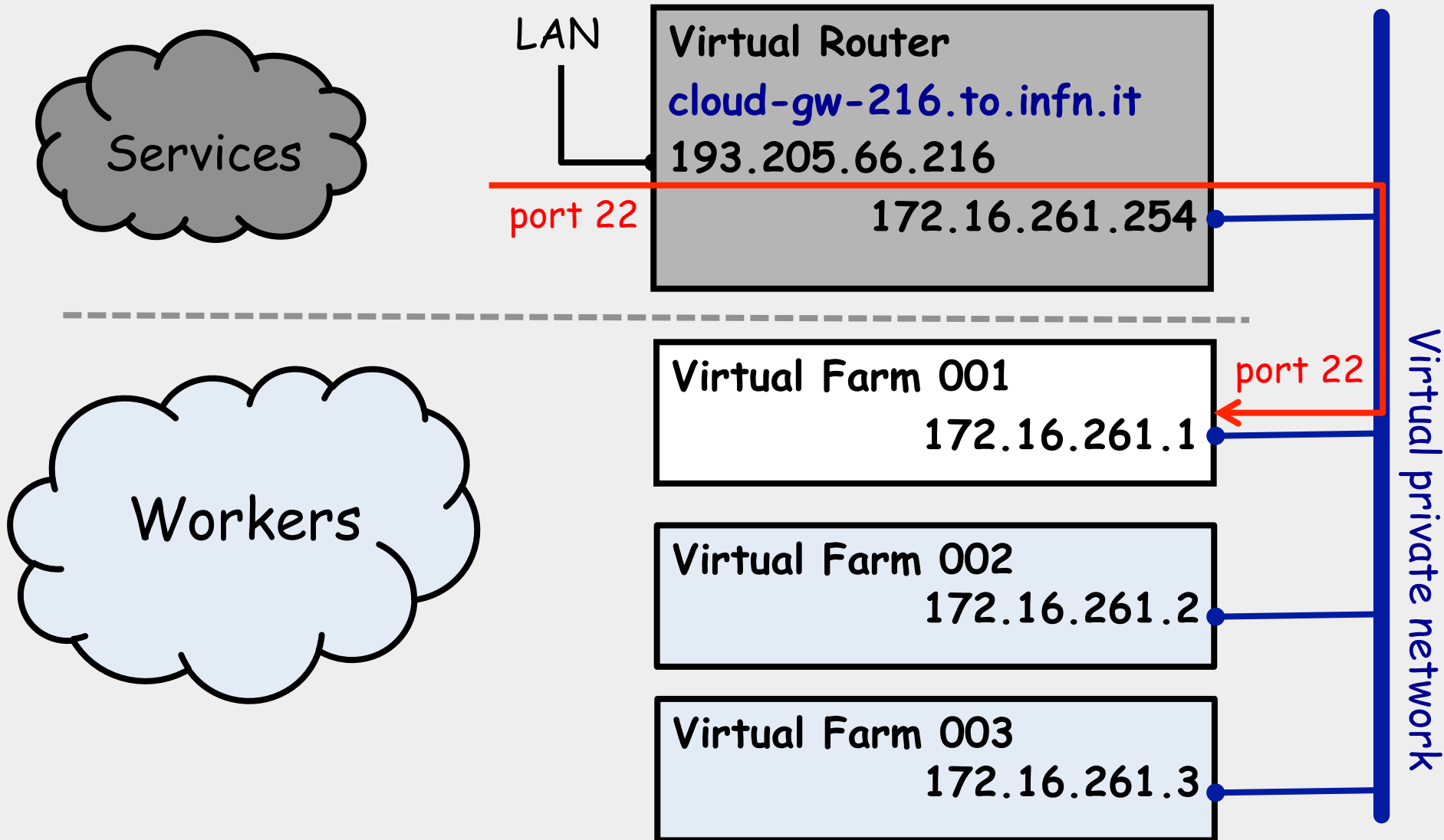


VIRTUAL FARM PROVISIONING MODEL



VIRTUAL FARM PROVISIONING TOOLKIT

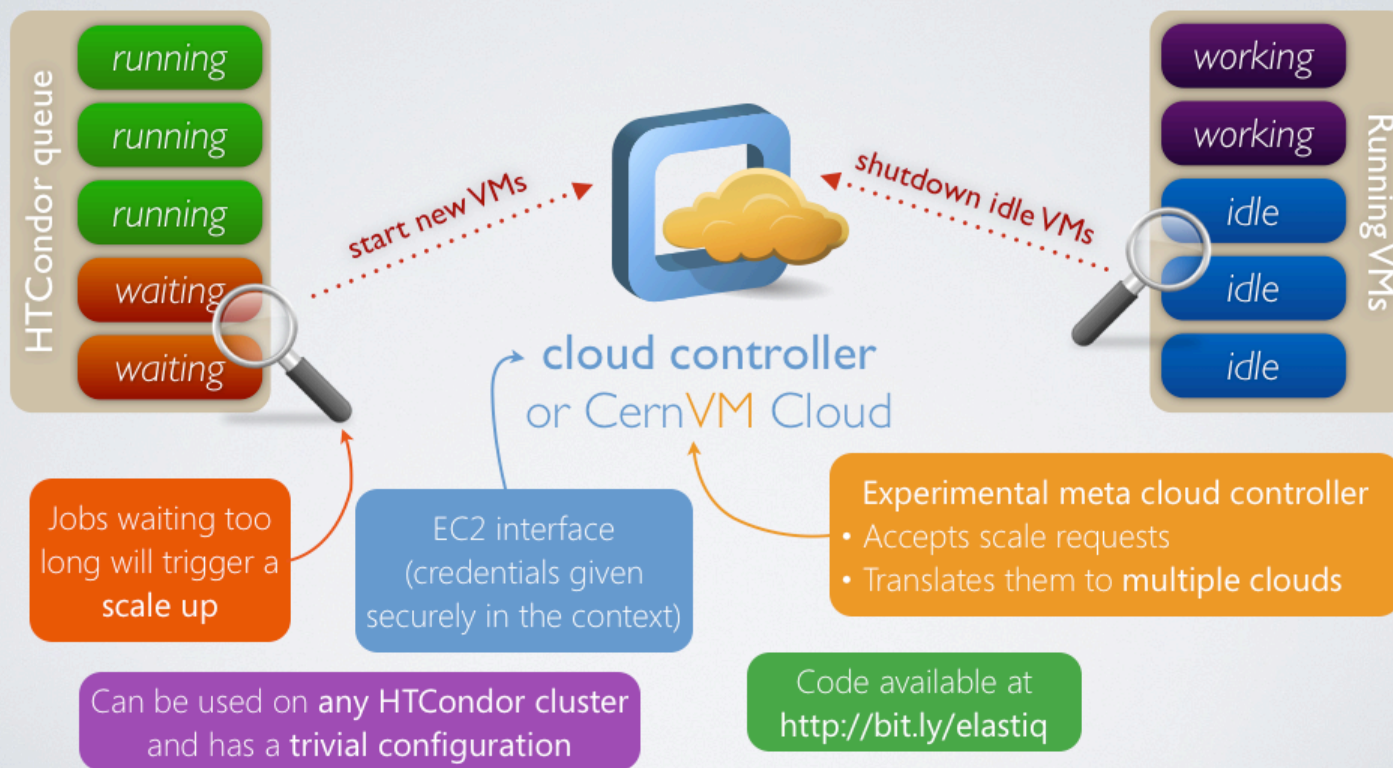
- EC2 API & Clients (Euca2ools)
- iSCSI Datastore & tools
- (CernVM, μ CernVM, CVMFS)
- (CernVM Online)
- VRouter
- HTCondor
- Elastiq
- onevrouter-generator.rb
- ...available resources!



Elastiq queue monitor



Python app to monitor HTCondor and scale up or down



Dario.Berzano@cern.ch - PROOF as a Service on the Cloud - <http://chep2013.org/contrib/308>

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EASY CONTEXT VIA CLOUDINIT



Example: work in progress...

At the moment part of the configuration data are taken from an http server (not directly embedded in the MIME)

Configure your instance:

```
#multiple-config
# vim: syntax=yaml

# Configure local file-system
localfs:
  parts:
    # below percent of VG
    cvmfs: 17
    cvmfs-mount: /var/lib/cvmfs
    home: 58
    tmp: 8
    # below percent of FREE
    swap: 100

# Configure CVMFS
cvmfs:
  install: true
  version: 2.1.14
  local:
    repositories: alice.cern.ch...
    http-proxy: http://t2-squid-01...
    cache-base: /var/lib/cvmfs
    quota-limit: 18000
```

Run a script to produce the MIME archive:

```
From nobody Tue Oct 8 16:11:36 2013
Content-Type: multipart/mixed;
boundary="=====181078353...
MIME-Version: 1.0

-----1810783535439179425...
Content-Type: text/x-include-url; charset="us-
ascii"
Content-Transfer-Encoding: 7bit
Content-Disposition: attachment;
filename="include_modules.txt"

#include
http:srm-dom0.to.infn.it/test/cc_localsfs.py
http:srm-dom0.to.infn.it/test/cc_cvmfs.py

-----1810783535439179425...
Content-Type: text/localfs-config; charset="us-
ascii"
Content-Transfer-Encoding: 7bit
Content-Disposition: attachment;
filename="localfs-config.ccfg"

localfs:
  parts:
    cvmfs: 17
```

Instance your VM à la EC2:

```
euca-run-instances ami-000070 \
-t m1.large \
-f myMIME.txt \
```

Check the logs:

- each part-handler produces a detailed log-file
 - a final script checks the logs for errors
 - summary log with a list of failed handlers
- next: shut-down the instance in case of failures