

Alert Notification as a Service

Marjan Gushev, Sasko Ristov – University Ss. Cyril and Methodius, FSCE
{marjan.gushev, sashko.ristov}@finki.ukim.mk
Goran Velkoski, Pano Gushev – Innovation LLC
{goran.velkoski, pano.gushev}@innovation.com.mk

Outline

- **Motivation**
- Concept of Alert Notification Service (ANS)
- System Requirements
- ANS System Architecture
- Discussion
- Conclusion

Motivation

- Digital revolution
 - Instant information on millions of web sites
 - Data availability
 - Need of constant update
- Some web sites offer push notifications
 - NOT all have push service!

Motivation

- We offer:
 - Intelligent software agent in order to create push service for any web site
- Good for:
 - Customers (no manual web site visiting)
 - Web site providers (no change to the web sites)

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ANS Functionalities

- Definition
 - Specification of a web page, search key phrase, a property or occurrence of a keyword as an alert
- Scanning
 - Crawling, visiting the web page and retrieving the required web content
- Triggering
 - Controlling the crawling frequency, comparing the content with alert constraints and triggering the alert
- Delivery
 - Activating the delivery channel and transmitting the alert message

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Alert definition

- Key phrase (that the user seeks)
- Keyword as a property of key phrase (certain property of the key phrase or just an occurrence of a keyword in key phrase)
- Alert constraint (when an alert should be triggered)
- Web page (url of the required web page)
- Macro (the user define a macro that will execute some actions on the web page)
- Scanning frequency (how often the web site should be scanned for new data)
- Delivery channels (choose notification method eg. SMS, e-mail etc.)

ANS Functionalities

- Scanning (Crawling the content)
 - Extract data from any site
 - Use RSS feed if available
- Triggering
 - Analyzing and clearing information
 - Triggering an alert message

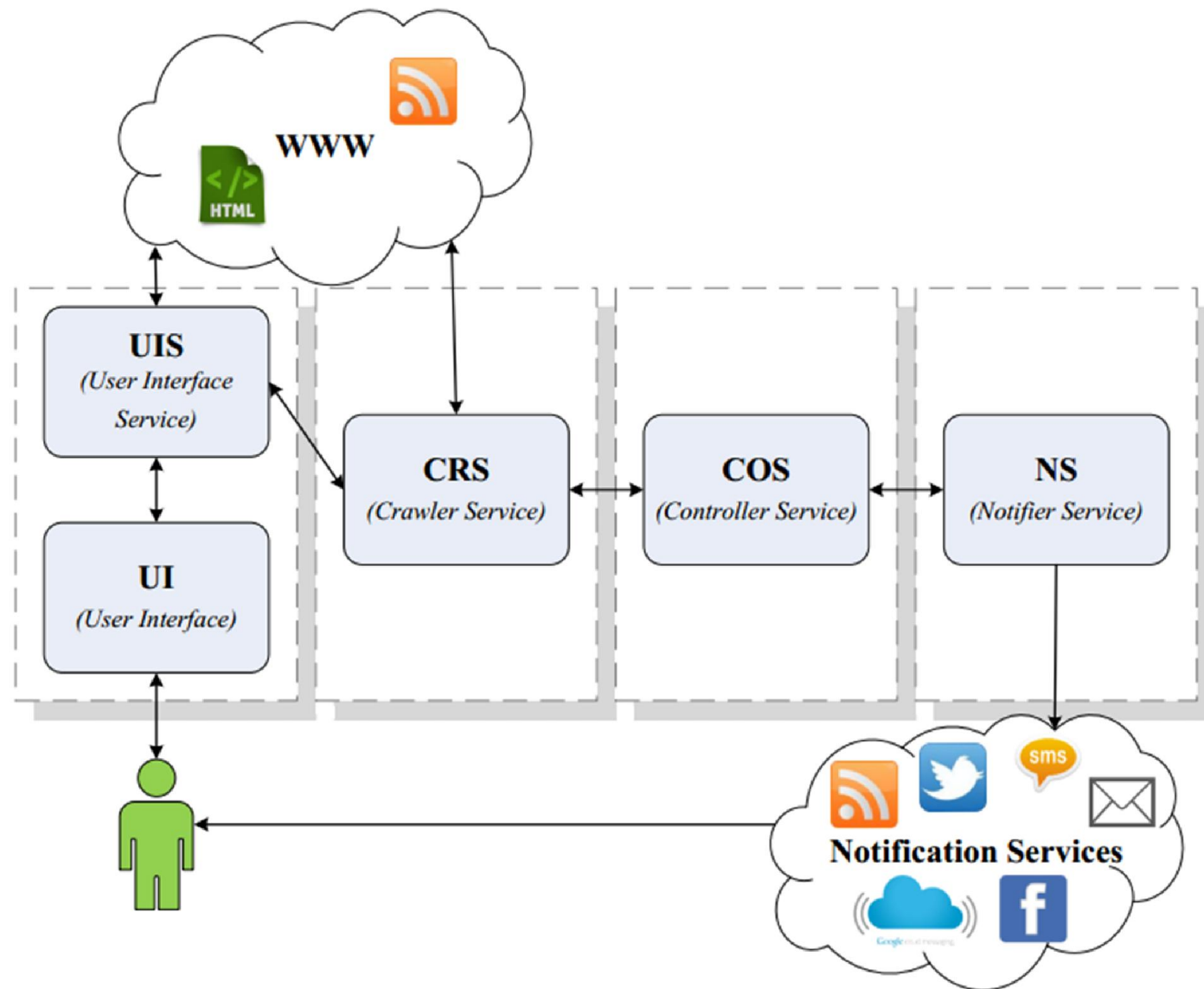
ANS Delivery via

- E-mail
- SMS
- Social networks (Facebook, Twitter, LinkedIn, etc.)
- Cloud Messaging (Google Cloud Messaging)
- Web browser notification (Google Chrome notifications)
- News feed delivery RSS

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ANS System Architecture



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Discussion

- Challenges
 - Dynamic data on the web
 - Constant evolution of technologies
 - No protocol for data structuring on web sites
- Advantages
 - Saves time
 - Never loose any information

Agent properties

- Autonomous software and intelligent agent
 - Reactive
 - Autonomous
 - Continuous
 - Trustworthy

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Conclusion

- New system
 - Transformation of classical web sites to push notifications is a ***difficult task***
 - A service that will ***act instead*** of the clients
 - Possible *add on* modern web browsers and operating systems as a great benefit for the clients

THANK YOU FOR YOUR ATTENTION

- QUESTIONS?