Twitter as a Transport Layer Platform

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AINL-IMSW FRUCT 2016

About

- Information systems in post-SMS time
- How to replace SMS as a main information channel for mobile users
- Interactions between mobile users and applications
- Internet services as data delivery channels for mobile users

Contents

Introduction

- SMS is a traditional solution for information services on mobile networks
- Built-in client, always on
- Easy to use
- Built-in billing
- Growing price
- Telecom based solution: how to get a number?

SMS deployment

- SMS (MMS) request: service_number, key_word, additional parameters
- Could be integrated with QR-codes
- We can send links
- Programming: SMPP and service libraries on the top
- In the most cases: web programming
- Do it yourself tools: small penetration

Non-SMS channels

- Push-notifications: require application
- In the most cases, it is one-way interaction
- Social networks: easy to publish information
- Social circles are problems
- Internet Messengers: potentially is growing area, no clear winner at this moment

Why Twitter?

- The roots are in SMS
- There are no social circles
- Rich API
- Web browser as a client
- Could be integrated with QR-codes
- Used in SMM

Can we borrow Twitter's delivery mechanism ?

- Tweet a program (Wolfram Alpha)
- IFTTT
- Aperator
- Twitter-based automation in IoT

T411 service

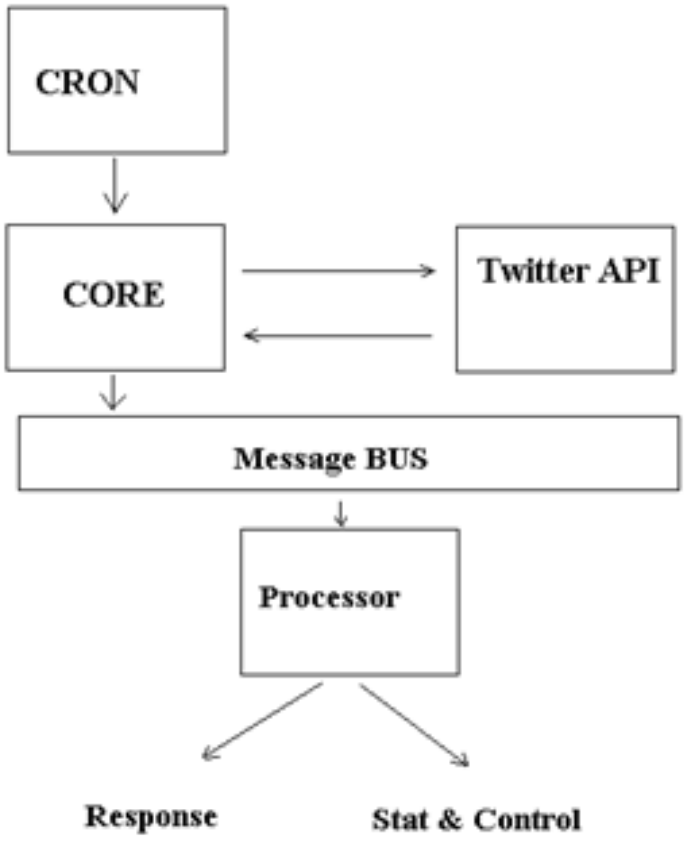
- DIY information service: http://t411.linkstore.ru
- Programming processing for tweets like:

  key_word additional parameters
- Account in Twitter plays a role of a service number
- Request is a “mention” and/or direct message

T411 architecture

- The typical requests:
- t stock_ticket E.g.:
  t ORCL t YNDX
- w city_name
  w msk w spb
- Geo-coding support
- Could be linked with QR-code
- Google App Engine

T411 architecture



- Keyword: requested and reserved by the user (author of service)
- Author registers a web hook: CGI script for the response

Performance and Reliability

- Works on the top of Twitter API
- Response time for API (as per Twitter):
  0.5 s
- Application server processing time:
  0.4 – 0.5 s
- Reliability: 96% - 99%