

CentOS Distro Release QA process explained

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Why a CentOS QA ?

Damn!

Because you/we don't want this !



Why a CentOS QA ?

- CentOS QA process is independent from the upstream QA process
- No Red Hat involvement in that process -> still Community based
- ISO/Tree rebuild -> working and complete ?
- Are our packages not included in the Upstream release working too (for example Xen4CentOS) ?

Distro Tests

- Is release X.y installable ?
- Through ISO ?
- Through network (nfs/http/ftp) + pxe ?
- Mixed (netinstall.iso + network) ?
- Usb image ?
- UEFI vs Bios ?

Functional tests

- Are all packages in the distro doing what they're supposed to do ?
- Still working with different sets of packages (php vs php53 for example in CentOS 5.x)

Process overview



CentOS

CentOS QA auto-build last 50 results

QA BuildID	CentOS distro	Release	BuildTag	Virt platform	Arch	Install Method	Provisioned	Actual Status	Logfile	QA Final Result
912	c6	6.5	20131129-1152	vbox	x86_64	http	yes	QA t_functional tests finished	912-20131129-1152-c6-vbox-x86_64-http.log	Success
911	c6	6.5	20131129-1151	xen	i386	http	yes	QA t_functional tests finished	911-20131129-1151-c6-xen-i386-http.log	Success
910	c6	6.5	20131129-1152	vbox	x86_64	iso-min	yes	QA t_functional tests finished	910-20131129-1152-c6-vbox-x86_64-iso-min.log	Success

Provisioning step(s)

Rsyncd post-xfer script, adding jobs into beanstalkd queues, querying the QA DB (for informations), distributed amongst dedicated workers and deploying:

- ✓ Bare-metal : IBM hs20 blade (talking directly to IBM BC MM)
- ✓ Xen virtual machines (virt-install)
- ✓ KVM virtual machines (virt-install)
- ✓ VirtualBox (headless mode, through vboxmanage)
- ✓ ESX/i virtual machines (ssh + vim-cmd)

Admin node controls network (dhcp/pxe)

Kickstart ! (simple one, with just @core + qa user ssh authorized_key)

Provisioning with ISO

How to automate ISO test ? Example: *CentOS-6-minimal.iso*

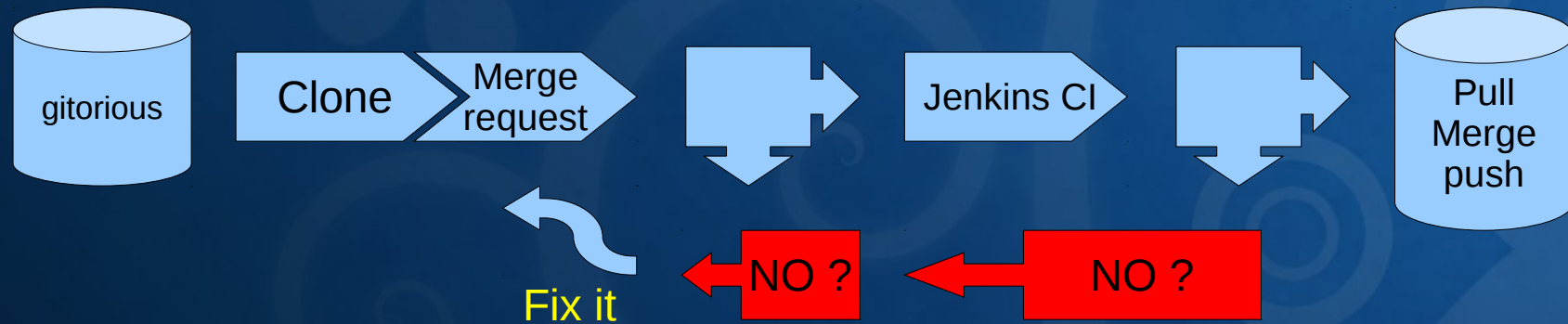
- *Constraint : not touching/respinning the iso*
- No pxe boot, booting from the iso
- Dedicated kickstart, but fetched from a virtual floppy (ks=floppy)
- Specific kickstart to setup disks like this :
 - /boot on a raid1 md device using two .vdi disks
 - / on a luks encrypted LogVol over an iscsi lun (no hba)
- VirtualBox only (we don't respin the iso/isolinux.cfg) :
 - vboxmanage controlvm \${targetname} **keyboardputscancode**

Functional tests

Introducing t_functional :

- Git repo hosting all the functional tests (packages, roles)
- Using `#!/bin/bash` (*but you can write test in another scripting language !*)
- Hosted on gitorious **and** internal git.centos.org
- Community driven (you too !)
- Daily results at : <http://ci.dev.centos.org>
- https://git.centos.org/summary/sig-core!t_functional.git
- https://gitorious.org/testautomation/t_functional

t_functional git workflow



Q&A for QA ?

*Questions ?
Thank you !*