

Global Test Network - GTN Internal Cloud for Testing and Continuous Integration



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Protecting the irreplaceable | f-secure.com



Risto Kumpulainen

- Improvement Coach/
GTN Business Owner
- 12 yrs testing
- 10 yrs test automation
- 02 yrs agile coaching
- 01 yrs GTN

About F-Secure

Founded in 1988 with circa 900 employees.

Listed on the NASDAQ OMX Helsinki Ltd.

We have been protecting digital lives for over 20 years.

Our Company serves millions of Consumers and Businesses too.

We operate from 20 offices around the world and our HQ is in Helsinki, Finland.



F-Secure is about Protecting the irreplaceable



Security



Storage



Cloud

Dev. TEAMS do test automation

Teams develop and **ARE RESPONSIBLE** for
their code,
including test automation code.

Teams receive and **SEE THE VALUE** of their test automation

Teams **BECOME MORE ENGAGED**
in developing their test automation.

```

test_COREBAS02 [ FAIL ] [0:00]
ERROR: The tester appears to have sawdust between his ears
test_COREBAS03 [ SKIP ] [0:01]
SKIPPED: Feature is not supported on platform 'Linux'
test_COREBAS04 [ PASS ] [0:01]
-----Test Stopped-----

Test stop time: Fri Aug 10 18:26:30 EEST 2007

System: Linux carl 2.6.13-15-smp #1 SMP Tue Sep 13 14:56:15 UTC 2005 i686 i686
386 GNU/Linux
Platform: SUSE LINUX 10.0 (i586)

Product versions:
Product: F-Secure Security Platform version 2.00 build 6322
Client: F-Secure Security Platform version 2.00 build 6322
Daemon: F-Secure Security Platform version 2.00 build 6322

Totals:
4 cases run
1 cases FAILED
2 cases PASSED
1 cases SKIPPED

```



Tests: 100% 211/211



TEST COMPSEC BLUE CORE **3**
99% 424/427 (±0)

fslo-publish

Tests: 0/0

TEST COMPSEC BLUE SMOKE **0**
100% 844/844 (±0)

gtn-devtest

TEST COMPSEC RED CORE **4**
BUILD #2350 % ██████████

Tests: 100% 494/494

TEST COMPSEC RED SMOKE **0**
100% 564/564 (±0)

gtn-systemtest

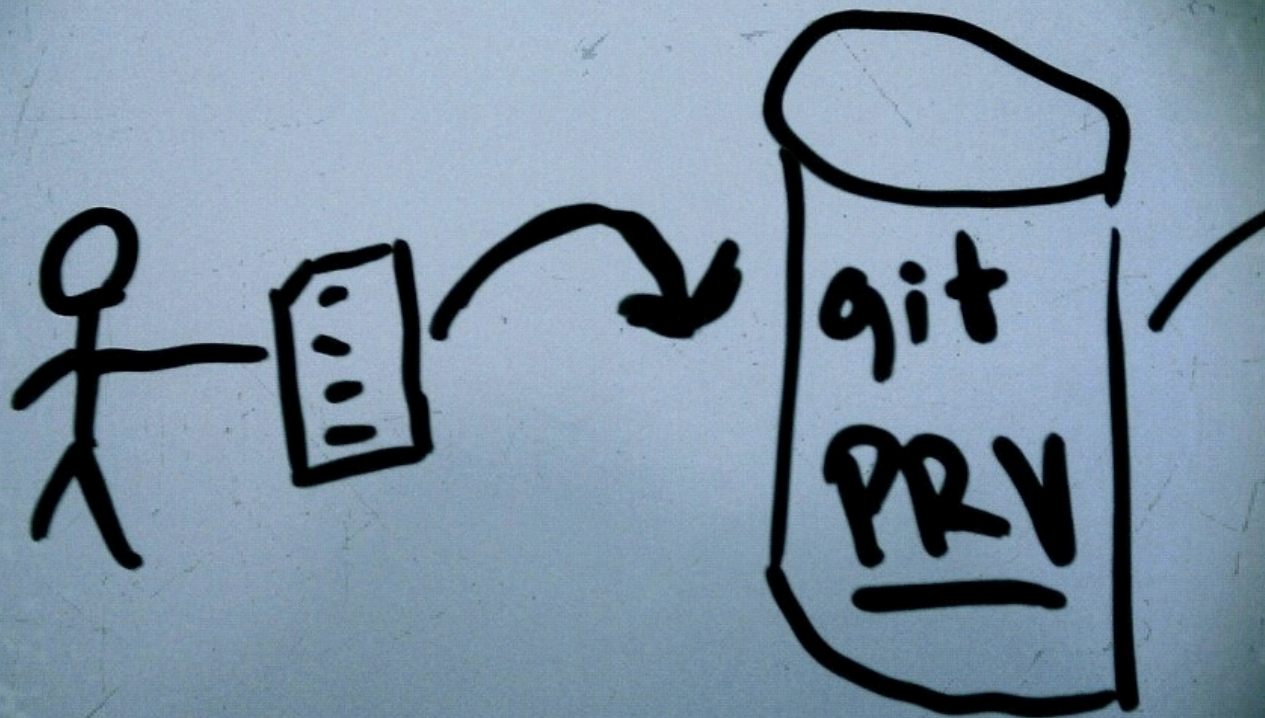
Tests: 100% 309/309



RED INSTALL ██	RED CORE ■■
RED LAUNCHPAD ■■	RED LIC TOP THE LINE! CHANGE
RED LIC INSTALL 1	RED SMOKE ■■
RED SIDEGRADE ■■	RED UPGRADE ■■

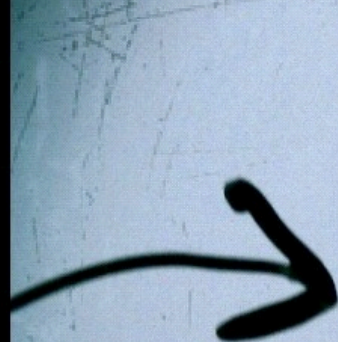
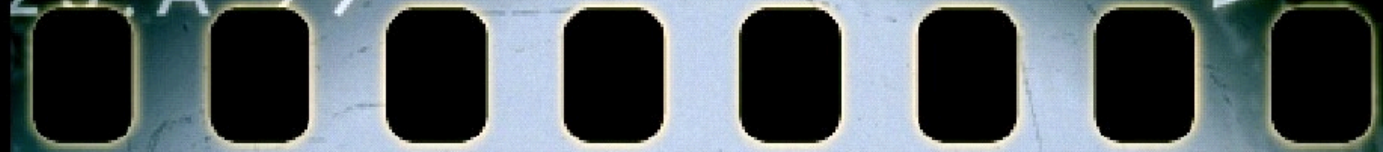
Test automation in real life

23 A 99



ZAI URBIAN

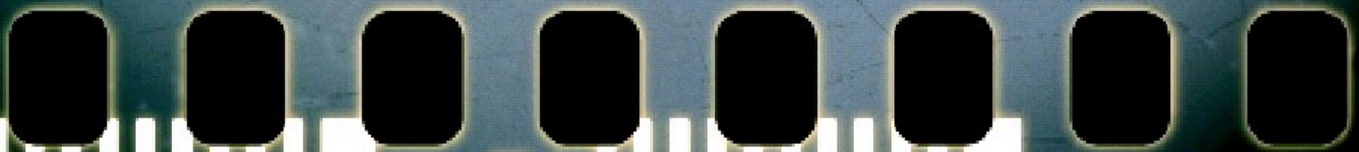
23. A 99



CREATE
ENV.
+ DEPLOY
+ SMOKE



FA



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URBIAN

1 AA X URBIAN STOCK FILM



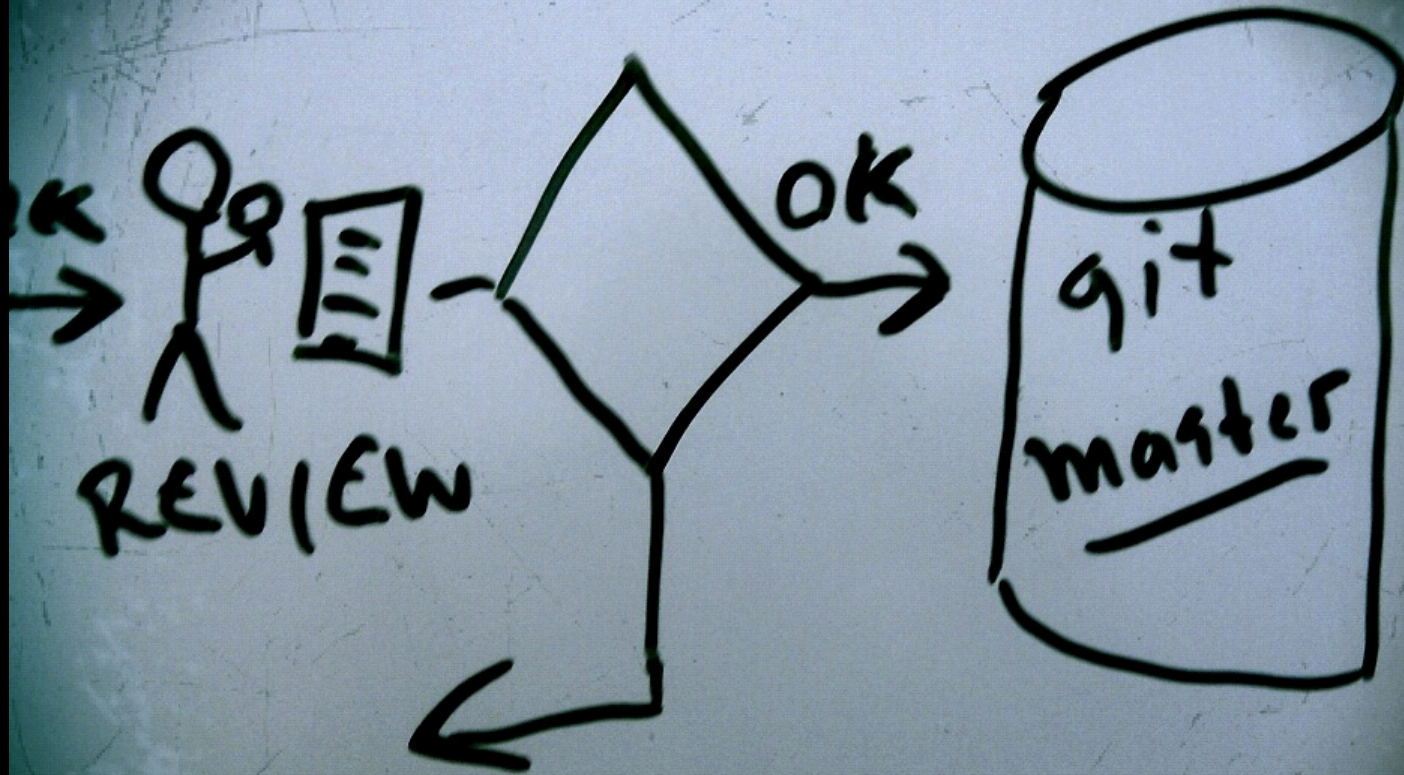
FAIL

OK

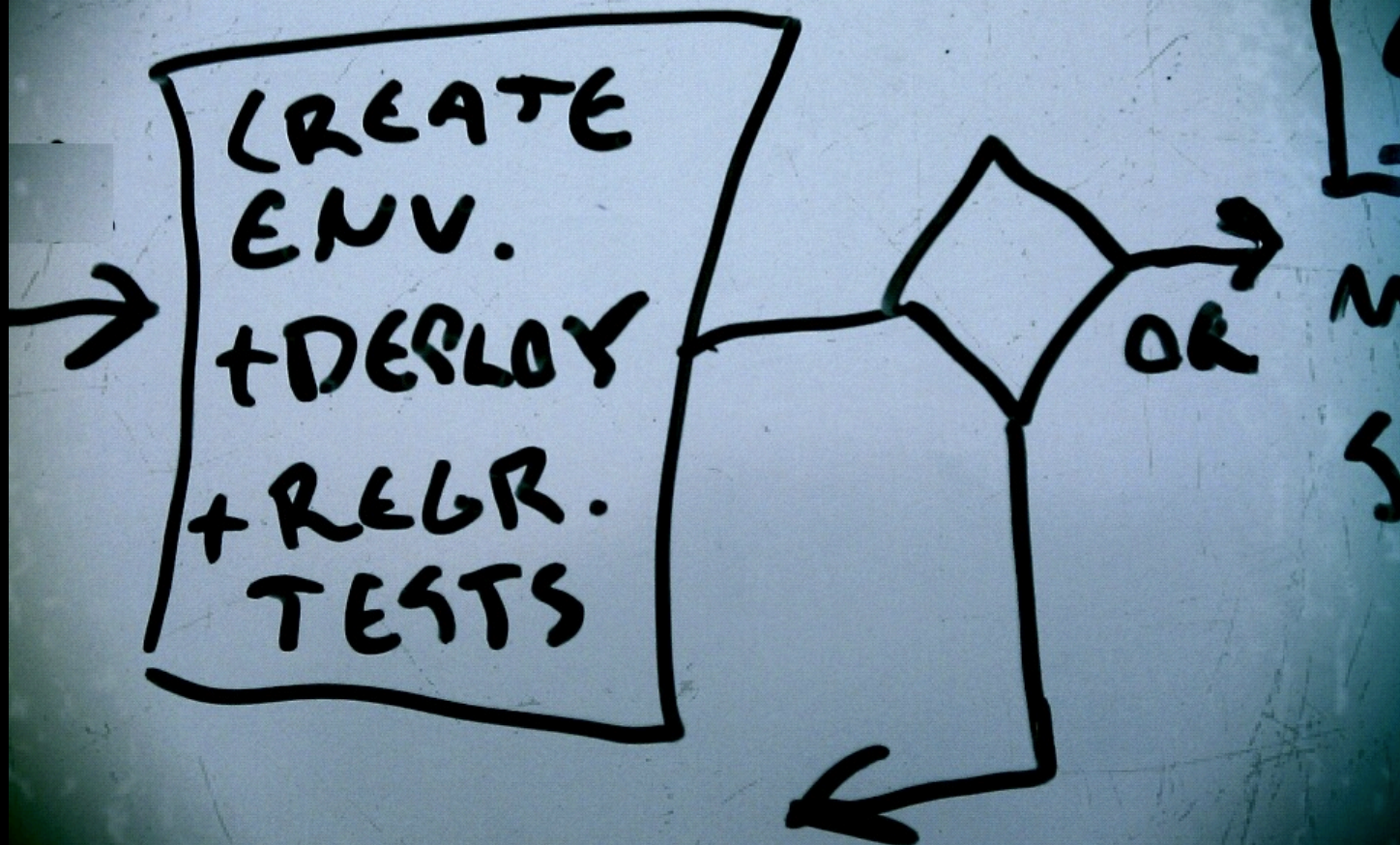
REVIEW



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S

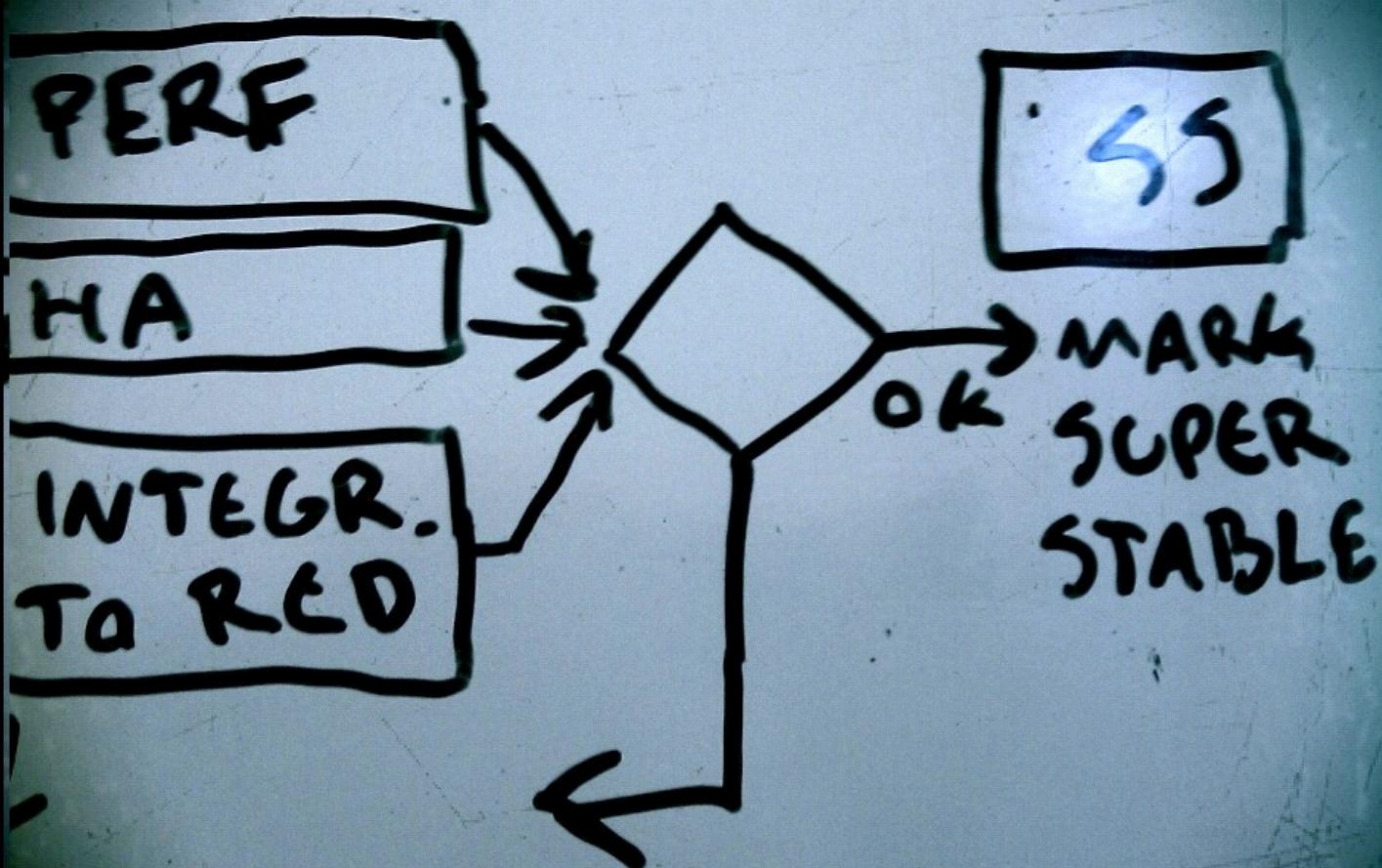
MARK
STABLE

PERF

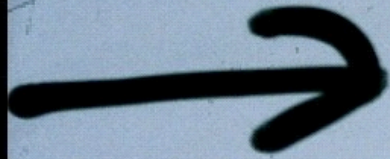
HA

INTEGR.
TO RED

ARE



23 A 99



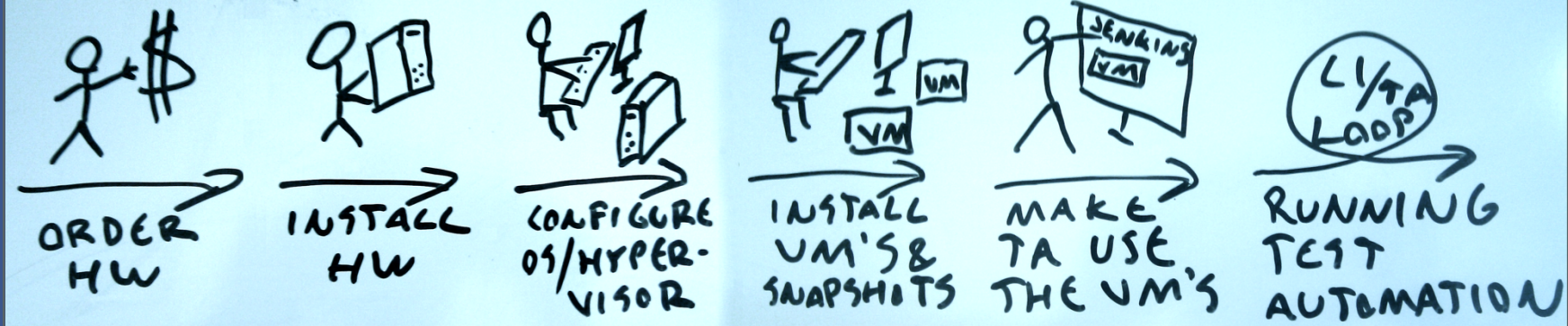
INTEGR.
BLUE

ZAL... URBIAN

Global Test Network - Environment

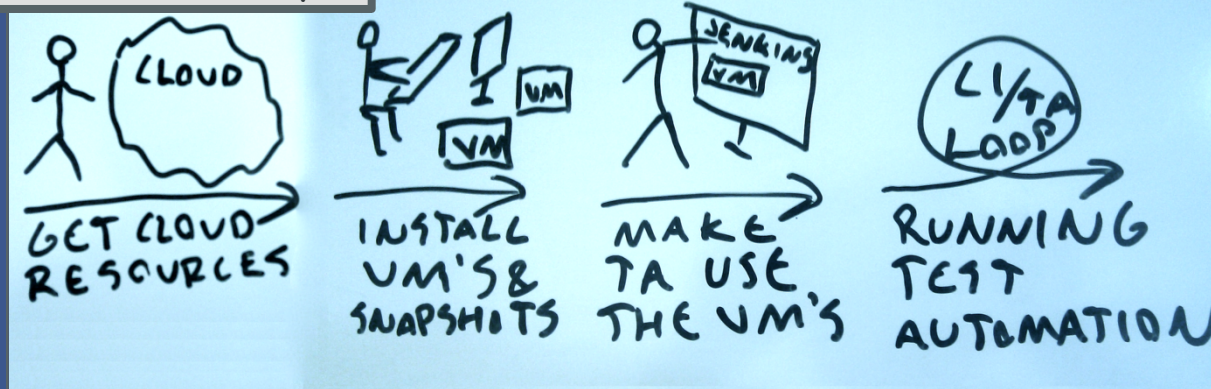
- All test automation and manual testing happens in GTN
 - GTN is a Private Cloud
- Global Test Network is actually:
 - A globally available network used by all R&D personnel
 - Self service virtualization, through VMware, KVM and automation APIs
 - Set of services, such as backups, DNS, windows domain
- Testing mobile apps still requires real devices

Back in 2008:

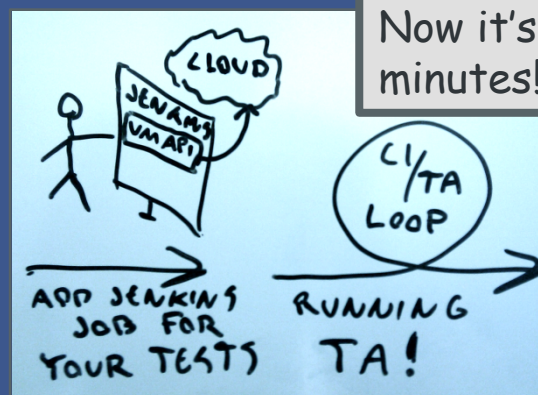


It took weeks to get TA running...

2010: it was days



Now it's minutes!



DEMO 1

- User provisioned “static” test automation, manual testing and test infrastructure systems
- Free to use
- VMware/ESX/vCenter based

DEMO 2

- **Dynamic provisioning of “disposable” virtual machines for test automation**
- **Free to use**
- **KVM/dvmps based**

NO DEMO

- Dynamic provisioning of static or disposable multi-node backend product installations
- KVM/Poni
- <http://melor.github.com/poni/>

Technical specs:

- “Static” Vmware/ESX env:
 - 38 hosts and growing (2 CPU & 96 GB ram)
 - ~2000 Virtual Machines
- “Disposable” KVM/dvmps env:
 - 9 hosts (2 CPU & 96 GB ram)
 - 150-350 running and 14000 unique VMs during a day
- “Backend product” KVM/dvmps env:
 - 5 + 9 physical hosts
 - 140 + 400 VM's

Q & A