

Mubug: a Mobile Service for Rapid Bug Tracking

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Outline

- Introduction
- Overview of Mubug
- Design and Implementation
- Conclusion

Introduction

- Nowadays
 - More mobile applications
 - More agile software development
 - More end user testers and crowdsourcing testers

Comparisons of Bug Report

* Product: Platform
 Component: SWT
 Team: Text
 UI: User Assistance
 WebDAV: WebDAV

Reporter: 735292187@qq.com
 Component Description: Eclipse Platform Help System Implementation

* Version: 4.3.2
 4.4
 4.4.1
 4.4.2
 4.5

Severity: normal
 Hardware: PC
 OS: Windows 7

Status: NEW
 Assignee: Platform-UI-Inbox@eclipse.org
 QA Contact:
 CC:
 Default CC:
 Alias:
 URL: http://

Summary:
 Description:

Markus Keller ✓ CLA 2005-06-14 12:40:03 EDT Description

```

I20050610-1757 (3.1RC2)

class MyArrayList extends ArrayList<Integer> {
    void m() {
        adda //-- (1) content assist proposes
            // addAll(Collection<? extends Integer> arg0)
    }
    // <-- (2) content assist proposes add(int arg0, Integer arg1)
}

- normal code completion like in (1) shows arg0 in the proposal label and also
  inserts it into the code when parameter guessing is enabled

- content assist for method overriding like in (2) shows arg0 in the proposal
  label, but inserts correct method stubs (with 'index' and 'element', etc.).
  
```

Conventional Bugzilla

1	Bug ID	相关测试用例	Bug描述
2	1	1004	Metro风格布局，横屏模式下和竖屏模式下显示不一致（横屏模式下为炫光九宫布局）
3	2	1014	输入拼音后不选择汉字，此时切换横竖屏，已输入的拼音会消失
4	3	1005	使用新疆维吾尔族皮肤输入维吾尔语时，由于维吾尔语是从右向左阅读的，所以输入后显示的顺序也应该是从右向左，正常输入没有问题，但是当输入数字或者将光标移到以输入的文本中时，输入的显示顺序会有错乱，测试机型：三星 I9100，测试环境：短信输入
5	4	1021	使用默认主题列表中第一列第一个主题，关闭浮动显示主题特效和横屏全屏模式，横屏时布局出错，由于凸出图片，遮挡了输入法的输入框和程序本身的输入框。测试机型：小米2A、魅族M2，测试环境：手机QQ2012

消息历史

2015-03-29 14:26

为什么我电脑注册了说账号不存在

2015-03-29 14:27

为什么我电脑注册了说账号不存在，重新注册说学号被占用了！用微信注册说学校不存在！！！！

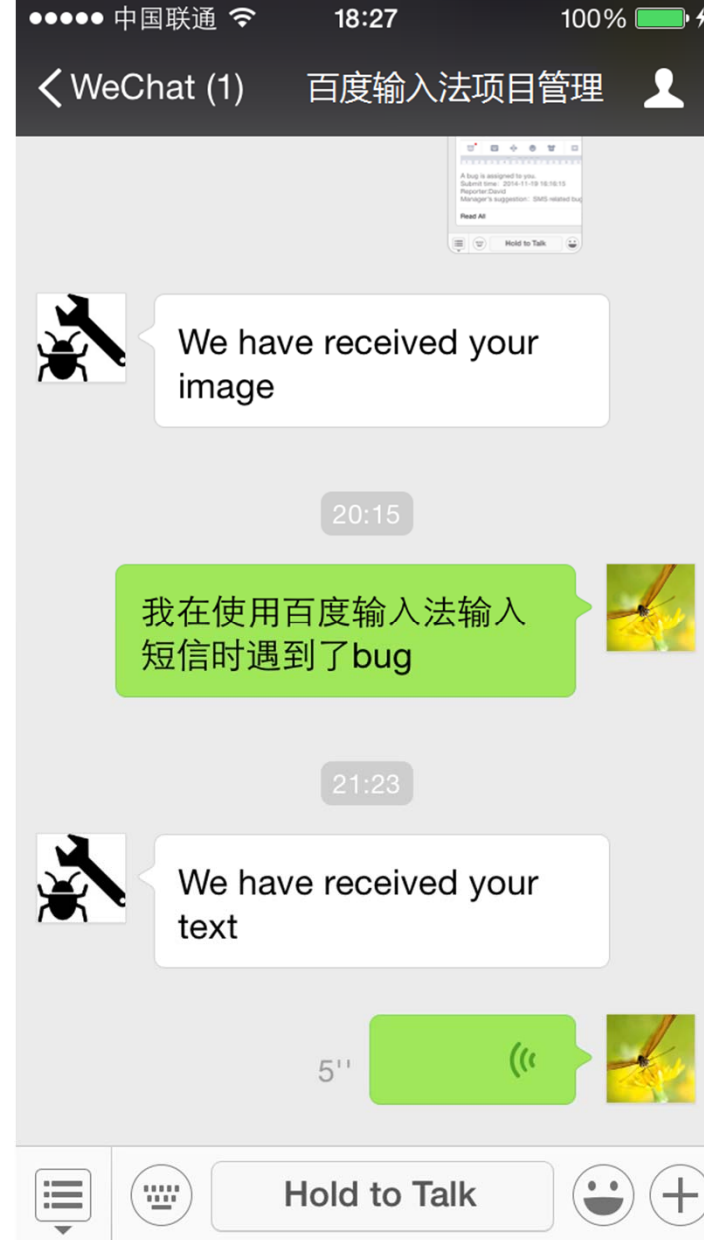
Baidu MTC
Crowdsourcing Testing

Trend for bug reports

- More natural language
- More oral expression
- More multimedia format

Overview of Mubug System

- Wechat-based mobile Mubug Client for reporters
 - Report bugs
 - Notify reporters
- Both mobile and web-based Mubug Client for developers
 - View bug reports
 - Change bug status
- Full automation for project managers
 - Automatically assign bugs



Mubug for reporter

list - Mozilla Firefox

Report List

mubug.net

Mubug

Personal Center Log Out

Good afternoon, Mootest超级管理员

BUG Management

Message Management

User Management

Account Management

Category Management

Submit BUG

Bug List

Person in charge: All Status: All Bug Search

ID	Status	Submit Method	Category	Reporter	Person in charge	Submit time
00000544	Assigned	WechatMessage	账号	浮云	聪	2015-06-28 13:00:01
00000543	Assigned	WechatMessage	账号	Ly	聪	2015-06-28 10:00:02
00000542	Assigned	WechatMessage	账号	Ly	聪	2015-06-28 10:00:01
00000541	Assigned	WechatMessage	账号	民科右翼aka树美	聪	2015-06-28 04:00:01
00000540	Assigned	WechatMessage	账号	zhuane	聪	2015-06-27 16:00:01
00000539	Assigned	WechatMessage	账号	姚斯豪	聪	2015-06-27 09:30:01
00000538	Assigned	WechatMessage	小测	姚斯豪	冯奕彬	2015-06-27 09:00:01
00000537	Assigned	WechatMessage	账号	高杨	聪	2015-06-27 01:30:02
00000536	Assigned	WechatMessage	账号	傅权友	聪	2015-06-27 01:00:01
00000535	Assigned	WechatMessage	测试	陈俭军	豆梦宇	2015-06-26 22:00:01
00000534	Assigned	WechatMessage	账号	陈俭军	聪	2015-06-26 20:30:01
00000533	Assigned	WechatMessage	账号	mort	聪	2015-06-26 19:00:01
00000532	Assigned	WechatMessage	账号	陈俭军	聪	2015-06-26 18:00:01
00000531	Assigned	WechatMessage	账号	ghi.java	聪	2015-06-26 17:00:01
00000530	Assigned	WechatMessage	账号	.C	聪	2015-06-26 16:00:01

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10:43 74%

< WeChat 尊源项目管理

Engineer's comment: bug fixed

Read All

You have a news from wibug

November 21

don't care loneliness. I am satisfied when you are happy and I am happy when I think of you

Send

A bug is assigned to you.

Submit time: 2014-11-19 16:16:15

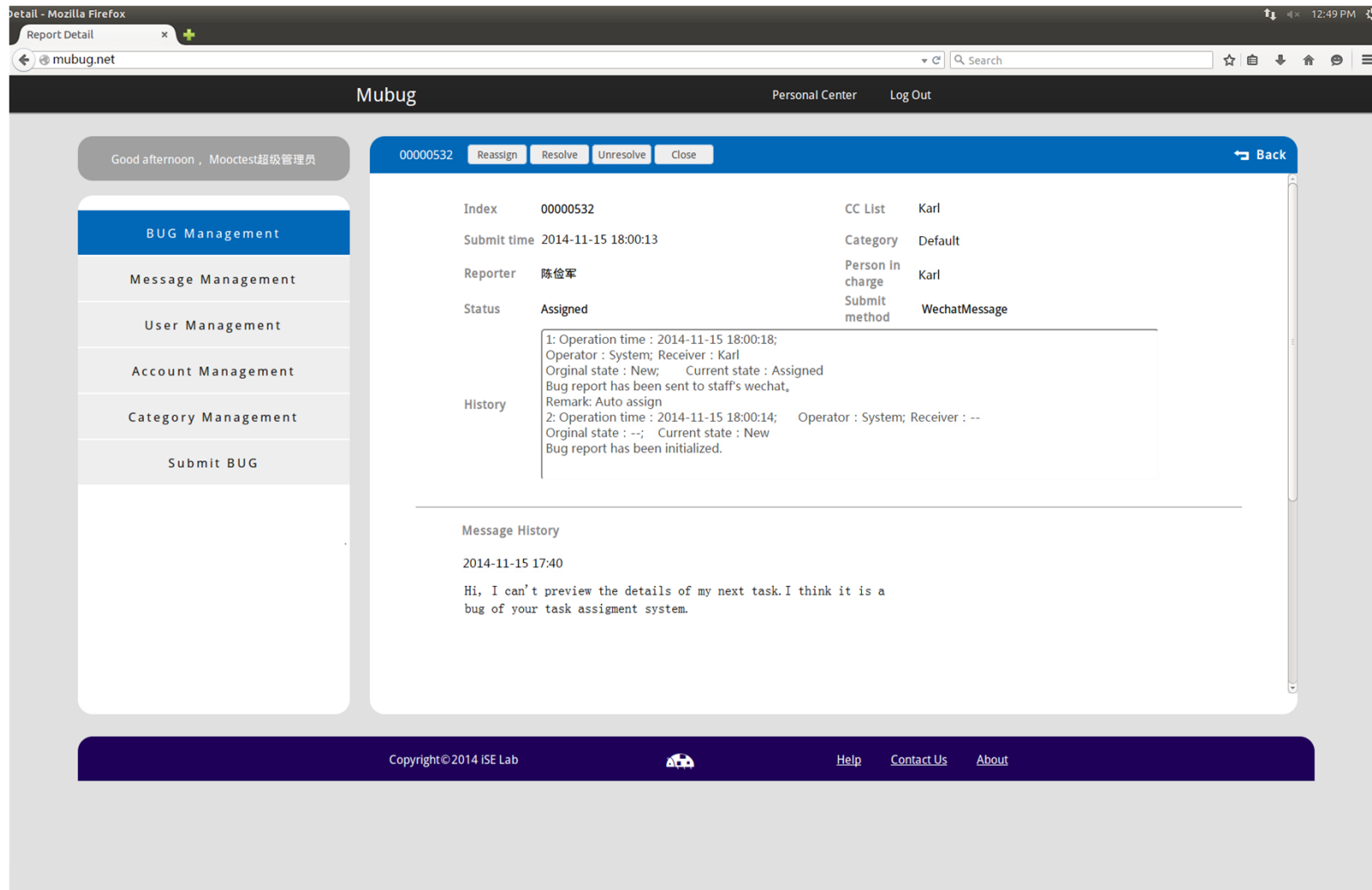
Reporter:David

Manager's suggestion: SMS related bug

Read All

Hold to Talk

Mubug for developer



Mubug for manager

Output:



Input:

我在使用百度输入法输入短信时遇到了bug

Description:



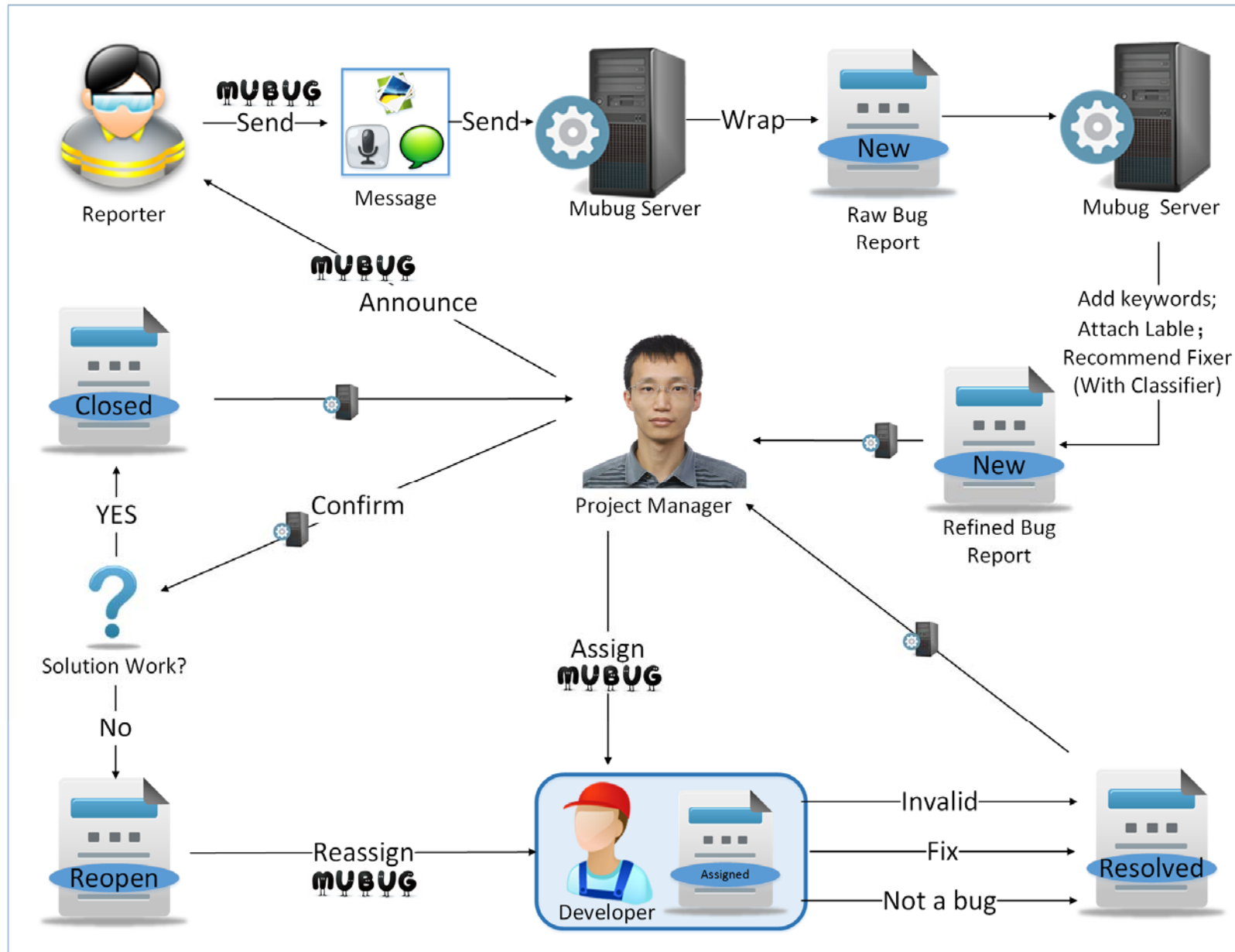
Voice Recognition: 当我在短信中输入太多单词时，我不能看到收件人了

Environment: iPhone 5& baidu input 5.1.0.10

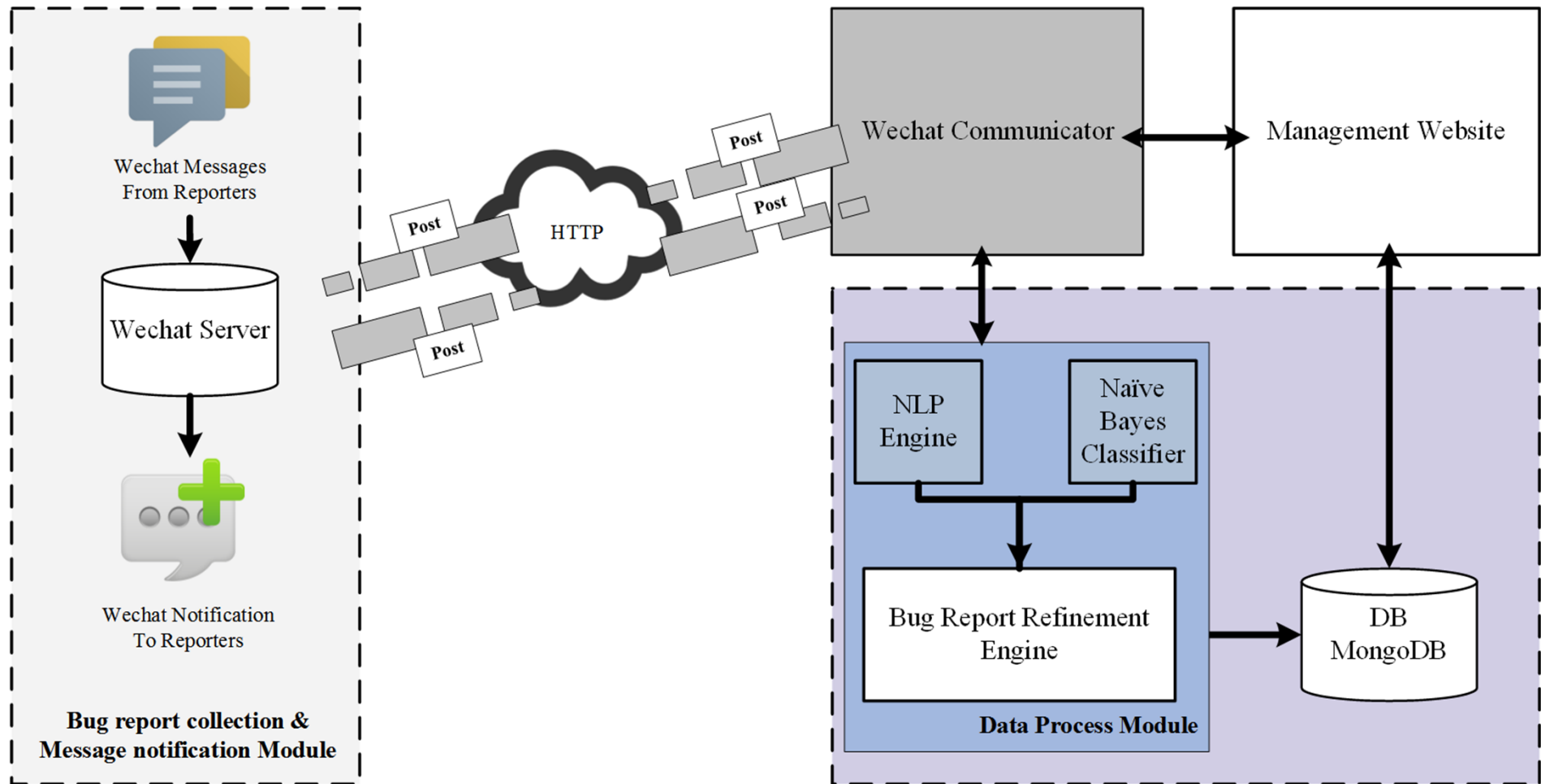
Bug report — (E, I, O, D)



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Use Case



Architecture of Mubug system

Behind the Screen

- How to translate voice into text?
 - WeChat API
- How to extract keywords from texts?
 - Chinese NLP tool ICTCLAS
- How to filter out noise words?
 - a synonym library of language technology platform
- How to identify duplicated bug reports?
 - detect duplicated bug reports based on the keywords
- How to assign bug reports automatically?
 - Naive Bayes Classifier (NBC) based on a well known machine learning tool Weka

Conclusion

- Format a bug report in a quadruple
 - (E, I, O, D)
- Develop a WeChat and Web based Mubug System
 - for reporter, developer, manager
- Automatically assign the Chinese bug report