate storage for content
- Possibility to split storage to different places

Backend

- Content labeling mechanism *
- Content related functionality independent from others
- Manageable choice of storage
- Managing Users by region

Infrastructure

- Possibility to switch domain quickly
- Possibility to choice domain runtime
- Possibility to choice backend and storage

The Ideal World

We know it will never happen

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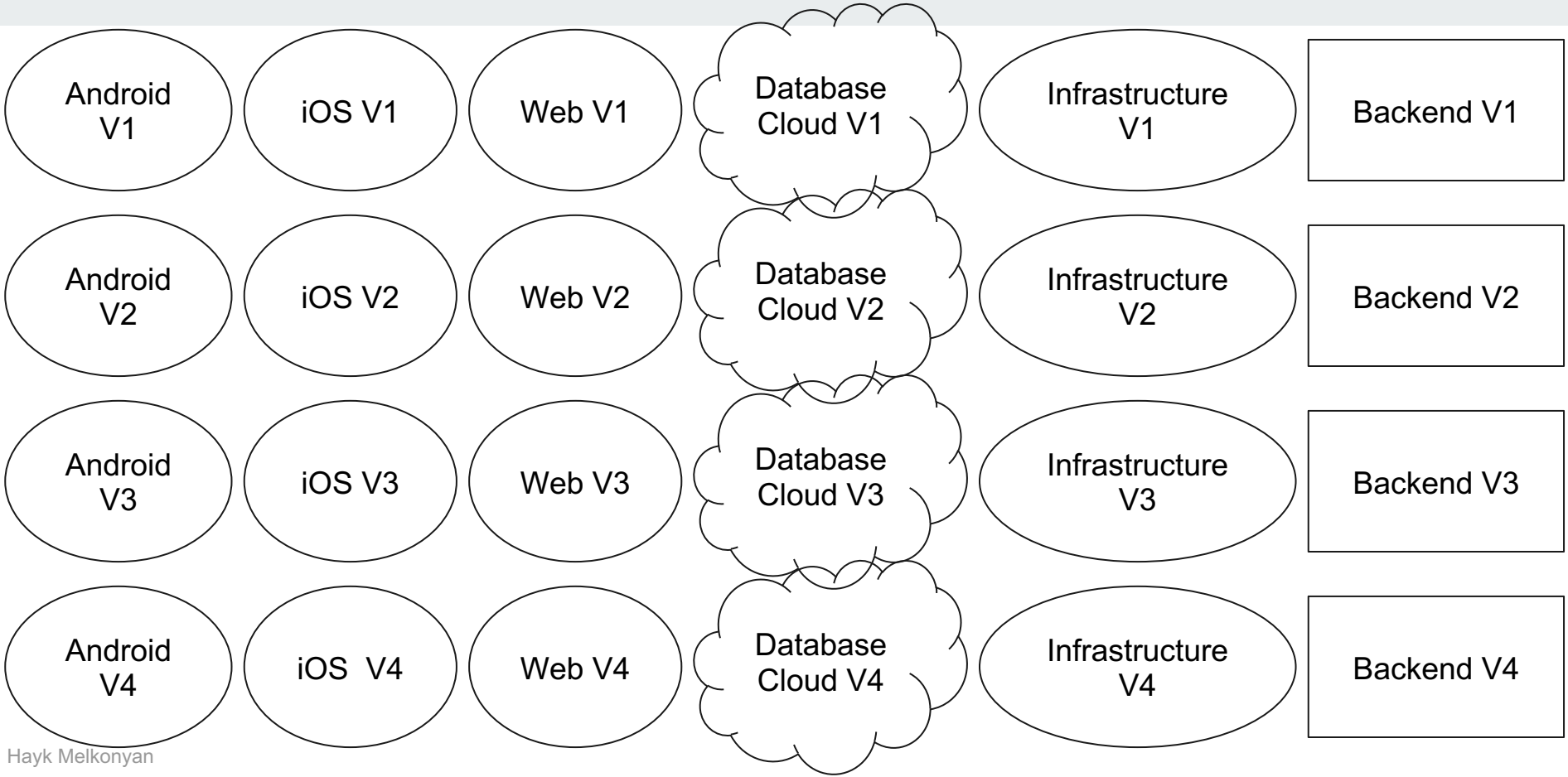
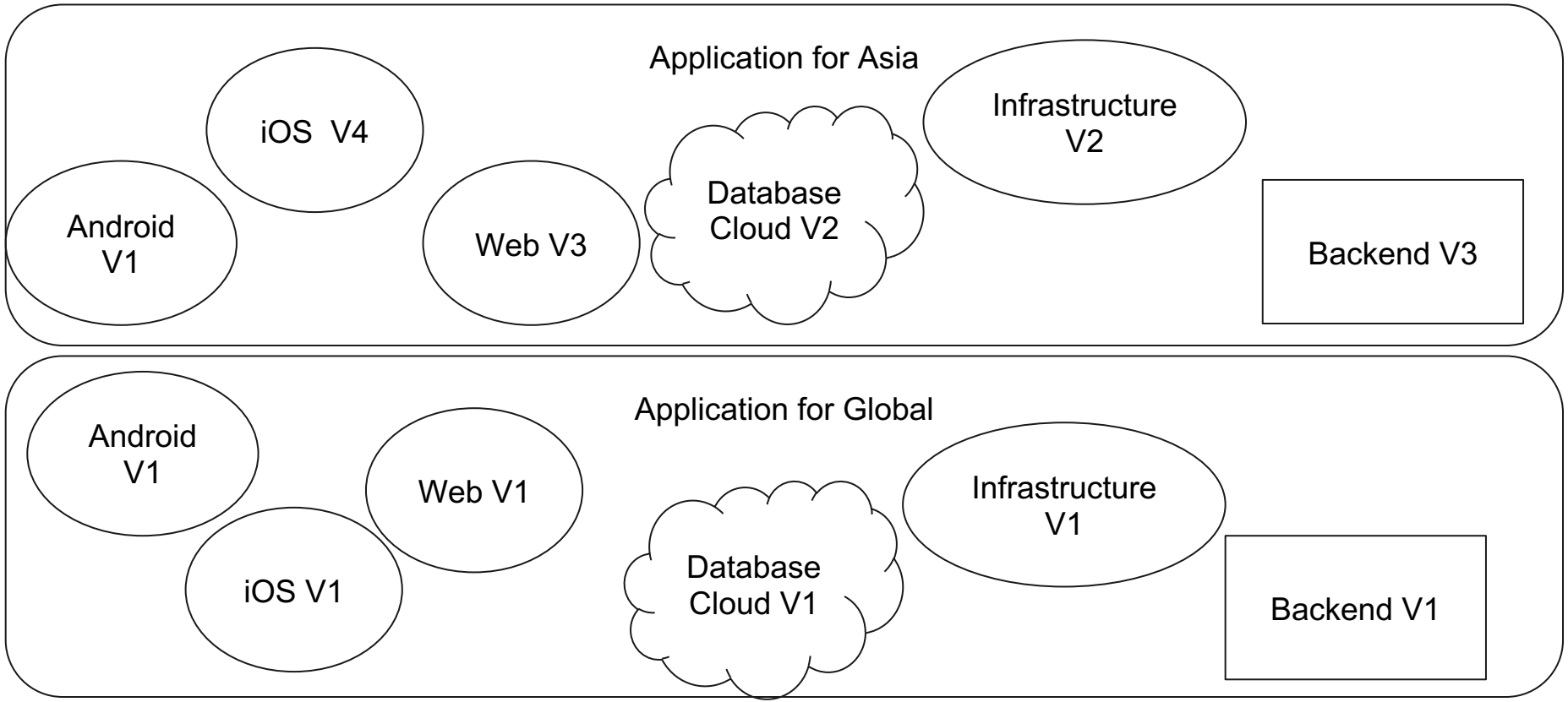
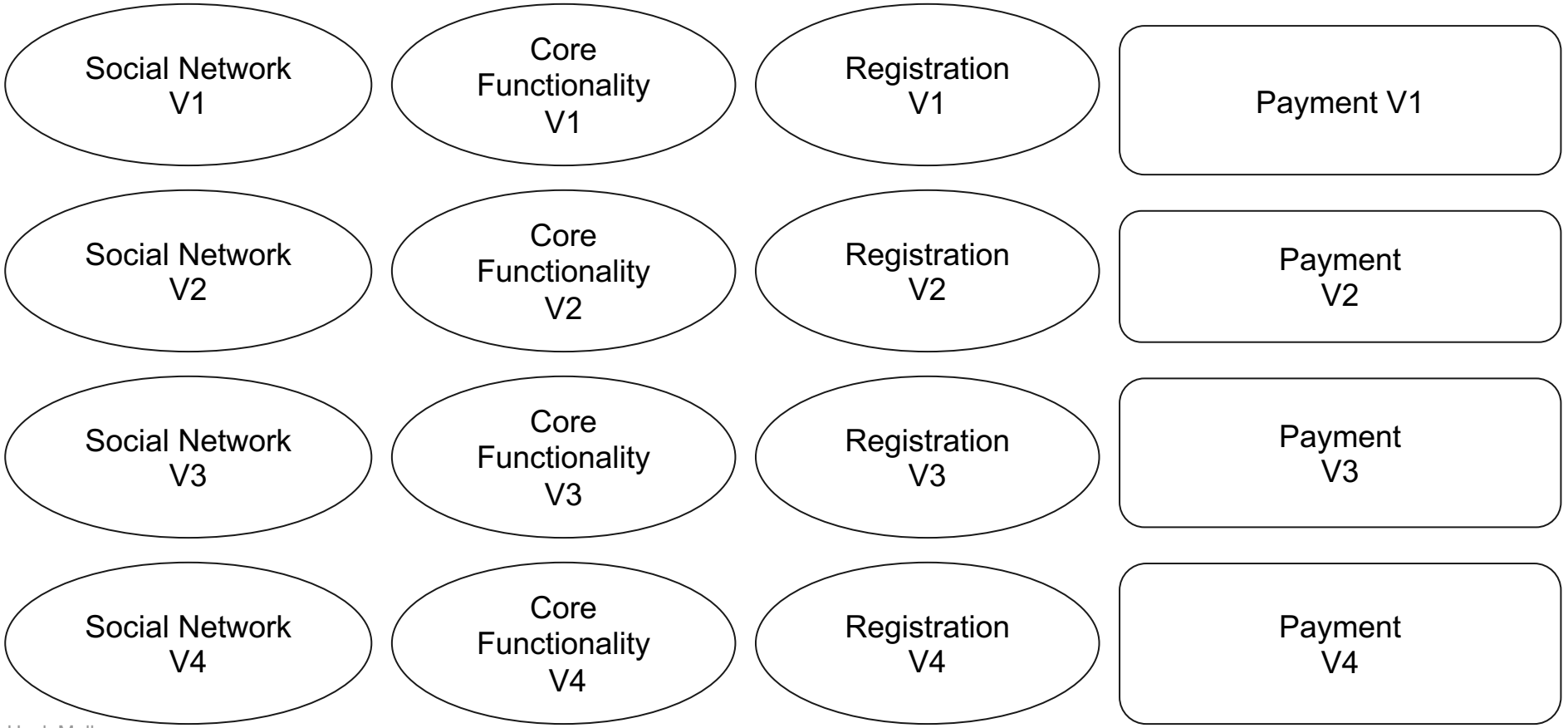

Android V1
iOS V1
Web V1
Database Cloud V1
Infrastructure V1
Backend V1
Android V2
iOS V2
Web V2
Database Cloud V2
Infrastructure V2
Backend V2
Android V3
iOS V3
Web V3
Database Cloud V3
Infrastructure V3
Backend V3
Android V4
iOS V4
Web V4
Database Cloud V4
Infrastructure V4
Backend V4

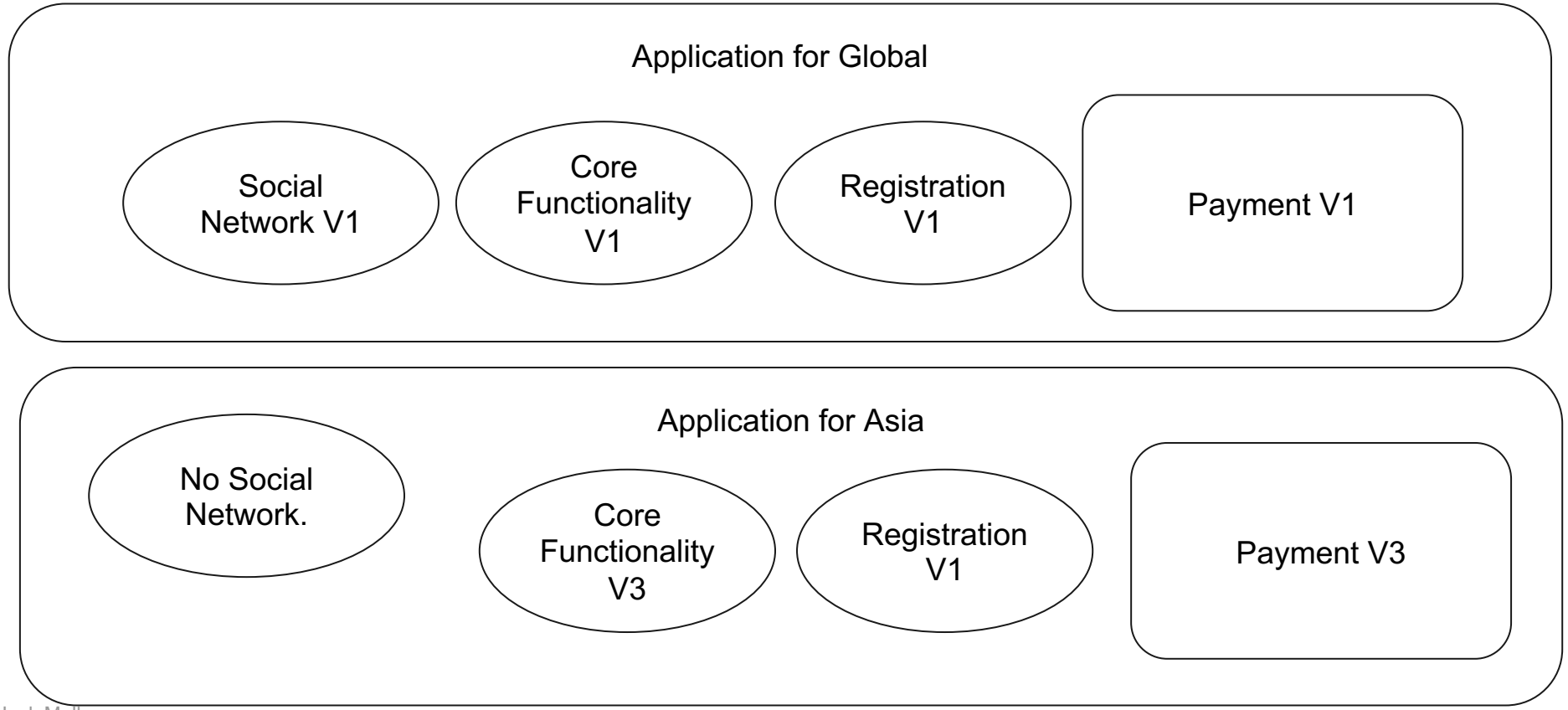
Lego Structure



Elements Lego Structure (iOS app as example)



iOS application with Lego Structure



Lego | Pros and Cons

Pros

- Flexible
- Easy to maintain

Cons

- Expensive
- Continuous maintenance

Back to reality
Deal With Content

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What is Content

- Everything generated by user
  - Photo
  - Text
    - Name | username
    - Comment
    - Description
    - Tags | hashtags
    - Texts on photos and videos
  - Video
  - Audio
- Everything generated by application

User

- Possibility to keep each user data in his region
- Each User database must meet regions regulations
- Be careful

Content Labeling

- Each content is **Content** object
- Each **Content** object has **label**
- **Label** is information about the **content**s visibility area
- Any **read** of content must be filtered by **Label**
- Any **creation** of content must pass moderation and **labeled**
- All existing **content** must pass **creation** cycle

Labeling | Pros And Cons

Pros

- Cheap
- Easy to maintain
- Easy to implement

Cons

- Existing Data (only once)
- Moderation (depends on region) continuoes

Questions

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Thank You.

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