FROM IDE TO CUSTOMER
with Jenkins

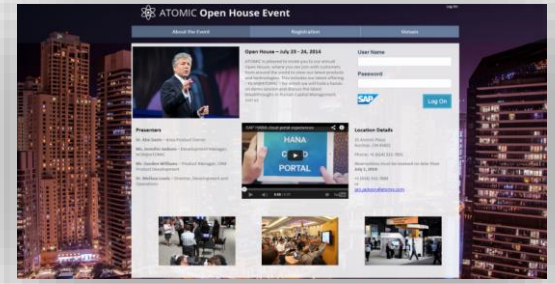
Nir Koren
@KorenNir
SAP Labs Israel

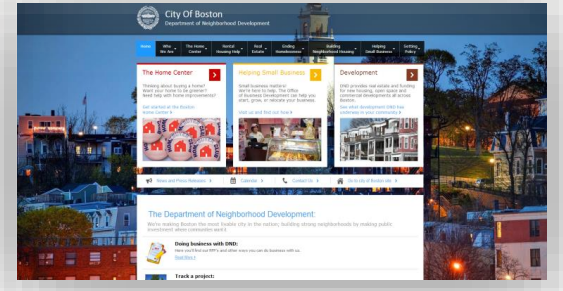
July 16, 2014

#jenkinsconf

Who are we?

SAP HANA Cloud Portal





Our Product Lifecycle Diagram

CI / Regression

CI / Validation

PI Release tests

DEVELOPMENT ⇨ CANDIDATE ⇨ RELEASE

⇧

Gerrit

Voter / Review

⇧

⇨

FB#1

FB#2

FB#3

QBS Process

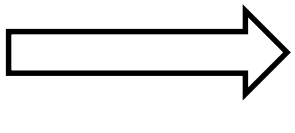
All Leads into a single unified mail

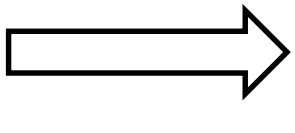
CI / Regression

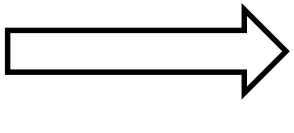
CI / Validation

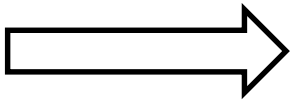
Voter / Review

QBS Process









From: PANDA-CI-GIT@mail.sap.corp
To: Koren, Nir; Profesorsky, Run; Shai, Doron; DL TIP BIT Portal ODP QOS Success; Shapira, Yotam;
Cc:
Subject: PANDA-CI summary SUCCESS
Message | ATT00002.bin (1 KB) | ATT00004.bin (1 KB) | ATT00005.bin (1 KB) | ATT00006.bin (1 KB) | ATT0000

PANDA

CONTINUOUS INTEGRATION

Source Location : GIT CI PUSH

Entire Status : SUCCESS

CP Info : SUCCESS (took 35 min)

Developer : Guy Bary , **Changes :** 2 commit(s) , **Description :** PUBLIC FOLDER - warning dialog cancel fix.

	CP-BUILD (Duration: 22 min)	View Log
Latest Report	Open Link Tests: Total/Failed: 1513/0	
JAVA Coverage (EMMA)	46% (11725/25222)	
JAVA Coverage Report	Open Link	
Selenium / JMeter Coverage (EMMA)	Open Link 51% (11928.2/23241)	
	CP-DEPLOY (Duration: 5 min 6 sec)	View Log
System	Open Link	
Archives	Open Folder	
	CP-JASMINE (Duration: 15 sec)	View Log
Latest Report	Open Link	
	CP-SELENIUM (Duration: 8 min 11 sec)	View Log
Latest Report	Open Link	
Failed Tests	No Failures	
	CP-JMETER (Duration: 1 min 2 sec)	View Log
Latest Report	Open Link (96 tests)	
Scheduled jobs' latest status		
	SCHEDULED-CP-SONAR	
Info	Blockers: 0 Criticals: 0 Majors: 0 (Last run: 07/07 10:10	
Report	Report	
	SCHEDULED-FORTIFY	
Report	Report	
Violations	No violations	

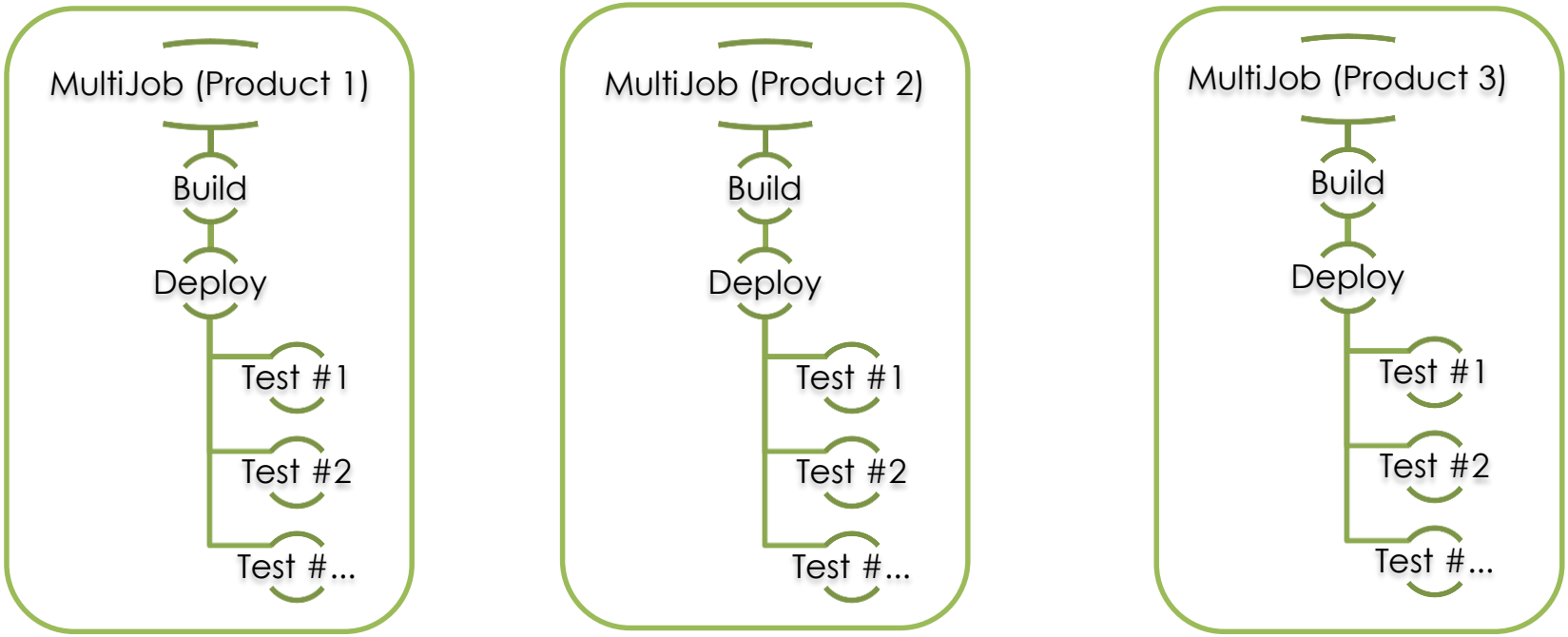
We Deliver

3 Different products

From a

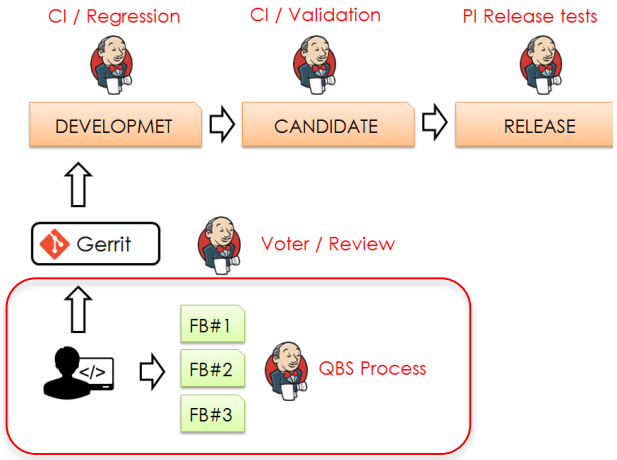
Single Git repository

Git / Gerrit Change Analyzer



QBS – Quality Before Submit

Feature Branch Tests



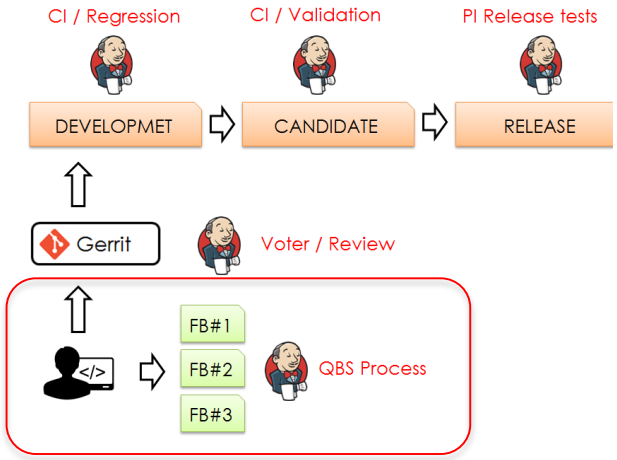
Jenkins MultiJob Plugin by Tikal
Complex and hierarchical structure in Jenkins.

Extended Choice Parameter plugin
Create lists and combo-boxes

MultiJob Project INIT-QBS

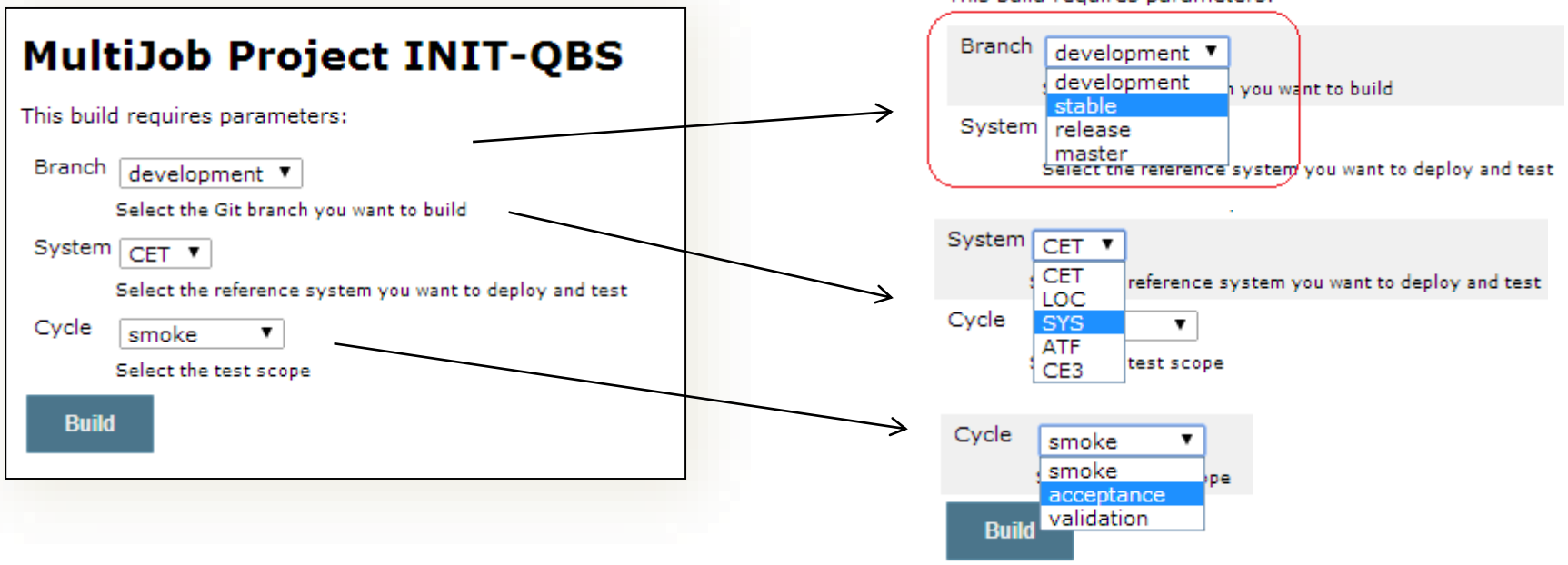
Job	S	W	Last Success	Last Failure	Last Duration	Console
INIT-QBS			1 hr 0 min	1 hr 58 min	3 min 6 sec	
Build						
QBS-build			1 hr 0 min	N/A	24 sec	
Deploy						
QBS-deploy			1 hr 0 min	N/A	10 sec	
Jmeter						
QBS-jmeter			59 min	N/A	11 sec	
JsLint						
QBS-jslint			59 min	N/A	1.3 sec	
Sonar						
QBS-sonar			59 min	N/A	39 sec	
Selenium						
QBS-selenium			58 min	1 hr 55 min	51 sec	

QBS – Cont.



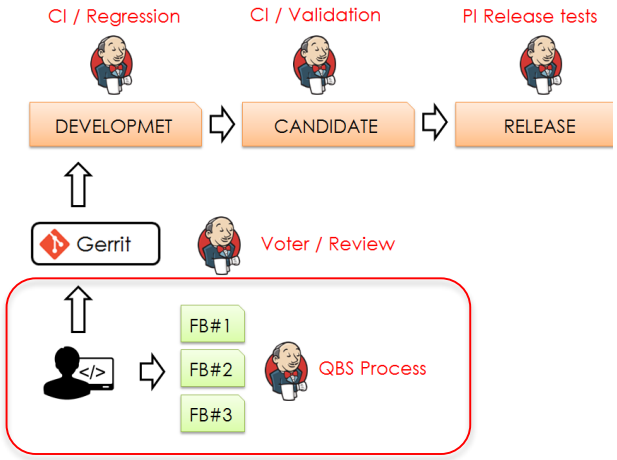
Fill in the form and Trigger end to end tests.

- No need to waste time on testing.
- Code is being checked **before** merge
- Running manually on-demand and not on-submit



QBS – Cont.

Detailed report sent to the developer



From: QBSDemo@mail.sap.corp
To: Koren, Nir; Koren, Nir
Cc:
Subject: QBS Demo cycle summary SUCCESS

QUALITY BEFORE SUBMIT
Demo application test

Trigged by: Nir Koren
General cycle duration: 3 min, 6 sec
General Data: System: CET, Branch: development (smoke)

QBS-BUILD	SUCCESS	Duration: 0 min, 24 sec
	Log	Log
	JAVA Coverage (EMMA)	67% (4/6)
	Report	Report
QBS-DEPLOY	SUCCESS	Duration: 0 min, 10 sec
	Log	Log
	System	System
	Archives	Archives
QBS-JMETER	SUCCESS	Duration: 0 min, 11 sec
	Log	Log
	Report	Report
	Help	
QBS-JSLINT	SUCCESS	Duration: 0 min, 1 sec
	Log	Log
	Report	Report
	Violations	4 violations
QBS-SONAR	SUCCESS	Duration: 0 min, 39 sec
	Log	Log
	Report	Report
	Violations	Blocker: 0, Critical: 1. Last run: 01/07 14:18
QBS-SELENIUM	SUCCESS	Duration: 0 min, 51 sec
	Log	Log
	Report	Report
	Help	

QUALITY BEFORE SUBMIT
Demo application test

Trigged by: Nir Koren
General cycle duration: 3 min, 6 sec
General Data: System: CET, Branch: development (smoke)

QBS-BUILD	SUCCESS	Duration: 0 min, 24 sec
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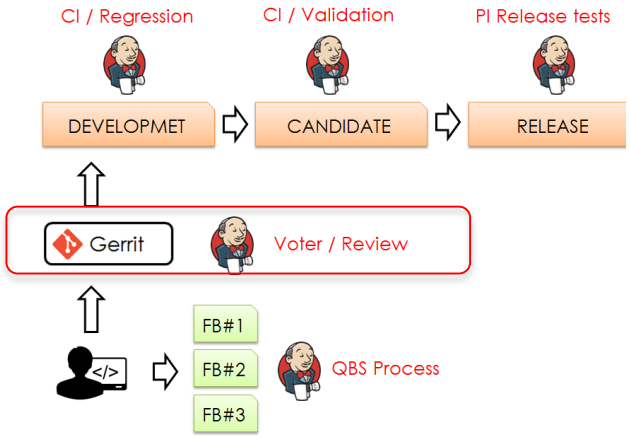
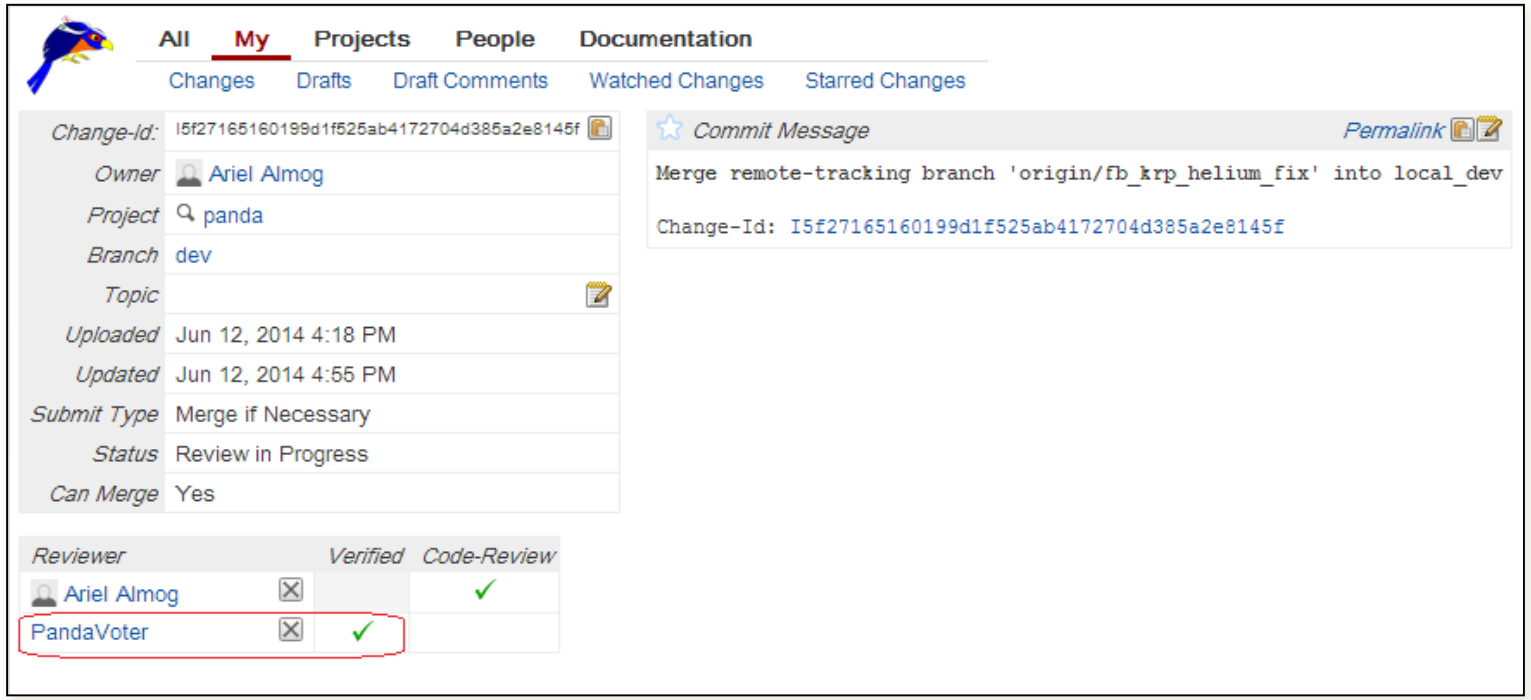
	JAVA Coverage (EMMA)	67% (4/6)
	Report	Report

Gerrit as a Voter for Quality



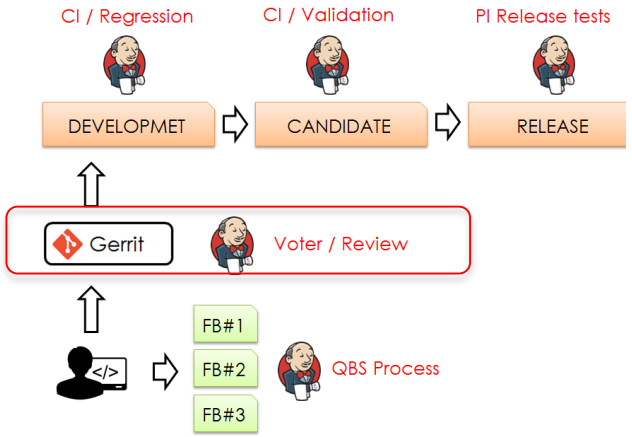
CI Process with Jenkins Gerrit plugin

- Trigger full jobs chain (Tikal Multijob)
- Vote in Gerrit Admin page for result



Gerrit cont.

Detailed report sent to the developer / Reviewer



QBS Gerrit

Running type : ALL

Entire Status : FAILURE

CP Info : FAILURE (took 21 min, Built on: ILTLVL557)

UIS Info : FAILURE (took 19 min, Built on: ILTLVL085)

FLP OC Info : FAILURE (took 10 min, Built on: ILTLVL391)

Developer : Sapir Golan
Change Info : https://git.wdf.sap.corp:8080/544011
Description : Merge remote-tracking branch 'origin/fb_krp_automation' into local_dev_pen

✗	**QG-BUILD** (Duration: 21 min)	View Log
Latest Report	Open Link	
✓	**QOS-HOST-DISPATCHER** (Duration: 2.1 sec)	View Log
✓	**UIS-LNX-PREPARATIONS** (Duration: 12 sec)	View Log
✓	**UIS-LNX-BUILD-DEPLOY** (Duration: 1 min 30 sec)	View Log
✗	**UIS-LNX-PENTAGON** (Duration: 16 min)	View Log
Latest Report	Open Link	
✓	**UIS-LNX-JSLINT-SERVER** (Duration: 6.6 sec)	View Log
Latest Report	Open Link	
✓	**UIS-LNX-JSLINT-CLIENT** (Duration: 7.6 sec)	View Log
Latest Report	Open Link	
✓	**UIS-LNX-UNIT-TESTS** (Duration: 1 min 10 sec)	View Log
Latest Report	Open Link	
✓	**UIS-WIN-QUNIT** (Duration: 14 sec)	View Log
Latest Report	Open Link	
✓	**UIS-LNX-VERIFY-CC** (Duration: 0.1 sec)	View Log

QBS Gerrit

Running type : ALL

Entire Status : FAILURE

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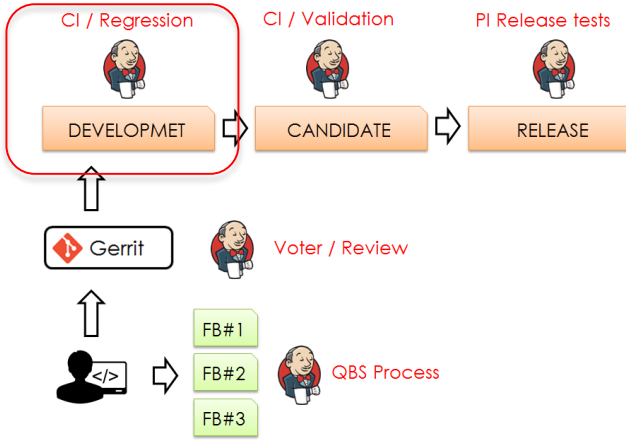
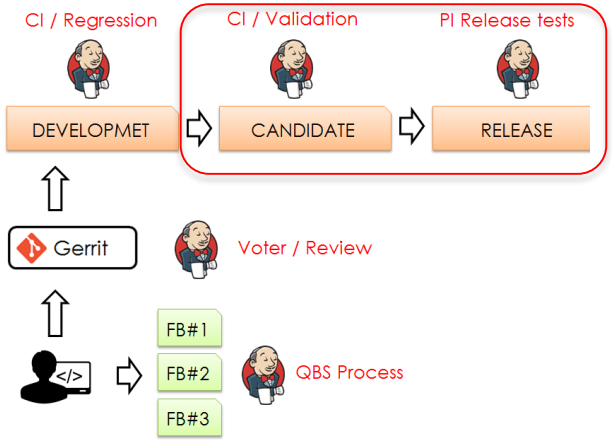
"Quality On Submit" CI Process

- Continuous Integration process (On submit).
- Nightly regression automation tests.



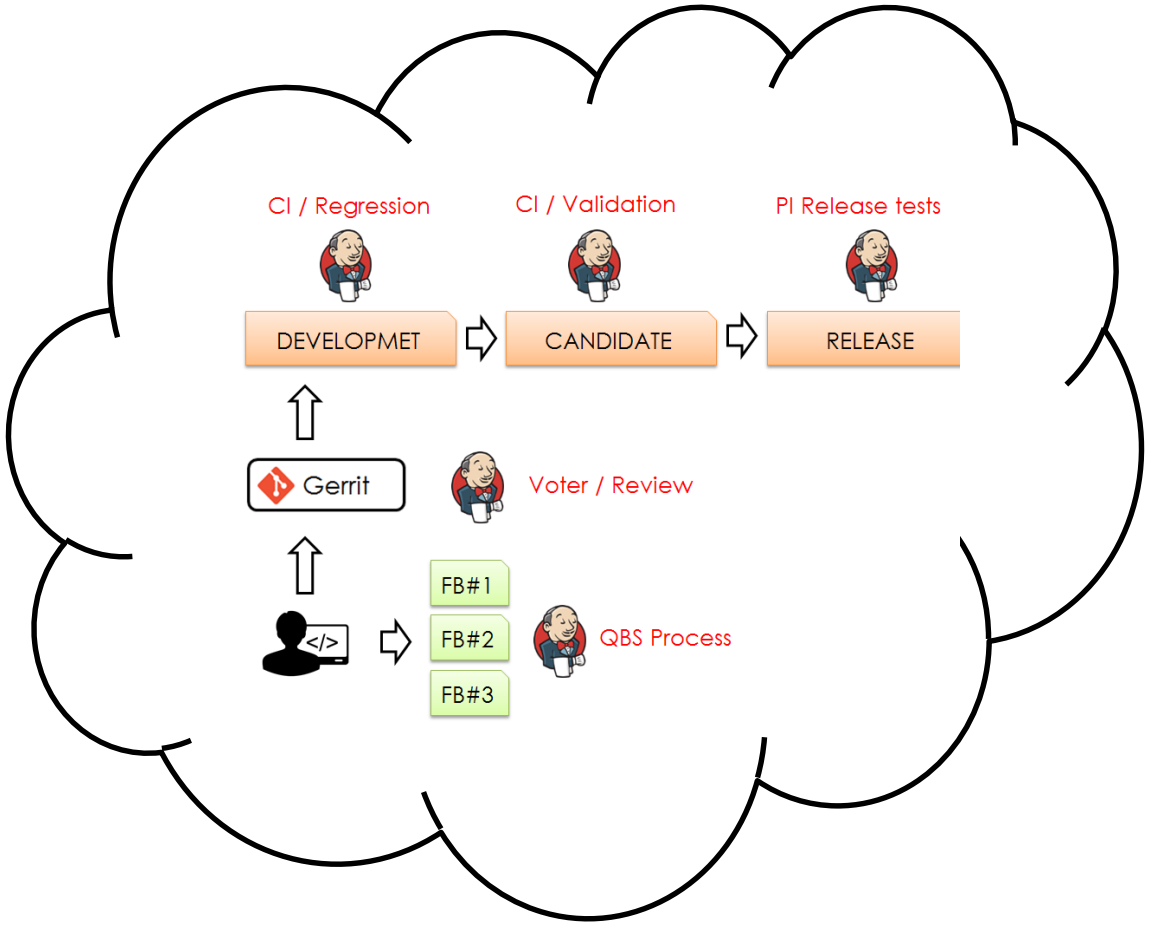


Release Candidate:
Nightly validation tests

Released version:
PI (Post Installation) tests

Everything is covered

With Jenkins



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