**Publishers:**

**S1:**

* Account Creation Service

**S2:**

* Authentication Service

**S3:**

* Subscription Service

**S4:**

* Channel Creation Service

**S5:**

* Video Upload Service

**Subscribers:**

**S1:**

* User Data Management Service
* Authentication Service
* Personalized Content Recommendation System
* Advertisement Service
* Notification Service
* Logging

**S2:**

* Personalized Content Recommendation System
* User Interaction Tracking Service
* Usage Statistics Service
* Logging

**S3:**

* User Subscription Management Service
* Channel Owner’s Service
* Logging

**S4:**

* Channel Initialization Service
* User Channel Management Service
* Logging

**S5:**

* Video Processing Service
* Content Delivery Network (CDN) Service
* Recommendation System
* Advertisement Service
* Location Service
* Tag/Hash Service
* Logging