

MAŁGORZATA WIELGUS*, PRZEMYSŁAW DĄBEK**, ROMAN JANUSZ***,
TOMASZ KOWAL****, WOJCIECH TUREK*****

PLATFORMA DO AKTUALIZACJI OPROGRAMOWANIA NA URZĄDZENIACH MOBILNYCH OPARTA NA TECHNOLOGII ERLANG

To pisze się na samym końcu

Słowa kluczowe: Erlang, aktualizacja oprogramowania, urządzenia przenośne

ERLANG-BASED SOFTWARE UPDATE PLATFORM FOR MOBILE DEVICES

To be written at the very end

Keywords: Erlang, software updates, mobile devices

1. Introduction

- intro: Fast development of mobile devices creates new domain of applications for large systems composed of loosely ...
- Applications: monitoring, management, security, robotics (4 paragraphs)
- The need: management and software updates, use cases
- Existing solutions (several paragraphs, citations [1])
- “The tool described in this paper “

2. Requirements and assumptions

- Network infrastructure assumptions
 - Possibility of NAT
 - Slow and unreliable connections

*AGH University of Science and Technology, Kraków, Poland, malgorza@student.agh.edu.pl

**AGH University of Science and Technology, Kraków, Poland, przemyslaw.dabek@gmail.com

***AGH University of Science and Technology, Kraków, Poland, roman@student.agh.edu.pl

****AGH University of Science and Technology, Kraków, Poland, tomekowal@gmail.com

*****AGH University of Science and Technology, Kraków, Poland, wojciech.turek@agh.edu.pl

- Need for scalability (up to about 10000 devices)
- Simple, intuitive interface
- Managing groups of devices, batch updates

3. Erlang Technology Overview

- Usability of Erlang Technology in distributed systems – general features, advantages
- General description of Erlang OTP
- Application and releases in Erlang
- Updating Erlang applications
- Problems with using the method: 1. system admins are used to apt; 2. management of many devices is hard

4. APT for Erlang

- Why do this
- How was it done
- Results, effects
- Problems and limitations

5. Software Update Platform

General notes: aim of the system...

5.1. Architecture

- Description of general architecture
- figure – general architecture
- Description of particular components
- Cooperation of components,
- figures – most interesting sequences
 - Device-server session
 - On-device upgrade logic
- Explained...
- Technology,

5.2. Functionality

- General description of the application: Web interface, technology
- Development model for application, debian packaging utilities
- Direct usage of package manager on remote devices
 - gui: 1 or 2 images

6. Conclusions and Further Work

- Support for other package managers
- Communication security
- Development towards more general management platform
 - monitoring
 - configuration
 - maintenance
 - diagnostics

7. Acknowledgements

To be added at the very end

Literatura

- [1] Palermo D. S., Jenkins J. J.: *Word Association Nouns: Grade School through College*. 1st ed., Univeristy of Minnesota Press, 1964