# NAF 2 Status: ATLAS.

Status and problems from the ATLAS users on NAF-2

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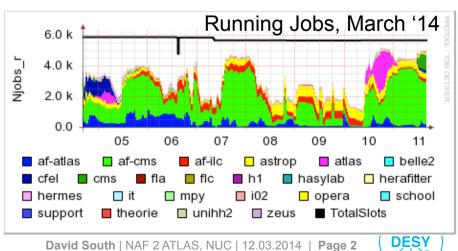
NAF Users Committee 12 March 2014





# **Migration to NAF-2**

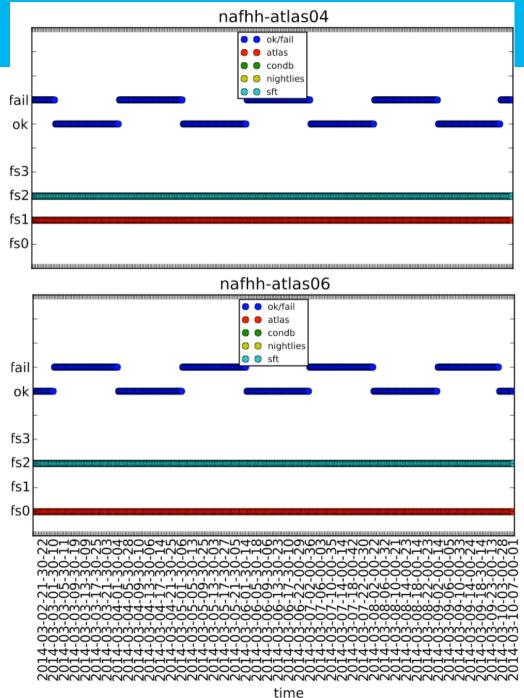
- > We have very few NAF-1 users now, occasional logins
- Only two working group servers and a fraction of ~ 200 batch slots
  - We would like to have tcx100 back for the last few weeks
- Only 33 NAF-1 Sonas directories, 58 empty ones removed this week
  - These will not be migrated unless requested
- > NAF-2 use increasing, wgs always busy, 87 NAF-2 Sonas dirs
- Many external accounts set up in the AF-ATLAS namespace
- Batch queue use not spectacular (ATLAS = pink and dark blue, CMS visibly more)
- > We are still seeing quite some problems with unfortunately quite a number of frustrated users



# Problems with tickets (brief: additional details in Feb.)

- > # 517365: Some nodes do not have CVMFS mounted
  - Asked that some nodes are investigated, all should have CVMFS, is crucial for ATLAS
- > # 517208: Not enough jobs starting
  - The problem persists, only a few from 1000s starting
- > # 511034: Jobs go to default queue, instead of 3GB as requested
  - Seems we can now exclude the problematic nodes, not a long term solution
- > # 515452: Athena compilation on NAF-2
  - New ticket started on Feb 20th labelled "critical", # 518683, no action..?
  - We need an additional, NAF-2 wgs with a native CVMFS mount. Or change an existing one. Or change them all (this is probably needed in the end). Urgent.
- > # 512228 + # 520683: Jobs crash with "No module named \_md5" problem
  - Crashes in Athena. Google says "open ssl and python compatibility"
  - Cron job running on wgs sees interesting pattern on 2 out of 4 machines (next slide)
  - Is also affecting unknown number of batch nodes
- Also: The xxl dir naming scheme is still unclear to me..

- \_md5 problem: strange 24 hour dependence?!
- > Test runs successfully on nafhh-atlas03 and nafhh-atlas05
- > But only succeeds on nafhh-atlas04 OR nafhh-atlas06
- Initially suspected changing CVMFS-over-nfs mount, but this is stable (cd called on each mount every 30 minutes)



# **Summary**

- We are almost done with NAF-1, and are on schedule for the planned end of March shutdown
  - Only 33 NAF-1 Sonas dirs now, was > 200
  - Essentially no NAF-1 batch use anymore
  - I will mail our users this week with a reminder and some more details
  - Need a prescription of how to move data from /afs/naf.desy.de to /afs/desy.de
- > Three major problems need to be addressed urgently:
  - The issue of CVMFS and compilation time
  - The instabilities of our wgs and seom fraction of the the batch system
  - The long standing "Sonas compilation issue"
    - The gccxml\_cc1plus in the Athena release does not work on Sonas due to some (finally well documented in a README) issue with 64 bit inodes
    - I have now reinstalled gccxml\_cc1plus in the /afs/desy.de/group/atlas/software space, but it is unclear how the users can link this instead of the version in the Athena release
    - Cleanest solution: update ATLAS software, this one is up to us



#### log file of \_md5 crash

```
arid-cvmfs0.desv.de /cvmfs/atlas.cern.ch
arid-cvmfs2.desy.de /cvmfs/atlas-condb.cern.ch
grid-cvmfs2.desy.de /cvmfs/atlas-nightlies.cern.ch
grid-cvmfs2.desy.de /cvmfs/sft.cern.ch
          inet addr:131.169.168.62 Bcast:131.169.168.255 Mask:255.255.255.0
Tue Mar 11 15:43:04 CET 2014
Preloading tcmalloc_minimal.so
Py:Athena
                    INFO including file "AthenaCommon/Preparation.py"
Py:Athena
                    INFO using release [AtlasPhysics-17.2.11.1.5] [i686-slc5-qcc43-opt] [17.2.11.Y.Z-VAL-AtlasPhysics/rel_2] -- built on [2013-12-16 23:33]
Pv:Athena
                    INFO including file "AthenaCommon/Bootstrap.py"
Pv:Athena
                    INFO including file "AthenaCommon/Atlas.UnixStandardJob.py"
                    INFO including file "AthenaCommon/Execution.py"
Py:Athena
Py:Athena
                    INFO including file "/afs/desy.de/user/s/southd/myNightlies/nightlyCvmfsCheck/test.py"
Pv:Athena
                    INFO including file "RecExCond/RecExCommon_flags.py"
Py:RecExCommon_flags INFO Full auto-configuration has been triggered by FilesInput()
Py:AutoConfiguration INFO Auto-configuration key 'everything' requested. All default keys will be used.
Py:AutoConfiguration
                       INFO Auto-configuration will procede according to the following keys:
Py:AutoConfiguration
                       INFO ['ProjectName', 'RealOrSim', 'FieldAndGeo', 'BeamType', 'ConditionsTag', 'DoTruth', 'InputType', 'BeamEnergy', 'LumiFlags', 'TriggerStream']
Py:inputFilePeeker INFO Executing inputFilePeeker.py
Shortened traceback (most recent user call last):
 File "/afs/desy.de/user/s/southd/myNightlies/nightlyCvmfsCheck/test.py", line 6, in ⊲module>
   include("RecExCond/RecExCommon_flags.py")
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/AtlasEvent/17.2.11/InstallArea/jobOptions/RecExCond/RecExCommon_flags.py", line 235, in ⊲module>
   ConfigureFromListOfKeys(rec.AutoConfiguration())
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-qcc43-opt/17.2.11/AtlasEvent/17.2.11/InstallArea/python/RecExConfig/AutoConfiguration.py", line 909, in ConfigureFromListOfKeys
   rec.projectName=GetProjectName()
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/AtlasEvent/17.2.11/InstallArea/python/RecExConfig/AutoConfiguration.py", line 282, in GetProjectName
   from RecExConfig.InputFilePeeker import inputFileSummary
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/AtlasEvent/17.2.11/InstallArea/python/RecExConfig/InputFilePeeker.py", line 229, in ⊲module>
   _setup()
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/AtlasEvent/17.2.11/InstallArea/python/RecExConfig/InputFilePeeker.py", line 45, in _setup
   import PyUtils.AthFile as athFile
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/AtlasCore/17.2.11/InstallArea/python/PyUtils/AthFile/__init__.py", line 14, in amodule>
   import hashlib
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/sw/lcq/external/Python/2.6.5/i686-slc5-gcc43-opt/lib/python2.6/hashlib.py", line 136, in amodule>
   md5 = __get_builtin_constructor('md5')
 File "/cvmfs/atlas.cern.ch/repo/sw/software/i686-slc5-gcc43-opt/17.2.11/sw/lcg/external/Python/2.6.5/i686-slc5-gcc43-opt/lib/python2.6/hashlib.py", line 63, in __get_builtin_constructor
   import _md5
ImportError: No module named _md5
                     INFO leaving with code 3: "an error occurred when importing a file"
Py:Athena
```

