Regulations and Compliance

Design architecture for today and future
Introduction

- The current situation
- Changes and upcoming changes
High level design of simple multi platform application

iOS

Android

Web

Infrastructure

Database Cloud

Backend

Hayk Melkonyan
Compliance / Sensitive Data

GDPR (General Data Protection Regulation)
IDFA (Identifier for Advertiser)
Google data safety

Collect everything in 1 point
Run your app without sensitive data
Find placeholders for each

Problems

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

Regulations
After solving several issues
Dangerous points in each part
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
Elements Lego Structure (iOS app as example)

- Social Network V1
- Core Functionality V1
- Registration V1
- Payment V1

- Social Network V2
- Core Functionality V2
- Registration V2
- Payment V2

- Social Network V3
- Core Functionality V3
- Registration V3
- Payment V3

- Social Network V4
- Core Functionality V4
- Registration V4
- Payment V4
iOS application with Lego Structure

Application for Global

- Social Network V1
- Core Functionality V1
- Registration V1
- Payment V1

Application for Asia

- No Social Network.
- Core Functionality V3
- Registration V1
- Payment V3
Lego | Pros and Cons

Pros

- Flexible
- Easy to maintain

Cons

- Expensive
- Continuous maintenance
Back to reality
Deal With Content
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 a Content object.
- Each Content object has a 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 be labeled.
- All existing content must pass a creation cycle.
Labeling | Pros And Cons

Pros

● Cheap
● Easy to maintain
● Easy to implement

Cons

● Existing Data (only once)
● Moderation (depends on region) continues
Questions
Thank You.