Quality Cruising
Making Java Work for Erlang

Erik (Happi) Stenman

Introduction

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But first a short recap for those of you who weren't here last year or don't remember my talk about Kreditor.

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  - "Be the coolest company in Sweden."

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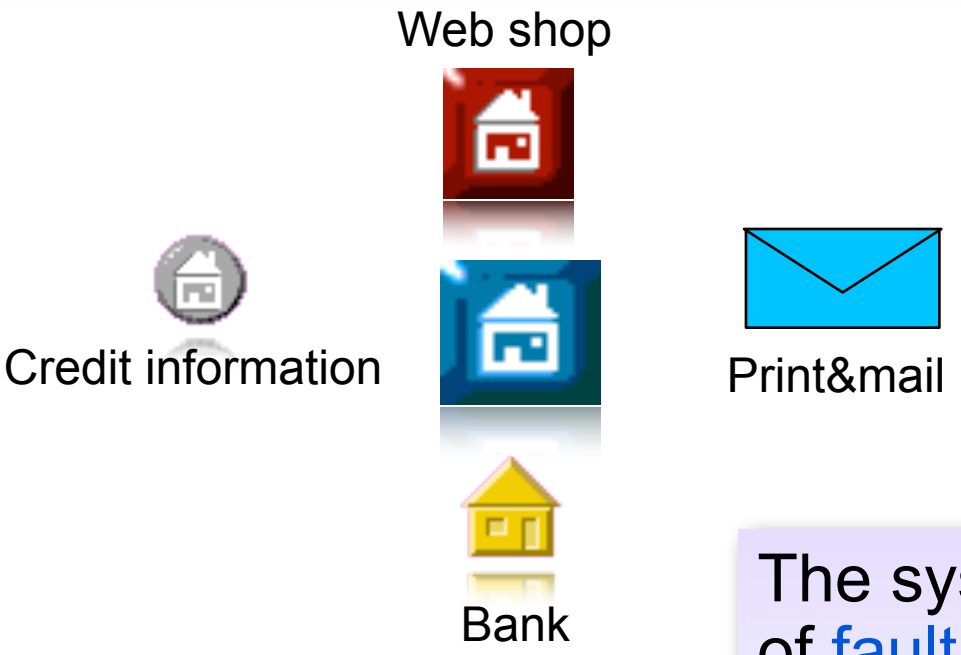
The Implementation



The system is a combination of fault tolerant servers, lots of protocol- and glue-code, persistent storage, and a web-UI.

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Some implementation details

- The system is built in-house from scratch using LYME (Linux, Yaws, Mnesia, and Erlang).
- We have a distributed system with multiple servers to provide a fault tolerant, high availability solution.
- We aim for 5 nines availability, in a setting where we introduce new features in the system every week (almost every day).
- The problem fits Erlang really well.

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- Enters Yatsy and CruiseControl.

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- First version hacked together over a weekend by Tobbe.
  - Released as open source:
    `http://code.google.com/p/yatsy/`

Yatsy - example

```
-module(example_SUITE).
-export([all/1, init_per_suite/1, fin_per_suite/1, init_per_testcase/2,
         fin_per_testcase/2, simple/1]).
-include("yatsy.hrl").

all(doc) -> ["Test cases for example."];
all(suite) -> [simple].

init_per_suite(Config) when list(Config) -> Config.
fin_per_suite(_Config) -> ok.
init_per_testcase(_TestCase, Config) when atom(_TestCase),list(Config) -> Config.
fin_per_testcase(_TestCase, _Config) -> ok.
```

```
simple(doc) ->
     ["Check that we can get an new example."];
 simple(Conf) when is_list(Conf) ->
     [] = example:new(),
     ok.
```


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  - As soon as **anyone** checks **anything** in.

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- A build queue
- An admin GUI
- Lots of glue code

The CC loop

- Poll for event
  - –A version control update
  - –A time has come
- Checkout, build, and run tests
- Gather results
- Publish results

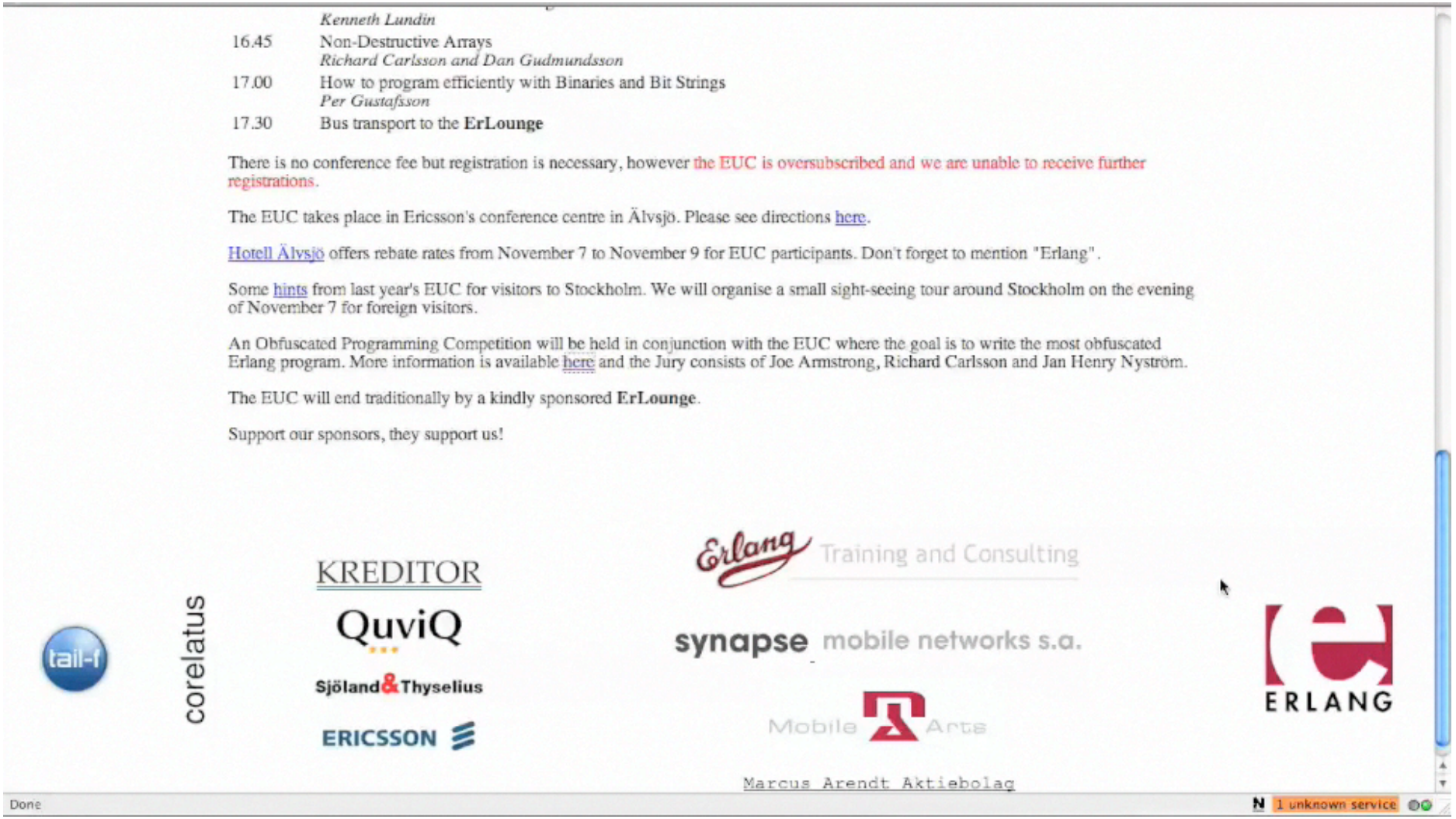
Our CC Setup

- A set of projects
  - commit-[branch], runs on every commit
  - nightly-[branch], runs each night
- CC starts a script
  - svn update
  - make
  - run yatsy
- Reporting
  - Yatsy reports test results trough an xml file
    - Reverse engineered from JUnit
  - CC sends email to responsible developer in case of error

Integrating Cover with Yatsy

- There is an application called Cover in Erlang/OTP which can give you a line by line coverage analysis of a module.
- We have added a module `yatsy_cover` to Yatsy which will let you run cover on a test suite.
- If you run yatsy with the "cover flag" all beam files are "cover compiled" before the test suite is run.
- Yatsy produces a source code file annotated with execution count.

CC-Demo



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- **Our contribution**:
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  - Nice simple integration between CC and Erlang, including cover and dialyser, and EUnit.
  - We let Java do some work for the Erlang developer.
- CC is just as valuable as a VCS.
- If you are not using CC for your projects, start using it **NOW**.