PoD
PROOF on Demand

Development Status Report

Anar Manafov, GSI Darmstadt

Current status

v3.6 was released (2011-07-07)

Ongoing development:
v3.7 - development version
v3.8 - will be the next stable tag

PoD Website news

LoadLeveler plug-in

The LoadLeveler plug-in joined to the long list of supported plug-ins.

- SSH,
- gLite,
- LSF,
- PBSPro/OpenPBS/Torque,
- Sun/Oracle Grid Engine,
- Condor,
- LoadLeveler.

PoD fully supports now Mac OS X and Linux

pod-ssh

- now remembers the last used config file,

- got several speed-up improvements,

- is now much less verbose by default and learned a debug mode,

- now user can choose whether to download worker logs

PoD UI and Server disentangling

a new great command

pod-remote

(see the Live Demo)

PoD WN

Now each PoD WN starts its own xproofd daemon.

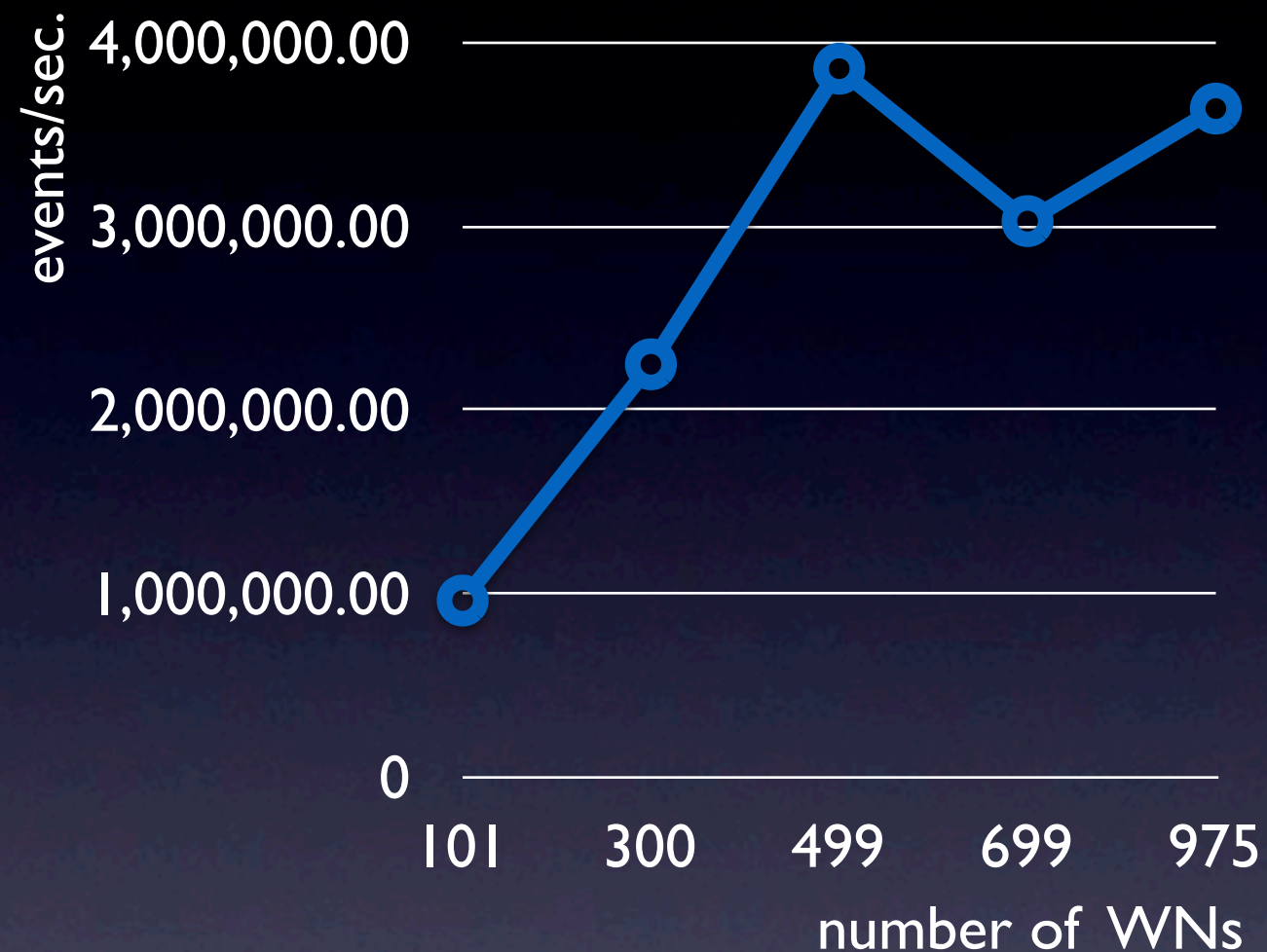In this case we can control and handle each PoD worker individually.

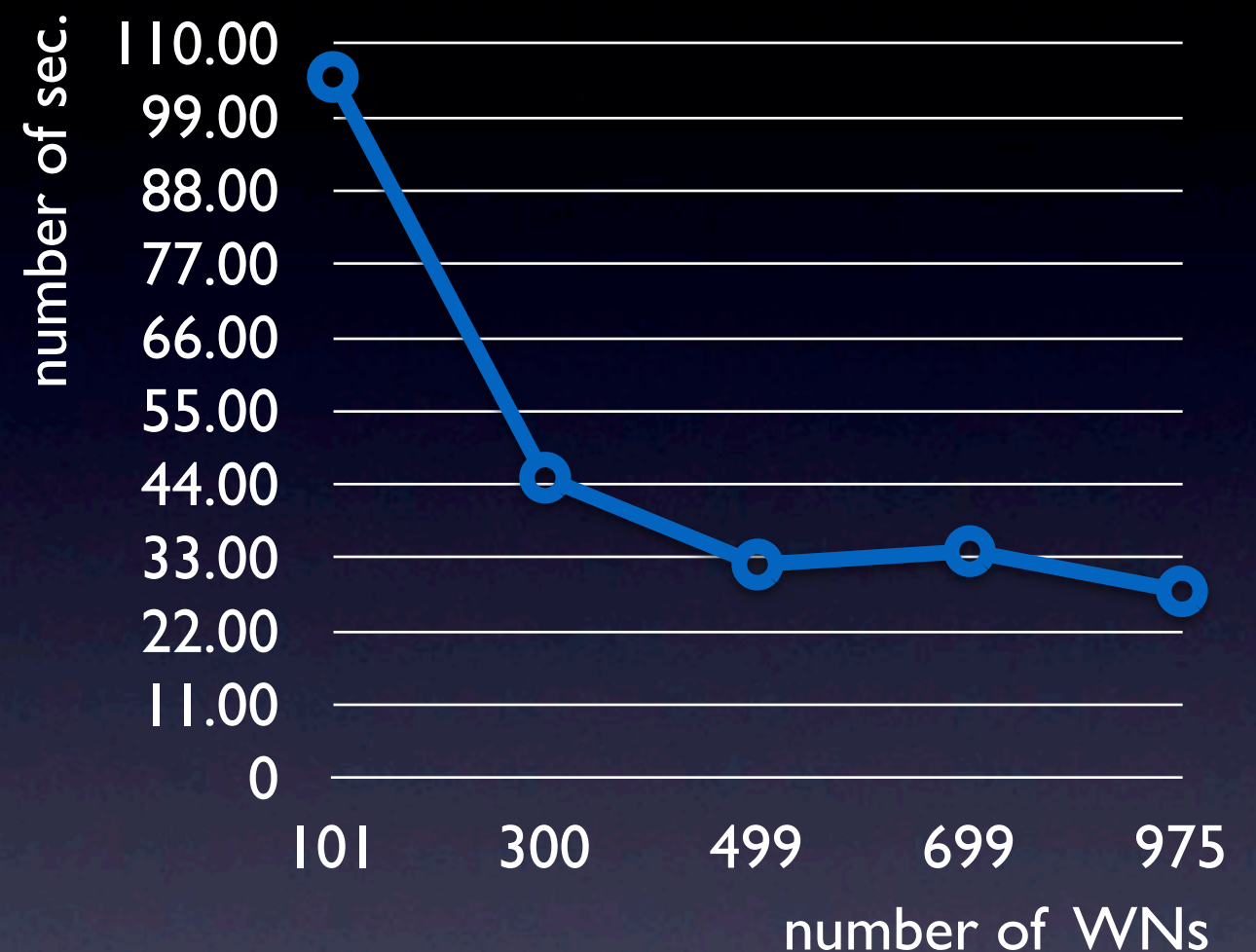(important for PoD and AliEn integration)

prefer CLI over GUI

Live Demo

1000 WNs

higher is better

smaller is better

To process these tests GSI's dynamic Cloud infrastructure has been used together with PoD and its SSH plug-in
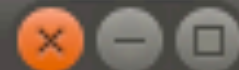
1000 WNs

In case of 699 and 975 WNs the processing time, which PROOF reports, was significantly different in compare to real time.

Processing time for 975 was **28 seconds**.

Real time for 975 was **45 minutes**!

Possible Reason: The processing time is just a time spent and reported by WNs to process queers(?). The rest time is what PROOF Master (its packetizer) spent on distributing the work between WNs.

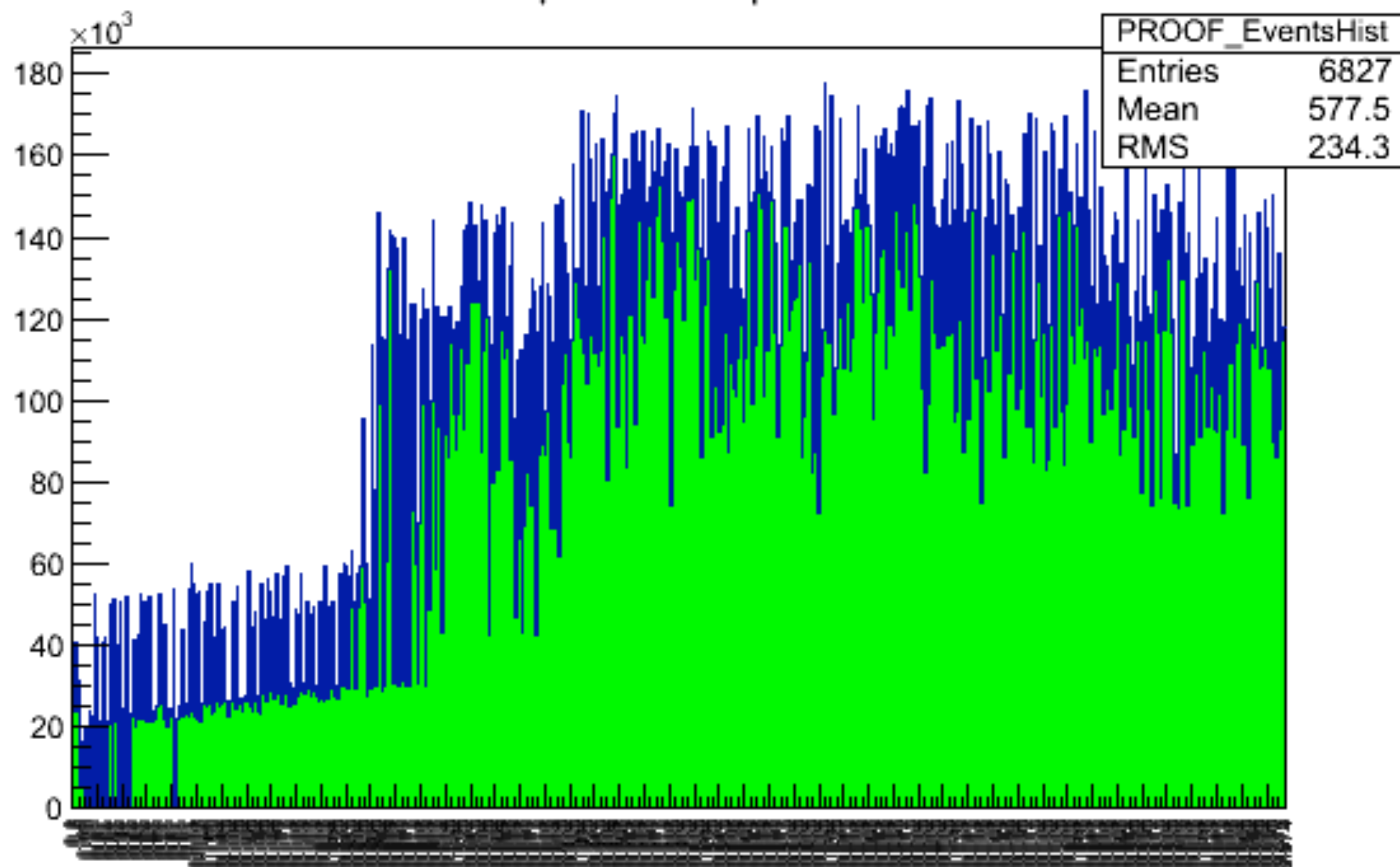OR there is simply a bug in time calculations in PROOF.
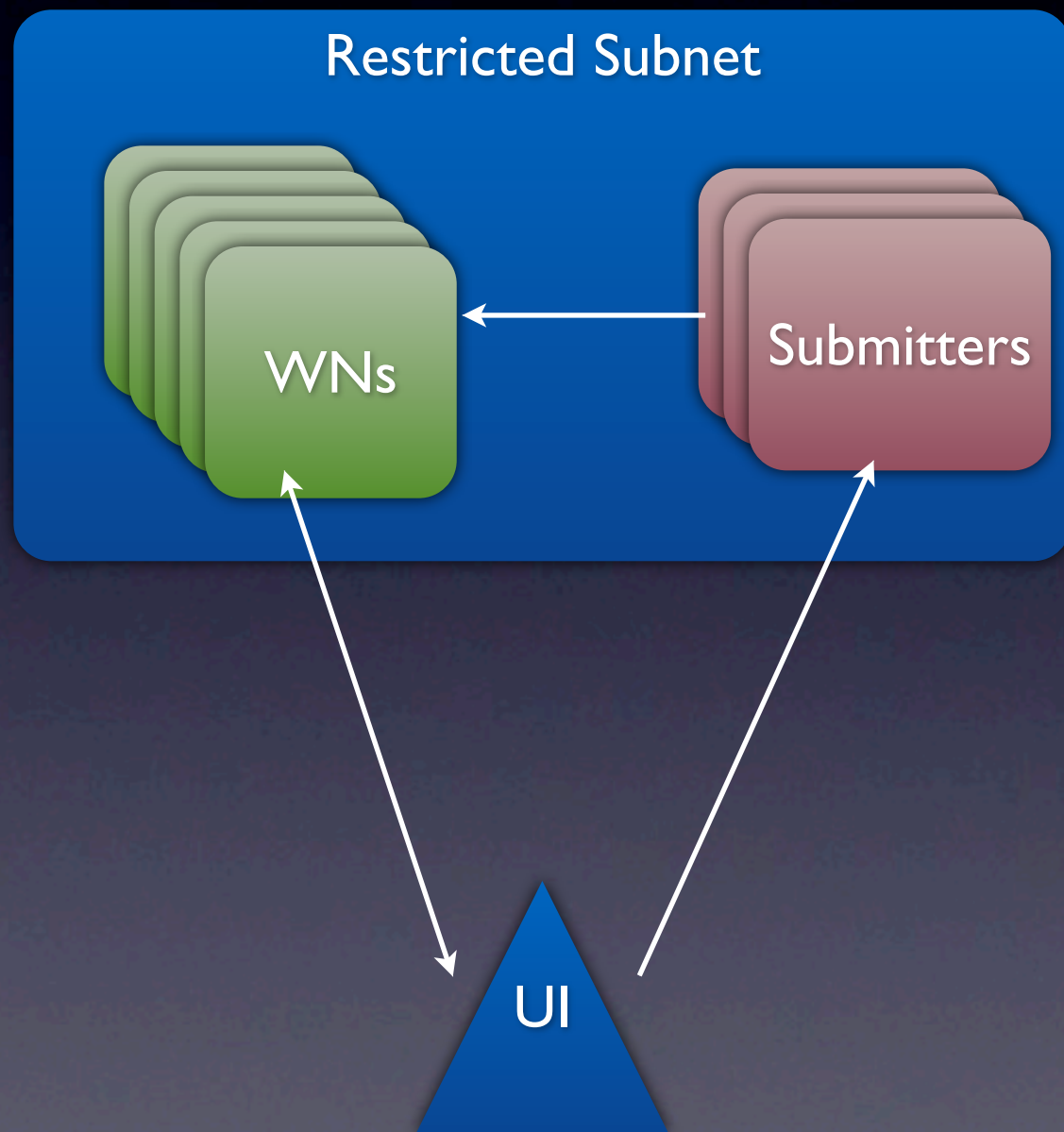
http://pod.gsi.de

1000 WNs conclusions

- PROOF: check whether a thread pool will help to speed the master up.

- PROOF: revise the packetizer.

- PoD: optimize pod-ssh in case when there are many single-core machines. To process 1000 entries from the pod-ssh config file took ~3 minutes.

New PoD development: Dynamic Master architecture

- use pod-remote to submit PoD jobs,

- all PoD WNs connect back to PoD UI,

- PoD UI dynamically assigns a suitable WN to be a PoD server and a PROOF master,

- all WNs connect to that <u>dynamic PROOF master</u>,

- PoD automatically creates its packet-forwarding tunnel to redirect PROOF traffic between UI and the Master.