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QCon北京2014大会 4月25日—27日

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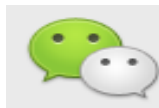
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# QCon全球软件开发大会

International Software Development Conference



@InfoQ



infoqchina

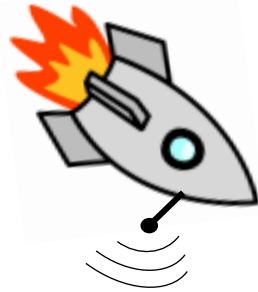
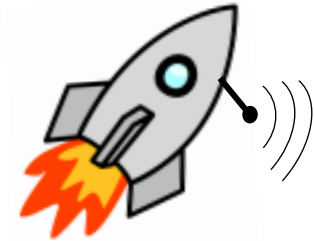
软件  
正在改变世界!

# 特别感谢 QCon上海合作伙伴



# Why implement an effective and efficient TIDAS

(Test In Device Automation System)?



# About Me

## Francesco Fiorentino

Test Tool Architect, Platform SW Verification  
Nokia Mobile Phone R&D



## Working for Nokia since 2008

- ✓ Ulm, Germany
- ✓ Copenhagen, Denmark
- ✓ Beijing, China (since 2012 - present)

## Currently Live in Beijing



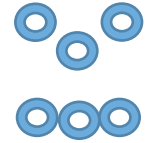
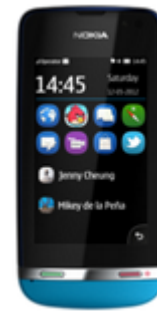
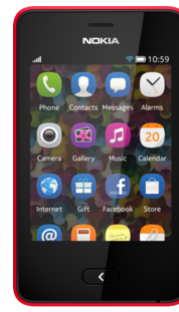
# Some terminology

...in short

<b>Git</b>	Git is a distributed revision control and source code management (SCM) system. <a href="http://git-scm.com">git-scm.com</a>
<b>Git notes</b>	git notes –ref=openci append –m “HELLO” [commitSHA1] <a href="http://git-scm.com/2010/08/25/notes.html">http://git-scm.com/2010/08/25/notes.html</a>
<b>SHA1</b>	SHA-1 is a cryptographic hash function. <a href="http://wikipedia.org/wiki/SHA-1">wikipedia.org/wiki/SHA-1</a>
<b>Gerrit</b>	Gerrit is a web-based code review tool built on top of the git version control system. <a href="http://code.google.com/p/gerrit/">code.google.com/p/gerrit/</a>
<b>Redmine</b>	web-based project management (includes REQ management) and bug-tracking tool. <a href="http://redmine.org">redmine.org</a>
<b>Redmine To Go</b>	Windows Phone App, keep track of your projects wherever you are. <a href="http://redminetogo.com">redminetogo.com</a>
<b>CI</b>	Continuous Integration System, in our contest base <a href="http://jenkins-ci.org">jenkins-ci.org</a>
<b>SCV</b>	Single Commit Validation, validation performed on each software change
<b>openCI</b>	mechanism used in Platform SW CI

# Test Goals

Support multi Platform at the same time  
in different software branches



## Test Type goals

- Platform **SCV** Test
- Platform **Release** Test
- Platform **Stability** Test
- Platform **Functional** Test

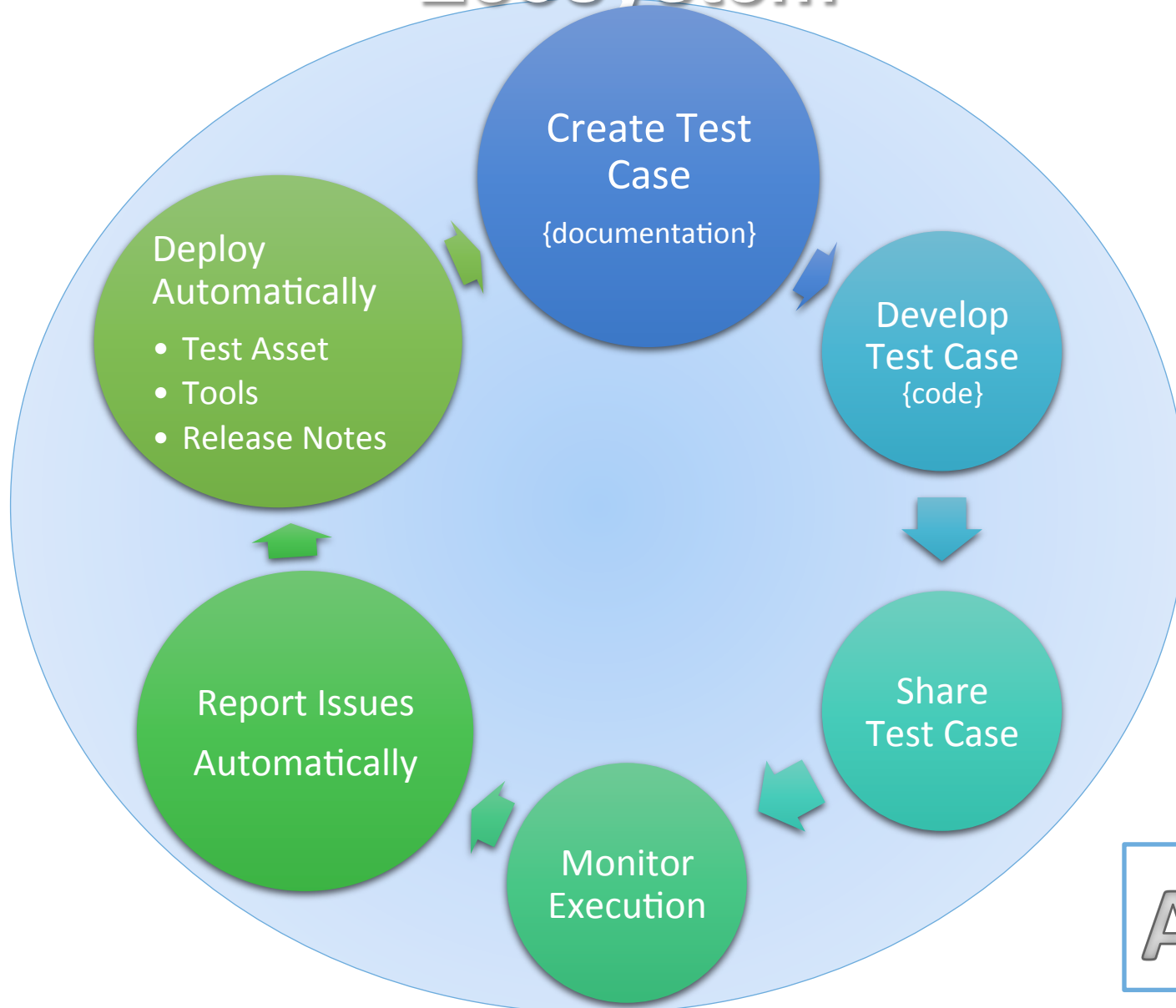
UI

Middleware

Engine Layer

Vendor

# Ambition - Test Ecosystem



**REUSE**   
**REDUCE**  
**RECYCLE**



All within 1 System



# How to achieve Test Goals?

## TIDAS ecosystem

Minimalist approach

Able to share Test Cases between organization



Integration to Project manager tool



Integration to CI System



Integration to Test Case Release process



Integration to LAB/Test Farm



Adjust solution on project needs



# TIDAS Tool integration



Home My page Projects Administration Help

Platform SW Verification » TEST script

Overview Activity Issues New issue Calendar

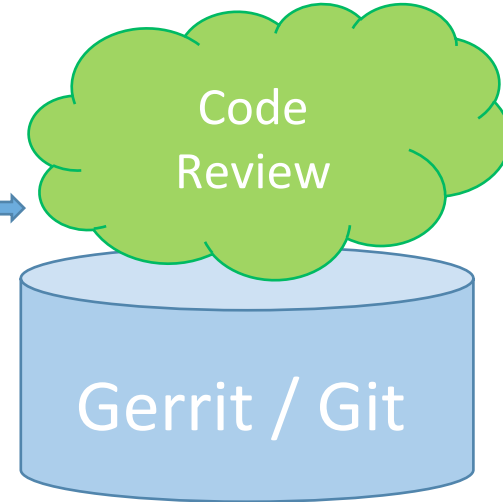
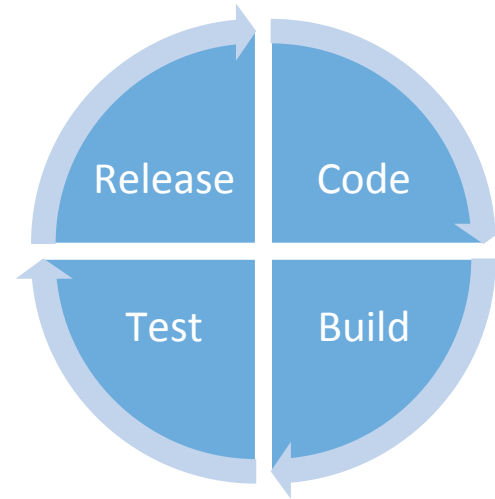
Overview

**Issue tracking**

- BUG: 19 open / 29
- USE CASE: 55 open / 2065
- FEATURE: 0 open / 0
- ACTION ITEM: 45 open / 111

[View all issues](#) | [Calendar](#)

Redmine:  
Project  
Overview



CI System

Jenkins

Jenkins » release »

New Job

+++++ NOKIA [TIDAS - PLATFORM SW] NOKIA +++++  
Project information, [TIDAS.Wiki](#)  
Please report issue, [TIDAS.NewIssue](#)  
[add description](#)

NOKIA  
QUALITY INSIDE  
AND OUT

All	SCV	SCV.dashboard	feedback	openCI	release	stats	sunxi	tmpl	+
S	W	Name ↓	Last Success	Last Failure					
●	☀	<a href="#">rebootSLAVES</a>	1 day 9 hr - <a href="#">#64</a>	N/A					
●	☀	<a href="#">releaseCTT</a>	3 days 5 hr - <a href="#">#17</a>	N/A					
●	☀	<a href="#">releaseMAPI</a>	3 days 5 hr - <a href="#">#11</a>	N/A					
●	☀	<a href="#">releasePOST</a>	2 hr 3 min - <a href="#">#903</a>	22 hr - <a href="#">#901</a>					
●	☀	<a href="#">releaseTEST</a>	14 min - <a href="#">#349</a>	N/A					
●	☀	<a href="#">releaseTIDAS</a>	6 hr 43 min - <a href="#">#35</a>	5 days 10 hr - <a href="#">2an</a>					
●	☀	<a href="#">releaseTIDASunittest</a>	6 hr 36 min - <a href="#">#52</a>	2 days 5 hr - <a href="#">#48</a>					

Icon: S M L

Legend [RSS for all](#) [R](#)

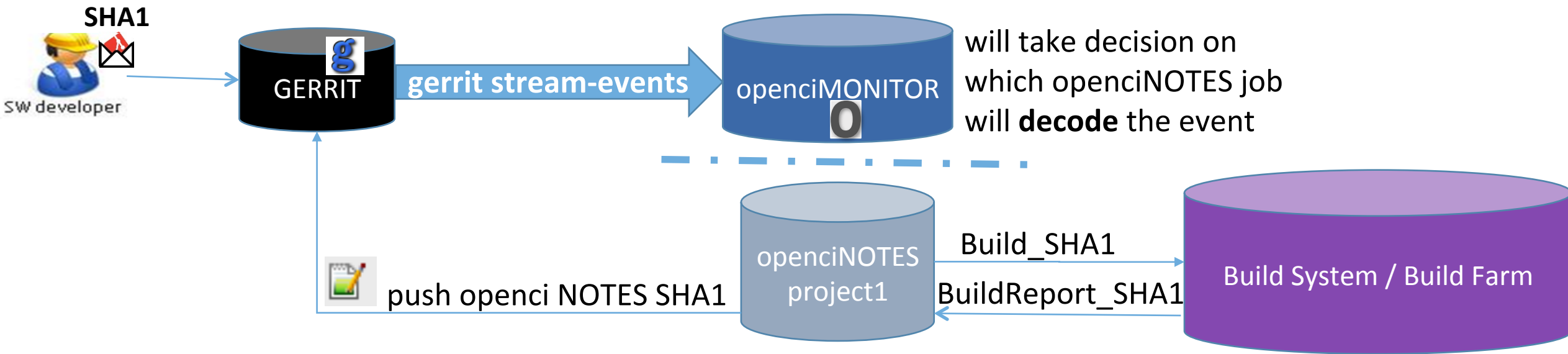
LAB / Farm:  
Test In  
Device  
Testing



# How does it work SCV?

1 of 2 (Single Commit Validation)

 = sw change  
 = gerrit event  
 = openCI trigger



- ✓ Now “git notes –ref=openci” for SHA1
  - ➔ contains in the history information about BuildReport
- ✓ Information is shared to gerrit which will generate an gerrit event
- ✓ Information is potentially available to everyone whom has access

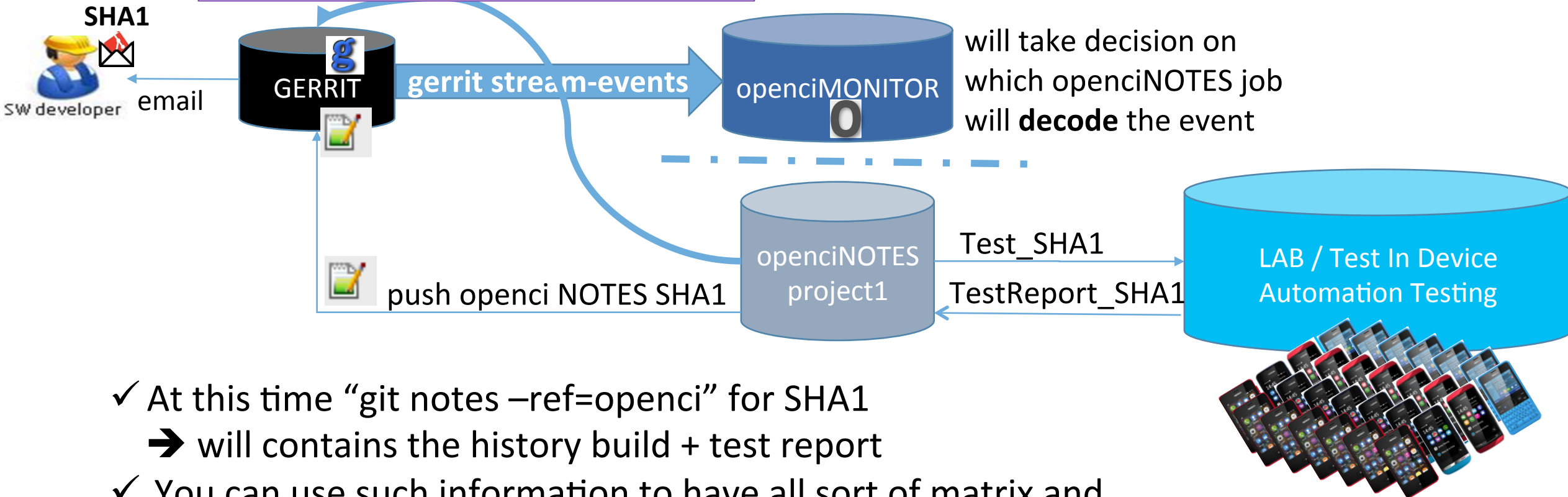
# How does it work SCV?

2 of 2(Validation part)

 = openci git notes  
 = gerrit event  
 = openCI trigger

Reviewer		Code-Review	Content-Check	Manual-Testing	Verified
Fiorentino Francesco	<input type="checkbox"/>		✗		
ROBOT_psw_tidas	<input type="checkbox"/>				✓

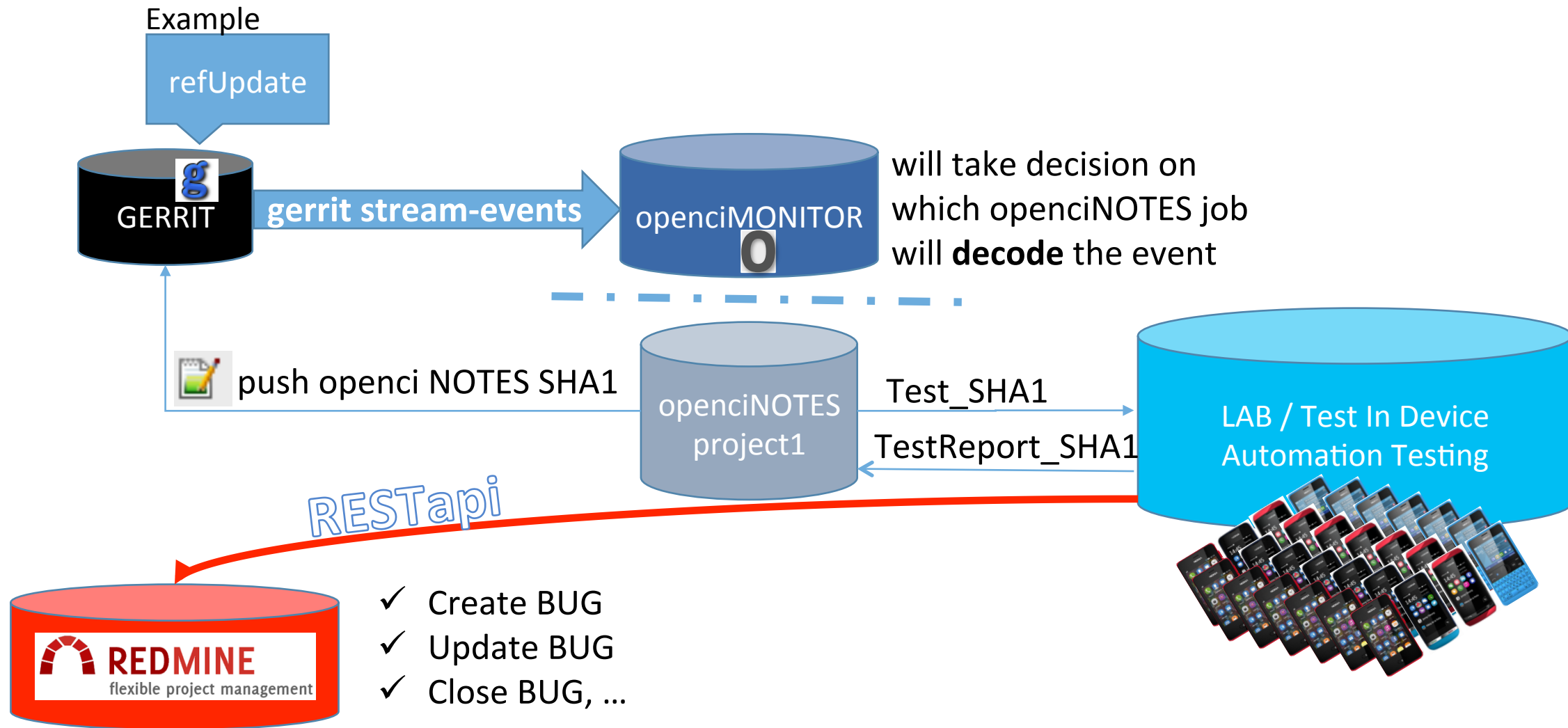
Able to assess SHA1 [+/- 1 Verified review]



- ✓ At this time “git notes –ref=openci” for SHA1  
→ will contains the history build + test report
- ✓ You can use such information to have all sort of matrix and statistics

# Update automatically Bug status

 = openci git notes  
 = gerrit event  
 = openCI trigger



# Update automatically Bug status

Overview Activity **Issues** New issue Settings

BUG #3091

 Upc



**RejectSendReceiveVCard.dll**

Added by TIDAS ROBOT 11 days ago. Updated 1 minute ago.

**Status:** Closed **Start date:**  
**Priority:** Urgent **Due date:**  
**Assignee:** psw\_test\_script\_developers **% Done:**  
**Category:** -

## Description

[Test case Build Failure] detailed information on Jenkins:  
<http://tidas.soc.lnx.nokia.com:8080/job/releaseTESTpswNG/125/>

## Subtasks

## Related issues

## History



Updated by TIDAS ROBOT 11 days ago

- **Status** changed from *Open* to *Closed*

OPEN 11 days ago  
By TIDAS ROBOT

Updated and closed!

# SUMMARY



**Jenkins**



ARE AWESOME  
OPENSOURCE  
PROJECTS



- ❖ MAKES DOABLE IMPLEMENT TIDAS WITH LIMITED RESOURCES
- ❖ POSSIBLE TO ADAPT SOLUTION IN DIFFERENT SW BUSINESSES
- ❖ AUTOMATION: "CAN DO!"

THANKS!

QA, 问答

